

IE1

Please note
minimum legal
efficiencies
in the European
Economic Area!Motors with IE1 Standard Efficiency
SIMOTICS GP 1LE1 Standard Motors

Self-ventilated motors · Aluminum series 1LE1002 with increased output

Selection and ordering data

Operating values at rated output															Aluminum 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	$\cos \varphi_{rated}$, 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	1LE1002 – IE1 version in accordance with IEC 60034-30 with increased output Article No.						
kW	kW	FS	rpm	Nm		%	%	%		A							kg	kgm ²	CL			
• Cooling: self-ventilated (IC411)																						
• 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	84.8	84.5	0.85	8.2	4.5	7.0	4.1	67	79	1LE1002-1AA6	25	0.0044	16			
5.5	6.3	112 M	2935	18	IE1	84.7	85.5	84.7	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	89.0	88.8	0.90	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	90.6	90.3	0.90	39	2.8	7.5	3.2	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	82.8	0.81	8.6	3.2	6.5	3.1	60	72	1LE1002-1AB6	27	0.010	16			
5.5	6.3	112 M	1420	37	IE1	84.7	86.5	86.4	0.81	11.6	3.0	5.8	3.1	58	70	1LE1002-1BB6	33	0.012	16			
11	12.6	132 M	1450	72	IE1	87.6	88.8	88.7	0.84	21.5	2.5	7.2	3.0	64	76	1LE1002-1CB6	58	0.033	16			
18.5	21.3	160 L	1460	121	IE1	89.3	90.4	89.9	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	22	IE1	77.7	78.5	77.5	0.78	5.2	2.0	4.0	2.2	59	71	1LE1002-1AC6	24	0.0084	16			
3	3.45	112 M	945	30	IE1	79.7	79.7	76.6	0.72	7.5	2.5	4.6	2.6	57	69	1LE1002-1BC6	32	0.013	16			
7.5	8.6	132 M	950	75	IE1	84.7	84.2	82.6	0.74	17.3	2.8	5.3	3.0	63	75	1LE1002-1CC6	54	0.032	16			
15	17.3	160 L	965	148	IE1	87.7	88.2	86.8	0.75	33	2.9	6.0	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	100 L ... 160 L	1LE1002-1A ... -1D		Standard				2		2				–				
50 Hz	400 VΔ/690 VY	60 Hz 1)	460 VΔ	2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		Standard				3		4				–				
50 Hz	500 VY			2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		Without add. charge				2		7				–				
50 Hz	500 VΔ			2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		Without add. charge				4		0				–				
Further voltages 1)			For price information, code numbers, order codes and descriptions, see from Page 2/57														9		0		...	
Types of construction					No. of poles	Frame size		Motor type		Version								Order code(s)				
Without flange			IM B3 2)	2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		Standard								A		–				
With flange			IM B5 2)	2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		With additional charge								F		–				
With standard flange			IM B14 2)	2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		With additional charge								K		–				
Further types of construction			For price information, code letters and descriptions, see from Page 2/62																		...	
Motor protection					No. of poles	Frame size		Motor type		Version								Order code(s)				
Without				2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		Standard								A		–				
PTC thermistor with 3 temperature sensors				2, 4, 6	100 L ... 160 L	1LE1002-1A ... -1D		With additional charge								B		–				
Further motor protection			For price information, code letters and descriptions, see from Page 2/70																		...	
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	1LE1002-1A ... -1D		Standard								4		–				
Further terminal box positions			For price information, code numbers and descriptions, see from Page 2/72																			
Special versions					No. of poles	Frame size		Motor type										Order code(s)				
Options			For price information, order codes and descriptions, see from Page 2/74														1LE1002-....		-Z		+...+...+...+...	

¹⁾ Operating values at rated output for 60 Hz are stored in the Drive Technology (DT) Configurator.

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.

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

Voltages · Aluminum series 1LE10, 1PC10
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 (alum.)	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...-												

For legends and footnotes, see Page 2/58.

Supplements to article numbers 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 identifica- tion code with order code and plain text if required	Motor category									
			Motor version	Motor type (alum.)	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 - - - - -												
1PC10 - - - - -												
			Motor version	Motor type	Frame size							
					80	90	100	112	132	160	180	200
Voltage at 60 Hz and required output at 60 Hz (continued)												
460 VΔ; 60 Hz output	9	0	M1F	All except ③, ⑤, ⑨ and ⑩	○	○	○	○	○	○	○	○
575 VY; 50 Hz output ⁶⁾	9	0	M2G	All except ⑥	✓	✓	✓	✓	✓	✓	✓	✓
575 VY; 60 Hz output ⁶⁾	9	0	M1G	All except ③, ⑤, ⑥, ⑨ and ⑩	✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 50 Hz output ⁶⁾	9	0	M2H	All except ⑥	✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 60 Hz output ⁶⁾	9	0	M1H	All except ③, ⑤, ⑥, ⑨ and ⑩	✓	✓	✓	✓	✓	✓	✓	✓
Voltage at 87 Hz and 87 Hz output												
400 VΔ ⁴⁾	9	0	M3A	All	All	✓	✓	✓	✓	✓	✓	✓
Non-standard voltage and/or frequencies												
Non-standard winding ⁵⁾	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⁾ 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.

⁵⁾ 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 output in kW.

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

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

Types of construction · Aluminum series 1LE10, 1PC10

Selection and ordering data

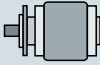
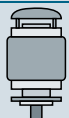
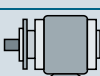
Types of construction	Type of construction letter 14th position of the Article No.	For types of construction with order code(s) Article No. with additional identification code -Z	Motor category											
			Motor version	Motor type (alum.)	Motor type – frame size									
					80	90	100	112	132	160	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)	Order code	Motor version	Motor type	Frame size									
1PC10	■ ... (-Z)				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)		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, ⑥, 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, ⑥ 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 2/65.

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

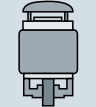
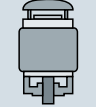
Types of construction · Aluminum series 1LE10, 1PC10

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 (alum.)	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							
1PC10 -Z		Order code			80	90	100	112	132	160	180	200
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	–	–	✓	✓	✓	–	–	–
IM V1 without protective cover 2)		G	P01	All	–	–	✓	✓	✓	–	–	–
IM V1 with protective cover 2) 4) 5) 6)		G	P01+H00	All except ②, ⑩ and in combination with order code F90	–	–	✓	✓	✓	–	–	–
IM V3 4)		H	P01	All	–	–	✓	✓	✓	–	–	–
IM B35 3)		J	P01	All except ③ and ⑨	–	–	✓	✓	✓	–	–	–
With special flange next smaller	Acc. to EN 50347				–	–	FF165	FF165	FF215	FF265	FF265	FF300
	Acc. to DIN 42948				–	–	A 200	A 200	A 250	A 300	A 300	A 350
IM B5 2) 7)		F	P02	All	–	–	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.
IM V1 without protective cover 2)		G	P02	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, ⑩ 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	–	–	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.

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

Types of construction · Aluminum series 1LE10, 1PC10

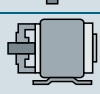
Types of construction	Type of construction letter 14th position of the Article No.	For types of construction with order code(s) Article No. with additional identification code -Z	Motor category									
			Motor version	Motor type (alum.)	Motor type – frame size							
					80	90	100	112	132	160	180	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							
1PC10 -Z		Order code			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 ③ and ⑨		✓	✓	✓	✓	✓	✓	– –
With special flange next larger			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 2/65.

Supplements to article numbers 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 (alum.)	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 (-Z)			Motor version	Motor type	Frame size							
1PC10 -Z (-Z)		Order code			80	90	100	112	132	160	180	200
With special flange next smaller		Acc. to EN 50347 Acc. to DIN 42948			–	–	FT115 C 140	FT115 C 140	FT130 C 160	FT165 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 no condensation drainage holes (order code **H03**) and no stamping of these types of construction on the rating plate are required. 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" 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 no condensation drainage holes (order code **H03**) and no stamping of these types of construction on the rating plate are required. 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 no condensation drainage holes (order code **H03**) and no stamping of these types of construction on the rating plate are required. 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.

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

Motor protection · Aluminum series 1LE10, 1PC10

Selection and ordering data

Motor protection	Motor protection letter 15th position in Article No.	Additional identification code with order code and plain text if required	Motor category										
			Motor version	Motor type (alum.)	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 ■ . 1PC10 ■ .			Motor version	Motor type	Frame size								
					80	90	100	112	132	160	180	200	
Motor protection (winding protection)													
Without motor protection ¹⁾	A	–	All	All	□	□	□	□	□	□	□	□	
Motor protection with PTC thermistors with 1 or 3 embedded temperature sensors for tripping ²⁾	B	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	
Motor protection by PTC thermistors with 2 or 6 embedded temperature sensors for alarm and tripping ²⁾	C	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	
Motor temperature detection with embedded temperature sensor KTY 84-130 ²⁾	F	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	
Motor temperature detection with embedded temperature sensor 2 × KTY 84-130 ²⁾	G	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	
Installation of 3 Pt100 resistance thermometers ²⁾	H	–	All	All	–	–	✓	✓	✓	✓	✓	✓	
NTC thermistors for tripping	Z	Q2A	All	All	–	–	✓	✓	✓	✓	–	–	
Temperature detectors for tripping 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).

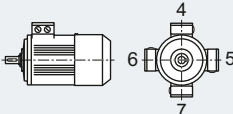
²⁾ Evaluation with appropriate tripping unit (see Catalog IC 10) is recommended. For pole-changing motors, double the number of temperature sensors or temperature detectors is required. This also results in a double additional charge.

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

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 (alum.)	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											
Motor version			Motor type	Frame size									
					80	90	100	112	132	160	180	200	
Terminal box position													
Terminal box top ¹⁾	4	–	All	All	☐	☐	☐	☐	☐	☐	☐	☐	
Terminal box on RHS ²⁾	5	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	
Terminal box on LHS 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.

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

Options · Aluminum series 1LE10, 1PC10

Selection and ordering data

Special versions	Additional identification code -Z with order code and plain text if required	Motor category											
		Motor version	Motor type (alum.)	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		Motor version	Motor type	Frame size		100	112	132	160	180	200		
				80	90								
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 through 180°	R12	All	All	○	○	○	○	○	○	✓	✓		
One metal cable gland	R15	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
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 < Size 100		✓	✓	✓	✓	✓	✓	✓	✓		
Auxiliary terminal box, aluminum	R60	<i>New!</i>	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	<i>New!</i>	All, only possible for 2 and 4-pole motors, not possible for ⑥	○	○	–	–	–	–	–	–		
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 output	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	✓	✓	✓	✓	✓	✓	✓	✓		
Temperature class 155 (F), utilized acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 %	N07	All	All	✓	✓	✓	✓	✓	✓	✓	✓		

For legends and footnotes, see Page 2/79.

Supplements to article numbers 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 (alum.)	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 60 °C, derating approx. 18 %	N08	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class H ³¹⁾	N10	All except ③, ⑤, ⑥, ⑧ and ⑩		✓	✓	–	–	–	–	–	–	–	–
Temperature class 180 (H) at rated output 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	N20	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 60 to 100 g water per m ³ of air	N21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 130 (B), with higher coolant temperature and/or installation altitude	Y50 • and specified output, CT ... °C or IA m above sea level	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized according to 155 (F), other requirements	Y52 • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 180 (H), utilized according to 155 (F), other requirements	Y75 • <i>New!</i> and specified output, CT .. °C or IA m above sea level	All except ⑥		–	–	O. R.	O. R.	O. R.	O. R.	–	–	–	–
Colors and paint finish													
Standard finish in RAL 7030 stone gray		All	All	□	□	□	□	□	□	□	□	□	□
Unpainted (only cast-iron parts primed)	S00	All	All	○	○	○	○	○	○	○	○	○	○
Unpainted, only primed	S01	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish	S02 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish sea air resistant	S03	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓
Top coat polyurethane ³⁴⁾	S06 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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 • <i>New!</i> and finish RAL	All	All	–	–	–	–	–	–	✓	✓	✓	✓
Finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" (see Catalog Section 1 "Introduction")	Y56 • <i>New!</i> and finish RAL	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Supplements to article numbers 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 (alum.)	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	Order code	Motor version	Motor type	Frame size							
1PC10 -Z				80	90	100	112	132	160	180	200
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		✓	✓	✓	✓	✓	✓	✓	✓
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		✓	✓	✓	✓	✓	✓	✓	✓
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 6)											
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 design 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 mountings, center 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 15)	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	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	✓	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see Page 2/79.

Supplements to article numbers 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 (alum.)	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													
Coolant temperature –40 to +40 °C 16) 28)	D03	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coolant temperature –30 to +40 °C 16) 28)	D04	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Designs in accordance with standards and specifications													
VIK version	C02	Only possible for ① and ④			✓	✓	✓	✓	✓	✓	✓	–	–
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 ⑤, ⑨ and ⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓
Version according to UL with "Recognition Mark" 19)	D31	All, standard version for ⑤, ⑨ and ⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓
KEMCO Korea Energy Efficiency Label	D33	Only possible for ⑤			○	○	○	○	○	○	○	○	○
China Energy Efficiency Label	D34	Only possible for ①, ④, ⑤, ⑥, ⑨ and ⑩			–	–	○	○	○	○	○	○	○
Canadian regulations (CSA) 37) 33)	D40	All, standard version for ⑤, ⑨ and ⑩; not possible for ⑪ and ⑫			✓	✓	✓	✓	✓	✓	✓	Av. soon	Av. soon
TR CU product safety certificate EAC for Eurasian customs union 35)	D47	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–
Train-compatible version 31)	L82	All except ②, ⑥ and ⑧			✓	✓	✓	✓	✓	✓	✓	Av. soon	Av. soon
Bearings and lubrication													
Regreasing device with M10 × 1 grease nipple according to DIN 71412-A	L19	All	All	–	–	–	–	–	–	–	–	✓	✓
Located bearing DE	L20	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Located bearing NDE	L21	All	All	✓	✓	✓	✓	✓	✓	✓	□	□	□
Bearing design for increased cantilever forces 36)	L22	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓
Regreasing device 20)	L23	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓
Deep-groove 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	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 accordance with DIN 42955 Tolerance R	L07	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see Page 2/79.

Supplements to article numbers 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 (alum.)	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		
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	Q02	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
Anti-condensation heating for 115 V	Q03	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
Rating plate and extra rating plates													
Extra 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	✓	✓	✓	✓	✓	✓	✓	✓		
Extra rating plate or rating plate with deviating rating plate data	Y80 • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
Extra 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	–	–	✓	✓	✓	✓	✓	✓		

Supplements to article numbers and special versions

SIMOTICS GP 1LE1/1PC1 Standard Motors

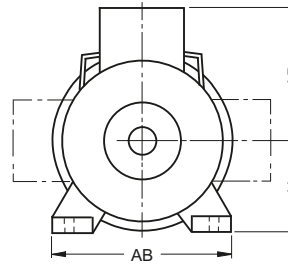
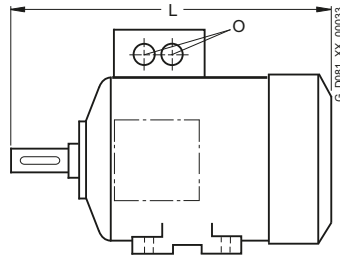
Options · Aluminum series 1LE10, 1PC10

- 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

2

- 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 combination 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. When the coolant temperature rises by 10 K, the grease service lifetime or relubrication interval is 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⁾ Motors that are prepared for additional mountings (order codes **G40**, **G41**, **G42**) are supplied without a protective cover as standard. 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 1024l 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⁾ Motors that are prepared for additional mountings (order codes **G40**, **G41**, **G42**) are supplied without a protective cover as standard. 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 certification is required for
 - 2-pole motors ≤ 2.2 kW
 - 4-pole motors ≤ 1.1 kW
 - 6-pole motors ≤ 0.75 kW
 - 8-pole motors ≤ 0.55 kW
- 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 DIN 6885, Form A are permitted to be 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 keys are supplied in every case. For order codes **Y58**, **Y59** and **L05**:
 - Dimensions D and DA $\leq$ Inner diameter of roller bearing (see tables under "Dimensions")
 - Dimensions E and EA $\leq$ 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 enclosure. 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 code **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 output (11th position of Article No.: 6) in frame sizes 80 and 90.
- ³²⁾ Possible with frame sizes 180 and 200 with screw-mounted fan cover.
- ³³⁾ Frame sizes 180 and 200 are designed with metric entry thread.
- ³⁴⁾ Order code **S06** cannot be combined with order code **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 Directive 640/2009)".
- ³⁶⁾ A minimum cantilever force $F_{\min}$ of $0.5 \cdot F_{\max}$ is required for NU bearings (cylindrical roller bearings) in contrast to 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.

Overview



Frame size	Type	Dimension	L	AD	H	AB	O
71 M	Cast-iron series, self-ventilated						
	1LE1501, 1LE1521, 1LE1503-, 1LE1523-OCA2, OCB2, OCC2		240	148	71	132	2 × M25 × 1.5
	1LE1503-, 1LE1523-OCA3, OCB3, OCC3		280	148	71	132	2 × M25 × 1.5
80 M	Aluminum series, self-ventilated						
	1LE1001		292	121	80	150	1 × M25 × 1.5
	Aluminum series, forced-air cooled or naturally cooled						
	1LE1001		253	121	80	150	1 × M25 × 1.5
	Cast-iron series, self-ventilated						
	1LE1501, 1LE1521, 1LE1503-, 1LE1523-ODA2, ODB2, ODC2		292	158	80	150	2 × M25 × 1.5
	1LE1503-, 1LE1523-ODA3, ODB3, ODC3		327	158	80	150	2 × M25 × 1.5
90 S/ 90 L	Aluminum series, self-ventilated						
	1LE1001		347	126	90	165	1 × M25 × 1.5
	Aluminum series, forced-air cooled or naturally cooled						
	1LE1001		295	126	90	165	1 × M25 × 1.5
	Cast-iron series, self-ventilated						
	1LE1501, 1LE1521, 1LE1503-, 1LE1523-OEA0, OEB0, OEC0		347	163	90	165	2 × M25 × 1.5
100 L	1LE1503-, 1LE1523-OEA4, OEB4, OEC4		387	163	90	165	2 × M25 × 1.5
	Aluminum series, self-ventilated						
	1LE1001, 1LE1002, 1LE1011, 1LE1012, 1LE1021		396 ¹⁾	166	100	196	2 × M32 × 1.5
	Aluminum series, self-ventilated with increased output						
	1LE1001, 1LE1002		431 ¹⁾	166	100	196	2 × M32 × 1.5
	Aluminum series, forced-air cooled or naturally cooled						
	1LE1001, 1PC1001, 1LE1002, 1PC1002, 1LE1021		322	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, 1LE1521, 1LE1601, 1LE1603, 1LE1621		389	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, 1LE1011, 1LE1012, 1LE1021		389 ¹⁾	177	112	226	2 × M32 × 1.5
	Aluminum series, self-ventilated with increased output						
	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, 1LE1521, 1LE1601, 1LE1603, 1LE1621		382	195	112	226	2 × M32 × 1.5
132 S/M	1LE1523, 1LE1623		409	195	112	226	2 × M32 × 1.5
	Aluminum series, self-ventilated						
	1LE1001, 1LE1002, 1LE1011, 1LE1012, 1LE1021		465 ¹⁾	202	132	256	2 × M32 × 1.5
	Aluminum series, self-ventilated with increased output						
	1LE1001, 1LE1002		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, 1LE1521, 1LE1601, 1LE1603, 1LE1621		457	215	132	256	2 × M32 × 1.5
	1LE1523-, 1LE1623-						
	1CA0, 1CC0, 1CC2		458	215	132	256	2 × M32 × 1.5
	1CA1, 1CB0, 1CB2, 1CC3		508	215	132	256	2 × M32 × 1.5

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.

Dimensions

SIMOTICS GP/SD 1LE1/1PC1 Standard Motors

Overall dimensions

Overview (continued)

Frame size	Type	Dimension				
		L	AD	H	AB	O
160 M/L	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1011, 1LE1012, 1LE1021	604 ^{1) 2)}	237	160	300	2 × M40 × 1.5
	Aluminum series, self-ventilated with increased output					
	1LE1001, 1LE1002	664 ¹⁾	237	160	300	2 × M40 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
160 M	1LE1001, 1PC1001, 1LE1021, 1PC1002, 1LE1021	510	237	160	300	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1503, 1LE1521, 1LE1601, 1LE1603, 1LE1621	594	265	160	300	2 × M40 × 1.5
	Aluminum series, self-ventilated					
	1LE1003, 1LE1023	604	237	160	300	2 × M40 × 1.5
160 M	Aluminum series, forced-air cooled					
	1LE1023	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
	Aluminum series, forced-air cooled					
	1LE1023	570	237	160	300	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
160 L	1LE1523, 1LE1623	656	261	160	300	2 × M40 × 1.5
	Aluminum series, self-ventilated					
	1LE1001					
	1EA2, 1EB2	668	286	180	339	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
160 L	1LE15.1-, 1LE16.1- 1EA2, 1EB2 1EA6 1LE15.3-, 1LE16.3- 1EB2 1EA2	668 698 668 698	286	180	339	2 × M40 × 1.5
	Aluminum series, self-ventilated					
	1LE1001					
	1EB4, 1EC4, 1ED4 1EA6, 1EB6, 1EC6, 1ED6	668 698	286	180	339	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
160 L	1LE15.1-, 1LE16.1- 1EC4, 1EC6 1EB6 1LE15.3-, 1LE16.3- 1EC4 1EB4	668 698 668 698	286	180	339	2 × M40 × 1.5
	Aluminum series, self-ventilated					
	1LE1001					
	2AA4, 2AA5, 2AB5, 2AC4, 2AC5, 2AD5 2AA6, 2AB6, 2AC6, 2AD6	721 746	315	200	378	2 × M50 × 1.5
	Cast-iron series, self-ventilated					
160 L	1LE15.1-, 1LE16.1- 2AA4, 2AA5, 2AB5, 2AC4, 2AC5 2AA6 1LE15.3-, 1LE16.3- 2AA4, 2AC4 2AA5, 2AB5, 2AC5	721 746 721 746 721 746	315	200	378	2 × M50 × 1.5
	Aluminum series, self-ventilated					
	1LE1001					
	2AA4, 2AA5, 2AB5, 2AC4, 2AC5 2AA6 1LE15.3-, 1LE16.3- 2AA4, 2AC4 2AA5, 2AB5, 2AC5	721 746 721 746	315	200	378	2 × M50 × 1.5
	Cast-iron series, self-ventilated					
160 L	1LE15.1-, 1LE16.1- 2AA4, 2AA5, 2AB5, 2AC4, 2AC5 2AA6 1LE15.3-, 1LE16.3- 2AA4, 2AC4 2AA5, 2AB5, 2AC5	721 746 721 746	315	200	378	2 × M50 × 1.5

Frame size	Type	Dimension				
		L	AD	H	AB	O
225 S	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 2BB0, 2BD0 1LE15.3-, 1LE16.3- 2BB0	788	338	225	436	2 × M50 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 2BA2, 2BA6 2BB2, 2BB6, 2BC2, 2BC6, 2BD6 1LE15.3-, 1LE16.3- 2BA2 2BB2, 2BC2	818 848 818 848	338	225	436	2 × M50 × 1.5
	Cast-iron series, self-ventilated					
225 M	1LE15.1-, 1LE16.1- 2CA2, 2CA6, 2CB2, 2CC2, 2CC6, 2CD2, 2CD6 2CB6 1LE15.3-, 1LE16.3- 2CA2, 2CB2, 2CC2	887 957 887	410	250	490	2 × M63 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 2DA0, 2DB0, 2DC0, 2DD0 1LE15.3, 1LE16.3 2DA0, 2DB0, 2DC0	960 960	433	280	540	2 × M63 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 2DA2, 2DB2, 2DC2, 2DC6, 2DD2, 2DD6 2DA6, 2DB6 1LE15.3-, 1LE16.3- 2DC2 2DA2, 2DB2	960 1070 960 1070	433	280	540	2 × M63 × 1.5
280 S	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 3AA0 3AB0, 3AC0, 3AD0 1LE15.3-, 1LE16.3- 3AA0 3AB0, 3AC0	1052 1082 1052 1082	515	315	610	2 × M63 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 3AC2, 3AD2 3AA2 3AB2 1LE15.3-, 1LE16.3- 3AA2 3AB2, 3AC2	1082 1217 1247 1247	515	315	610	2 × M63 × 1.5
	Cast-iron series, self-ventilated					
280 M	1LE15.1-, 1LE16.1- 3AB4, 3AC4, 3AC5, 3AD4, 3AD5, 3AD6 3AA5, 3AA6 3AB5, 3AB6, 3AC6 1LE15.3-, 1LE16.3- 3AA4 3AB4, 3AC4 3AA5 3AB5, 3AC5, 3AC6	1217 1247 1372 1402 1217 1247 1372 1402	515	315	610	2 × M63 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 3AB4, 3AC4, 3AC5, 3AD4, 3AD5, 3AD6 3AA5, 3AA6 3AB5, 3AB6, 3AC6 1LE15.3-, 1LE16.3- 3AA4 3AB4, 3AC4 3AA5 3AB5, 3AC5, 3AC6	1217 1247 1372 1402 1217 1247 1372 1402	515	315	610	2 × M63 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1- 3AB4, 3AC4, 3AC5, 3AD4, 3AD5, 3AD6 3AA5, 3AA6 3AB5, 3AB6, 3AC6 1LE15.3-, 1LE16.3- 3AA4 3AB4, 3AC4 3AA5 3AB5, 3AC5, 3AC6	1217 1247 1372 1402 1217 1247 1372 1402	515	315	610	2 × M63 × 1.5

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 D, DA	ISO fit ISO 286-2	
	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	Admissible deviation
H	to 250	– 0.5
	over 250	– 1.0
E, EA		– 0.5

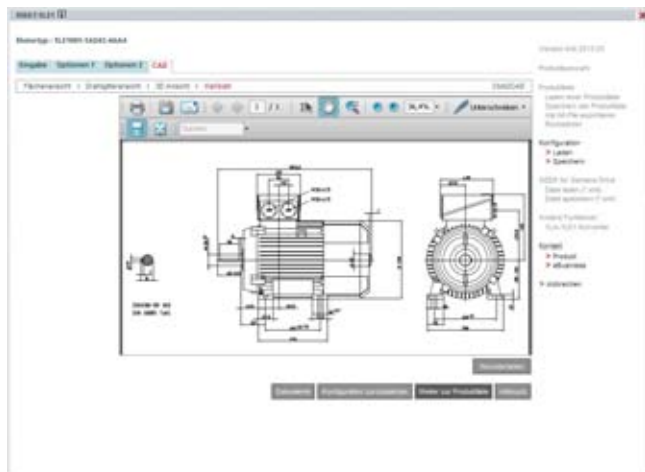
Keyways and feather keyways (dimensions GA, GC, F and FA) are made in compliance with DIN 6885 Part 1.

- 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 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 bitmap graphics.

Online access in the Siemens Industry Mall

The DT Configurator is integrated into the Siemens Industry Mall and can be used on the Internet without installation.

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

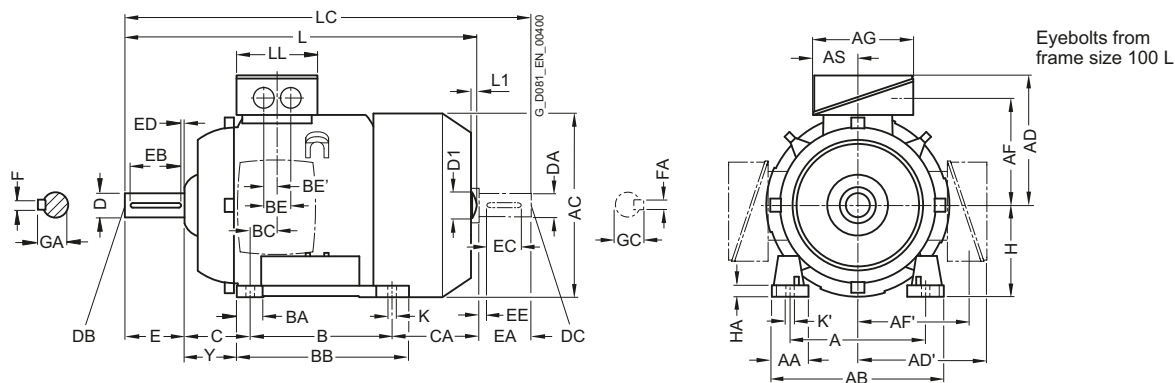
Dimensions

SIMOTICS GP 1LE1 Standard Motors

Aluminum series 1LE1001, 1LE1002 · Self-ventilated, with increased output, frame sizes 80 M to 200 L

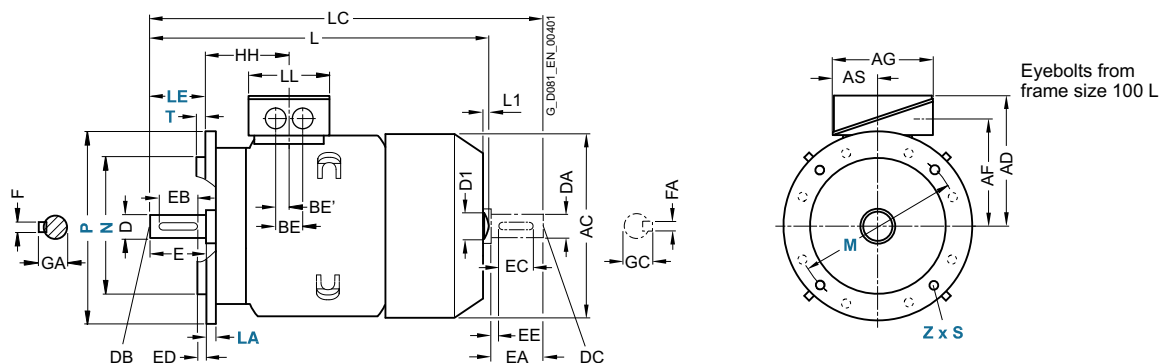
Dimensional drawings

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see Page 1/34 (**Z** = the number of retaining holes)



For motor			Dimension designation acc. to IEC																								
Frame size	Motor type 1LE1001 1LE1002	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	—	96.5	—	93	43	100	32	—	118	23	—	18 ¹⁾	50	—	80	8	41			
90 L	All	2, 4	140	30.5	165	178	126	—	101.5	—	93	43	125	33	—	143	22.5	—	18 ¹⁾	56	—	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	—	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	35.4	—	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	—	218	26.5	48	24	89	178.5	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	—	300	47	57	28.5	108	208	160	18	85			
180 L	All	2, 4, 6, 8	279	65	339	356	259	259	212.5	212.5	175	77.5	241/279	80	100	328	30	57	28.5	121	—	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	—	200	25	108			

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

Dimensions

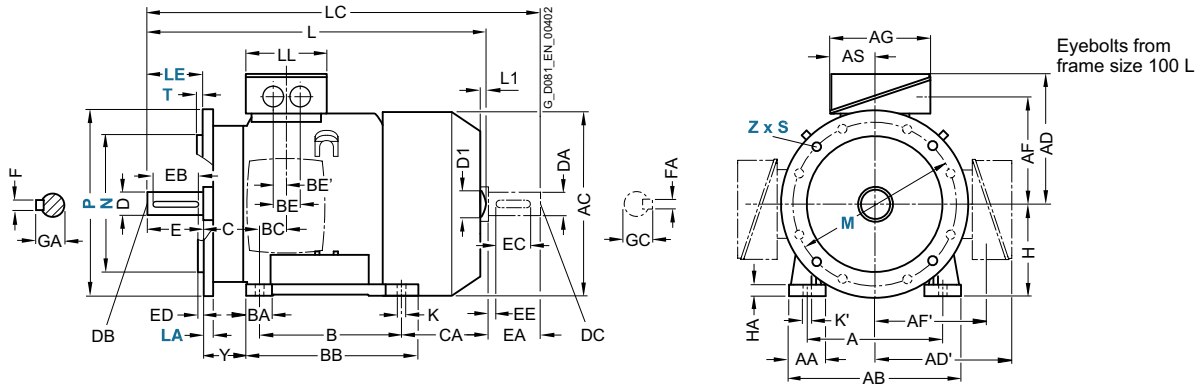
SIMOTICS GP 1LE1 Standard Motors

Aluminum series 1LE1001, 1LE1002 · Self-ventilated, with increased output, frame sizes 80 M to 200 L

Dimensional drawings (continued)

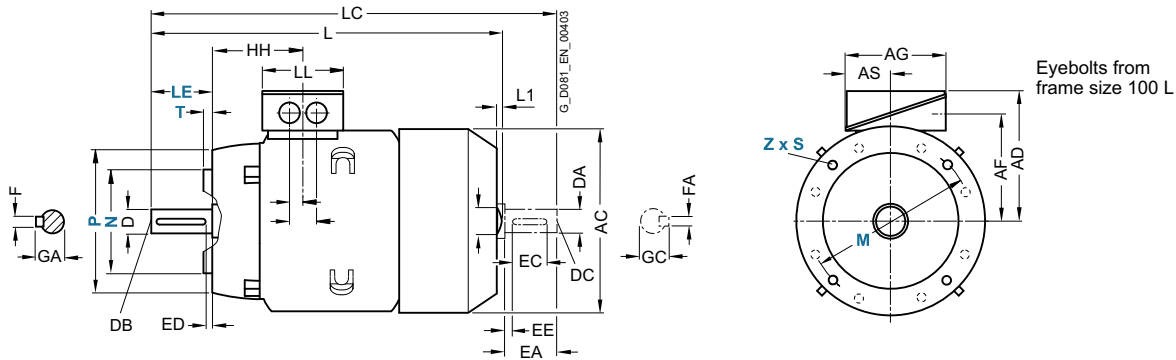
Type of construction IM B35

For flange dimensions, see Page 1/34 (**Z** = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see Page 1/34 (**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	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	292	–	–	–	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	347	–	–	–	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	All	2, 4, 6	151	14.5	19	699	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
200 L	All	2, 4, 6	178	18.5	25	746	–	–	860	185	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59

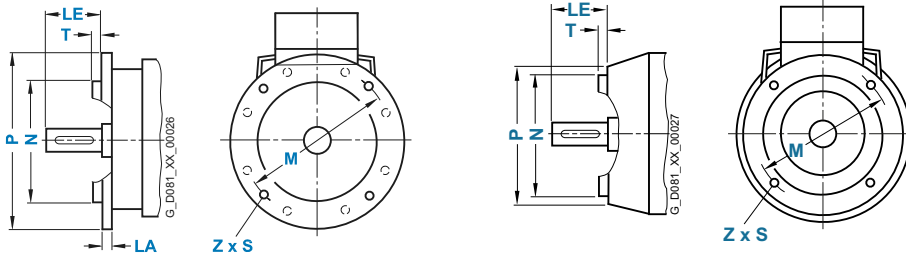
¹⁾ The length is specified as far as the tip of the fan cover.

Introduction

General technical specifications

Flange dimensions

Overview (continued)



In 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 through holes (FF/A) Flange with tapped holes (FT/C)		Dimension designation acc. to IEC							
			Acc. to EN 50347	Acc. to DIN 42948	LA	LE	M	N	P	S	T	Z
71 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF130	A 160	9	30	130	110	160	10	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT85	C 105	–	30	85	70	105	M6	2.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT115	C 140	–	30	115	95	140	M8	3	4
80 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF165	A 200	10	40	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT100	C 120	–	40	100	80	120	M6	3	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT130	C 160	–	40	130	110	160	M8	3.5	4
90 S/L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF165	A 200	10	50	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT115	C 140	–	50	115	95	140	M8	3	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT130	C 160	–	50	130	110	160	M8	3.5	4
100 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF215	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	FF265	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	FF165	A 200	11	60	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT130	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	FT165	C 200	–	60	165	130	200	M10	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT165	C 200	–	60	165	130	200	M10	3.5	4
112 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF215	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	FF265	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	FF165	A 200	11	60	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT130	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	FT165	C 200	–	60	165	130	200	M10	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT165	C 200	–	60	165	130	200	M10	3.5	4
132 S/M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF265	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	FF300	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	FF215	A 250	11	80	215	180	250	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT165	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	FT215	C 250	–	80	215	180	250	M12	4	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT215	C 250	–	80	215	180	250	M12	4	4
160 M/L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF300	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	FF265	A 300	12	110	265	230	300	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT215	C 250	–	110	215	180	250	M12	4	4
180 M/L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF300	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
200 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF350	A 400	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	A 350	13	110	300	250	350	18.5	5	4
225 S/M 2-pole 4- ... 8-pole	IM B5, IM B35, IM V1, IM V3	Standard flange	FF400	A 450	16	110	400	350	450	18.5	5	8
250 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF500	A 550	18	140	500	450	550	18.5	5	8
280 S/M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF500	A 550	18	140	500	450	550	18.5	5	8
315 S/M/L 2-pole 4- ... 8-pole	IM B5, IM B35, IM V1, IM V3	Standard flange	FF600	A 660	22	140	600	550	660	24	6	8