

# Motors with IE3 Premium Efficiency

## SIMOTICS GP 1LE1 Standard Motors



### Self-ventilated motors · Aluminum series 1LE1003

#### Selection and ordering data

Operating values at rated output														Aluminum series		m <sub>IM B3</sub> J		Torque class				
P <sub>ra</sub> - ted, 50 Hz	P <sub>ra</sub> - ted, 60 Hz 1)	Frame size	n <sub>ra</sub> - ted, 50 Hz	T <sub>ra</sub> - ted, 50 Hz	IE class	η <sub>ra</sub> - ted, 50 Hz	η <sub>ra</sub> - ted, 50 Hz	η <sub>ra</sub> - ted, 50 Hz	η <sub>ra</sub> - ted, 50 Hz	COS φ <sub>rated</sub> , 50 Hz	I <sub>r</sub> rated, 50 Hz	T <sub>LR</sub> / T <sub>ra</sub>	I <sub>LR</sub> / I <sub>ra</sub>	T <sub>B</sub> / T <sub>ra</sub>	L <sub>pfA</sub> , 50 Hz	L <sub>WA</sub> , 50 Hz	Article No.	kg	kgm <sup>2</sup>	CL		
kW	kW	FS	rpm	Nm	50 Hz	60 Hz	%	%	%	A							▲ New					
<ul style="list-style-type: none"> <li>• Cooling: self-ventilated (IC411)</li> <li>• Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15</li> <li>• Insulation: thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)</li> </ul>																						
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz <sup>1)</sup>																						
0.75	0.86	80 M	2850	2.5	IE3	IE3	80.7	82	81.5	0.86	1.56	2.6	6.2	3	60	71	1LE1003-0DA2	11	0.0011	16		
1.1	1.27	80 M	2885	3.6	IE3	IE3	82.7	82.7	81.7	0.85	2.25	2.8	7.4	3.8	60	71	1LE1003-0DA3	12	0.0013	16		
1.5	1.75	90 S	2910	4.9	IE3	IE3	84.2	84.5	83.5	0.86	3	2.7	8.1	4.2	65	77	1LE1003-0EA0	15	0.0021	16		
2.2	2.55	90 L	2910	7.2	IE3	IE3	85.9	86.8	86.1	0.88	4.2	2.6	8.3	4	65	77	1LE1003-0EA4	19	0.0031	16		
3	3.45	100 L	2920	9.8	IE3	IE2	87.1	87.1	86.1	0.88	5.6	2.8	8	4.3	67	79	1LE1003-1AA4	26	0.0054	16		
4	4.55	112 M	2945	13	IE3	IE2	88.1	89.1	88.7	0.9	7.3	1.8	8.2	3.5	69	81	1LE1003-1BA2	34	0.012	16		
5.5	6.3	132 S	2950	17.8	IE3	IE3	89.2	89.2	88.2	0.9	9.9	1.8	7.4	3.6	68	80	1LE1003-1CA0	43	0.024	16		
7.5	8.6	132 S	2950	24.3	IE3	IE3	90.1	90.1	89.1	0.92	13.1	1.9	8.3	3.9	68	80	1LE1003-1CA1	57	0.031	16		
11	12.6	160 M	2955	35.5	IE3	IE3	91.2	91.2	90.2	0.89	19.6	2.4	7.9	3.8	70	82	1LE1003-1DA2	75	0.053	16		
15	17.3	160 M	2960	48.4	IE3	IE3	91.9	91.9	90.9	0.87	27	2.7	8.7	4.3	70	82	1LE1003-1DA3	84	0.061	16		
18.5	21.3	160 L	2955	60	IE3	IE3	92.4	92.4	91.4	0.9	32	2.8	9	4.2	70	82	1LE1003-1DA4	94	0.068	16		
22	24.5	180 M	2950	71	IE3	IE3	92.7	93	92.4	0.89	38.5	2.3	7.5	3.5	73	80	▲ 1LE1003-1EA2	122	0.08	16		
30	33.5	200 L	2955	97	IE3	IE3	93.3	93.7	93.3	0.87	53	2.5	7	3.3	73	80	▲ 1LE1003-2AA4	173	0.134	16		
37	41.5	200 L	2955	120	IE3	IE3	93.7	94.1	93.8	0.88	65	2.5	7.1	3.2	74	81	▲ 1LE1003-2AA5	194	0.158	16		
Voltages		Motor protection	No. of poles	Frame size	Motor type	Version															Order code(s)	
Frame sizes 80 M to 90 L: use of the 360° freely rotatable terminal box for 2 and 4-pole motors <sup>2)</sup>																						
50 Hz	230 VΔ/400 VY	60 Hz <sup>1)</sup>	460 VY	PTC thermistor with 1 temp. sensor	2	80 M ... 90 L	1LE1003-0D ... -0E	Standard													2 2	-
50 Hz	400 VΔ/690 VY	60 Hz <sup>1)</sup>	460 VΔ	Without	2	80 M ... 90 L	1LE1003-0D ... -0E	Standard													3 4	-
50 Hz	400 VY	60 Hz <sup>1)</sup>	460 VY	Without	2	80 M ... 90 L	1LE1003-0D ... -0E	Standard													0 2	-
Frame sizes 100 L to 200 L: use of the 4 x 90° rotatable terminal box																						
50 Hz	230 VΔ/400 VY	60 Hz <sup>1)</sup>	460 VY	Any	2	100 L ... 200 L	1LE1003-1A ... -2A	Standard													2 2	-
50 Hz	400 VΔ/690 VY	60 Hz <sup>1)</sup>	460 VΔ	Any	2	100 L ... 200 L	1LE1003-1A ... -2A	Standard													3 4	-
50 Hz	500 VY			Any	2	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge													2 7	-
50 Hz	500 VΔ			Any	2	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge													4 0	-
Further voltages <sup>1)</sup> For price information, code numbers, order codes and descriptions, see from Page 2/57																						
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Further voltages <sup>1)</sup> For price information, code numbers, order codes and descriptions, see from Page 2/57																						
Types of construction		No. of poles	Frame size	Motor type	Version															Order code(s)		
Without flange		IM B3 <sup>3)</sup>	2	80 M ... 200 L	1LE1003-0D ... -2A	Standard													A	-		
With flange		IM B5 <sup>3)</sup>	2	80 M ... 200 L	1LE1003-0D ... -2A	With additional charge													F	-		
With standard flange		IM B14 <sup>3)</sup>	2	80 M ... 160 L	1LE1003-0D ... -2A	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	100 L ... 200 L	1LE1003-0D ... -2A	Standard													A	-			
PTC thermistor with 3 temperature sensors		2	100 L ... 200 L	1LE1003-0D ... -2A	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	80 M ... 200 L	1LE1003-0D ... -2A	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					1LE1003-...-Z														...+...+...+...			

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

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

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



Selection and ordering data (continued)

Operating values at rated output														Aluminum series		m <sub>IM B3</sub> J		Torque class				
P <sub>ra</sub> - ted, 50 Hz	P <sub>ra</sub> - ted, 60 Hz 1)	Frame size	n <sub>ra</sub> - ted, 50 Hz	T <sub>ra</sub> - ted, 50 Hz	IE class	η <sub>ra</sub> - ted, 50 Hz	η <sub>ra</sub> - ted, 50 Hz	η <sub>ra</sub> - ted, 50 Hz	COS φ <sub>rated</sub> , 50 Hz, 4/4	I <sub>r</sub> rated, 50 Hz, 400 V	T <sub>LR</sub> / T <sub>ra</sub> - ted, 50 Hz	I <sub>LR</sub> / I <sub>ra</sub> - ted, 50 Hz	T <sub>B</sub> / T <sub>ra</sub> - ted, 50 Hz	L <sub>pfA</sub> , 50 Hz	L <sub>WA</sub> , 50 Hz	Article No.	kg	kgm <sup>2</sup>	CL			
kW	kW	FS	rpm	Nm	50 Hz	60 Hz	%	%	%	A						▲ New	kg	kgm <sup>2</sup>	CL			
<ul style="list-style-type: none"> <li>• Cooling: self-ventilated (IC411)</li> <li>• Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15</li> <li>• Insulation: thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)</li> </ul>																						
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz <sup>1)</sup>																						
0.55	0.63	80 M	1440	3.6	-	-	81.3	82	80.2	0.78	1.25	2.1	5.9	3.1	53	64	1LE1003-0DB2	11	0.0021	16		
0.75	0.86	80 M	1450	4.9	IE3	IE2	82.5	82.5	81.5	0.75	1.75	2.7	7.1	3.9	53	64	1LE1003-0DB3	14	0.0029	16		
1.1	1.27	90 S	1440	7.3	IE3	IE2	84.1	84.1	83.1	0.78	2.4	2.9	6.9	3.6	56	68	1LE1003-0EB0	16	0.0036	16		
1.5	1.75	90 L	1445	9.9	IE3	IE3	85.3	85.9	84.9	0.8	3.15	2.6	7.2	2.7	56	68	1LE1003-0EB4	19	0.0049	16		
2.2	2.55	100 L	1465	14.3	IE3	IE2	86.7	86.7	85.7	0.83	4.4	2.1	7.6	3.6	60	72	1LE1003-1AB4	30	0.014	16		
3	3.45	100 L	1460	19.6	IE3	IE3	87.7	87.7	86.7	0.83	5.9	2.3	7.3	3.7	60	72	1LE1003-1AB5	30	0.014	16		
4	4.55	112 M	1460	26	IE3	IE3	88.6	88.6	87.6	0.82	7.9	2.4	7.1	3.7	58	70	1LE1003-1BB2	34	0.017	16		
5.5	6.3	132 S	1470	35.7	IE3	IE2	89.6	89.6	88.6	0.84	10.5	2.1	7.2	3.4	64	76	1LE1003-1CB0	64	0.046	16		
7.5	8.6	132 M	1470	48.7	IE3	IE2	90.4	90.4	89.4	0.84	14.3	2.4	7.4	3.5	64	76	1LE1003-1CB2	64	0.046	16		
11	12.6	160 M	1475	71	IE3	IE3	91.4	91.4	90.4	0.84	20.5	2.2	6.9	3.2	65	77	1LE1003-1DB2	83	0.083	16		
15	17.3	160 L	1475	97	IE3	IE3	92.1	92.1	91.1	0.82	28.5	2.5	8.5	3.8	65	77	1LE1003-1DB4	100	0.099	16		
18.5	21.3	180 M	1470	120	IE3	IE3	92.6	93.2	93.2	0.82	35	2.5	7.2	3.3	66	73	▲ 1LE1003-1EB2	134	0.13	16		
22	25.3	180 L	1470	143	IE3	IE3	93	93.7	93.7	0.83	41	2.3	6.8	3.3	68	75	▲ 1LE1003-1EB4	142	0.14	16		
30	34.5	200 L	1470	195	IE3	IE2	93.6	94.3	94.4	0.84	55	2.6	7.3	3.1	65	72	▲ 1LE1003-2AB5	189	0.22	16		
Voltages		Motor protection	No. of poles	Frame size	Motor type	Version														Order code(s)		
<b>Frame sizes 80 M to 90 L: use of the 360° freely rotatable terminal box for 2 and 4-pole motors <sup>2)</sup></b>																						
50 Hz	230 VΔ/400 VY	60 Hz <sup>1)</sup>	460 VY	PTC thermistor with 1 temp. sensor	4	80 M ... 90 L	1LE1003-0D ... -0E	Standard	2	2										-		
50 Hz	400 VΔ/690 VY	60 Hz <sup>1)</sup>	460 VΔ	Without	4	80 M ... 90 L	1LE1003-0D ... -0E	Standard	3	4										-		
50 Hz	400 VY	60 Hz <sup>1)</sup>	460 VY	Without	4	80 M ... 90 L	1LE1003-0D ... -0E	Standard	0	2										-		
<b>Frame sizes 100 L to 200 L: use of the 4 x 90° rotatable terminal box</b>																						
50 Hz	230 VΔ/400 VY	60 Hz <sup>1)</sup>	460 VY	Any	4	100 L ... 200 L	1LE1003-1A ... -2A	Standard	2	2										-		
50 Hz	400 VΔ/690 VY	60 Hz <sup>1)</sup>	460 VΔ	Any	4	100 L ... 200 L	1LE1003-1A ... -2A	Standard	3	4										-		
50 Hz	500 VY			Any	4	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	2	7										-		
50 Hz	500 VΔ			Any	4	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	4	0										-		
Further voltages <sup>1)</sup>							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 <sup>3)</sup>	4	80 M ... 200 L	1LE1003-0D ... -2A	Standard														A		
With flange		IM B5 <sup>3)</sup>	4	80 M ... 200 L	1LE1003-0D ... -2A	With additional charge														F		
With standard flange		IM B14 <sup>3)</sup>	4	80 M ... 160 L	1LE1003-0D ... -2A	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)			
<b>Frame sizes 100 L to 200 L: use of the 4 x 90° rotatable terminal box</b>																						
Without			4	100 L ... 200 L	1LE1003-0D ... -2A	Standard														A		
PTC thermistor with 3 temperature sensors			4	100 L ... 200 L	1LE1003-0D ... -2A	With 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			4	80 M ... 200 L	1LE1003-0D ... -2A	Standard														4		
Further terminal box positions							For price information, code numbers and descriptions, see from Page 2/72															
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													1LE1003-...-Z ...+...+...+...				



<sup>1)</sup> Operating values at rated output for 60 Hz are stored in the Drive Technology (DT) Configurator.  
<sup>2)</sup> For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

<sup>3)</sup> 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.

# Motors with IE3 Premium Efficiency

## SIMOTICS GP 1LE1 Standard Motors

### Self-ventilated motors · Aluminum series 1LE1003

#### Selection and ordering data (continued)

Operating values at rated output														Aluminum series		m <sub>IM B3</sub> J	Torque class					
P <sub>ra</sub> ted, 50 Hz	P <sub>ra</sub> ted, 60 Hz	Frame size	n <sub>ra</sub> ted, 50 Hz	T <sub>ra</sub> ted, 50 Hz	IE class	η <sub>ra</sub> ted, 50 Hz	η <sub>ra</sub> ted, 50 Hz	η <sub>ra</sub> ted, 50 Hz	η <sub>ra</sub> ted, 50 Hz	COS φ <sub>rated</sub> , 50 Hz	I <sub>rated</sub> , 50 Hz	T <sub>LR</sub> /T <sub>ra</sub>	I <sub>LR</sub> /I <sub>ra</sub>	T <sub>β</sub> /T <sub>ra</sub>	L <sub>pfA</sub> , 50 Hz			L <sub>WA</sub> , 50 Hz	Article No.	kg	kgm <sup>2</sup>	CL
kW	kW	FS	rpm	Nm	50 Hz	60 Hz	%	%	%	A							▲ New					
<ul style="list-style-type: none"> <li>• Cooling: self-ventilated (IC411)</li> <li>• Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15</li> <li>• Insulation: thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)</li> </ul>																						
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz <sup>1)</sup>																						
0.37	0.43	80 M	940	3.8	-	-	74.8	74.3	70.5	0.66	1.08	2.3	4.2	2.7	42	53	1LE1003-0DC2	12	0.0025	13		
0.55	0.63	80 M	935	5.6	-	-	77.2	77.2	75.5	0.67	1.53	2.5	4.5	2.8	42	53	1LE1003-0DC3	14	0.0031	13		
0.75	0.86	90 S	945	7.6	IE3	IE3	78.9	80	78.5	0.7	1.96	2.2	4.6	2.6	43	55	1LE1003-0EC0	16	0.004	13		
1.1	1.27	90 L	940	11	IE3	-	81	81	80	0.69	2.85	2.3	4.6	2.7	43	55	1LE1003-0EC4	19	0.0048	13		
1.5	1.75	100 L	970	15	IE3	IE2	82.5	83.1	81.7	0.73	3.6	1.9	5.2	2.8	59	71	1LE1003-1AC4	25	0.011	13		
2.2	2.55	112 M	970	22	IE3	IE2	84.3	85.1	83.8	0.75	5	2.2	5.6	2.8	65	74	1LE1003-1BC2	34	0.017	13		
3	3.45	132 S	975	29	IE3	IE2	85.6	87.5	87	0.77	6.6	1.6	5.3	2.4	63	75	1LE1003-1CC0	43	0.029	13		
4	4.55	132 M	975	39	IE3	IE2	86.8	88.1	87.9	0.77	8.6	1.7	5.6	2.5	63	75	1LE1003-1CC2	52	0.037	13		
5.5	6.3	132 M	975	54	IE3	IE2	88	89	88.8	0.77	11.7	1.8	5.7	2.6	63	75	1LE1003-1CC3	64	0.046	13		
7.5	8.6	160 M	980	73	IE3	IE2	89.1	89.9	89.3	0.76	16	1.9	4.9	2.3	67	79	1LE1003-1DC2	93	0.098	13		
11	12.6	160 L	975	108	IE3	IE2	90.3	91.1	90.7	0.77	23	1.9	5	2.3	67	79	1LE1003-1DC4	115	0.12	13		
15	18	180 L	975	147	IE3	IE2	91.2	91.9	91.9	0.8	29.5	2.3	5.9	2.8	55	68	▲ 1LE1003-1EC4	130	0.19	16		
18.5	22	200 L	978	181	IE3	IE2	91.7	92.5	92.5	0.79	37	2.5	5.6	2.6	63	76	▲ 1LE1003-2AC4	166	0.28	16		
22	26.5	200 L	978	215	IE3	IE2	92.2	93	92.9	0.79	43.5	2.5	5.6	2.6	63	76	▲ 1LE1003-2AC5	179	0.32	16		
Voltages		Motor protection	No. of poles	Frame size	Motor type	Version															Order code(s)	
Frame sizes 80 M to 90 L: use of the 360° freely rotatable terminal box for 2 and 4-pole motors <sup>2)</sup>																						
50 Hz	230 VΔ/400 VY	60 Hz <sup>1)</sup>	460 VY	PTC thermistor with 1 temp. sensor	6	80 M ... 90 L	1LE1003-0D ... -0E	Standard													2 2	-
50 Hz	400 VΔ/690 VY	60 Hz <sup>1)</sup>	460 VΔ	Without	6	80 M ... 90 L	1LE1003-0D ... -0E	Standard													3 4	-
50 Hz	400 VY	60 Hz <sup>1)</sup>	460 VY	Without	6	80 M ... 90 L	1LE1003-0D ... -0E	Standard													0 2	-
Frame sizes 100 L to 200 L: use of the 4 x 90° rotatable terminal box																						
50 Hz	230 VΔ/400 VY	60 Hz <sup>1)</sup>	460 VY	Any	6	100 L ... 200 L	1LE1003-1A ... -2A	Standard													2 2	-
50 Hz	400 VΔ/690 VY	60 Hz <sup>1)</sup>	460 VΔ	Any	6	100 L ... 200 L	1LE1003-1A ... -2A	Standard													3 4	-
50 Hz	500 VY			Any	6	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge													2 7	-
50 Hz	500 VΔ			Any	6	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge													4 0	-
Further voltages <sup>1)</sup>		For price information, code numbers, order codes and descriptions, see from Page 2/57																				
Types of construction		No. of poles	Frame size	Motor type	Version															Order code(s)		
Without flange		IM B3 <sup>3)</sup>	6	80 M ... 200 L	1LE1003-0D ... -2A	Standard													A	-		
With flange		IM B5 <sup>3)</sup>	6	80 M ... 200 L	1LE1003-0D ... -2A	With additional charge													F	-		
With standard flange		IM B14 <sup>3)</sup>	6	80 M ... 160 L	1LE1003-0D ... -2A	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		6	100 L ... 200 L	1LE1003-0D ... -2A	Standard													A	-			
PTC thermistor with 3 temperature sensors		6	100 L ... 200 L	1LE1003-0D ... -2A	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		6	80 M ... 200 L	1LE1003-0D ... -2A	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																				

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

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

<sup>3)</sup> 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															
<b>1LE10</b> ..... ■ - ■ ... <b>1PC10</b> ..... ■ - ■ ... Order code			Motor version	Motor type	Frame size							80	90	100	112	132	160	180	200	
Voltage at 50 Hz or 60 Hz – Operating values at rated output for 60 Hz are stored in the Drive Technology Configurator (DTC)																				
50 Hz 230 VΔ/400 VY, 60 Hz 460 VY	2	2	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□		
50 Hz 400 VΔ/690 VY, 60 Hz 460 VΔ <sup>1)</sup>	3	4	–	All except ③, ⑤, ⑨ and ⑩		□	□	□	□	□	□	□	□	□	□	□	□	□		
50 Hz 400 VΔ, 60 Hz 460 VΔ <sup>1)</sup>				Only applicable for ③, ⑤, ⑨ and ⑩		□	□	□	□	□	□	□	□	□	□	□	□	□		
50 Hz 400 VY, 60 Hz 460 VY <sup>2) 3)</sup>	0	2		All except ⑥		□	□	–	–	–	–	–	–	–	–	–	–	–		
50 Hz 500 VY <sup>6)</sup> , 60 Hz 575 VY	2	7	–	All except ⑥		○	○	○	○	○	○	○	○	○	○	○	○	○		
50 Hz 500 VΔ, 60 Hz 575 VΔ	4	0	–	All except ⑥		–	–	○	○	○	○	○	○	○	○	○	○	○		
50 Hz 220 VΔ/380 VY, 60 Hz 440 VY	2	1	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
50 Hz 380 VΔ/660 VY <sup>1)</sup> , 60 Hz 440 VΔ	3	3	–	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
50 Hz 380 VΔ <sup>1)</sup>				Only applicable for ③, ⑤, ⑨ and ⑩		–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
50 Hz 240 VΔ/415 VY, 60 Hz 480 VY	2	3	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
50 Hz 415 VΔ, 60 Hz 480 VΔ	3	5	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Multi-voltage at 60 Hz and required output at 60 Hz																				
60 Hz 230 VYY/460 VY; 50 Hz output, 9 main terminals and electrical design to NEMA	6	0	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	–	–	–	–	–	✓	✓		
60 Hz 230 VYY/460 VY; 60 Hz output, 9 main terminals and electrical design to NEMA	6	1	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	–	–	–	–	–	✓	✓		
60 Hz 230 VΔΔ/460 VΔ; 50 Hz output, 12 main terminals and electrical design to NEMA	6	2	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	–	–	–	–	–	✓	✓		
60 Hz 230 VΔΔ/460 VΔ; 60 Hz output, 12 main terminals and electrical design to NEMA	6	3	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	–	–	–	–	–	✓	✓		
Voltage at 60 Hz and required output at 60 Hz																				
220 VΔ/380 VY; 50 Hz output	9	0	M2A	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
220 VΔ/380 VY; 60 Hz output	9	0	M1A	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
380 VΔ/660 VY; 50 Hz output <sup>1)</sup>	9	0	M2B	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
380 VΔ; 50 Hz output <sup>1)</sup>				Only applicable for ③, ⑤, ⑨ and ⑩		–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
380 VΔ/660 VY; 60 Hz output <sup>1)</sup>	9	0	M1B	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
440 VY; 50 Hz output	9	0	M2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
440 VY; 60 Hz output	9	0	M1C	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
440 VΔ; 50 Hz output	9	0	M2D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
440 VΔ; 60 Hz output	9	0	M1D	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
460 VY; 50 Hz output	9	0	M2E	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
460 VY; 60 Hz output	9	0	M1E	All except ③, ⑤, ⑨ and ⑩		○	○	○	○	○	○	○	○	○	○	○	○	○		
460 VΔ; 50 Hz output	9	0	M2F	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

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				
<b>1LE10</b> ..... ■ - ■ ... <b>1PC10</b> ..... ■ - ■ ...			IE2 High Efficiency	1LE1001	<b>1LE1001</b> ①									
				1PC1001	<b>1PC1001</b> ②									
				1LE1041	<b>1LE1041 APAC Line</b> ③									
			IE3 Premium Efficiency	1LE1003	<b>1LE1003</b> ④									
				1LE1043	<b>1LE1043 APAC Line</b> ⑤									
			IE4 Super Premium Efficiency	1LE1004	<b>1LE1004</b> ⑥									
			IE1 Standard Efficiency	1LE1002	<b>1LE1002</b> ⑦									
				1PC1002	<b>1PC1002</b> ⑧									
			NEMA Energy Efficient	1LE1021	<b>1LE1021 Eagle Line</b> ⑨									
			NEMA Premium Efficient	1LE1023	<b>1LE1023 Eagle Line</b> ⑩									
			Motor version	Motor type	Frame size									
					80	90	100	112	132	160	180	200		
<b>Voltage at 60 Hz and required output at 60 Hz (continued)</b>														
460 VΔ; 60 Hz output	9	0	<b>M1F</b>	All except ③, ⑤, ⑨ and ⑩	○	○	○	○	○	○	○	○		
575 VY; 50 Hz output <sup>6)</sup>	9	0	<b>M2G</b>	All except ⑥	✓	✓	✓	✓	✓	✓	✓	✓		
575 VY; 60 Hz output <sup>6)</sup>	9	0	<b>M1G</b>	All except ③, ⑤, ⑥, ⑨ and ⑩	✓	✓	✓	✓	✓	✓	✓	✓		
575 VΔ; 50 Hz output <sup>6)</sup>	9	0	<b>M2H</b>	All except ⑥	✓	✓	✓	✓	✓	✓	✓	✓		
575 VΔ; 60 Hz output <sup>6)</sup>	9	0	<b>M1H</b>	All except ③, ⑤, ⑥, ⑨ and ⑩	✓	✓	✓	✓	✓	✓	✓	✓		
<b>Voltage at 87 Hz and 87 Hz output</b>														
400 VΔ <sup>4)</sup>	9	0	<b>M3A</b>	All	✓	✓	✓	✓	✓	✓	✓	✓		
<b>Non-standard voltage and/or frequencies</b>														
Non-standard winding <sup>5)</sup>	9	0	<b>M1Y</b> • and customer specifications	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

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

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

<sup>3)</sup> Delta connection is not possible.

<sup>4)</sup> 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.

<sup>5)</sup> 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.













<sup>6)</sup> 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

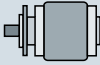



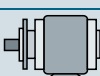





#### Selection and ordering data

Types of construction	Type of construction letter	For types of construction with order code(s) Article No. with additional identification code <b>-Z</b>	Motor category		Motor type – frame size								
			Motor version	Motor type (alum.)	80	90	100	112	132	160	180	200	
			IE2 High Efficiency	1LE1001	<b>1LE1001</b> ①								
				1PC1001		<b>1PC1001</b> ②							
				1LE1041		<b>1LE1041 APAC Line</b> ③							
			IE3 Premium Efficiency	1LE1003	<b>1LE1003</b> ④								
				1LE1043	<b>1LE1043 APAC Line</b> ⑤								
			IE4 Super Premium Efficiency	1LE1004		<b>1LE1004</b> ⑥							
			IE1 Standard Efficiency	1LE1002		<b>1LE1002</b> ⑦							
				1PC1002		<b>1PC1002</b> ⑧							
			NEMA Energy Efficient	1LE1021		<b>1LE1021 Eagle Line</b> ⑨							
			NEMA Premium Efficient	1LE1023		<b>1LE1023 Eagle Line</b> ⑩							
Pole-changing	1LE1011		<b>1LE1011</b> ⑪										
	1LE1012		<b>1LE1012</b> ⑫										
<b>1LE10</b> .....	<b>...</b> (-Z)		Motor version	Motor type	Frame size	80	90	100	112	132	160	180	200
<b>1PC10</b> .....	<b>...</b> (-Z)	Order code											
<b>Without flange</b>													
IM B3 1) 2) 3)		<b>A</b>	-	All except ③ and ⑨		☐	☐	☐	☐	☐	☐	☐	☐
IM B6 2) 3)		<b>T</b>	-	All except ③ and ⑨		☐	☐	☐	☐	☐	☐	☐	☐
IM B7 2) 3)		<b>U</b>	-	All except ③ and ⑨		☐	☐	☐	☐	☐	☐	☐	☐
IM B8 2) 3)		<b>V</b>	-	All except ③ and ⑨		☐	☐	☐	☐	☐	☐	☐	☐
IM V6 2) 3)		<b>D</b>	-	All except ③ and ⑨		☐	☐	☐	☐	☐	☐	☐	☐
IM V5 without protective cover 2) 3)		<b>C</b>	-	All except ③ and ⑨		☐	☐	☐	☐	☐	☐	☐	☐
IM V5 with protective cover 2) 3) 4) 5) 6)		<b>C</b>	<b>H00</b>	All except ②, ③, ⑥, ⑨ and in combination with order code F90	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>With flange</b>													
		Acc. to EN 50347				FF165	FF165	FF215	FF215	FF265	FF300	FF300	FF350
		Acc. to DIN 42948				A 200	A 200	A 250	A 250	A 300	A 350	A 350	A 400
IM B5 2) 7)		<b>F</b>	-	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM V1 without protective cover 2)		<b>G</b>	-	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM V1 with protective cover 2) 4) 5) 6)		<b>G</b>	<b>H00</b>	All except ②, ⑥ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
IM V3 4)		<b>H</b>	-	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM B35 3)		<b>J</b>	-	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	For types of construction with order code(s)	Motor category		Motor type – frame size														
			Motor version	Motor type (alum.)	80	90	100	112	132	160	180	200							
1LE10 ..... (-Z) 1PC10 ..... (-Z)		Article No. with additional identification code -Z Order code	IE2 High Efficiency	1LE1001 1PC1001	1LE1001 ①														
					1LE1041	1LE1041 APAC Line ③													
			IE3 Premium Efficiency	1LE1003 1LE1043	1LE1003 ④ 1LE1043 APAC Line ⑤														
			IE4 Super Premium Efficiency	1LE1004	1LE1004 ⑥														
			IE1 Standard Efficiency	1LE1002 1PC1002	1LE1002 ⑦ 1PC1002 ⑧														
			NEMA Energy Efficient	1LE1021	1LE1021 Eagle Line ⑨														
			NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩														
			Pole-changing	1LE1011 1LE1012	1LE1011 ⑪ 1LE1012 ⑫														
						Motor version	Motor type	Frame size											
								80	90	100	112	132	160	180	200				
With special flange next larger		Acc. to EN 50347 Acc. to DIN 42948			-	-	FF265 A 300	FF265 A 300	FF300 A 350	-	-	-	-	-	-	-			
IM B5 2) 7)		F	P01	All	All	-	-	✓	✓	✓	-	-	-	-	-	-			
IM V1 without protective cover 2)		G	P01	All	All	-	-	✓	✓	✓	-	-	-	-	-	-			
IM V1 with protective cover 2) 4) 5) 6)		G	P01+H00	All except ②, ⑩ and in combination with order code F90		-	-	✓	✓	✓	-	-	-	-	-	-			
IM V3 4)		H	P01	All	All	-	-	✓	✓	✓	-	-	-	-	-	-			
IM B35 3)		J	P01	All except ③ and ⑨		-	-	✓	✓	✓	-	-	-	-	-	-			
With special flange next smaller		Acc. to EN 50347 Acc. to DIN 42948			-	-	FF165 A 200	FF165 A 200	FF215 A 250	FF265 A 300	FF265 A 300	FF300 A 350							
IM B5 2) 7)		F	P02	All	All	-	-	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.			
IM V1 without protective cover 2)		G	P02	All	All	-	-	O.R.	O.R.	O.R.	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.	O.R.	O.R.	O.R.			
IM V3 4)		H	P02	All	All	-	-	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	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.	O.R.	O.R.	O.R.			

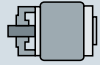









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For legends and footnotes, see Page 2/65.

## Supplements to article numbers and special versions

### SIMOTICS GP 1LE1/1PC1 Standard Motors

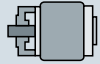



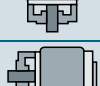
#### Types of construction · Aluminum series 1LE10, 1PC10

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 <b>-Z</b>	Motor category											
			Motor version	Motor type (alum.)	Motor type – frame size									
			80	90	100	112	132	160	180	200				
			IE2 High Efficiency	1LE1001	<b>1LE1001</b> ①									
				1PC1001									<b>1PC1001</b> ②	
				1LE1041	<b>1LE1041 APAC Line</b> ③									
			IE3 Premium Efficiency	1LE1003	<b>1LE1003</b> ④									
				1LE1043	<b>1LE1043 APAC Line</b> ⑤									
			IE4 Super Premium Efficiency	1LE1004									<b>1LE1004</b> ⑥	
			IE1 Standard Efficiency	1LE1002									<b>1LE1002</b> ⑦	
				1PC1002									<b>1PC1002</b> ⑧	
			NEMA Energy Efficient	1LE1021	<b>1LE1021 Eagle Line</b> ⑨									
			NEMA Premium Efficient	1LE1023	<b>1LE1023 Eagle Line</b> ⑩									
Pole-changing	1LE1011									<b>1LE1011</b> ⑪				
	1LE1012									<b>1LE1012</b> ⑫				
<b>1LE10</b> .....	<b>...</b> (-Z)		Motor version	Motor type	Frame size									
<b>1PC10</b> .....	<b>...</b> (-Z)	Order code	80	90	100	112	132	160	180	200				
<b>With standard flange</b>			Acc. to EN 50347			FT100	FT115	FT130	FT130	FT165	FT215	-	-	
			Acc. to DIN 42948			C 120	C 140	C 160	C 160	C 200	C 250	-	-	
IM B14 <sup>2) 8)</sup>		<b>K</b>	-	All	All	✓	✓	✓	✓	✓	✓	-	-	
IM V19 <sup>2)</sup>		<b>L</b>	-	All	All	✓	✓	✓	✓	✓	✓	-	-	
IM V18 without protective cover <sup>2)</sup>		<b>M</b>	-	All	All	✓	✓	✓	✓	✓	✓	-	-	
IM V18 with protective cover <sup>2) 4) 5) 6)</sup>		<b>M</b>	<b>H00</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	-	-	
IM B34 <sup>3)</sup>		<b>N</b>	-	All except ③ and ⑨		✓	✓	✓	✓	✓	✓	-	-	
<b>With special flange next larger</b>			Acc. to EN 50347			FT130	FT130	FT165	FT165	FT215	-	-	-	
			Acc. to DIN 42948			C 160	C 160	C 200	C 200	C 250	-	-	-	
IM B14 <sup>2) 8)</sup>		<b>K</b>	<b>P01</b>	All	All	✓	✓	✓	✓	✓	-	-	-	
IM V19 <sup>2)</sup>		<b>L</b>	<b>P01</b>	All	All	✓	✓	✓	✓	✓	-	-	-	
IM V18 without protective cover <sup>2)</sup>		<b>M</b>	<b>P01</b>	All	All	✓	✓	✓	✓	✓	-	-	-	
IM V18 with protective cover <sup>2) 4) 5) 6)</sup>		<b>M</b>	<b>P01+H00</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	-	-	-	
IM B34 <sup>3)</sup>		<b>N</b>	<b>P01</b>	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	For types of construction with order code(s)	Motor category									
			Motor version	Motor type (alum.)	Motor type – frame size							
					80	90	100	112	132	160	180	200
		Article No. with additional identification code <b>-Z</b>	IE2 High Efficiency	1LE1001	<b>1LE1001</b> ①							
				1PC1001	<b>1PC1001</b> ②							
				1LE1041	<b>1LE1041 APAC Line</b> ③							
			IE3 Premium Efficiency	1LE1003	<b>1LE1003</b> ④							
				1LE1043	<b>1LE1043 APAC Line</b> ⑤							
			IE4 Super Premium Efficiency	1LE1004	<b>1LE1004</b> ⑥							
			IE1 Standard Efficiency	1LE1002	<b>1LE1002</b> ⑦							
				1PC1002	<b>1PC1002</b> ⑧							
			NEMA Energy Efficient	1LE1021	<b>1LE1021 Eagle Line</b> ⑨							
			NEMA Premium Efficient	1LE1023	<b>1LE1023 Eagle Line</b> ⑩							
Pole-changing			1LE1011	<b>1LE1011</b> ⑪								
			1LE1012	<b>1LE1012</b> ⑫								
<b>1LE10</b> ..... <b>.. (-Z)</b> <b>1PC10</b> ..... <b>.. (-Z)</b>			Motor version	Motor type	Frame size							
					80	90	100	112	132	160	180	200
With special flange next smaller			Acc. to EN 50347		-	-	FT115	FT115	FT130	FT165	-	-
			Acc. to DIN 42948		-	-	C 140	C 140	C 160	C 200	-	-
IM B14 <sup>2) 8)</sup>		<b>K</b>	<b>P02</b>	All except ⑥	-	-	O. R.	O. R.	O. R.	O. R.	-	-
IM V19 <sup>2)</sup>		<b>L</b>	<b>P02</b>	All except ⑥	-	-	O. R.	O. R.	O. R.	O. R.	-	-
IM V18 without protective cover <sup>2)</sup>		<b>M</b>	<b>P02</b>	All except ⑥	-	-	O. R.	O. R.	O. R.	O. R.	-	-
IM V18 with protective cover <sup>2) 4) 5) 6)</sup>		<b>M</b>	<b>P02+H00</b>	All except ②, ⑥ and ⑧ and in combination with order code F90	-	-	O. R.	O. R.	O. R.	O. R.	-	-
IM B34 <sup>3)</sup>		<b>N</b>	<b>P02</b>	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										
<b>1LE10</b> ..... ■ . <b>1PC10</b> ..... ■ .			Motor version	Motor type	Frame size							
Order code					80	90	100	112	132	160	180	200
<b>Motor protection (winding protection)</b>												
Without motor protection <sup>1)</sup>	<b>A</b>	–	All	All	□	□	□	□	□	□	□	□
Motor protection with PTC thermistors with 1 or 3 embedded temperature sensors for tripping <sup>2)</sup>	<b>B</b>	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Motor protection by PTC thermistors with 2 or 6 embedded temperature sensors for alarm and tripping <sup>2)</sup>	<b>C</b>	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Motor temperature detection with embedded temperature sensor KTY 84-130 <sup>2)</sup>	<b>F</b>	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Motor temperature detection with embedded temperature sensor 2 × KTY 84-130 <sup>2)</sup>	<b>G</b>	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Installation of 3 Pt100 resistance thermometers <sup>2)</sup>	<b>H</b>	–	All	All	–	–	✓	✓	✓	✓	✓	✓
NTC thermistors for tripping	<b>Z</b>	<b>Q2A</b>	All	All	–	–	✓	✓	✓	✓	–	–
Temperature detectors for tripping <sup>2)</sup>	<b>Z</b>	<b>Q3A</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓

- Standard version
- ✓ With additional charge
- Not possible

<sup>1)</sup> Frame sizes 80 and 90 with voltage code 02 can only be supplied without motor protection (motor protection code A).

<sup>2)</sup> 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	<b>1LE1001</b>							
				1PC1001	<b>1PC1001</b>							
				1LE1041	<b>1LE1041 APAC Line</b>							
			IE3 Premium Efficiency	1LE1003	<b>1LE1003</b>							
				1LE1043	<b>1LE1043 APAC Line</b>							
			IE4 Super Premium Efficiency	1LE1004	<b>1LE1004</b>							
			IE1 Standard Efficiency	1LE1002	<b>1LE1002</b>							
				1PC1002	<b>1PC1002</b>							
			NEMA Energy Efficient	1LE1021	<b>1LE1021 Eagle Line</b>							
			NEMA Premium Efficient	1LE1023	<b>1LE1023 Eagle Line</b>							
Pole-changing	1LE1011	<b>1LE1011</b>										
	1LE1012	<b>1LE1012</b>										
			Motor version	Motor type	Frame size							
					80	90	100	112	132	160	180	200
<b>1LE10</b> .....												
<b>1PC10</b> .....		Order code										
<b>Terminal box position</b>												
Terminal box top <sup>1)</sup>	<b>4</b>	–	All	All	☐	☐	☐	☐	☐	☐	☐	☐
Terminal box on RHS <sup>2)</sup>	<b>5</b>	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Terminal box on LHS <sup>2)</sup>	<b>6</b>	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Terminal box at bottom <sup>2) 3)</sup>	<b>7</b>	–	All	All	–	–	✓	✓	✓	✓	–	–
☐	Standard version											
✓	With additional charge											
–	Not possible											

<sup>1)</sup> 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.

<sup>2)</sup> For types of construction with feet, screwed-on feet are standard.

<sup>3)</sup> 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									
<b>1LE10 . . . . . -Z</b> <b>1PC10 . . . . . -Z</b>		Motor version	Motor type	Frame size							
				80	90	100	112	132	160	180	200
<b>Motor connection and terminal box</b>											
External grounding	H04	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Terminal box on NDE <sup>3)</sup>	H08	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the terminal box through 90°, entry from DE <sup>1)</sup>	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 <sup>4)5)</sup>	R20	All except ⑪ and ⑫	All	✓	✓	✓	✓	✓	✓	–	–
3 cables protruding, 1.5 m long <sup>4)5)</sup>	R21	All except ⑪ and ⑫	All	✓	✓	✓	✓	✓	✓	O. R.	O. R.
6 cables protruding, 0.5 m long <sup>4)</sup>	R22	All	All	✓	✓	✓	✓	✓	✓	–	–
6 cables protruding, 1.5 m long <sup>4)</sup>	R23	All	All	✓	✓	✓	✓	✓	✓	O. R.	O. R.
6 cables protruding, 3 m long <sup>4)</sup>	R24	All	All	✓	✓	✓	✓	✓	✓	O. R.	O. R.
Reduction piece for M cable gland in accordance with British Standard, both cable entries mounted <sup>2)</sup>	R30	All	All	–	–	✓	✓	✓	✓	–	–
Larger terminal box	R50	All, standard version for Eagle Line ⑨ and ⑩ < Size 100	All	✓	✓	✓	✓	✓	✓	✓	✓
Auxiliary terminal box, aluminum	R60 <i>New!</i>	All	All	–	–	–	–	–	–	✓	✓
Motor connector Han-Drive 10e for 230 VΔ/400 VY <sup>30)</sup>	R70	All	All	✓	✓	✓	✓	✓	–	–	–
Motor connector Han-Drive 10e EMC for 230 VΔ/400 VY <sup>30)</sup>	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	All	○	○	–	–	–	–	–	–
<b>Windings and insulation</b>											
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 1PC1001	1LE1001 ①								
			1LE1041	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								
		<b>1LE10</b> . . . . . -Z <b>1PC10</b> . . . . . -Z	Motor version	Motor type	Frame size							
		Order code			80	90	100	112	132	160	180	200
<b>Windings and insulation (continued)</b>												
Temperature class 155 (F), utilized acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	<b>N08</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class H <sup>31)</sup>	<b>N10</b>	All except ③, ⑤, ⑥, ⑧ and ⑩		✓	✓	–	–	–	–	–	–	–
Temperature class 180 (H) at rated output and max. CT 60 °C <sup>6) 31)</sup>	<b>N11</b>	All except ⑥		✓	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	<b>N20</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air	<b>N21</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 130 (B), with higher coolant temperature and/or installation altitude	<b>Y50</b> • and specified output, CT ... °C or IA ... m above sea level	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized according to 155 (F), other requirements	<b>Y52</b> • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 180 (H), utilized according to 155 (F), other requirements	<b>Y75</b> • <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.	–	–	–
<b>Colors and paint finish</b>												
Standard finish in RAL 7030 stone gray		All	All	□	□	□	□	□	□	□	□	□
Unpainted (only cast-iron parts primed)	<b>S00</b>	All	All	○	○	○	○	○	○	○	○	○
Unpainted, only primed	<b>S01</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish	<b>S02</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish sea air resistant	<b>S03</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓
Top coat polyurethane <sup>34)</sup>	<b>S06</b> <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")	<b>Y53</b> • <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")	<b>Y56</b> • <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							180	200	
				80	90	100	112	132	160				
		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										
<b>1LE10 . . . . . -Z</b>		Motor version	Motor type	Frame size									
<b>1PC10 . . . . . -Z</b>		Order code		80	90	100	112	132	160	180	200		
<b>Modular technology – Basic versions 7)</b>													
Mounting of holding brake (standard assignment) 8) 28)	<b>F01</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Mounting of brake for higher switching frequency (operating brake)	<b>F02</b>	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	–	–		
Mounting of separately driven fan 29)	<b>F70</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Mounting of 1XP8012-10 (HTL) rotary pulse encoder 9) 10)	<b>G01</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Mounting of 1XP8012-20 (TTL) rotary pulse encoder 9) 10)	<b>G02</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
<b>Modular technology – Additional versions</b>													
Brake supply voltage 24 V DC	<b>F10</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Brake supply voltage 230 V AC, 50/60 Hz	<b>F11</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	○	○	○	○	○	○		
Brake supply voltage 400 V AC, 50/60 Hz	<b>F12</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Mechanical manual brake release with lever (no locking)	<b>F50</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
<b>Special technology 6)</b>													
Mounting of LL 861 900 220 rotary pulse encoder 9)	<b>G04</b>	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	✓	✓	✓		
Mounting of HQG 9 D 1024 I rotary pulse encoder 9)	<b>G05</b>	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	✓	✓	✓		
Mounting of HQG 10 D 1024 I rotary pulse encoder 9)	<b>G06</b>	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	✓	✓	✓		
<b>Mechanical design and degrees of protection</b>													
Low-noise version for 2-pole motors with clockwise direction of rotation	<b>F77</b>	All except ②, ⑧ and in combination with order code F90		–	–	–	–	✓	✓	✓	✓		
Low-noise version for 2-pole motors with counter-clockwise direction of rotation	<b>F78</b>	All except ②, ⑧ and in combination with order code F90		–	–	–	–	✓	✓	✓	✓		
Prepared for mountings, center hole only 10)	<b>G40</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	□	□		
Prepared for mountings with D12 shaft 15)	<b>G41</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Prepared for mountings with D16 shaft 15)	<b>G42</b>	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)	<b>G43</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Protective cover 9) 11)	<b>H00</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓		
Screwed-on (instead of cast) feet	<b>H01</b>	All	All	✓	✓	✓	✓	✓	✓	□	□		
Vibration-proof version; vibration resistance to Class 3M4 according to IEC 60721-3-3	<b>H02</b>	All	All	–	–	✓	✓	✓	✓	✓	✓		
Condensation drainage holes 14)	<b>H03</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
Rust-resistant screws (externally)	<b>H07</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
Housing with screw mounting 32)	<b>H10</b>	Only possible for ① and ③ (frame sizes 80 and 90), ④, ⑤, ⑨ and ⑩		✓	✓	–	–	–	–	✓	✓		
IP65 degree of protection 13)	<b>H20</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
IP56 degree of protection 12)	<b>H22</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar 16)	<b>H23</b>	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																
<b>1LE10 . . . . . -Z</b> <b>1PC10 . . . . . -Z</b>		Motor version	Motor type	Frame size							80	90	100	112	132	160	180	200	
<b>Coolant temperature and installation altitude</b>																			
Coolant temperature -40 to +40 °C <sup>16) 28)</sup>	<b>D03</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Coolant temperature -30 to +40 °C <sup>16) 28)</sup>	<b>D04</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Designs in accordance with standards and specifications</b>																			
VIK version	<b>C02</b>	Only possible for ① and ④		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor without CE marking for export outside EEA (see EU Directive 640/2009)	<b>D22</b>	Only possible for ①, ②, ⑦ and ⑧		–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	
Electrical according to NEMA MG1-12 <sup>18)</sup>	<b>D30</b>	All, standard version for ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Version according to UL with "Recognition Mark" <sup>19)</sup>	<b>D31</b>	All, standard version for ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
KEMCO Korea Energy Efficiency Label	<b>D33</b>	Only possible for ⑤		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
China Energy Efficiency Label	<b>D34</b>	Only possible for ①, ④, ⑤, ⑥, ⑨ and ⑩		–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	
Canadian regulations (CSA) <sup>37) 33)</sup>	<b>D40</b>	All, standard version for ⑤, ⑨ and ⑩, not possible for ⑪ and ⑫		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
TR CU product safety certificate EAC for Eurasian customs union <sup>35)</sup>	<b>D47</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Train-compatible version <sup>31)</sup>	<b>L82</b>	All except ②, ⑥ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Bearings and lubrication</b>																			
Regreasing device with M10 x 1 grease nipple according to DIN 71412-A	<b>L19</b> <i>New!</i>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Located bearing DE	<b>L20</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Located bearing NDE	<b>L21</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Bearing design for increased cantilever forces <sup>36)</sup>	<b>L22</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Regreasing device <sup>20)</sup>	<b>L23</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Deep-groove bearings reinforced at both ends for DE and NDE, bearing size 63	<b>L25</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Measuring nipple for SPM shock pulse measurement for bearing inspection <sup>20)</sup>	<b>Q01</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Balance and vibration quantity</b>																			
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
Vibration quantity level B	<b>L00</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Half-key balancing (standard)		All	All	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
Balancing without key	<b>L01</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Full-key balancing	<b>L02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Shaft and rotor</b>																			
Shaft extension with standard dimensions, without feather keyway	<b>L04</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Standard cylindrical shaft extension	<b>L05</b>	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Standard shaft made of stainless steel (e.g. 1.4021)	<b>L06</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	<b>L07</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 tolerance R for flange-mounting motors	<b>L08</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Non-standard shaft extension, DE <sup>21)</sup>	<b>Y58</b> • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Non-standard shaft extension, NDE <sup>21)</sup>	<b>Y59</b> • 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 1PC1001	1LE1001 ①						1PC1001 ②		
			1LE1041	1LE1041 APAC Line ③								
		IE3 Premium Efficiency	1LE1003 1LE1043	1LE1003 ④						1LE1043 APAC Line ⑤		
		IE4 Super Premium Efficiency	1LE1004							1LE1004 ⑥		
		IE1 Standard Efficiency	1LE1002 1PC1002							1LE1002 ⑦ 1PC1002 ⑧		
		NEMA Energy Efficient	1LE1021	1LE1021 Eagle Line ⑨								
		NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩								
		Pole-changing	1LE1011 1LE1012							1LE1011 ⑪ 1LE1012 ⑫		
		1LE10 . . . . . -Z 1PC10 . . . . . -Z	Motor version	Motor type	Frame size							
					80	90	100	112	132	160	180	200
<b>Heating and ventilation</b>												
Sheet metal fan cover	F74	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓	✓
Fan cover for textile industry <sup>22)</sup>	F75	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓	✓
Metal external fan <sup>23) 29)</sup>	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	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Rating plate and extra rating plates</b>												
Extra rating plate for voltage tolerance <sup>24)</sup>	B07	All except ②, ⑧, ⑪, ⑫ and 8-pole motors		✓	✓	✓	✓	✓	✓	✓	✓	✓
Second rating plate, loose <sup>25)</sup>	M10	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rating plate, stainless steel	M11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extra rating plate or rating plate with deviating rating plate data	Y80 •	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extra rating plate with customer specifications	Y82 •	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Additional information on rating plate and on package label (max. 20 characters)	Y84 •	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Adhesive label, supplied loose (printed with: Article No., Serial No.: 2 lines of text)	Y85 •	All	All	–	–	✓	✓	✓	✓	✓	✓	✓
<b>Packaging, safety notes, documentation and test certificates</b>												
Printed German/English Operating Instructions (Compact) enclosed <sup>27)</sup>		All	All	□	□	□	□	□	□	□	□	□
Printed German/English Operating Instructions (Compact) enclosed in each wire-lattice pallet <sup>27)</sup>	B01	All	All	○	○	○	○	○	○	○	○	○
Acceptance test certificate 3.1 according to EN 10204 <sup>28)</sup>	B02	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed German/English Operating Instructions enclosed	B04	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Document - Electrical data sheet	B60	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Document - Order dimensional drawing	B61	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type test with heat run for horizontal motors, with acceptance	B83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wire-lattice pallet packaging	B99	All	All	○	○	○	○	○	○	○	○	○
Connected in star for dispatch	M01	All	All	–	–	✓	✓	✓	✓	✓	✓	✓
Connected in delta for dispatch	M02	All	All	–	–	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see Page 2/79.

## Supplements to article numbers and special versions

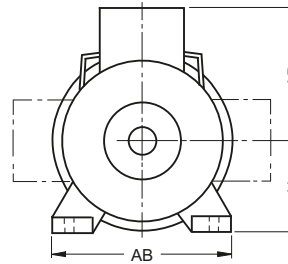
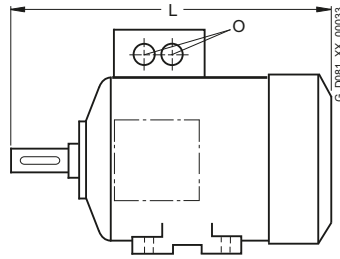
### SIMOTICS GP 1LE1/1PC1 Standard Motors

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

- 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 1024I rotary pulse encoder (order code **G05**) and/or brake 2LM8 (order code **F01**).
- 14) Supplied with the condensation drainage holes sealed at the drive end DE and non-drive end NDE (IP55, IP56, IP65). If the condensation drainage holes are required for motors of the IM B6, IM B7 or IM B8 type of construction (feet on side or top), the motors must be ordered in the respective type of construction and with order code **H03**, so that the condensation drainage holes will be placed in the correct position.
- 15) 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 ≤ Inner diameter of roller bearing (see tables under "Dimensions")
  - Dimensions E and EA ≤ x 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/WWW/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	
1LE1503-, 1LE1523-OEA4, OEB4, OEC4	387	163	90	165	2 × M25 × 1.5	
100 L	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1011, 1LE1012, 1LE1021	396 <sup>1)</sup>	166	100	196	2 × M32 × 1.5
	Aluminum series, self-ventilated with increased output					
	1LE1001, 1LE1002	431 <sup>1)</sup>	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 <sup>1)</sup>	177	112	226	2 × M32 × 1.5
	Aluminum series, self-ventilated with increased output					
	1LE1001, 1LE1002	414 <sup>1)</sup>	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
1LE1523, 1LE1623	409	195	112	226	2 × M32 × 1.5	
132 S/M	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1011, 1LE1012, 1LE1021	465 <sup>1)</sup>	202	132	256	2 × M32 × 1.5
	Aluminum series, self-ventilated with increased output					
	1LE1001, 1LE1002	515 <sup>1)</sup>	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	

<sup>1)</sup> The length is specified as far as the tip of the fan cover.

<sup>2)</sup> 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 <sup>1)2)</sup>	237	160	300	2 × M40 × 1.5
	Aluminum series, self-ventilated with increased output 1LE1001, 1LE1002	664 <sup>1)</sup>	237	160	300	2 × M40 × 1.5
	Aluminum series, forced-air cooled or naturally cooled 1LE1001, 1PC1001, 1LE1002, 1PC1002, 1LE1021	510	237	160	300	2 × M40 × 1.5
	Cast-iron series, self-ventilated 1LE1501, 1LE1503, 1LE1521, 1LE1601, 1LE1603, 1LE1621	594	265	160	300	2 × M40 × 1.5
160 M	Aluminum series, self-ventilated 1LE1003, 1LE1023	604	237	160	300	2 × M40 × 1.5
	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 1LE1523, 1LE1623	656	261	160	300	2 × M40 × 1.5
180 M	Aluminum series, self-ventilated 1LE1001					
	1EA2, 1EB2	668	286	180	339	2 × M40 × 1.5
	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-					
	1EA2, 1EB2	668	286	180	339	2 × M40 × 1.5
	1EA6	698				
	1LE15.3-, 1LE16.3-	668	286	180	339	2 × M40 × 1.5
180 L	Aluminum series, self-ventilated 1LE1001					
	1EB4, 1EC4, 1ED4	668	286	180	339	2 × M40 × 1.5
	1EA6, 1EB6, 1EC6, 1ED6	698				
	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-					
	1EC4, 1EC6	668	286	180	339	2 × M40 × 1.5
	1EB6	698				
200 L	Aluminum series, self-ventilated 1LE1001					
	2AA4, 2AA5, 2AB5, 2AC4, 2AC5, 2AD5	721	315	200	378	2 × M50 × 1.5
	2AA6, 2AB6, 2AC6, 2AD6	746				
	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-					
	2AA4, 2AA5, 2AB5, 2AC4, 2AC5	721	315	200	378	2 × M50 × 1.5
	2AA6	746				
225 S	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-2BB0, 2BD0	788	338	225	436	2 × M50 × 1.5
	1LE15.3-, 1LE16.3-2BB0	788	338	225	436	2 × M50 × 1.5
	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-2BA2, 2BA6	818	338	225	436	2 × M50 × 1.5
	2BB2, 2BB6, 2BC2, 2BC6, 2BD6	848				
	1LE15.3-, 1LE16.3-2BA2	818	338	225	436	2 × M50 × 1.5
	2BB2, 2BC2	848				
225 M	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-2BA2, 2BA6	818	338	225	436	2 × M50 × 1.5
	2BB2, 2BB6, 2BC2, 2BC6, 2BD6	848				
	1LE15.3-, 1LE16.3-2BA2	818	338	225	436	2 × M50 × 1.5
250 M	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-2CA2, 2CA6, 2CB2, 2CC2, 2CC6, 2CD2, 2CD6	887	410	250	490	2 × M63 × 1.5
	2CB6	957				
	1LE15.3-, 1LE16.3-2CA2, 2CB2, 2CC2	887	410	250	490	2 × M63 × 1.5
280 S	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-2DA0, 2DB0, 2DC0, 2DD0	960	433	280	540	2 × M63 × 1.5
	1LE15.3, 1LE16.3					
	2DA0, 2DB0, 2DC0	960	433	280	540	2 × M63 × 1.5
280 M	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-2DA2, 2DB2, 2DC2, 2DC6, 2DD2, 2DD6	960	433	280	540	2 × M63 × 1.5
	2DA6, 2DB6	1070				
	1LE15.3-, 1LE16.3-2DC2	960	433	280	540	2 × M63 × 1.5
	2DA2, 2DB2	1070				
	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-3AA0	1052	515	315	610	2 × M63 × 1.5
	3AB0, 3AC0, 3AD0	1082				
315 S	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-3AA0	1052	515	315	610	2 × M63 × 1.5
	3AB0, 3AC0	1082				
	1LE15.3-, 1LE16.3-3AA0	1052	515	315	610	2 × M63 × 1.5
315 M	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-3AA2, 3AD2	1082	515	315	610	2 × M63 × 1.5
	3AA2	1217				
	3AB2	1247				
	1LE15.3-, 1LE16.3-3AA2	1217	515	315	610	2 × M63 × 1.5
	3AB2, 3AC2	1247				
	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-3AB4, 3AC4, 3AC5, 3AD4, 3AD5, 3AD6	1217	515	315	610	2 × M63 × 1.5
315 L	Cast-iron series, self-ventilated 1LE15.1-, 1LE16.1-3AA4	1217	515	315	610	2 × M63 × 1.5
	3AB4, 3AC4, 3AC5, 3AD4, 3AD5, 3AD6	1247				
	3AA5, 3AA6	1372				
	3AB5, 3AB6, 3AC6	1402				
	1LE15.3-, 1LE16.3-3AA4	1217	515	315	610	2 × M63 × 1.5
	3AB4, 3AC4	1247	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

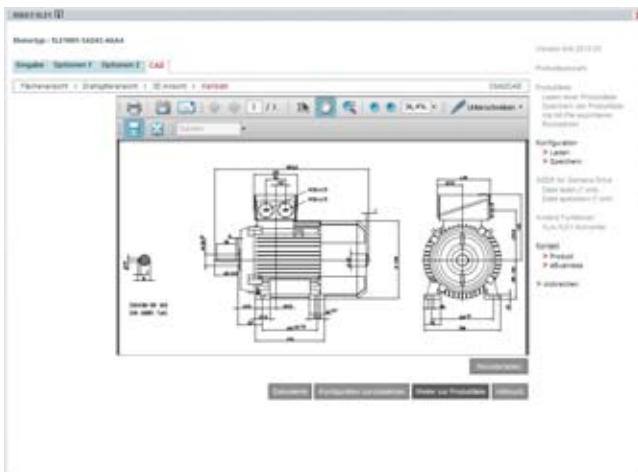
Keyways and feather keyways (dimensions GA, GC, F and FA) are made in compliance with DIN 6885 Part 1.

- 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](http://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](http://www.siemens.com/automation/CA01)

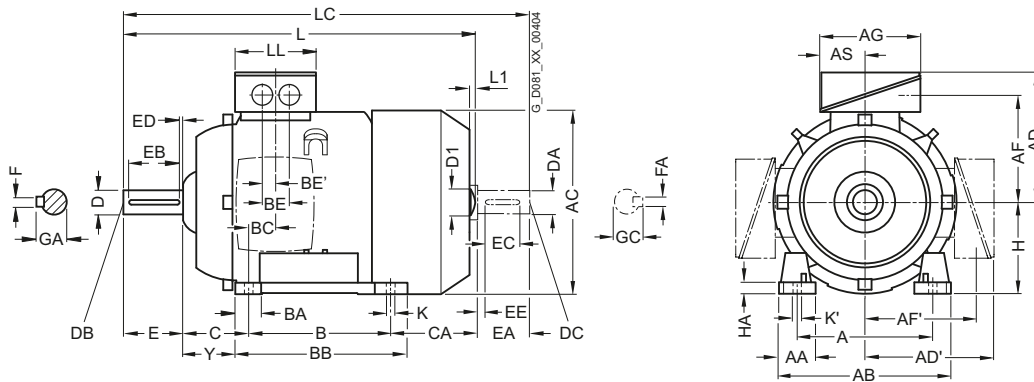
## Dimensions

### SIMOTICS GP 1LE1 Standard Motors

Aluminum series 1LE1003, 1LE1023, 1LE1043 · Self-ventilated, frame sizes 80 M to 90 L

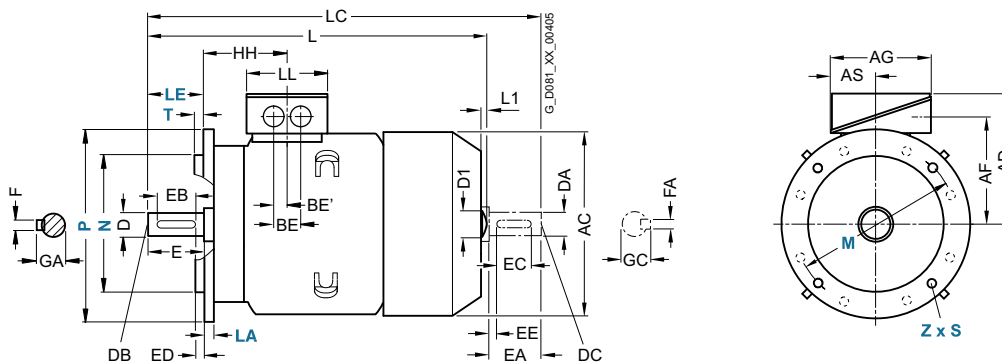
#### Dimensional drawings

##### 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)



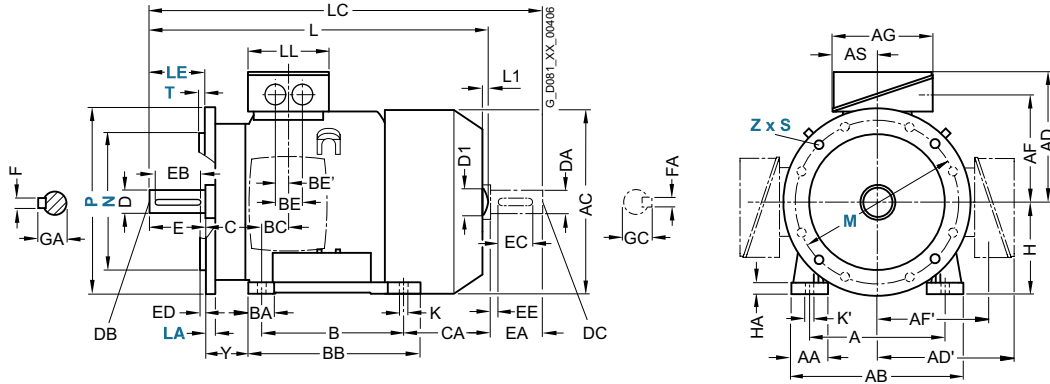
For motor		Dimension designation acc. to IEC																									
Frame size	Motor type	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B*	BA	BB	BC	BE	BE'	C	CA*	H	HA	Y				
80 M	1LE1003-0DA2,	2, 4, 6	125	30.5	150	159	121	-	96.5	-	93	43	100	32	118	23	-	18	50	-	80	8	41				
	-0DB2,																										
	-0DC2																										
	1LE1023-0DA2,	2, 4, 6																						149	112	119.5	61.5
	-0DB2,																										
	-0DC2																										
90 S	1LE1003-0EA0,	2, 4, 6	140	30.5	165	178	126	-	101.5	-	93	43	100	33	143	22.5	-	18	56	-	90	10	47				
-0EB0,																											
-0EC0																											
1LE1023-0EA0,	2, 4, 6	154																						117	119.5	61.5	
-0EB0,																											
-0EC0																											
90 L	1LE1003-0EA4,		2, 4, 6	140	30.5	165	178	126	-	101.5	-	93	43	100	33	143	22.5	-	18	56	-	90	10				47
-0EB4,																											
-0EC4																											
1LE1023-0EA4,	2, 4, 6	154	117																					119.5	61.5		
-0EB4,																											
-0EC4																											

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

**Dimensional drawings** (continued)

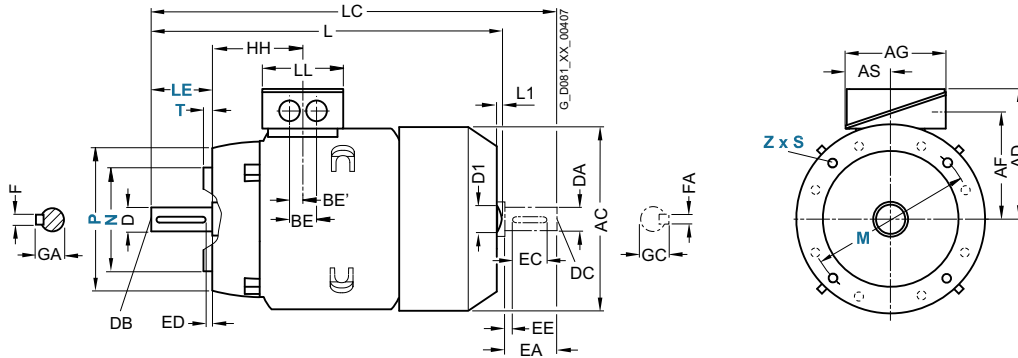
**Type of construction IM B35**

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

<sup>1)</sup> The length is specified as far as the tip of the fan cover.



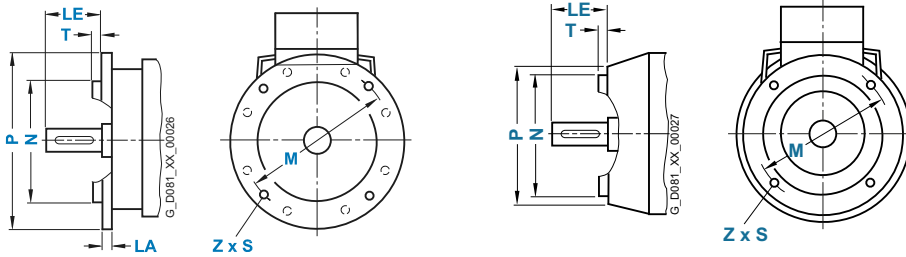


## Introduction

### 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
<b>71 M</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF130</b>	A 160	9	30	130	110	160	10	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT85</b>	C 105	–	30	85	70	105	M6	2.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code <b>P01</b>	<b>FT115</b>	C 140	–	30	115	95	140	M8	3	4
<b>80 M</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF165</b>	A 200	10	40	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT100</b>	C 120	–	40	100	80	120	M6	3	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code <b>P01</b>	<b>FT130</b>	C 160	–	40	130	110	160	M8	3.5	4
<b>90 S/L</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF165</b>	A 200	10	50	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT115</b>	C 140	–	50	115	95	140	M8	3	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code <b>P01</b>	<b>FT130</b>	C 160	–	50	130	110	160	M8	3.5	4
<b>100 L</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF215</b>	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 <b>P01</b>	<b>FF265</b>	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 <b>P02</b>	<b>FF165</b>	A 200	11	60	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT130</b>	C 160	–	60	130	110	160	M8	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code <b>P01</b>	<b>FT165</b>	C 200	–	60	165	130	200	M10	3.5	4
<b>112 M</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF215</b>	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 <b>P01</b>	<b>FF265</b>	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 <b>P02</b>	<b>FF165</b>	A 200	11	60	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT130</b>	C 160	–	60	130	110	160	M8	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code <b>P01</b>	<b>FT165</b>	C 200	–	60	165	130	200	M10	3.5	4
<b>132 S/M</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF265</b>	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 <b>P01</b>	<b>FF300</b>	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 <b>P02</b>	<b>FF215</b>	A 250	11	80	215	180	250	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT165</b>	C 200	–	80	165	130	200	M10	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code <b>P01</b>	<b>FT215</b>	C 250	–	80	215	180	250	M12	4	4
<b>160 M/L</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF300</b>	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 <b>P02</b>	<b>FF265</b>	A 300	12	110	265	230	300	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	<b>FT215</b>	C 250	–	110	215	180	250	M12	4	4
<b>180 M/L</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF300</b>	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 <b>P02</b>	<b>FF 265</b>	A 300	12	110	265	230	300	14.5	4	4
<b>200 L</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF350</b>	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 <b>P02</b>	<b>FF300</b>	A 350	13	110	300	250	350	18.5	5	4
<b>225 S/M</b> 2-pole 4- ... 8-pole	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF400</b>	A 450	16	110	400	350	450	18.5	5	8
<b>250 M</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF500</b>	A 550	18	140	500	450	550	18.5	5	8
<b>280 S/M</b>	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF500</b>	A 550	18	140	500	450	550	18.5	5	8
<b>315 S/M/L</b> 2-pole 4- ... 8-pole	IM B5, IM B35, IM V1, IM V3	Standard flange	<b>FF600</b>	A 660	22	140	600	550	660	24	6	8