



IE1

SIMOTICS GP 1LE1 Standard Motors

Motors with Standard Efficiency IE1

Self-ventilated or forced-air cooled motors
Aluminum series 1LE1002

Selection and ordering data

P _{rated} , 50 Hz	P _{rated} , 60 Hz	Frame size	Operating values at rated output										Aluminum series		m _{IM B3}	J	Torque class		
			n _{rated} , 50 Hz	T _{rated} , 50 Hz	IE class	η _{rated} , 50 Hz, 4/4	η _{rated} , 50 Hz, 3/4	η _{rated} , 50 Hz, 2/4	COS- φ _{rated} , 50 Hz, 4/4	I _r , 50 Hz, 400 V	T _{LR} / I _{ra}	I _{LR} / I _{ra}	T _B / I _{ra}	L _{ptA} , 50 Hz				L _{WA} , 50 Hz	Order No.
kW	kW	FS	rpm	Nm	%	%	%	A	A	A	A	A	A	A	dB(A)	dB(A)	kg	kgm ²	CL
<ul style="list-style-type: none"> Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416) Efficiency: Standard Efficiency IE1, service factor (SF) 1.1 Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B) 																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz ¹⁾																			
3	3.45	100 L	2835	10	IE1	81.5	82.8	82.1	0.87	6.1	3.2	6.2	2.9	67	79	1LE1002-1AA4	20	0.0034	16
4	4.55	112 M	2930	13	IE1	83.1	83.8	82.2	0.86	8.1	2.7	7.3	3.7	69	81	1LE1002-1BA2	25	0.0067	16
5.5	6.3	132 S	2905	18	IE1	84.7	85.7	85.0	0.89	10.5	1.9	5.6	2.5	68	80	1LE1002-1CA0	35	0.013	16
7.5	8.6	132 S	2925	24	IE1	86.0	86.9	85.8	0.87	14.5	2.1	6.3	3.2	68	80	1LE1002-1CA1	40	0.016	16
11	12.6	160 M	2925	36	IE1	87.6	87.6	86.1	0.85	21.5	2.0	5.8	2.6	70	82	1LE1002-1DA2	60	0.030	16
15	17.3	160 M	2930	49	IE1	88.7	89.0	88.0	0.84	29	2.5	6.1	3.1	70	82	1LE1002-1DA3	68	0.036	16
18.5	21.3	160 L	2935	60	IE1	89.3	90.0	89.7	0.86	35	2.5	7.0	3.2	70	82	1LE1002-1DA4	78	0.044	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz ¹⁾																			
2.2	2.55	100 L	1425	15	IE1	79.7	80.5	78.5	0.81	4.9	2.2	5.1	2.3	60	72	1LE1002-1AB4	18	0.0059	16
3	3.45	100 L	1425	20	IE1	81.5	83.0	82.3	0.85	6.3	2.4	5.4	2.6	60	72	1LE1002-1AB5	22	0.0078	16
4	4.55	112 M	1435	27	IE1	83.1	84.5	84.0	0.85	8.2	2.2	5.3	2.6	58	70	1LE1002-1BB2	27	0.010	16
5.5	6.3	132 S	1450	36	IE1	84.7	85.7	84.9	0.82	11.2	2.3	5.7	2.7	64	76	1LE1002-1CB0	38	0.019	16
7.5	8.6	132 M	1450	49	IE1	86.0	86.9	86.3	0.82	15.2	2.6	6.6	3.1	64	76	1LE1002-1CB2	44	0.024	16
11	12.6	160 M	1460	72	IE1	87.6	88.0	86.6	0.82	22	2.3	6.4	3.1	65	77	1LE1002-1DB2	62	0.044	16
15	17.3	160 L	1460	98	IE1	88.7	89.3	88.3	0.82	30	2.5	7.0	3.4	65	77	1LE1002-1DB4	73	0.056	16
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz ¹⁾																			
1.5	1.75	100 L	940	15	IE1	75.2	76.0	72.4	0.74	3.9	2.0	4.0	2.2	59	71	1LE1002-1AC4	19	0.0065	16
2.2	2.55	112 M	930	23	IE1	77.7	78.8	76.9	0.75	5.4	2.3	4.1	2.5	57	69	1LE1002-1BC2	25	0.0092	16
3	3.45	132 S	955	30	IE1	79.7	80.2	77.7	0.74	7.3	2.0	4.6	2.6	63	75	1LE1002-1CC0	34	0.017	16
4	4.55	132 M	950	40	IE1	81.4	82.9	82.1	0.76	9.3	2.1	4.7	2.5	63	75	1LE1002-1CC2	39	0.021	16
5.5	6.3	132 M	950	55	IE1	83.1	84.6	84.0	0.75	12.7	2.5	5.2	2.8	63	75	1LE1002-1CC3	48	0.027	16
7.5	8.6	160 M	970	74	IE1	84.7	85.4	85.0	0.73	17.5	2.1	5.5	2.9	67	79	1LE1002-1DC2	72	0.056	16
11	12.6	160 L	965	109	IE1	86.4	86.4	85.4	0.77	24	1.9	5.9	2.7	67	79	1LE1002-1DC4	92	0.078	16
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz ¹⁾																			
0.75	0.86	100 L	705	10	-	62.6	60.8	53.9	0.62	3.0	1.9	3.0	2.2	60	72	1LE1002-1AD4	17	0.0056	16
1.1	1.27	100 L	705	15	-	65.5	64.2	60.0	0.63	3.9	2.0	3.2	2.3	60	72	1LE1002-1AD5	22	0.0078	16
1.5	1.75	112 M	700	20	-	71.6	72.2	68.5	0.65	4.7	1.6	3.3	1.9	63	75	1LE1002-1BD2	29	0.0094	16
2.2	2.55	132 S	715	29	-	76.8	77.4	75.2	0.66	6.3	1.7	3.9	2.4	63	75	1LE1002-1CD0	37	0.019	16
3	3.45	132 M	715	40	-	76.6	77.8	75.8	0.66	8.6	1.8	3.9	2.2	63	75	1LE1002-1CD2	44	0.024	16
4	4.55	160 M	720	53	-	78.3	78.5	75.6	0.69	10.7	1.7	3.8	2.3	63	75	1LE1002-1DD2	60	0.044	16
5.5	6.3	160 M	720	73	-	81.7	82.5	81.4	0.70	13.9	1.6	4.0	2.2	63	75	1LE1002-1DD3	72	0.056	16
7.5	8.6	160 L	715	100	-	83.5	84.5	83.6	0.70	18.5	1.7	3.8	2.2	63	75	1LE1002-1DD4	91	0.077	16
Voltagess																			
50 Hz		230 VΔ/400 VY		60 Hz ¹⁾		460 VY		2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Standard		2 2		-	
50 Hz		400 VΔ/690 VY		60 Hz ¹⁾		460 VΔ		2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Standard		3 4		-	
50 Hz		500 VY						2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Without additional charge		2 7		-	
50 Hz		500 VΔ						2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Without additional charge		4 0		-	
Further voltages ¹⁾		For add. charges, code numbers, order codes and descr., see suppl. and spec. versions.																	
Types of construction																			
		Without flange		IM B3 ²⁾		2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Standard		A		-		-	
		With flange		IM B5 ²⁾		2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		With additional charge		F		-		-	
		With standard flange		IM B14 ²⁾		2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		With additional charge		K		-		-	
Further types of construction		For add. charges, code letters and descriptions, see suppl. and special versions.																	
Motor protection																			
		Without				2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Standard		A		-		-	
		PTC thermistor with 3 temperature sensors				2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		With additional charge		B		-		-	
Further motor protection		For add. charges, code letters and descriptions, see suppl. and special versions.																	
Connection box position																			
		Connection box at top				2, 4, 6, 8		100 L ... 160 L		1LE1002-1A ... -1D		Standard		4		-		-	
Further connection box positions		For add. code numbers, codes and descriptions, see suppl. and special versions.																	
Special versions																			
		Forced-air cooled without ext. fan/fan cover (IC 416)						100 L ... 160 L		1LE1002-1A ... -1D		1LE1002- ... -Z		F90 + . . . + . . .					
Options		For add. charges, order codes and descr., see suppl. and spec. versions.																	

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

2) Types derived from IM B3 (IM B6/7/8, IM V6 and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no 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.