

# SIMOTICS GP 1LE1 Standard Motors

## Motors with High Efficiency IE2

Self-ventilated motors  
Aluminum series 1LE1001 with increased output

# IE2

### Selection and ordering data

Operating values at rated output														Aluminum series		m <sub>IM B3</sub> J		Torque class			
P <sub>rated</sub> , 50 Hz	P <sub>rated</sub> , 60 Hz	Frame size	n <sub>rated</sub> , 50 Hz	T <sub>rated</sub> , 50 Hz	IE class	η <sub>rated</sub> , 50 Hz, 4/4	η <sub>rated</sub> , 50 Hz, 3/4	η <sub>rated</sub> , 50 Hz, 2/4	COS-φ <sub>rated</sub> , 50 Hz, 4/4	I <sub>rated</sub> , 50 Hz, 400 V	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	1LE1001 – IE2 version in accordance with IEC 60034-30 with increased output	Order No.	kg	kgm <sup>2</sup>	CL	
kW	kW	FS	rpm	Nm	%	%	%		A					dB(A)	dB(A)						
<ul style="list-style-type: none"> <li>Cooling: Self-ventilated (IC 411)</li> <li>Efficiency: High Efficiency IE2, 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>																					
4	4.55	100 L	2905	13	IE2	85.8	87.2	87.0	0.86	7.8	2.5	7.6	3.5	67	79	1LE1001-1AA6	26	0.0054	16		
5.5	6.3	112 M	2950	18	IE2	87.0	87.5	87.2	0.89	10.3	2.2	7.7	3.3	69	81	1LE1001-1BA6	34	0.012	16		
11	12.6	132 M	2950	36	IE2	89.4	90.2	90.3	0.89	20	2.3	7.9	3.2	68	80	1LE1001-1CA6	57	0.031	16		
22	25.3	160 L	2955	71	IE2	91.3	91.7	91.3	0.89	39	3.1	8.4	3.7	70	82	1LE1001-1DA6	94	0.068	16		
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz <sup>1)</sup>																					
4	4.55	100 L	1460	26	IE2	86.6	87.4	86.7	0.80	8.3	2.2	7.5	3.5	60	72	1LE1001-1AB6	30	0.014	16		
5.5	6.3	112 M	1460	36	IE2	87.7	88.1	87.4	0.81	11.2	2.5	7.1	3.2	58	70	1LE1001-1BB6	34	0.017	16		
11	12.6	132 M	1465	72	IE2	89.8	90.6	90.4	0.84	21	2.6	7.7	3.1	64	76	1LE1001-1CB6	64	0.046	16		
18.5	21.3	160 L	1475	120	IE2	91.2	91.7	91.6	0.85	34.5	2.5	7.7	3.3	65	77	1LE1001-1DB6	100	0.099	16		
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz <sup>1)</sup>																					
2.2	2.55	100 L	965	22	IE2	81.8	82.5	81.5	0.76	5.1	1.9	5.7	2.9	59	71	1LE1001-1AC6	30	0.014	16		
3	3.45	112 M	960	30	IE2	83.3	84.1	83.6	0.79	6.6	2.1	6.0	3.1	57	69	1LE1001-1BC6	34	0.017	16		
7.5	8.6	132 M	970	74	IE2	87.2	87.8	87.3	0.77	16.1	2.1	6.5	3.0	63	75	1LE1001-1CC6	64	0.046	16		
15	17.3	160 L	975	147	IE2	89.7	90.6	90.5	0.81	30	1.9	6.5	2.9	67	79	1LE1001-1DC6	115	0.12	16		
<b>Order code(s)</b>																					
Voltagess		No. of poles		Frame size		Motor type		Version													
50 Hz 230 VΔ/400 VY		60 Hz <sup>1)</sup>		460 VY		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Standard		2 2						-	
50 Hz 400 VΔ/690 VY		60 Hz <sup>1)</sup>		460 VΔ		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Standard		3 4						-	
50 Hz 500 VY						2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Without additional charge		2 7						-	
50 Hz 500 VΔ						2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Without additional charge		4 0						-	
Further voltages <sup>1)</sup>														9 0						...	
<b>Types of construction</b>																					
Without flange		IM B3 <sup>2)</sup>		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Standard				A						-	
With flange		IM B5 <sup>2)</sup>		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		With additional charge				F						-	
With standard flange		IM B14 <sup>2)</sup>		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		With additional charge				K						-	
Further types of construction																				...	
<b>Motor protection</b>																					
Without		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Standard						A						-	
PTC thermistor with 3 temperature sensors		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		With additional charge						B						-	
Further motor protection																				...	
<b>Connection box position</b>																					
Connection box at top		2, 4, 6		100 L ... 160 L		1LE1001-1A ... -1D		Standard						4						-	
Further connection box positions																				...	
<b>Special versions</b>																					
Options																1LE1001-....		-Z		...+...+...+...	

<sup>1)</sup> Operating values at rated output for 60 Hz are available on request.

<sup>2)</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.