



IE1

SIMOTICS GP 1PC1 Standard Motors

Motors with Standard Efficiency IE1

Naturally cooled motors without external fan
Aluminum series 1PC1002

Selection and ordering data

Operating values at rated output															Aluminum series		m _{IM B3} J	Torque class			
P _{rated} , 50 Hz	P _{rated} , 60 Hz	Frame size	n _{rated} , 50 Hz	T _{rated} , 50 Hz	IE class	η _{rated} , 50 Hz, 4/4	η _{rated} , 50 Hz, 3/4	η _{rated} , 50 Hz, 2/4	COS-φ _{rated} , 50 Hz, 4/4	I _{rated} , 50 Hz, 400 V	T _{LR} /I _{rated}	I _{LR} /I _{rated}	T _B /I _{rated}	L _{pfA} , 50 Hz	L _{WA} , 50 Hz	1PC1002 – IE1 version in acc. with IEC 60034-30			Order No.	kg	kgm ²
kW	kW	FS	rpm	Nm	%	%	%	A													
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz ¹⁾																					
1.2	–	100 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1AA4	20	0.0034	16		
1.6	–	112 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1BA2	25	0.0067	13		
2.2	–	132 S	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CA0	35	0.013	10		
3	–	132 S	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CA1	40	0.016	13		
4.4	–	160 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DA2	60	0.030	13		
6	–	160 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DA3	68	0.036	16		
7.4	–	160 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DA4	78	0.044	16		
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz ¹⁾																					
0.88	–	100 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1AB4	18	0.0059	13		
1.2	–	100 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1AB5	22	0.0078	13		
1.6	–	112 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1BB2	27	0.010	13		
2.2	–	132 S	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CB0	38	0.019	13		
3	–	132 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CB2	44	0.024	16		
4.4	–	160 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DB2	62	0.044	13		
6	–	160 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DB4	73	0.056	16		
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz ¹⁾																					
0.6	–	100 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1AC4	19	0.0065	10		
0.88	–	112 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1BC2	25	0.0092	13		
1.2	–	132 S	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CC0	34	0.017	10		
1.6	–	132 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CC2	39	0.021	13		
2.2	–	132 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CC3	48	0.027	13		
3	–	160 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DC2	72	0.056	13		
4.4	–	160 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DC4	92	0.078	13		
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz ¹⁾																					
0.3	–	100 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1AD4	17	0.0056	10		
0.44	–	100 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1AD5	22	0.0078	10		
0.6	–	112 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1BD2	25	0.0094	10		
0.88	–	132 S	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CD0	37	0.019	10		
1.2	–	132 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1CD2	44	0.024	10		
1.6	–	160 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DD2	60	0.044	10		
2.2	–	160 M	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DD3	72	0.056	10		
3	–	160 L	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.	–	–	1PC1002-1DD4	91	0.077	10		
Ordering code structure																					
Voltsages		No. of poles		Frame size		Motor type		Version		Order code(s)											
50 Hz	230 VΔ/400 VY	60 Hz ¹⁾	460 VY	2, 4, 6, 8	100 L ... 160 L	1PC1002-1A ... -1D	Standard	2	2	–											
50 Hz	400 VΔ/690 VY	60 Hz ¹⁾	460 VΔ	2, 4, 6, 8	100 L ... 160 L	1PC1002-1A ... -1D	Standard	3	4	–											
50 Hz	500 VY			2, 4, 6, 8	100 L ... 160 L	1PC1002-1A ... -1D	Without add. charge	2	7	–											
50 Hz	500 VΔ			2, 4, 6, 8	100 L ... 160 L	1PC1002-1A ... -1D	Without add. charge	4	0	–											
Further voltsages ¹⁾		For add. charges, code numbers, order codes and descr., see suppl. and special versions.																			
Types of construction		No. of poles		Frame size		Motor type		Version		Order code(s)											
Without flange		IM B3 ²⁾		2, 4, 6, 8		100 L ... 160 L		1PC1002-1A ... -1D		Standard		A								–	
With flange		IM B5 ²⁾		2, 4, 6, 8		100 L ... 160 L		1PC1002-1A ... -1D		With additional charge		F								–	
With standard flange		IM B14 ²⁾		2, 4, 6, 8		100 L ... 160 L		1PC1002-1A ... -1D		With additional charge		K								–	
Further types of construction		For add. charges, code letters and descriptions, see supplements and special versions.																			
Motor protection		No. of poles		Frame size		Motor type		Version		Order code(s)											
Without				2, 4, 6, 8		100 L ... 160 L		1PC1002-1A ... -1D		Standard		A								–	
PTC thermistor with 3 temperature sensors				2, 4, 6, 8		100 L ... 160 L		1PC1002-1A ... -1D		With additional charge		B								–	
Further motor protection		For add. charges, code letters and descriptions, see supplements and special versions.																			
Connection box position		No. of poles		Frame size		Motor type		Version		Order code(s)											
Connection box at top				2, 4, 6, 8		100 L ... 160 L		1PC1002-1A ... -1D		Standard		4								–	
Further connection box positions		For additional charges, code numbers and descriptions, see suppl. and special versions.																			
Special versions		No. of poles		Frame size		Motor type		Order code(s)													
Options		For add. charges, order codes and descr., see suppl. and spec. versions. 1PC1002-.... ■-■■■■■-Z ...+...+...+...																			

Note: The rated outputs and weights may change slightly after they have been checked. Further electrical data can be calculated and supplied on receipt of order.

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.