

SIMOTICS SD 1LG Standard Motors

Motors with Standard Efficiency IE1

Self-ventilated motors
Cast-iron series 1LG4 with increased output

IE1



Selection and ordering data

Operating values at rated output															Cast-iron series		m _{IM B3} J		Torque class											
P _{rated} , 50 Hz	P _{rated} , 60 Hz 1)	Frame size	η _{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 _p fA, 50 Hz	L _{WA} , 50 Hz	1LG4 – IE1 version in accordance with IEC 60034-30 with increased output Order No.														
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)		kg	kgm ²	CL											
• Cooling: Self-ventilated (IC 411)																														
• 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)																														
30	33.5	180 L	2950	97	IE1	90.7	90.8	90.2	0.86	56 ²⁾	2.4	7.1	3.4	71	84	1LG4188-2AA	175	0.086	16											
45	51	200 L	2955	145	IE1	91.7	91.8	91.1	0.89	80 ²⁾	2.5	6.9	3.2	73	86	1LG4208-2AA	255	0.18	16											
55	62	225 M	2960	177	IE1	92.1	92.3	92.2	0.89	97 ²⁾	2.6	7.3	3.2	73	86	1LG4228-2AA	335	0.27	16											
75	84	250 M	2970	241	IE1	92.7	92.7	91.8	0.88	133 ²⁾	2.4	7.1	3.1	75	88	1LG4258-2AA	420	0.48	16											
110	123	280 M	2975	353	IE1	93.3	93.3	92.8	0.90	189 ²⁾	2.5	7.0	3.0	74	87	1LG4288-2AB	630	1.0	13											
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz 1)																														
30	34.5	180 L	1465	196	IE1	90.7	90.9	90.0	0.80	60	2.6	6.3	2.9	65	78	1LG4188-4AA	180	0.14	16											
37	42.5	200 L	1465	241	IE1	91.2	91.5	91.0	0.83	71 ²⁾	2.6	6.5	3.0	66	79	1LG4208-4AA	230	0.23	16											
55	63	225 M	1475	356	IE1	92.1	92.6	92.4	0.86	100 ²⁾	2.5	6.5	2.7	66	79	1LG4228-4AA	330	0.49	16											
75	86	250 M	1482	483	IE1	92.7	92.8	92.2	0.85	137 ²⁾	2.5	7.0	3.0	67	80	1LG4258-4AA	460	0.86	16											
110	127	280 M	1488	706	IE1	93.3	93.2	92.3	0.84	205 ²⁾	2.8	7.9	3.3	70	83	1LG4288-4AA	680	1.7	16											
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz 1)																														
18.5	22	180 L	970	182	IE1	88.6	89.3	88.8	0.80	37.5 ²⁾	2.3	4.9	2.4	59	72	1LG4188-6AA	175	0.20	16											
30	36	200 L	975	294	IE1	90.2	90.6	90.2	0.80	60 ²⁾	2.6	5.8	2.6	61	74	1LG4208-6AA	245	0.36	16											
37	44.5	225 M	978	361	IE1	90.8	91.6	91.6	0.83	71 ²⁾	2.5	5.9	2.8	60	73	1LG4228-6AA	325	0.62	16											
45	54	250 M	982	438	IE1	91.4	91.9	91.9	0.83	86	2.7	6.3	2.3	61	74	1LG4258-6AA	405	0.93	16											
75	90	280 M	985	727	IE1	92.6	93.1	93.0	0.85	138 ²⁾	3.0	6.8	2.8	61	74	1LG4288-6AA	570	1.6	16											
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz 1)																														
15	18	180 L	720	199	–	87.0	87.7	87.0	0.73	34 ²⁾	2.0	4.5	2.4	67	80	1LG4188-8AB	165	0.21	13											
18.5	22	200 L	725	244	–	88.0	88.9	88.8	0.78	39	2.4	5.2	2.6	57	70	1LG4208-8AB	230	0.37	13											
30	36	225 M	730	392	–	89.7	90.6	90.5	0.79	61 ²⁾	2.6	5.6	2.8	61	74	1LG4228-8AB	340	0.66	13											
37	44.5	250 M	730	484	–	90.4	91.3	91.3	0.82	72	2.4	5.6	2.6	55	68	1LG4258-8AB	430	1.1	13											
55	66	280 M	735	715	–	91.6	92.4	92.4	0.81	107	2.4	5.6	2.3	58	71	1LG4288-8AB	565	1.6	13											
Voltages										No. of poles		Motor type		Version		1	Order code(s)													
50 Hz	230 VΔ/400 VY		60 Hz 1)		460 VY					2, 4, 6, 8		1LG4188 ... 288		Standard			–													
50 Hz	400 VΔ/690 VY		60 Hz 1)		460 VΔ					2, 4, 6, 8		1LG4188 ... 288		Standard			–													
50 Hz	500 VY									2, 4, 6, 8		1LG4188 ... 288		Without add. charge			–													
50 Hz	500 VΔ									2, 4, 6, 8		1LG4188 ... 288		Without add. charge			–													
Further voltages 1)			For additional charges, code numbers and descriptions, see supplements and special versions.																	9	...									
Types of construction										No. of poles		Motor type		Version		1	Order code(s)													
Without flange			IM B3/6/7/8, IM V6, IM V5 without protective cover 3)							2, 4, 6, 8		1LG4188 ... 288		Standard			–													
With flange			IM B5, IM V1 without protective cover 4)							2, 4, 6, 8		1LG4188 ... 288		With add. charge			–													
			IM V3 4)							2, 4, 6, 8		1LG4188 ... 288		With add. charge			M1G													
			IM V1 with protective cover 4) 5)							2, 4, 6, 8		1LG4188 ... 288		With add. charge			–													
Further types of construction			IM B35							2, 4, 6, 8		1LG4188 ... 288		With add. charge		–														
Further types of construction										For additional charges, code numbers and descriptions, see supplements and special versions.																	9	...		
Special versions																				1LG4 ... -Z		Order code(s)								
Options										For additional charges, code numbers and descriptions, see supplements and special versions.										1LG4 ... -Z		...+...+...+...								

1) Operating values at rated output for 60 Hz are available on request.
2) For connection to 230 V, parallel feeders are necessary.
3) If 1LG4 motors in types of construction with feet IM B6, IM B7, IM V6 or IM V5 without protective cover are fixed to the wall, it is recommended that the motor feet are supported.
4) 1LG4220 to 1LG4288 motors are supplied with two screw-in eyebolts conforming to IM B5, whereby one can be repositioned to conform to IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.
5) The "Second shaft extension" option, order code K16 is not possible.