

# SIMOTICS SD 1LG Standard Motors

## Motors with Premium Efficiency IE3

# IE3

Self-ventilated motors  
Cast-iron series 1LG6 with order code D25

### 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	$n_{rated}$ , 50 Hz	$T_{rated}$ , 50 Hz	IE class	$\eta_{rated}$ , 50 Hz, 4/4	$\eta_{rated}$ , 50 Hz, 3/4	$\eta_{rated}$ , 50 Hz, 2/4	$\cos\phi$ , rated, 50 Hz, 4/4	$I_{rated}$ , 50 Hz, 400 V	$T_{LP}/I_{rated}$	$I_{LP}/I_{rated}$	$T_B/I_{rated}$	$L_{pfa}$ , 50 Hz	$L_{WA}$ , 50 Hz			1LG6 – IE3 version in accordance with IEC 60034-30 Order No.	kg
kW	kW	FS	rpm	Nm	%	%	%	A								▲ New*			
• Cooling: Self-ventilated (IC 411) • Efficiency: Premium Efficiency IE3, service factor (SF) 1.15 • 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)																			
110	123	315 S	2982	352	IE3	95.2	95.1	94.2	0.91	184 <sup>2)</sup>	2.4	6.9	2.8	80	94	1LG6310-2AB ■■-Z D25	790	1.4	13
132	148	315 M	2982	423	IE3	95.4	95.3	94.7	0.91	220 <sup>2)</sup>	2.6	7.1	2.9	80	94	1LG6313-2AB ■■-Z D25	915	1.6	13
160	180	315 L	2982	512	IE3	95.6	95.6	95.2	0.92	265	2.5	7.1	2.9	80	94	1LG6316-2AB ■■-Z D25	1055	2.1	13
200	224	315 L	2982	641	IE3	95.8	95.8	95.5	0.93	325	2.5	6.9	2.8	80	94	1LG6317-2AB ■■-Z D25	1245	2.5	13
250	280	315 L	2985	800	IE3	95.8	95.9	95.3	0.92	410	3.1	8.8	3.4	78	92	▲ 1LG6318-2MB ■■-Z D25	1290	2.7	16
315	353	315 L	2990	1006	IE3	95.8	95.5	94.5	0.89	530	3.4	9.0	3.8	82	96	▲ 1LG6312-2MA ■■-Z D25	1355	2.8	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz 1)																			
110	127	315 S	1488	706	IE3	95.4	95.5	95.1	0.87	192 <sup>2)</sup>	2.7	7.1	2.9	70	84	1LG6310-4AA ■■-Z D25	810	2.3	16
132	152	315 M	1488	847	IE3	95.6	95.7	95.4	0.88	225 <sup>2)</sup>	2.7	7.3	2.9	71	85	1LG6313-4AA ■■-Z D25	965	2.9	16
160	184	315 L	1490	1026	IE3	95.8	95.9	95.6	0.88	275 <sup>3)</sup>	3.0	7.4	3.0	71	85	1LG6316-4AA ■■-Z D25	1105	3.5	16
200	230	315 L	1490	1282	IE3	96.0	96.1	95.8	0.88	340 <sup>3)</sup>	3.2	7.6	3.0	71	85	1LG6317-4AA ■■-Z D25	1305	4.2	16
250	288	315 L	1488	1605	IE3	96.0	96.1	95.6	0.87	430	3.1	7.7	3.2	73	87	▲ 1LG6318-4MA ■■-Z D25	1270	4.2	16
315	362	315 L	1488	2022	IE3	96.0	95.8	95.3	0.86	550	3.4	7.9	3.2	74	89	▲ 1LG6312-4MA ■■-Z D25	1480	5.0	16
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz 1)																			
75	90	315 S	990	724	IE3	94.6	94.6	94.2	0.83	138	2.8	7.3	3.0	63	77	1LG6310-6AA ■■-Z D25	760	2.5	16
90	108	315 M	990	868	IE3	94.9	95.0	94.6	0.85	162 <sup>2)</sup>	2.7	7.3	2.9	63	77	1LG6313-6AA ■■-Z D25	935	3.2	16
110	132	315 L	990	1061	IE3	95.1	95.2	95.0	0.85	196	2.9	7.4	2.9	64	78	1LG6316-6AA ■■-Z D25	1010	4.0	16
132	158	315 L	990	1273	IE3	95.4	95.4	95.0	0.85	235	3.1	7.8	3.1	64	78	1LG6317-6AA ■■-Z D25	1180	4.7	16
160	192	315 L	990	1543	IE3	95.6	95.6	95.3	0.86	280 <sup>3)</sup>	3.2	7.8	3.1	65	79	1LG6318-6AA ■■-Z D25	1245	5.4	16
200	240	315 L	990	1929	IE3	95.8	96.1	95.9	0.83	365 <sup>3)</sup>	2.6	7.7	2.8	67	81	▲ 1LG6312-6MA ■■-Z D25	1545	6.1	16
Voltages					No. of poles	Motor type		Version						Order code(s)					
50 Hz	230 VΔ/400 VY	60 Hz 1)	460 VY	2, 4, 6	1LG6310, 1LG6313	Standard		1						-					
50 Hz	400 VΔ/690 VY	60 Hz 1)	460 VΔ	2, 4, 6	1LG6310 ... 318	Standard		6						-					
50 Hz	500 VY			2, 4, 6	1LG6310, 1LG6313	Without additional charge		3						-					
50 Hz	500 VΔ			2, 4, 6	1LG6310 ... 318	Without additional charge		5						-					
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						Order code(s)					
Without flange	IM B3/6/7/8 4)		2, 4, 6	1LG6310 ... 318	Standard		0						-						
	IM V6 4)		2, 4, 6	1LG6310, 1LG6313	Standard		0						-						
	IM V5 without prot. cover 4)	2	1LG6316, 1LG6317	With additional charge		9		M1E											
			4, 6	1LG6316, 1LG6317	Without additional charge		9		M1E										
		2, 4, 6	1LG6312, 1LG6318	On request		9		M1E											
		2, 4, 6	1LG6310, 1LG6313	Standard		0		-											
		2	1LG6316, 1LG6317	With additional charge		9		M1D											
	With flange	IM B5 5)	2, 4, 6	1LG6310 ... 318	With additional charge		1		-										
			2, 4, 6	1LG6310, 1LG6313	With additional charge		1		-										
		IM V1 without prot.cover 5) 6)	2, 4, 6	1LG6312, 1LG6316 ... 318	With additional charge		8		-										
			2, 4, 6	1LG6310, 1LG6313	With additional charge		1		M1G										
			2, 4, 6	1LG6310 ... 318	With additional charge		4		-										
IM B35	2, 4, 6	1LG6310 ... 318	With additional charge		6		-												
	2, 4, 6	1LG6310 ... 318	With additional charge		9		...												
Further types of construction			For additional charges, code numbers and descriptions, see supplements and special versions.																
9			...																
Special versions			Order code(s)																
Options			For additional charges, code numbers and descriptions, see supplements and special versions.																
1LG6 . . . . M . ■■ - 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) For connection to 400 V, parallel feeders are necessary.

4) If 1LG6 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.

5) 1LG6220 to 1LG6318 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.

6) 2-pole motors 1LG6316-... to 1LG6317-... and 1LG6312-... (motor series 1LG6 frame size 315 L) in 60 Hz version available on request.

7) The "Second shaft extension" option, order code K16 is not possible.

\* For 1LG6312-2MA.., 1LG6312-4MA.., 1LG6318-2MB.., 1LG6318-4MA.. and 1LG6312-6MA.. motors, it is not possible to use the options for country certificates (D31, D33, D34, D35, D40), marine certificates (E11, E21, E31, E51), explosion-proof version (M72, M73, M34, M35, M38, M39, M74, M75, C27), brakes, brakes with encoder (G26, H47, H62, H63, H64, H98, H99), low-noise versions (K37, K38) and mounting of a separately driven fan, separately driven fan with encoder (G17, H61, H64, H97, H99).