

SIMOTICS XP 1LG Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

Self-ventilated motors with High Efficiency IE2
Cast-iron series 1LG6 with order code for explosion protection

IE2

Selection and ordering data

P _{rated} 50 Hz	P _{rated} 60 Hz 1)	Frame size	Operating values at rated output											Cast-iron series 1LG6 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD	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 _{rated} 50 Hz, 400 V	T _{Lr} / T _{rated}	I _{Lr} / I _{rated}	T _B / I _{rated}			

Order No. with order code for Ex prot. ▲ New

kg kgm² CL

• Cooling: Self-ventilated (IC 411)
• Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
• 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⁾

22	24.5	180 M	2955	71	IE2	91.3	91.7	91.6	0.88	39.5 ²⁾	2.5	7.2	3.4	67	80	1LG6183-2AA ■■-Z	180	0.086	16
30	33.5	200 L	2960	97	IE2	92.0	91.9	91.0	0.88	53 ²⁾	2.4	7.0	3.3	71	84	1LG6206-2AA ■■-Z	225	0.15	16
37	41.5	200 L	2960	119	IE2	92.5	92.4	91.7	0.89	65 ²⁾	2.5	7.2	3.3	71	84	1LG6207-2AA ■■-Z	255	0.18	16
45	51	200 L	2960	145	IE2	92.9	92.9	92.3	0.89	79 ²⁾	2.6	7.3	3.3	71	84	▲ 1LG6208-2AA ■■-Z	300	0.22	16
45	51	225 M	2965	145	IE2	92.9	93.1	92.8	0.89	79 ²⁾	2.5	7.3	3.2	71	84	1LG6223-2AA ■■-Z	330	0.27	16
55	62	225 M	2965	177	IE2	93.2	93.3	92.9	0.89	96	3.0	7.9	3.3	70	83	1LG6228-2AA ■■-Z	390	0.32	16
55	62	250 M	2975	177	IE2	93.2	93.2	92.8	0.90	95	2.4	6.8	3.0	71	84	1LG6253-2AA ■■-Z	420	0.47	16
75	84	250 M	2975	241	IE2	93.8	94.0	93.4	0.89	130 ²⁾	2.5	7.6	3.1	76	89	1LG6258-2AA ■■-Z	470	0.57	16
75	84	280 S	2975	241	IE2	93.8	93.8	93.0	0.89	130 ²⁾	2.5	7.0	3.0	73	86	1LG6280-2AB ■■-Z	530	0.83	13
90	101	280 M	2978	289	IE2	94.1	94.2	93.6	0.90	153 ²⁾	2.6	7.6	3.1	73	86	1LG6283-2AB ■■-Z	615	1.0	13
110	123	280 M	2978	353	IE2	94.3	94.6	94.3	0.90	187 ²⁾	2.8	7.8	3.3	73	86	1LG6288-2AA ■■-Z	660	1.2	16
110	123	315 S	2982	352	IE2	94.3	94.2	93.3	0.91	185 ²⁾	2.4	6.9	2.8	76	89	1LG6310-2AB ■■-Z	790	1.4	13
132	148	315 M	2982	423	IE2	94.6	94.5	93.9	0.91	220 ²⁾	2.6	7.1	2.9	76	89	1LG6313-2AB ■■-Z	915	1.6	13
160	180	315 L	2982	512	IE2	94.8	94.8	94.4	0.92	265	2.5	7.1	2.9	76	89	1LG6316-2AB ■■-Z	1055	2.1	13
200	224	315 L	2982	641	IE2	95.0	95.0	94.7	0.93	325	2.5	6.9	2.8	76	89	1LG6317-2AB ■■-Z	1245	2.5	13
250	280	315 L	2985	800	IE2	95.0	95.0	94.4	0.92	415	3.0	8.0	3.2	79	92	1LG6318-2AA ■■-Z	1330	2.7	16

Voltages		No. of poles	Motor type 1LG6	Version	Order code(s)		
50 Hz	230 VΔ/400 VY	60 Hz ¹⁾	460 VY	1LG6183 ... 313	Standard	1	-
50 Hz	400 VΔ/690 VY	60 Hz ¹⁾	460 VΔ	1LG6183 ... 318	Standard	6	-
50 Hz	500 VY			1LG6183 ... 313	Without additional charge	3	-
	500 VΔ			1LG6183 ... 318	Without additional charge	5	-
Further voltages ¹⁾		For add. charges, code numbers, order codes and descr., see suppl. and special versions.				9	...

Types of construction		No. of poles	Motor type 1LG6	Version	Order code(s)	
Without flange	IM B3/6/7/8 ^{3) 4)}	2	1LG6183 ... 318	Standard	0	-
	IM V6 ^{3) 4)}	2	1LG6183 ... 313	Standard	0	-
With flange	IM B5 ^{3) 5)}	2	1LG6316 ... 318	With additional charge	9	M1E
	IM V3 ^{3) 5)}	2	1LG6183 ... 313	With additional charge	1	-
	IM V1 with prot. cover ^{3) 5) 6)}	2	1LG6183 ... 313	With additional charge	9	M1G
	IM B35	2	1LG6183 ... 318 ⁷⁾	With additional charge	4	-
Further types of constr.	For add. charges, code numbers, order codes and descr., see suppl. and special versions.				6	-
					9	...

Design according to ATEX		No. of poles	Motor type 1LG6	Version	Order code(s)
Zone 2	Mains-fed operation	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M72
	Converter-fed operation (FC)	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M73
VIK (includes Zone 2) ⁸⁾	Mains-fed operation	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z K30
	Converter-fed operation (FC)	2	1LG6183 ... 318	On request	-
Zone 21	Mains-fed operation	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M34
	Converter-fed operation (FC)	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M38
Zone 22	Mains-fed operation	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M35
	Converter-fed operation (FC)	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M39
Zone 2/22 (IP55)	Mains-fed operation	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M74
	Converter-fed operation (FC)	2	1LG6183 ... 318	With add. charge	1LG6 A . ■■-Z M75

Special versions		No. of poles	Motor type 1LG6	Version	Order code(s)
Options		For add. charges, order codes and descr., see suppl. and special versions.			1LG6 A . ■■-Z . . . + . . . + . . . + . . .

1) Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. Operating values at rated output for 60 Hz are available on request.

2) For connection to 230 V, parallel feeders are necessary.

3) The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

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) 1LG6223 to 1LG6318 motors are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

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

7) 2-pole motors 1LG6316-... to 1LG6317-... (motor series 1LG6 frame size 315 L) in 60 Hz version available on request.

8) If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.

SIMOTICS XP 1LG Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

IE2

Self-ventilated motors with High Efficiency IE2
Cast-iron series 1LG6 with order code for explosion protection

Selection and ordering data (continued)

P _{rated} , 50 Hz kW	P _{rated} , 60 Hz kW	Frame size FS	Operating values at rated output										Cast-iron series 1LG6 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD	m _{IM B3} J		Torque class CL
			n _{rated} , 50 Hz rpm	T _{rated} , 50 Hz Nm	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 A	T _{LR} / I _{rated}	I _{LR} / I _{rated}		T _B / I _{rated}	L _p fA, 50 Hz dB(A)	

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
- Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)

4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz ¹⁾																			
18.5	21.3	180 M	1470	120	IE2	91.2	91.8	91.4	0.83	35.5 ²⁾	2.5	6.4	3.0	60	73	1LG6183-4AA ■■-Z	155	0.12	16
22	25.3	180 L	1470	143	IE2	91.6	91.9	91.6	0.84	41.5 ²⁾	2.5	6.7	3.1	60	73	1LG6186-4AA ■■-Z	180	0.14	16
30	34.5	200 L	1470	195	IE2	92.3	92.4	91.8	0.85	55 ²⁾	2.6	6.7	3.3	62	75	1LG6207-4AA ■■-Z	225	0.23	16
37	42.5	225 S	1480	239	IE2	92.7	93.1	92.8	0.85	68 ²⁾	2.7	6.8	3.0	60	73	1LG6220-4AA ■■-Z	290	0.40	16
45	52	225 M	1480	290	IE2	93.1	93.3	93.1	0.85	82 ²⁾	2.8	6.9	3.0	60	73	1LG6223-4AA ■■-Z	330	0.49	16
55	63	225 M	1482	354	IE2	93.5	93.9	93.7	0.86	99 ²⁾	2.8	7.0	3.0	60	73	1LG6228-4AA ■■-Z	355	0.66	16
55	63	250 M	1485	354	IE2	93.5	93.7	93.4	0.87	98	2.6	7.5	3.0	65	78	1LG6253-4AA ■■-Z	460	0.86	16
75	86	250 M	1485	482	IE2	94.0	94.4	94.1	0.87	132	2.6	7.3	2.9	65	78	1LG6258-4AA ■■-Z	495	0.99	16
75	86	280 S	1485	482	IE2	94.0	94.1	93.5	0.87	132 ²⁾	2.5	6.8	2.9	67	80	1LG6280-4AA ■■-Z	575	1.4	16
90	104	280 M	1486	578	IE2	94.2	94.3	93.8	0.86	160 ²⁾	2.7	7.5	3.1	67	80	1LG6283-4AA ■■-Z	675	1.7	16
110	127	280 M	1486	707	IE2	94.5	94.6	94.0	0.86	195 ²⁾	2.7	7.5	3.1	68	81	1LG6288-4AA ■■-Z	710	1.9	16
110	127	315 S	1488	706	IE2	94.5	94.6	94.2	0.87	193 ²⁾	2.7	7.1	2.9	68	81	1LG6310-4AA ■■-Z	810	2.3	16
132	152	315 M	1488	847	IE2	94.7	94.8	94.5	0.88	230 ²⁾	2.7	7.3	2.9	68	81	1LG6313-4AA ■■-Z	965	2.9	16
160	184	315 L	1490	1026	IE2	94.9	95.0	94.7	0.88	275 ³⁾	3.0	7.4	3.0	68	81	1LG6316-4AA ■■-Z	1105	3.5	16
200	230	315 L	1490	1282	IE2	95.1	95.2	94.9	0.88	345 ³⁾	3.2	7.6	3.0	68	81	1LG6317-4AA ■■-Z	1305	4.2	16
250	288	315 L	1490	1602	IE2	95.1	95.1	94.8	0.88	430	3.0	7.3	2.8	75	88	1LG6318-4AA ■■-Z	1345	4.5	16

Voltagess	No. of poles	Motor type 1LG6	Version	Order code(s)
50 Hz 230 VΔ/400 VY	60 Hz ¹⁾ 460 VY	4	1LG6183 ... 313 Standard	1 -
50 Hz 400 VΔ/690 VY	60 Hz ¹⁾ 460 VΔ	4	1LG6183 ... 318 Standard	6 -
50 Hz 500 VY		4	1LG6183 ... 313 Without additional charge	3 -
500 VΔ		4	1LG6183 ... 318 Without additional charge	5 -
Further voltages ¹⁾	For add. charges, code numbers, order codes and descr., see suppl. and special versions.			9 ...
Types of construction	No. of poles	Motor type 1LG6	Version	Order code(s)
Without flange	IM B3/6/7/8 ^{4) 5)}	4	1LG6183 ... 318 Standard	0 -
	IM V6 ^{4) 5)}	4	1LG6183 ... 313 Standard	0 -
		4	1LG6316 ... 318 Without additional charge	9 M1E
With flange	IM B5 ^{4) 6)}	4	1LG6183 ... 313 With additional charge	1 -
	IM V3 ^{4) 6)}	4	1LG6183 ... 313 With additional charge	9 M1G
	IM V1 with prot. cover ^{4) 6) 7)}	4	1LG6183 ... 318 ⁸⁾ With additional charge	4 -
	IM B35	4	1LG6183 ... 318 With additional charge	6 -
Further types of constr.	For add. charges, code numbers, order codes and descr., see suppl. and special versions.			9 ...
Design according to ATEX	No. of poles	Motor type 1LG6	Version	Order code(s)
Zone 2	Mains-fed operation	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M72
	Converter-fed operation (FC)	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M73
VIK (includes Zone 2) ⁹⁾	Mains-fed operation	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z K30
	Converter-fed operation (FC)	4	1LG6183 ... 318 On request	-
Zone 21	Mains-fed operation	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M34
	Converter-fed operation (FC)	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M38
Zone 22	Mains-fed operation	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M35
	Converter-fed operation (FC)	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M39
Zone 2/22 (IP55)	Mains-fed operation	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M74
	Converter-fed operation (FC)	4	1LG6183 ... 318 With add. charge	1LG6 A. ■■-Z M75
Special versions				Order code(s)
Options	For add. charges, order codes and descr., see suppl. and special versions.			1LG6 A. ■■-Z ...+...+...+...

- 1) Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. 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) The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.
- 5) 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.
- 6) 1LG6220 to 1LG6318 motors are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.
- 7) The "Second shaft extension" option, order code K16 is not possible.
- 8) 2-pole motors 1LG6316-... to 1LG6317-... (motor series 1LG6 frame size 315 L) in 60 Hz version available on request.
- 9) If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.

SIMOTICS XP 1LG Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

Self-ventilated motors with High Efficiency IE2
Cast-iron series 1LG6 with order code for explosion protection

IE2

Selection and ordering data (continued)

P _{rated} 50 Hz kW	P _{rated} 60 Hz kW	Frame size FS	Operating values at rated output											Cast-iron series 1LG6 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD	m _{IM} B3 J		Torque class CL
			n _{rated} 50 Hz rpm	T _{rated} 50 Hz Nm	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	

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
- Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)

6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz ¹⁾																			
15	18	180 L	975	147	IE2	89.7	90.5	90.4	0.81	30	2.4	5.5	2.5	56	69	1LG6186-6AA ■■-Z	175	0.20	16
18.5	22	200 L	978	181	IE2	90.4	91.0	90.6	0.81	36.5	2.4	5.6	2.4	59	72	1LG6206-6AA ■■-Z	210	0.29	16
22	26.5	200 L	978	215	IE2	90.9	91.5	91.5	0.82	42.5	2.4	5.6	2.4	59	72	1LG6207-6AA ■■-Z	240	0.36	16
30	36	225 M	980	292	IE2	91.7	92.2	92.2	0.83	57 ²⁾	2.8	6.5	2.9	59	72	1LG6223-6AA ■■-Z	325	0.63	16
37	44.5	225 M	980	361	IE2	92.2	93.1	93.1	0.84	69	2.8	6.7	2.9	59	72	1LG6228-6AA ■■-Z	355	0.76	16
37	44.5	250 M	985	359	IE2	92.2	92.6	92.4	0.83	70	2.9	6.8	2.5	60	73	1LG6253-6AA ■■-Z	405	0.93	16
45	54	250 M	985	436	IE2	92.7	93.6	93.8	0.83	84	2.9	6.9	2.5	60	73	1LG6258-6AA ■■-Z	435	1.1	16
45	54	280 S	988	435	IE2	92.7	92.9	92.7	0.85	82	3.0	6.8	2.7	58	71	1LG6280-6AA ■■-Z	520	1.4	16
55	66	280 M	988	532	IE2	93.1	93.3	93.0	0.85	100	3.3	7.3	2.9	59	71	1LG6283-6AA ■■-Z	570	1.6	16
75	90	280 M	988	725	IE2	93.7	94.3	94.2	0.85	137	3.3	7.3	2.8	58	71	1LG6288-6AA ■■-Z	615	1.9	16
75	90	315 S	990	723	IE2	93.7	93.7	93.3	0.83	139	2.8	7.3	3.0	61	74	1LG6310-6AA ■■-Z	760	2.5	16
90	108	315 M	990	868	IE2	94.0	94.1	93.7	0.85	163 ²⁾	2.7	7.3	2.9	61	74	1LG6313-6AA ■■-Z	935	3.2	16
110	132	315 L	990	1061	IE2	94.3	94.4	94.2	0.85	198	2.9	7.4	2.9	61	74	1LG6316-6AA ■■-Z	1010	4.0	16
132	158	315 L	990	1273	IE2	94.6	94.6	94.2	0.85	235	3.1	7.8	3.1	61	74	1LG6317-6AA ■■-Z	1180	4.7	16
160	192	315 L	990	1543	IE2	94.6	94.6	94.3	0.86	285 ³⁾	3.2	7.8	3.1	64	74	1LG6318-6AA ■■-Z	1245	5.4	16

Voltages		No. of poles	Motor type	Version	Order code(s)			
50 Hz	230 VΔ/400 VY	60 Hz ¹⁾	460 VY	6	1LG6186 ... 313	Standard	1	–
50 Hz	400 VΔ/690 VY	60 Hz ¹⁾	460 VΔ	6	1LG6186 ... 318	Standard	6	–
50 Hz	500 VY			6	1LG6186 ... 313	Without additional charge	3	–
	500 VΔ			6	1LG6186 ... 318	Without additional charge	5	–
Further voltages ¹⁾		For additional charges, code numbers, order codes 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) 5)}	6	1LG6186 ... 318	Standard	0	–	
	IM V6 ^{4) 5)}	6	1LG6186 ... 313	Standard	0	–	
		6	1LG6316 ... 318	Without additional charge	9	M1E	
With flange	IM B5 ^{4) 6)}	6	1LG6186 ... 313	With additional charge	1	–	
	IM V3 ^{4) 6)}	6	1LG6186 ... 313	With additional charge	9	M1G	
	IM V1 with prot. cover ^{4) 6) 7)}	6	1LG6186 ... 318	With additional charge	4	–	
	IM B35	6	1LG6186 ... 318	With additional charge	6	–	
Further types of construction		For add. charges, code numbers, order codes and descr., see suppl. and special versions.				9	...

Design according to ATEX		No. of poles	Motor type	Version	Order code(s)
Zone 2	Mains-fed operation	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M72
	Converter-fed operation (FC)	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M73
VIK (includes Zone 2) ⁸⁾	Mains-fed operation	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z K30
	Converter-fed operation (FC)	6	1LG6186 ... 318	On request	–
Zone 21	Mains-fed operation	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M34
	Converter-fed operation (FC)	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M38
Zone 22	Mains-fed operation	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M35
	Converter-fed operation (FC)	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M39
Zone 2/22 (IP55)	Mains-fed operation	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M74
	Converter-fed operation (FC)	6	1LG6186 ... 318	With add. charge	1LG6 A . ■■-Z M75

Special versions		No. of poles	Motor type	Version	Order code(s)
Options		For add. charges, order codes and descr., see suppl. and special versions.			1LG6 A . ■■-Z ...+...+...+...

¹⁾ Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. 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⁾ The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "In the case of the types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

⁵⁾ 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.

⁶⁾ 1LG6223 to 1LG6318 motors are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

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

⁸⁾ If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.

SIMOTICS XP 1LG Explosion-Proof Motors

Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD

IE2

Self-ventilated motors with High Efficiency IE2
Cast-iron series 1LG6 with order code for explosion protection

Selection and ordering data (continued)

P _{rated} 50 Hz kW	P _{rated} 60 Hz kW	Frame size FS	Operating values at rated output													Cast-iron series 1LG6 – IE2 version for Zone 2 or 21/22 in type of protection Ex n or Ex tD Order No. with order code for Ex prot.	m _{IM B3} J kg	Torque class CL
			n _{rated} 50 Hz rpm	T _{rated} 50 Hz Nm	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 _{ptA} 50 Hz dB(A)	L _{WA} 50 Hz dB(A)			

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2 in accordance with IEC 60034-30
- Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)

8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz ¹⁾

11	13.2	180 L	725	145	–	87.9	88.8	88.7	0.76	24	1.9	4.6	2.2	66	79	1LG6186-8AB ■■■-Z	165	0.21	13
15	18	200 L	725	198	–	89.0	89.5	89.5	0.80	30.5	2.3	5.3	2.6	66	79	1LG6207-8AB ■■■-Z	235	0.37	13
18.5	22	225 S	730	242	–	89.8	90.5	90.5	0.81	36.5	2.3	5.6	2.6	54	67	1LG6220-8AB ■■■-Z	295	0.55	13
22	26.5	225 M	730	288	–	90.3	90.8	90.8	0.81	43.5	2.4	5.8	2.8	58	71	1LG6223-8AB ■■■-Z	335	0.66	13
30	36	250 M	735	390	–	91.2	91.7	91.6	0.82	58	2.5	6.0	2.8	57	70	1LG6253-8AB ■■■-Z	435	1.1	13
37	44.5	280 S	738	479	–	91.8	92.0	91.7	0.81	72	2.3	5.7	2.3	58	71	1LG6280-8AB ■■■-Z	510	1.4	13
45	54	280 M	738	582	–	92.3	92.5	92.2	0.81	87	2.6	6.1	2.5	58	71	1LG6283-8AB ■■■-Z	560	1.6	13
55	66	315 S	740	710	–	92.8	92.9	92.4	0.82	104	2.5	6.3	2.9	64	77	1LG6310-8AB ■■■-Z	750	2.5	13
75	90	315 M	740	968	–	93.4	93.6	93.2	0.83	140	2.5	6.7	2.9	64	77	1LG6313-8AB ■■■-Z	840	3.1	13
90	108	315 L	740	1162	–	93.7	94.1	94.0	0.84	165	2.4	6.3	2.8	64	77	1LG6316-8AB ■■■-Z	1005	4.0	13
110	132	315 L	740	1420	–	94.1	94.4	94.3	0.84	200	2.4	6.4	2.6	64	77	1LG6317-8AB ■■■-Z	1100	4.5	13
132	158	315 L	740	1704	–	94.4	94.7	94.6	0.84	240	2.5	6.7	2.9	64	77	1LG6318-8AB ■■■-Z	1270	5.3	13

Voltages		No. of poles	Motor type	Version	Order code(s)			
50 Hz	230 VΔ/400 VY	60 Hz ¹⁾	460 VY	8	1LG6186 ... 313	Standard	1	–
50 Hz	400 VΔ/690 VY	60 Hz ¹⁾	460 VΔ	8	1LG6186 ... 318	Standard	6	–
50 Hz	500 VY	8	1LG6186 ... 313	Without additional charge	3	–	–	
	500 VΔ	8	1LG6186 ... 318	Without additional charge	5	–	–	
Further voltages ¹⁾		For additional charges, code numbers, order codes 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 ^{2) 3)}	8	1LG6186 ... 318	Standard	0	–	
	IM V6 ^{2) 3)}	8	1LG6186 ... 313	Standard	0	–	
		8	1LG6316 ... 318	Without additional charge	9	M1E	
With flange	IM B5 ^{2) 4)}	8	1LG6186 ... 313	With additional charge	1	–	
	IM V3 ^{2) 4)}	8	1LG6186 ... 313	With additional charge	9	M1G	
	IM V1 with prot. cover ^{2) 4) 5)}	8	1LG6186 ... 318	With additional charge	4	–	
	IM B35	8	1LG6186 ... 318	With additional charge	6	–	
Further types of construction		For additional charges, code numbers, order codes and descriptions, see supplements and special versions.				9	...

Design according to ATEX		No. of poles	Motor type	Version	Order code(s)
Zone 2	Mains-fed operation	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M72
	Converter-fed operation (FC)	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M73
VIK (includes Zone 2) ⁶⁾	Mains-fed operation	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z K30
	Converter-fed operation (FC)	8	1LG6186 ... 318	On request	–
Zone 21	Mains-fed operation	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M34
	Converter-fed operation (FC)	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M38
Zone 22	Mains-fed operation	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M35
	Converter-fed operation (FC)	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M39
Zone 2/22 (IP55)	Mains-fed operation	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M74
	Converter-fed operation (FC)	8	1LG6186 ... 318	With add. charge	1LG6 A . ■■■-Z M75

Special versions		No. of poles	Motor type	Version	Order code(s)
Options		For additional charges, order codes and descriptions, see supplements and special versions.			1LG6 A . ■■■-Z . . . + . . . + . . . + . . .

¹⁾ Voltages for 60 Hz can be ordered with voltage code 9 and the appropriate order code – see "Voltages" in supplements and special versions. Operating values at rated output for 60 Hz are available on request.

²⁾ The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

³⁾ 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.

⁴⁾ 1LG6220 to 1LG6318 motors are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with 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.

⁶⁾ If the identification Ex nA II is required in addition to VIK on the rating plate, this must be ordered using order code C27. The VIK version is not possible in combination with Zone 21 and 22.