


Squirrel-cage motors

1LA · Aluminium housing · Basic version

Selection and ordering data

3

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Efficiency class 	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight kg Type of constr. IM B 3 approx.	
				Rated speed rpm	Efficiency η at 4/4-load %	Power factor p.f.	Rated current at 400 V A	Rated torque Nm							
Energy-saving motor to CEMEP "Improved Efficiency" eff2, IP55 degree of protection, temperature class F															
3000 rpm, 2-pole, 50 Hz															
0.09 0.12	56 M	1LA7 050-2AA .. 1LA7 053-2AA ..		2830 2800	63.0 65.0	62.0 64.0	0.81 0.83	0.26 0.32	0.30 0.41	2.0 2.1	3.7 3.7	2.3 2.4	16 16	0.00015 0.00015	3 3
0.18 0.25	63 M	1LA7 060-2AA .. 1LA7 063-2AA ..		2820 2830	63.0 65.0	62.0 65.0	0.82 0.82	0.50 0.68	0.61 0.84	2.0 2.0	3.7 4.0	2.2 2.2	16 16	0.00018 0.00022	4 4
0.37 0.55	71 M	1LA7 070-2AA .. 1LA7 073-2AA ..		2740 2800	66.0 71.0	65.0 70.0	0.82 0.82	1.00 1.36	1.3 1.9	2.3 2.5	3.5 4.3	2.3 2.6	16 16	0.00029 0.00041	5 6
0.75 1.1	80 M	1LA7 080-2AA .. 1LA7 083-2AA ..		2855 2845	73.0 77.0	72.0 77.0	0.86 0.87	1.73 2.40	2.5 3.7	2.3 2.6	5.6 6.1	2.4 2.7	16 16	0.00079 0.0010	9 11
1.5 2.2	90 S 90 L	1LA7 090-2AA .. 1LA7 096-2AA ..	2	2860 2880	79.0 82.0	80.0 82.0	0.85 0.85	3.25 4.55	5.0 7.3	2.4 2.8	5.5 6.3	2.7 3.1	16 16	0.0014 0.0018	13 16
3	100 L	1LA7 106-2AA ..	2	2890	84.0	84.0	0.85	6.10	9.9	2.8	6.8	3.0	16	0.0035	22
4	112 M	1LA7 113-2AA ..	2	2905	86.0	86.0	0.86	7.80	13	2.6	7.2	2.9	16	0.0059	29
5.5 7.5	132 S 132 M	1LA7 130-2AA .. 1LA7 131-2AA ..	2	2925 2930	86.5 88.0	86.5 88.0	0.89 0.89	10.4 13.8	18 24	2.0 2.3	5.9 6.9	2.8 3.0	16 16	0.015 0.019	39 48
11 15 18.5	160 M 160 M 160 L	1LA7 163-2AA .. 1LA7 164-2AA .. 1LA7 166-2AA ..	2	2940 2940 2940	89.5 90.0 91.0	89.5 90.2 91.2	0.88 0.90 0.91	20.0 26.5 32.0	36 49 60	2.1 2.2 2.4	6.5 6.6 7.0	3.0 3.0 3.1	16 16 16	0.034 0.043 0.051	68 77 86
22	180 M	1LA5 183-2AA ..	2	2940	91.7	91.7	0.88	39.5 ¹⁾	71	2.5	6.9	3.2	16	0.077	113
30 37	200 L	1LA5 206-2AA .. 1LA5 207-2AA ..	2	2945 2945	92.3 92.8	92.3 92.8	0.89 0.89	53.0 65.0 ¹⁾	97 120	2.4 2.4	7.2 7.7	2.8 2.8	16 16	0.14 0.16	159 179
45	225 M	1LA5 223-2AA ..	2	2960	93.6	93.6	0.89	78.0 ¹⁾	145	2.8	7.7	3.4	16	0.20	209
1500 rpm, 4-pole, 50 Hz															
0.06 0.09	56 M	1LA7 050-4AB .. 1LA7 053-4AB ..		1350 1350	56.0 58.0	55.0 57.0	0.77 0.77	0.20 0.29	0.42 0.64	1.9 1.9	2.6 2.6	1.9 1.9	13 13	0.00027 0.00027	3 3
0.12 0.18	63 M	1LA7 060-4AB .. 1LA7 063-4AB ..		1350 1350	55.0 60.0	54.0 60.0	0.75 0.77	0.42 0.56	0.85 1.3	1.9 1.9	2.8 3.0	2.0 1.9	13 13	0.00029 0.00037	4 4
0.25 0.37	71 M	1LA7 070-4AB .. 1LA7 073-4AB ..		1350 1370	60.0 65.0	60.0 65.0	0.78 0.78	0.77 1.06	1.8 2.6	1.9 1.9	3.0 3.3	1.9 2.1	13 13	0.00052 0.00077	5 6
0.75 0.55	80 M	1LA7 080-4AA .. 1LA7 083-4AA ..		1395 1395	67.0 72.0	67.0 72.0	0.82 0.81	1.44 1.86	3.8 5.1	2.2 2.3	3.9 4.2	2.2 2.3	16 16	0.0014 0.0017	9 10
1.1 1.5	90 S 90 L	1LA7 090-4AA .. 1LA7 096-4AA ..	2	1415 1420	77.0 79.0	77.0 79.0	0.81 0.81	2.55 3.40	7.4 10	2.3 2.4	4.6 5.3	2.4 2.6	16 16	0.0024 0.0033	13 16
2.2 3	100 L	1LA7 106-4AA .. 1LA7 107-4AA ..	2	1420 1420	82.0 83.0	82.5 83.5	0.82 0.82	4.70 6.40	15 20	2.5 2.7	5.6 5.6	2.8 3.0	16 16	0.0047 0.0055	21 24
4	112 M	1LA7 113-4AA ..	2	1440	85.0	85.5	0.83	8.20	27	2.7	6.0	3.0	16	0.012	31
5.5 7.5	132 S 132 M	1LA7 130-4AA .. 1LA7 133-4AA ..	2	1455 1455	86.0 87.0	86.0 87.5	0.81 0.82	11.4 15.2	36 49	2.5 2.7	6.3 6.7	3.1 3.2	16 16	0.018 0.023	41 49
11 15	160 M 160 L	1LA7 163-4AA .. 1LA7 166-4AA ..	2	1460 1460	88.5 90.0	89.0 90.2	0.84 0.84	21.5 28.5	72 98	2.2 2.6	6.2 6.5	2.7 3.0	16 16	0.043 0.055	73 85
18.5 22	180 M 180 L	1LA5 183-4AA .. 1LA5 186-4AA ..	2	1460 1460	90.5 91.2	90.5 91.2	0.83 0.84	35.5 ¹⁾ 41.5 ¹⁾	121 144	2.3 2.3	7.5 7.5	3.0 3.0	16 16	0.13 0.15	113 123
30	200 L	1LA5 207-4AA ..	2	1465	91.8	91.8	0.86	55.0	196	2.6	7.0	3.2	16	0.24	157
37 45	225 S 225 M	1LA5 220-4AA .. 1LA5 223-4AA ..	2	1470 1470	92.9 93.4	92.9 93.4	0.87 0.87	66.0 ¹⁾ 80.0 ¹⁾	240 292	2.8 2.8	7.0 7.7	3.2 3.3	16 16	0.32 0.36	206 232

Higher outputs under "1LA/1LG · Cast iron housing" on Pages 3/12 and 3/13.

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier						
	50 Hz			60 Hz			IM B 3	Price supplement					
	230 VΔ / 400 VΔ / 500 VΥ	400 VΔ / 690 VΥ	500 VΥ	500 VΔ	460 VΥ	460 VΔ	IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35	
1LA7 050 to 1LA7 096	1	6	3	-	1	6	0	1	1	4	2	3	6
1LA7 106 to 1LA7 166	1	6	3	5	1	6	0	1	1	4	2	3	6
1LA5 183 to 1LA5 223	1	6	3	5	1	6	0	1	1	4	-	-	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) For connection to 230 V, parallel supply cables are required (see

"Technical information", "Connections, circuits and terminal blocks").

Squirrel-cage motors

1LA · Aluminium housing · Basic version

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output						Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η %	Power factor p.f. %	Rated current at 400 V A	Rated torque Nm	4/4-load %						
Energy-saving motor, IP55 degree of protection, temperature class F														
1000 rpm, 6-pole, 50 Hz														
0.09	63 M	1LA7 063-6AB ..	850	45.0	41.5	0.66	0.44	1.0	1.8	2.0	1.9	13	0.00037	4
0.18	71 M	1LA7 070-6AA ..	850	53.0	54.5	0.73	0.67	2.0	2.1	2.3	1.9	16	0.00055	5
0.25		1LA7 073-6AA ..	860	60.0	58.5	0.76	0.79	2.8	2.2	2.7	2.0	16	0.00080	6
0.37	80 M	1LA7 080-6AA ..	920	62.0	60.5	0.72	1.20	3.8	1.9	3.1	2.1	16	0.0014	9
0.55		1LA7 083-6AA ..	910	67.0	66.5	0.74	1.60	5.8	2.1	3.4	2.2	16	0.0017	10
0.75	90 S	1LA7 090-6AA ..	915	69.0	69.0	0.76	2.05	7.8	2.2	3.7	2.2	16	0.0024	13
1.1	90 L	1LA7 096-6AA ..	915	72.0	72.0	0.77	2.85	11	2.3	3.8	2.3	16	0.0033	16
1.5	100 L	1LA7 106-6AA ..	925	74.0	74.0	0.75	3.90	15	2.3	4.0	2.3	16	0.0047	21
2.2	112 M	1LA7 113-6AA ..	940	78.0	78.5	0.78	5.20	22	2.2	4.6	2.5	16	0.0091	26
3	132 S	1LA7 130-6AA ..	950	79.0	79.5	0.76	7.20	30	1.9	4.2	2.2	16	0.015	38
4	132 M	1LA7 133-6AA ..	950	80.5	80.5	0.76	9.40	40	2.1	4.5	2.4	16	0.019	44
5.5	132 M	1LA7 134-6AA ..	950	83.0	83.0	0.76	12.6	55	2.3	5.0	2.6	16	0.025	52
7.5	160 M	1LA7 163-6AA ..	960	86.0	86.0	0.74	17.0	75	2.1	4.6	2.5	16	0.044	74
11	160 L	1LA7 166-6AA ..	960	87.5	87.5	0.74	24.5	109	2.3	4.8	2.6	16	0.063	95
15	180 L	1LA5 186-6AA ..	970	89.5	89.5	0.77	31.5	148	2.0	5.2	2.4	16	0.15	126
18.5	200 L	1LA5 206-6AA ..	975	90.2	90.2	0.77	38.5	181	2.7	5.5	2.8	16	0.24	161
22		1LA5 207-6AA ..	975	90.8	90.8	0.77	45.5	215	2.8	5.5	2.9	16	0.28	183
30	225 M	1LA5 223-6AA ..	978	91.8	91.8	0.77	61.0 ¹⁾	293	2.8	5.7	2.9	16	0.36	214
750 rpm, 8-pole, 50 Hz														
0.09	71 M	1LA7 070-8AB ..	630	53.0	54.5	0.68	0.36	1.4	1.9	2.2	1.7	13	0.00080	6
0.12		1LA7 073-8AB ..	645	53.0	49.5	0.64	0.51	1.8	2.2	2.2	2.0	13	0.00080	6
0.18	80 M	1LA7 080-8AB ..	675	51.0	49.5	0.68	0.75	2.5	1.7	2.3	1.9	13	0.0014	9
0.25		1LA7 083-8AB ..	685	55.0	50.5	0.64	1.02	3.5	2.0	2.6	2.2	13	0.0017	10
0.37	90 S	1LA7 090-8AB ..	675	63.0	62.0	0.75	1.14	5.2	1.6	2.9	1.8	13	0.0023	11
0.55	90 L	1LA7 096-8AB ..	675	66.0	65.0	0.76	1.58	7.8	1.7	3.0	1.9	13	0.0031	13
0.75	100 L	1LA7 106-8AB ..	680	66.0	65.0	0.76	2.15	11	1.6	3.0	1.9	13	0.0051	19
1.1		1LA7 107-8AB ..	680	72.0	72.0	0.76	2.90	15	1.8	3.3	2.1	13	0.0063	22
1.5	112 M	1LA7 113-8AB ..	705	74.0	74.0	0.76	3.85	20	1.8	3.7	2.1	13	0.013	24
2.2	132 S	1LA7 130-8AB ..	700	75.0	75.0	0.74	5.70	30	1.9	3.9	2.3	13	0.014	38
3	132 M	1LA7 133-8AB ..	700	77.0	77.5	0.74	7.60	41	2.1	4.1	2.4	13	0.019	44
4	160 M	1LA7 163-8AB ..	715	80.0	80.0	0.72	10.0	53	2.2	4.5	2.6	13	0.036	64
5.5	160 M	1LA7 164-8AB ..	710	83.5	83.5	0.73	13.0	74	2.3	4.7	2.7	13	0.046	74
7.5	160 L	1LA7 166-8AB ..	715	85.5	85.5	0.72	17.6	100	2.7	5.3	3.0	13	0.064	94
11	180 L	1LA5 186-8AB ..	725	87.0	87.0	0.75	24.5	145	2.0	5.0	2.2	13	0.21	128
15	200 L	1LA5 207-8AB ..	725	87.5	87.5	0.78	31.5	198	2.1	5.0	2.2	13	0.37	176
18.5	225 S	1LA5 220-8AB ..	725	89.2	89.2	0.79	38.0	244	2.1	4.5	2.2	13	0.37	184
22	225 M	1LA5 223-8AB ..	725	90.6	90.6	0.79	44.5	290	2.2	4.8	2.3	13	0.45	214

Higher outputs under "1LA/1LG · Cast iron housings" on Pages 3/14 and 3/15.

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier						
	50 Hz			60 Hz			IM B 3	Price supplement					
	230 VΔ / 400 VΔ / 500 VΥ	400 VΔ / 690 VΥ	500 VΥ	500 VΔ	460 VΥ	460 VΔ	IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35	
1LA7 063 to 1LA7 096	1	6	3	—	1	6	0	1	1	4	2	3	6
1LA7 106 to 1LA7 166	1	6	3	5	1	6	0	1	1	4	2	3	6
1LA5 186 to 1LA5 223	1	6	3	5	1	6	0	1	1	4	—	—	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) For connection to 230 V, parallel supply cables are required (see

"Technical information", "Connections, circuits and terminal blocks").

Squirrel-cage motors

1LA · Aluminium housing · Basic version

Selection and ordering data

■ 50 Hz

The motors can also be used for 60 Hz according to EPACT, see Pages 3/6 and 3/7.

For further details, see "Technical information", "Motors for the US market".

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Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Efficiency class (EFF I)	Operating data at rated output				Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight of constr. IM B 3 approx. kg
				Rated speed rpm	Efficiency η at 4/4-load % %	Power factor p.f.	Rated current at 400 V A						
Energy-saving motor to CEMEP "High Efficiency" eff1, IP55 degree of protection, temperature class F													
3000 rpm, 2-pole, 50 Hz													
0.09 0.12	56 M	1LA9 050-2KA .. 1LA9 053-2KA ..		2830	68.0 68.0	0.79	0.24	0.30	2.9	4.5	3.0	16	0.00015 3 0.00020 4
0.18 0.25	63 M	1LA9 060-2KA .. 1LA9 063-2KA ..		2840	70.0 70.0	0.78	0.48	0.61	2.5	4.8	3.1	16	0.00022 4 0.00026 5
0.37 0.55	71 M	1LA9 070-2KA .. 1LA9 073-2KA ..		2840	74.0 74.0	0.77	0.94	1.2	3.1	6.5	3.1	16	0.00041 6 0.00050 7
0.75 1.1	80 M	1LA9 080-2KA .. 1LA9 083-2KA ..	1	2870	80.0 80.0	0.84	1.65	2.5	3.5	8.3	3.2	16	0.0010 10 0.0013 12
1.5 2.2	90 S 90 L	1LA9 090-2KA .. 1LA9 096-2KA ..	1	2890	85.0 85.0	0.87	2.95	5.0	3.5	7.0	3.5	16	0.0018 15 0.0022 18
3	100 L	1LA9 106-2KA ..	1	2890	87.0 87.0	0.88	5.70	9.9	3.1	7.0	3.2	16	0.0044 24
4	112 M	1LA9 113-2KA ..	1	2905	88.5 88.5	0.89	7.40	13	2.6	7.0	3.2	16	0.0077 35
5.5 7.5	132 S	1LA9 130-2KA .. 1LA9 131-2KA ..	1	2930	89.5 89.5	0.90	9.90	18	2.4	7.0	3.2	16	0.019 43 0.024 56
11 15 18.5	160 M 160 M 160 L	1LA9 163-2KA .. 1LA9 164-2KA .. 1LA9 166-2KA ..	1	2945	91.0 91.0	0.90	19.4	36	2.3	7.0	3.1	16	0.044 73 0.051 82 0.065 102
22	180 M	1LA9 183-2WA ..	1	2945	93.0 93.2	0.89	38.0 ¹⁾	71	2.5	7.2	3.3	16	0.090 131
30 37	200 L	1LA9 206-2WA .. 1LA9 207-2WA ..	1	2950	93.5 93.5	0.89	52.0 64.0 ¹⁾	97 120	2.4	7.0	3.2 3.3	16	0.16 185 0.20 214
1500 rpm, 4-pole, 50 Hz													
0.06 0.09	56 M	1LA9 050-4KA .. 1LA9 053-4KA ..		1380	61.0 61.0	0.66	0.22	0.42	2.7	3.1	2.8	16	0.00027 3 0.00035 4
0.12 0.18	63 M	1LA9 060-4KA .. 1LA9 063-4KA ..		1395	66.0 66.0	0.65	0.41	0.82	2.6	3.5	2.6	16	0.00037 4 0.00045 5
0.25 0.37	71 M	1LA9 070-4KA .. 1LA9 073-4KA ..		1410	70.0 70.0	0.64	0.81	1.7	3.2	4.3	3.1	16	0.00076 6 0.00095 7
0.55 0.75	80 M	1LA9 080-4KA .. 1LA9 083-4KA ..		1410	77.0 77.0	0.78	1.32	3.7	2.8	5.6	2.9	16	0.0017 10 0.0024 12
1.1 1.5	90 S 90 L	1LA9 090-4KA .. 1LA9 096-4KA ..	1	1440	84.0 84.0	0.77	2.45	7.3	2.7	6.4	3.2	16	0.0033 15 0.0040 18
2.2 3	100 L	1LA9 106-4KA .. 1LA9 107-4KA ..	1	1435	86.5 86.5	0.82	4.55	15	3.1	7.0	3.6	16	0.0062 25 0.0077 30
4	112 M	1LA9 113-4KA ..	1	1440	88.5 89.0	0.81	8.10	27	2.8	6.9	3.2	16	0.014 37
5.5 7.5	132 S 132 M	1LA9 130-4KA .. 1LA9 133-4KA ..	1	1455	89.5 89.5	0.84	10.6	36	2.9	7.0	3.6	16	0.023 45 0.029 60
11 15	160 M 160 L	1LA9 163-4KA .. 1LA9 166-4KA ..	1	1460	91.5 92.0	0.85	20.5	72	2.7	6.9	3.2	16	0.055 81 0.072 107
18.5 22	180 M 180 L	1LA9 183-4WA .. 1LA9 186-4WA ..	1	1465	92.5 93.0	0.84	34.5 ¹⁾	121	2.5	7.0	3.2	16	0.15 126 0.19 146
30	200 L	1LA9 207-4WA ..	1	1465	93.5 94.0	0.87	53.0	196	2.6	7.0	3.2	16	0.32 199

Higher outputs under "1LG · Cast iron housing" on Page 3/16.

Order No. supplements


See Page 3/5.

1) For connection to 230 V, parallel supply cables are required (see "Technical information", "Connections, circuits and terminal blocks").

Squirrel-cage motors

1LA · Aluminium housing · Basic version

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Efficiency class 	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current	Stalling torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg	
				Rated speed rpm	Efficiency η at 4/4-load %	Power factor p.f. %	Rated current at 400 V A	Rated torque Nm							
Energy-saving motor, IP55 degree of protection, temperature class F															
1000 rpm, 6-pole, 50 Hz															
0.75	90 S	1LA9 090-6KA ..		925	75.5	75.5	0.72	2.00	7.7	2.5	4.4	2.5	16	0.0033	16
1.1	90 L	1LA9 096-6KA ..		940	82.0	82.0	0.70	2.80	11	3.2	5.7	3.2	16	0.0050	19
1.5	100 L	1LA9 106-6KA ..		950	85.0	85.0	0.70	3.65	15	3.4	6.2	3.4	16	0.0065	25
2.2	112 M	1LA9 113-6KA ..		955	84.0	84.0	0.70	5.40	22	2.7	6.2	3.0	16	0.014	37
4	132 M	1LA9 133-6KA ..		950	84.0	84.0	0.81	8.50	40	2.5	6.3	2.7	16	0.025	49
5.5		1LA9 134-6KA ..		960	86.0	86.0	0.77	12.0	55	3.3	7.3	3.6	16	0.030	64
7.5	160 M	1LA9 163-6KA ..		965	88.0	88.0	0.72	17.1	74	2.2	5.5	2.5	16	0.063	98
11	160 L	1LA9 166-6KA ..		960	88.5	88.5	0.78	23.0	109	2.9	6.9	3.2	16	0.072	105
15	180 L	1LA9 186-6WA ..		970	91.0	91.0	0.75	31.5	148	2.0	6.5	2.5	16	0.19	144
18.5	200 L	1LA9 206-6WA ..		975	91.0	91.0	0.77	38.0	181	2.5	6.2	2.5	16	0.28	186
22		1LA9 207-6WA ..		975	91.5	91.5	0.77	45.0	215	2.5	6.2	2.5	16	0.36	217

Higher outputs under "1LG · Cast iron housing" on Page 3/17.

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier						
	50 Hz			60 Hz			IM B 3	Price supplement					
	230 V Δ / 400 V Δ / 400 V Υ	400 V Δ / 690 V Υ	500 V Υ	500 V Δ	460 V Υ	460 V Δ		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35
1LA9 050 to 1LA9 096	1	6	3	–	1	6	0	1	1	4	2	3	6
1LA9 106 to 1LA9 166	1	6	3	5	1	6	0	1	1	4	2	3	6
1LA9 183 to 1LA9 207	1	6	3	5	1	6	0	1	1	4	–	–	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors

1LA · Aluminium housing · Basic version

Selection and ordering data

■ 60 Hz

The motors can also be used for 50 Hz "High Efficiency" eff1, see Pages 3/4 and 3/5.

For further details, see "Technical information", "Motors for the US market".

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Rated output HP	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Nominal efficiency %	Power factor p.f.	Rated current at 460 V A	Rated torque Nm						
Energy-saving motor according to EPACT, IP55 degree of protection, temperature class F													CC 032A
3600 rpm, 2-pole, 60 Hz													
0.12	56 M	1LA9 050-2KA ..	3440	70.0	0.74	0.22	0.25	3.6	5.5	3.8	16	0.00015	3
0.16		1LA9 053-2KA ..	3440	71.0	0.76	0.28	0.33	3.2	5.4	3.4	16	0.00020	4
0.25	63 M	1LA9 060-2KA ..	3440	71.0	0.79	0.43	0.53	2.8	4.9	3.3	16	0.00022	4
0.33		1LA9 063-2KA ..	3430	72.0	0.83	0.52	0.69	2.5	5.0	2.7	16	0.00026	5
0.5	71 M	1LA9 070-2KA ..	3445	72.0	0.75	0.87	1.00	3.3	7.5	3.4	16	0.00041	6
0.75		1LA9 073-2KA ..	3445	73.0	0.73	1.32	1.60	3.6	7.2	3.7	16	0.00050	7
1	80 M	1LA9 080-2KA ..	3485	75.5	0.82	1.52	2.00	4.4	9.6	4.4	16	0.0010	10
1.5		1LA9 083-2KA ..	3480	82.5	0.88	1.94	3.10	3.8	8.6	3.2	16	0.0013	12
2	90 S	1LA9 090-2KA ..	3510	84.0	0.86	2.60	4.10	4.1	8.6	4.1	16	0.0018	15
3	90 L	1LA9 096-2KA ..	3510	85.5	0.85	3.85	6.10	4.1	8.5	5.1	16	0.0022	18
4	100 L	1LA9 106-2KA ..	3510	86.5	0.87	4.95	8.10	3.4	8.6	3.7	16	0.0044	24
5	112 M	1LA9 113-2KA ..	3525	87.5	0.88	6.10	10	2.8	9.2	4.0	16	0.0077	35
7.5	132 S	1LA9 130-2KA ..	3540	88.5	0.90	8.80	15	2.7	8.5	3.8	16	0.019	43
10		1LA9 131-2KA ..	3540	89.5	0.92	11.4	20	2.8	8.3	3.7	16	0.024	56
15	160 M	1LA9 163-2KA ..	3555	90.2	0.90	17.2	30	2.5	8.5	3.7	16	0.044	73
20	160 M	1LA9 164-2KA ..	3555	90.2	0.90	23.0	40	2.5	8.5	3.7	16	0.051	82
25	160 L	1LA9 166-2KA ..	3550	91.0	0.92	28.0	50	2.4	8.5	3.5	16	0.065	102
30	180 M	1LA9 183-2WA ..	3545	91.0	0.86	36.0	60	2.6	8.6	3.5	16	0.090	131
40	200 L	1LA9 206-2WA ..	3555	91.7	0.88	46.5	80	2.5	8.4	3.6	16	0.16	182
50		1LA9 207-2WA ..	3555	92.4	0.88	58.0	100	2.7	8.4	3.7	16	0.2	211
1800 rpm, 4-pole, 60 Hz													
0.08	56 M	1LA9 050-4KA ..	1715	63.0	0.65	0.18	0.33	2.7	3.4	3.0	16	0.00027	3
0.12		1LA9 053-4KA ..	1725	64.0	0.67	0.26	0.50	2.8	3.5	3.0	16	0.00035	4
0.16	63 M	1LA9 060-4KA ..	1720	69.0	0.65	0.34	0.66	2.7	3.9	2.8	16	0.00037	4
0.25		1LA9 063-4KA ..	1660	65.0	0.67	0.54	1.1	3.0	3.6	3.1	16	0.00045	5
0.33	71 M	1LA9 070-4KA ..	1730	69.0	0.60	0.75	1.4	3.6	4.9	3.4	16	0.00076	6
0.5		1LA9 073-4KA ..	1725	70.0	0.68	0.98	2.1	3.3	4.9	3.4	16	0.00095	7
0.75	80 M	1LA9 080-4KA ..	1725	75.5	0.74	1.26	3.1	3.4	6.8	3.6	16	0.0017	10
1		1LA9 083-4KA ..	1720	82.5	0.72	1.58	4.1	4.0	7.3	3.9	16	0.0024	12
1.5	90 S	1LA9 090-4KA ..	1755	84.0	0.76	2.20	6.1	3.1	7.7	3.9	16	0.0033	15
2		1LA9 096-4KA ..	1755	84.0	0.76	2.95	8.1	3.6	8.1	4.2	16	0.0040	18
3	100 L	1LA9 106-4KA ..	1750	87.5	0.79	4.05	12	3.4	8.4	4.3	16	0.0062	25
4		1LA9 107-4KA ..	1750	87.5	0.79	5.40	16	3.8	8.7	4.6	16	0.0077	30
5	112 M	1LA9 113-4KA ..	1755	87.5	0.79	6.80	20	3.2	8.6	3.9	16	0.014	37
7.5	132 S	1LA9 130-4KA ..	1760	89.5	0.81	9.70	30	3.2	8.7	4.1	16	0.023	45
10		1LA9 133-4KA ..	1760	89.5	0.82	12.8	40	3.4	8.7	4.1	16	0.029	60
15	160 M	1LA9 163-4KA ..	1765	91.0	0.85	18.2	61	2.6	8.1	3.2	16	0.055	81
20	160 L	1LA9 166-4KA ..	1765	91.0	0.85	24.0	81	2.8	8.5	3.5	16	0.072	107
25	180 M	1LA9 183-4WA ..	1770	92.4	0.83	30.5	101	2.8	8.4	3.6	16	0.15	126
30	180 L	1LA9 186-4WA ..	1770	92.4	0.83	36.5	121	3.1	8.8	3.9	16	0.19	146
40	200 L	1LA9 207-4WA ..	1770	93.0	0.86	47.0	161	3.0	8.3	3.6	16	0.32	196

Higher outputs under "1LG · Cast iron housing" on Page 3/18.

● With CC No. CC 032A

Order No. supplements

See Page 3/7.

Squirrel-cage motors

1LA · Aluminium housing · Basic version

Selection and ordering data

Rated output	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Nominal efficiency %	Power factor p.f.	Rated current at 460 V A	Rated torque Nm						
Energy-saving motor according to EPACT, IP55 degree of protection, temperature class F													CC 032A
1200 rpm, 6-pole, 60 Hz													
1 ●	90 S	1LA9 090-6KA ..	1140	80.0	0.66	1.78	6.2	3.0	5.6	3.0	16	0.0033	16
1.5 ●	90 L	1LA9 096-6KA ..	1150	85.5	0.64	2.55	9.3	3.7	6.4	3.7	16	0.0050	19
2	100 L	1LA9 106-6KA ..	1160	86.5	0.68	3.20	12	3.5	7.2	3.8	16	0.0065	25
3 ●	112 M	1LA9 113-6KA ..	1160	87.5	0.66	4.85	18	2.9	7.5	3.7	16	0.014	37
5 ●	132 M	1LA9 133-6KA ..	1160	87.5	0.77	6.90	31	3.0	7.9	3.6	16	0.025	49
7.5 ●	132 M	1LA9 134-6KA ..	1160	89.5	0.73	10.8	46	3.7	8.4	4.3	16	0.034	64
10 ●	160 M	1LA9 163-6KA ..	1165	89.5	0.70	15.0	61	2.4	6.4	2.8	16	0.063	98
15 ●	160 L	1LA9 166-6KA ..	1165	90.2	0.77	20.0	92	3.1	8.3	3.8	16	0.072	105
20 ●	180 L	1LA9 186-6WA ..	1175	90.2	0.75	27.5	121	2.2	7.1	2.8	16	0.19	144
25 ●	200 L	1LA9 206-6WA ..	1175	91.7	0.75	34.0	152	2.8	7.1	2.8	16	0.28	183
30 ●		1LA9 207-6WA ..	1175	91.7	0.75	41.0	182	2.8	7.2	2.8	16	0.36	214

Higher outputs under "1LG · Cast iron housing" on Page 3/19.

● With CC No. CC 032A

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier						
	50 Hz			60 Hz			IM B 3	Price supplement					
	230 VΔ / 400 VΔ / 500 VΥ	400 VΔ / 690 VΥ	500 VΥ	500 VΔ	460 VΥ	460 VΔ		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35
1LA9 050 to 1LA9 096	1	6	3	–	1	6	0	1	1	4	2	3	6
1LA9 106 to 1LA9 166	1	6	3	5	1	6	0	1	1	4	2	3	6
1LA9 183 to 1LA9 207	1	6	3	5	1	6	0	1	1	4	–	–	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

3

Squirrel-cage motors

1LA · Aluminium housing · With increased power

Selection and ordering data

3

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η %	Power factor p.f.	Rated current at 400 V A	Rated torque Nm						
IP55 degree of protection, temperature class F, used acc. to class F													
3000 rpm, 2-pole, 50 Hz													
0.20	56 M	1LA9 053-2LA ..	2830	69.0	0.82	0.51	0.67	2.1	4.5	2.3	16	0.00020	4
0.33	63 M	1LA9 060-2LA ..	2775	68.0	0.80	0.88	1.1	2.3	4.4	2.2	16	0.00022	4
0.45		1LA9 063-2LA ..	2720	68.0	0.84	1.14	1.6	2.2	4.2	2.3	16	0.00026	5
0.65	71 M	1LA9 070-2LA ..	2720	72.0	0.83	1.56	2.3	2.4	4.5	2.5	16	0.00041	6
0.94		1LA9 073-2LA ..	2735	73.0	0.82	2.25	3.3	2.5	4.8	2.4	16	0.00050	7
1.45	80 M	1LA9 080-2LA ..	2820	76.0	0.83	3.30	4.9	3.1	6.7	3.1	16	0.0010	10
1.75		1LA9 083-2LA ..	2840	77.0	0.82	4.00	5.9	3.7	7.4	3.5	16	0.0013	12
2.9	90 S	1LA9 090-2LA ..	2825	81.0	0.82	6.30	9.8	3.2	6.5	3.0	16	0.0018	15
3.8	90 L	1LA9 096-2LA ..	2810	81.0	0.85	8.00	13	3.1	6.5	2.7	16	0.0022	18
4.4	100 L	1LA9 106-2LA ..	2880	82.0	0.83	9.30	15	3.0	7.8	3.2	16	0.0044	24
6.5	112 M	1LA9 113-2LA ..	2900	85.0	0.83	13.2	21	3.0	8.6	3.8	16	0.0077	35
9	132 S	1LA9 130-2LA ..	2915	87.0	0.90	16.6	29	2.0	6.4	2.6	16	0.019	43
12		1LA9 131-2LA ..	2915	87.0	0.89	22.5	39	3.0	7.4	3.2	16	0.024	56
18	160 M	1LA9 163-2LA ..	2920	89.0	0.87	33.5	59	2.2	7.0	3.1	16	0.044	73
21	160 M	1LA9 164-2LA ..	2930	90.0	0.91	37.0	68	2.0	6.9	2.7	16	0.051	82
26	160 L	1LA9 166-2LA ..	2935	91.0	0.91	45.5	85	2.2	7.7	3.2	16	0.065	102
33	180 M	1LA9 183-2AA ..	2940	92.0	0.86	60.0	107	2.5	7.4	3.3	16	0.090	131
44	200 L	1LA9 206-2AA ..	2945	92.0	0.86	80.0	143	2.4	7.8	3.2	16	0.16	182
53		1LA9 207-2AA ..	2945	92.5	0.87	95.0	172	2.6	8.2	3.3	16	0.20	211
1500 rpm, 4-pole, 50 Hz													
0.14	56 M	1LA9 053-4LA ..	1385	62.0	0.74	0.44	0.97	2.3	3.5	2.2	16	0.00035	4
0.21	63 M	1LA9 060-4LA ..	1335	60.0	0.77	0.66	1.5	2.1	2.9	2.1	16	0.00037	4
0.29		1LA9 063-4LA ..	1330	60.0	0.71	0.98	2.1	2.3	2.9	2.3	16	0.00045	5
0.45	71 M	1LA9 070-4LA ..	1340	64.0	0.71	1.42	3.2	2.3	3.4	2.3	16	0.00076	6
0.60		1LA9 073-4LA ..	1340	70.0	0.75	1.64	4.3	2.3	3.6	2.3	16	0.00095	7
0.90	80 M	1LA9 080-4LA ..	1340	70.0	0.81	2.30	6.4	2.3	4.1	2.4	16	0.0017	10
1.25		1LA9 083-4LA ..	1340	70.0	0.83	3.10	8.9	2.7	4.5	2.4	16	0.0024	12
1.8	90 S	1LA9 090-4LA ..	1380	77.0	0.83	4.05	12	2.4	5.1	2.4	16	0.0033	15
2.5	90 L	1LA9 096-4LA ..	1390	76.0	0.81	5.90	17	2.5	5.1	2.3	16	0.0040	18
4.0	100 L	1LA9 107-4LA ..	1410	77.0	0.81	9.30	27	2.7	6.0	3.0	16	0.0062	25
5.5	112 M	1LA9 113-4LA ..	1440	82.0	0.80	12.2	36	3.0	6.8	3.0	16	0.014	37
8.6	132 S	1LA9 130-4LA ..	1440	84.0	0.83	17.8	57	2.3	6.8	2.7	16	0.023	45
11	132 M	1LA9 133-4LA ..	1450	85.0	0.83	22.5	72	2.8	7.4	3.1	16	0.029	60
17	160 M	1LA9 163-4LA ..	1455	88.0	0.84	33.0	112	2.9	7.5	2.8	16	0.055	81
22	160 L	1LA9 166-4LA ..	1455	88.0	0.82	44.0	144	3.1	8.3	3.4	16	0.072	107
26	180 M	1LA9 183-4AA ..	1460	90.5	0.83	50.0	170	2.4	7.5	3.2	16	0.15	126
32	180 L	1LA9 186-4AA ..	1465	91.3	0.84	60.0	209	2.5	7.9	3.4	16	0.19	146
43	200 L	1LA9 207-4AA ..	1465	91.7	0.85	80.0	280	2.7	7.8	3.5	16	0.32	196

Higher outputs under "1LG · Cast iron housing" on Page 3/20.

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier						
	50 Hz			60 Hz			IM B 3	Price supplement					
	230 VΔ / 400 VΔ / 500 VΥ	500 VΔ	460 VΥ	460 VΔ	460 VΥ	460 VΔ		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35
1LA9 050 to 1LA9 096	1	6	3	—	1	6	0	1	1	4	2	3	6
1LA9 106 to 1LA9 166	1	6	3	5	1	6	0	1	1	4	2	3	6
1LA9 183 to 1LA9 207	1	6	3	5	1	6	0	1	1	4	—	—	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors

1LA - Aluminium housing - Pole-change motors

Selection and ordering data

Pole-change motors

The torque classification for pole-change motors only applies once the lowest speed

has been activated until the operating speed when it is switched over to the next highest speed.

The motors can only be started direct-on-line. For circuit diagrams, see online help in SD configurator.

Rated output 1500 rpm kW	3000 rpm kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output		Starting torque		Starting current		Stalling torque		Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg	
				Rated speed rpm	Rated current at 400 V A	1500 rpm	3000 rpm	1500 rpm	3000 rpm	1500 rpm	3000 rpm				
Two-speed pole-change, IP55 degree of protection, temperature class F															
1500/3000 rpm, 4-/2-pole, 50 Hz, version with one winding in Dahlander circuit															
0.1	0.15	63 M	1LA7 060-0AA ..	1330/2650	0.41	0.51	1.8	1.8	2.7	2.9	1.8	1.8	10	0.00029	4
0.15	0.2		1LA7 063-0AA ..	1330/2700	0.51	0.58	2.0	2.0	3.0	3.3	2.0	2.0	10	0.00037	4
0.21	0.28	71 M	1LA7 070-0AA ..	1375/2700	0.70	1.1	1.6	1.6	3.0	3.1	1.8	1.8	10	0.00052	5
0.3	0.43		1LA7 073-0AA ..	1380/2770	0.89	1.3	1.8	1.8	3.7	3.8	2.0	2.0	10	0.00076	7
0.48	0.6	80 M	1LA7 080-0AA ..	1390/2810	1.25	1.6	1.7	1.7	3.9	4.0	2.0	2.0	10	0.0014	9
0.7	0.85		1LA7 083-0AA ..	1390/2810	1.75	2.1	1.8	1.8	4.3	4.3	2.1	2.1	10	0.0017	10
1.1	1.4	90 S	1LA7 090-0AA ..	1390/2810	2.70	3.6	1.6	1.8	4.2	4.3	1.9	2.0	13	0.0024	13
1.5	1.9		1LA7 096-0AA ..	1390/2860	3.40	4.5	1.9	1.9	4.9	5.3	2.0	2.1	13	0.0033	16
2	2.4	100 L	1LA7 106-0AA ..	1410/2870	4.25	5.5	1.8	1.8	5.0	5.5	2.0	2.1	13	0.0048	21
2.6	3.1		1LA7 107-0AA ..	1400/2850	5.50	7.6	2.3	2.4	5.6	5.6	2.4	2.4	13	0.0055	24
3.7	4.4	112 M	1LA7 113-0AA ..	1420/2885	8.00	10.5	2.0	2.2	5.6	5.8	2.2	2.3	13	0.011	31
4.7	5.9	132 S	1LA7 130-0AA ..	1450/2920	9.70	12.5	1.7	1.6	6.3	6.5	2.2	2.2	10	0.018	41
6.5	8		1LA7 133-0AA ..	1450/2930	13.6	16.7	2.0	2.1	6.9	7.5	2.5	2.6	10	0.023	50
9.3	11.5	160 M	1LA7 163-0AA ..	1455/2930	18.3	23.4	2.0	1.8	6.7	7.4	2.6	2.4	10	0.043	74
13	17		1LA7 166-0AA ..	1455/2930	25.6	32.0	2.5	2.8	7.6	8.5	3.0	3.0	10	0.060	92
15	18	180 M	1LA5 183-0AA ..	1470/2950	29.0	37.5	2.1	2.2	6.7	7.5	2.7	3.2	13	0.13	113
18	21.5		1LA5 186-0AA ..	1465/2950	34.5	42.0	2.0	2.2	6.4	7.3	2.6	3.1	13	0.15	123
26	31	200 L	1LA5 207-0AA ..	1465/2940	48.5	61.0	2.6	2.6	6.7	7.5	2.8	3.3	13	0.24	157
750 rpm	1500 rpm														
750/1500 rpm, 8-/4-pole, 50 Hz, version with one winding in Dahlander circuit															
0.35	0.5	90 S	1LA7 090-0AB ..	675/1365	1.19	1.41	1.3	1.3	2.5	3.2	1.6	1.6	10	0.0023	11 13
0.5	0.7		1LA7 096-0AB ..	675/1380	1.60	2.10	1.4	1.5	3.0	3.5	1.7	1.8	10	0.0031	
0.7	1.1	100 L	1LA7 106-0AB ..	690/1380	2.10	3.25	1.7	1.6	3.3	3.5	2.0	1.9	10	0.0051	20
0.9	1.5		1LA7 107-0AB ..	680/1400	2.50	3.65	1.8	1.6	3.5	3.6	2.0	1.9	10	0.0063	22
1.4	1.9	112 M	1LA7 113-0AB ..	690/1410	4.00	5.20	1.4	1.5	3.6	4.4	1.7	1.8	10	0.013	25
1.8	3.6	132 S	1LA7 130-0AB ..	720/1430	6.30	7.20	2.0	1.3	4.3	5.4	2.3	1.8	10	0.018	41
2.5	5		1LA7 133-0AB ..	720/1430	8.20	10.0	2.0	1.3	4.3	5.4	2.3	1.8	10	0.023	49
3.5	7	160 M	1LA7 163-0AB ..	725/1450	11.7	13.9	2.0	1.4	4.0	5.4	2.3	1.8	10	0.043	73
5.6	11		1LA7 166-0AB ..	725/1450	18.5	21.15	2.2	1.7	4.2	5.9	2.4	2.0	10	0.060	91
11	18	180 L	1LA5 186-0AB ..	725/1455	27.0	35.0	1.9	2.0	5.2	6.2	2.2	2.2	13	0.21	123
17	27	200 L	1LA5 207-0AB ..	730/1465	40.5	50.5	2.4	2.3	5.4	6.6	2.5	2.5	13	0.37	157

Order No. supplements

Motor type	Penultimate position: Voltage identifier				Final position: Type of construction identifier						
	50 Hz, direct switch-on				IM B 3	Price supplement					
	230 V	400 V	500 V	690 V	IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35	
1LA7 060 to 1LA7 166	1	6	5	0	0	1	1	4	2	3	6
1LA5 183 to 1LA5 207	1	6	5	0	0	1	1	4	-	-	6

Other voltage and/or frequency, voltage identifier "9". Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors

1LA · Aluminium housing · Pole-change motors

Selection and ordering data

3

Rated output 1500 rpm kW	3000 rpm kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output				Starting torque		Starting current		Stalling torque		Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
				Rated speed rpm	Rated current at 400 V A	1500 rpm	3000 rpm	1500 rpm	3000 rpm	1500 rpm	3000 rpm	1500 rpm	3000 rpm			
Two-speed pole-change for driving fans, IP55 degree of protection, temperature class F																
1500/3000 rpm, 4-/2-pole, 50 Hz, version with one winding in Dahlander circuit																
0.15	0.7	80 M	1LA7 080-0BA ..	1400/2745	0.39	1.76	1.8	1.6	3.8	4.0	2.0	2.0	10	0.0014	10	
0.25	0.95		1LA7 083-0BA ..	1385/2780	0.61	2.40	1.8	1.9	3.8	4.2	2.0	2.0	10	0.0017	11	
0.33	1.4	90 S	1LA7 090-0BA ..	1420/2835	0.76	3.50	1.9	1.8	4.5	4.3	2.1	2.0	10	0.0024	13	
0.5	2	90 L	1LA7 096-0BA ..	1420/2835	1.08	4.80	2.2	2.2	5.1	5.0	2.5	2.5	10	0.0033	16	
0.65	2.5	100 L	1LA7 106-0BA ..	1430/2865	1.44	5.40	1.7	2.2	5.0	5.5	2.3	2.3	10	0.0048	21	
0.8	3.1		1LA7 107-0BA ..	1425/2860	1.70	7.00	1.8	2.3	5.7	6.1	2.6	2.6	10	0.0055	24	
1.1	4.4	112 M	1LA7 113-0BA ..	1445/2885	2.50	10.7	2.1	2.2	6.2	6.2	2.4	2.4	10	0.011	31	
1.45	5.9	132 S	1LA7 130-0BA ..	1455/2920	3.00	12.8	2.0	2.1	6.8	6.5	2.8	2.8	10	0.018	41	
2	8	132 M	1LA7 133-0BA ..	1455/2930	4.00	16.0	1.9	2.1	7.6	7.5	2.6	2.6	10	0.023	50	
2.9	11.5	160 M	1LA7 163-0BA ..	1455/2930	5.70	22.0	1.8	1.8	6.9	7.4	2.5	2.4	10	0.043	74	
4.3	17	160 L	1LA7 166-0BA ..	1455/2930	8.40	31.0	1.9	2.2	7.1	8.5	2.5	2.6	10	0.060	92	
1000 rpm	1500 rpm			1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm			
1000/1500 rpm, 6-/4-pole, 50 Hz, design with two windings																
0.12	0.4	80 M	1LA7 080-1BD ..	940/1430	0.51	1.38	1.7	1.7	2.8	4.0	1.8	2.0	10	0.0014	9	
0.18	0.55		1LA7 083-1BD ..	930/1420	0.73	1.62	1.5	1.7	2.5	4.0	1.8	2.0	10	0.0017	10	
0.29	0.8	90 S	1LA7 090-1BD ..	950/1430	1.07	2.10	1.5	1.5	3.4	4.3	2.0	2.0	10	0.0027	13	
0.38	1.1	90 L	1LA7 096-1BD ..	955/1430	1.33	2.65	1.8	1.8	3.8	4.9	2.3	2.3	10	0.0033	16	
0.6	1.7	100 L	1LA7 106-1BD ..	950/1410	1.75	3.80	1.8	1.8	4.2	5.2	2.2	2.2	10	0.0049	21	
0.75	2.1		1LA7 107-1BD ..	950/1420	2.30	4.55	1.6	1.9	3.9	5.2	2.0	2.2	10	0.0057	24	
0.9	3	112 M	1LA7 113-1BD ..	980/1450	3.00	6.70	2.0	2.1	4.5	6.1	2.5	2.5	10	0.012	31	
1.2	3.9	132 S	1LA7 130-1BD ..	975/1460	3.50	8.40	1.9	1.7	5.1	6.1	2.5	2.2	10	0.018	41	
1.7	5.4	132 M	1LA7 133-1BD ..	975/1460	4.55	11.4	2.1	1.9	5.1	6.6	2.6	2.5	10	0.023	49	
2.5	7.2	160 M	1LA7 163-1BD ..	980/1470	6.4	14.4	1.9	2.0	5.6	7.3	1.9	2.0	10	0.043	74	
3.7	12	160 L	1LA7 166-1BD ..	980/1470	9.3	23.3	1.9	2.4	5.7	8.1	2.3	3.0	10	0.060	92	
5.5	16	180 M	1LA5 183-1BD ..	965/1470	11.8	31.5	1.8	1.9	4.3	5.9	1.9	2.6	10	0.081	116	
6.5	19	180 L	1LA5 186-1BD ..	965/1460	13.8	36.5	1.8	1.9	4.3	5.6	2.1	2.6	10	0.094	123	
9.5	26	200 L	1LA5 207-1BD ..	980/1470	20.0	49.0	1.9	1.5	5.3	5.5	2.1	2.1	10	0.16	157	
750 rpm	1500 rpm			750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm			
750/1500 rpm, 8-/4-pole, 50 Hz, version with one winding in Dahlander circuit																
0.1	0.5	80 M	1LA7 080-0BB ..	680/1375	0.57	1.28	1.4	1.7	2.3	4.1	1.7	1.8	10	0.0014	9	
0.15	0.7		1LA7 083-0BB ..	685/1380	0.77	1.76	1.4	1.8	2.4	4.2	1.7	1.8	10	0.0017	10	
0.22	1	90 S	1LA7 090-0BB ..	695/1370	1.25	2.40	1.3	1.5	2.4	3.7	1.8	2.0	10	0.0024	13	
0.33	1.5	90 L	1LA7 096-0BB ..	700/1375	1.80	3.30	1.5	1.8	2.6	4.2	1.8	2.0	10	0.0033	16	
0.5	2	100 L	1LA7 106-0BB ..	710/1415	2.50	4.30	1.1	1.9	3.1	5.2	1.8	2.1	10	0.0047	21	
0.65	2.5		1LA7 107-0BB ..	700/1400	2.80	5.30	1.1	1.9	3.1	5.4	1.8	2.1	10	0.0054	24	
0.9	3.6	112 M	1LA7 113-0BB ..	720/1440	4.70	8.00	1.6	2.6	3.2	6.5	2.4	2.6	10	0.012	31	
1.1	4.7	132 S	1LA7 130-0BB ..	720/1455	3.30	10.3	2.0	2.3	4.3	6.4	2.5	2.9	10	0.018	41	
1.4	6.4	132 M	1LA7 133-0BB ..	720/1455	4.40	13.3	2.2	1.9	4.6	6.8	2.7	2.5	10	0.023	49	
2.2	9.5	160 M	1LA7 163-0BB ..	725/1465	6.50	19.7	1.7	2.0	4.1	7.0	2.0	2.6	10	0.043	73	
3.3	14	160 L	1LA7 166-0BB ..	730/1470	9.30	28.6	2.0	2.6	4.7	8.1	2.2	3.1	10	0.060	91	
4.5	16	180 M	1LA5 183-0BB ..	730/1470	13.6	32.3	1.4	2.3	3.8	7.0	2.1	2.9	10	0.13	113	
5	18.5	180 L	1LA5 186-0BB ..	730/1470	15.0	36.5	1.5	2.3	3.8	7.0	2.1	2.7	10	0.15	123	
7.5	28	200 L	1LA5 207-0BB ..	732/1470	20.5	52.0	1.9	2.5	4.3	7.1	2.2	2.5	10	0.24	157	

Higher outputs under "1LG · Cast iron housing" on Page 3/21.

Order No. supplements

Motor type	Penultimate position: Voltage identifier				Final position: Type of construction identifier								
	50 Hz, direct switch-on	230 V	400 V	500 V	690 V	IM B 3	Price supplement	IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35
1LA7 080 to 1LA7 166	1	6	5	0	0	1	1	1	4	2	3	6	
1LA5 183 to 1LA5 207	1	6	5	0	0	1	1	1	4	-	-	6	

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors

1LA - Aluminium housing - Pole-change motors

Selection and ordering data

Rated output			Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output			Starting torque			Starting current			Torque class	Moment of inertia J	Weight of constr. IM B 3 approx.	
750 rpm	1000 rpm	1500 rpm			Rated speeds	Rated current at 400 V			For direct-on-line starting as multiple of the rated torque			For direct-on-line starting as multiple of the rated current					
kW	kW	kW	rpm	A	A	A	750 rpm	1000 rpm	1500 rpm	750 rpm	1000 rpm	1500 rpm	KL	kg m ²	kg		
Three-speed pole-change for driving fans, IP55 degree of protection, temperature class F																	
750/1000/1500 rpm, 8-/6-/4-pole, 50 Hz, version with two windings, of which 750/1500 rpm in Dahlander circuit																	
0.15	0.22	0.7	90 S	1LA7 090-1BJ ..	705/960/1430	0.72	0.82	1.74	1.3	1.3	1.5	2.5	2.9	4.3	10	0.0028	12
0.22	0.3	0.95	90 L	1LA7 096-1BJ ..	705/955/1435	1.06	1.13	2.30	1.3	1.3	1.4	2.5	3.1	4.0	10	0.0035	15
0.37	0.55	1.5	100 L	1LA7 106-1BJ ..	700/955/1400	1.66	1.71	3.25	0.9	1.4	1.5	2.8	3.8	4.7	7	0.0048	20
0.45	0.7	1.8		1LA7 107-1BJ ..	700/955/1400	1.85	2.15	3.90	0.9	1.4	1.7	2.8	3.8	4.7	7	0.0058	22
0.6	0.85	2.4	112 M	1LA7 113-1BJ ..	715/970/1445	2.75	2.80	5.10	1.1	1.3	1.9	3.1	4.4	6.0	7	0.011	29
0.75	1.1	3.1	132 S	1LA7 130-1BJ ..	730/980/1460	2.70	3.40	7.20	1.7	1.7	1.5	3.7	4.5	5.5	10	0.018	39
1	1.5	4.4	132 M	1LA7 133-1BJ ..	730/980/1460	3.55	4.50	9.70	1.8	1.9	1.6	3.9	4.9	5.8	10	0.024	46
1.6	2.2	6.6	160 M	1LA7 163-1BJ ..	730/980/1470	5.10	6.50	14.2	1.4	1.7	1.7	3.9	5.1	7.0	7	0.040	67
2.4	3.5	10	160 L	1LA7 166-1BJ ..	730/980/1470	7.60	9.40	20.7	1.6	1.8	2.0	4.1	5.3	7.7	7	0.054	85
3	4.5	13	180 M	1LA5 183-1BJ ..	730/980/1470	8.40	10.2	25.5	1.2	1.8	1.3	3.2	5.0	5.4	7	0.081	116
3.7	5.5	16	180 L	1LA5 186-1BJ ..	725/975/1469	10.3	12.1	31.0	1.1	1.9	1.3	3.2	5.0	5.4	7	0.094	123
5	8	22	200 L	1LA5 207-1BJ ..	730/975/1465	13.4	16.6	42.0	1.2	1.9	1.3	3.6	5.0	5.4	7	0.16	157

Order No. supplements

Motor type	Penultimate position: Voltage identifier				Final position: Type of construction identifier						
	50 Hz, direct switch-on				IM B 3	Price supplement					
	230 V	400 V	500 V	690 V		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35
1LA7 090 to 1LA7 166	1	6	5	0	0	1	1	4	2	3	6
1LA5 183 to 1LA5 207	1	6	5	0	0	1	1	4	-	-	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors

1LA/1LG · Cast iron housing · Basic version

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Efficiency class 	Operating data at rated output						Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight kg Type of constr. IM B 3 approx.
				Rated speed rpm	Efficiency η at 4/4-load % %	Power factor p.f.	Rated current at 400 V A	Rated torque Nm							
Energy-saving motor to CEMEP "Improved Efficiency" eff2, IP55 degree of protection, temperature class F															
3000 rpm, 2-pole, 50 Hz															
3	100 L	1LA6 106-2AA ..	2	2890	84.0	84.0	0.85	6.1	9.9	2.8	6.8	3.0	16	0.0035	34
4	112 M	1LA6 113-2AA ..	2	2905	86.0	86.0	0.86	7.8	13	2.6	7.2	2.9	16	0.0059	43
5.5	132 S	1LA6 130-2AA ..	2	2925	86.5	86.5	0.89	10.4	18	2.0	5.9	2.8	16	0.015	53
7.5		1LA6 131-2AA ..	2	2930	88.0	88.0	0.89	13.8	24	2.3	6.9	3.0	16	0.019	58
11	160 M	1LA6 163-2AA ..	2	2940	89.5	89.5	0.88	20.0	36	2.1	6.5	2.9	16	0.034	96
15	160 M	1LA6 164-2AA ..	2	2940	90.0	90.2	0.90	26.5	49	2.2	6.6	3.0	16	0.043	105
18.5	160 L	1LA6 166-2AA ..	2	2940	91.0	91.2	0.91	32.0	60	2.4	7.0	3.1	16	0.051	115
22	180 M	1LG4 183-2AA ..	2	2945	91.6	91.6	0.86	40.5	71	2.5	6.4	3.4	16	0.068	145
30	200 L	1LG4 206-2AA ..	2	2950	91.8	91.9	0.88	54.0	97	2.3	6.5	3.0	16	0.13	205
37		1LG4 207-2AA ..	2	2955	92.9	93.2	0.89	65.0	120	2.5	7.2	3.3	16	0.15	225
45	225 M	1LG4 223-2AA ..	2	2960	93.6	93.9	0.88	79.0	145	2.4	6.7	3.1	16	0.22	285
55	250 M	1LG4 253-2AB ..	2	2970	93.6	93.8	0.88	96.0	177	2.1	6.7	3.1	13	0.40	375
75	280 S	1LG4 280-2AB ..	2	2975	94.5	94.3	0.88	130	241	2.5	7.5	3.1	13	0.72	500
90		1LG4 283-2AB ..	2	2975	95.1	95.2	0.89	154	289	2.6	7.2	3.1	13	0.83	540
110	315 S	1LG4 310-2AB ..	2	2982	94.6	93.8	0.88	190	352	2.4	7.2	3.1	13	1.2	720
132	315 M	1LG4 313-2AB ..	2	2982	95.1	94.8	0.90	225	423	2.4	6.9	3.0	13	1.4	775
160	315 L	1LG4 316-2AB ..	2	2982	95.5	95.3	0.91	265	512	2.4	7.0	3.0	13	1.6	900
200	315 L	1LG4 317-2AB ..	2	2982	95.9	95.8	0.92	325	641	2.3	6.7	2.9	13	2.1	1015
250	315	1LA8 315-2AC ..	2	2979	96.2	96.2	0.90	415	801	1.8	7.0	2.8	10	2.7	1300
315		1LA8 317-2AC ..	2	2979	96.6	96.6	0.91	520	1010	1.8	7.0	2.8	10	3.3	1500
355	355	1LA8 353-2AC ..	2	2980	96.6	96.6	0.90	590	1140	1.7	6.5	2.5	10	4.8	1900
400		1LA8 355-2AC ..	2	2980	96.7	96.7	0.91	660	1280	1.7	6.5	2.5	10	5.3	2000
500		1LA8 357-2AC ..	2	2982	97.1	97.1	0.91	820	1600	1.8	6.5	2.6	10	6.4	2200
560	400	1LA8 403-2AC ..	2	2985	97.1	97.1	0.91	910	1790	1.6	7.0	2.8	10	8.6	2800
630		1LA8 405-2AC ..	2	2985	97.1	97.1	0.91	1020	2020	1.6	7.0	2.8	10	9.6	3000
710		1LA8 407-2AC ..	2	2985	97.3	97.3	0.91	670	2270	1.7	7.0	2.8	10	11	3200
800	450	1LA8 453-2AE ..	2	2986	97.2	97.2	0.91	760	2560	0.9	7.0	3.0	5	19	4000
900		1LA8 455-2AE ..	2	2986	97.3	97.3	0.92	840	2880	0.9	7.0	2.8	5	21	4200
1000		1LA8 457-2AE ..	2	2986	97.4	97.4	0.93	920	3200	0.9	7.0	2.7	5	23	4400

● Rated current at 690 V.

▲ With axial fan for clockwise rotation.

■ Also supplied for 400 VΔ (voltage identifier "9" and order code L1Y).

Order No. supplements

Motor type	Penultimate position: Voltage identifier								Final position: Type of construction identifier						
	50 Hz				60 Hz				IM B 3	Price supplement					
	230 VΔ / 400 VΔ / 500 VY	500 VΔ	690 VΔ	460 VY	460 VΔ	(Outputs at 60 Hz see "Technical information")		IM B 5	IM V 1 With-out protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35		
1LA6 106 to 1LA6 166	1	6	3	5	-	1	6	0	1	1	4	2	3	6	
1LG4 183 to 1LG4 313	1	6	3	5	-	1	6	0	1	1	4	-	-	6	
1LG4 316 to 1LG4 317	-	6	-	5	-	-	6	0	-	8	4	-	-	6	
1LA8 315 to 1LA8 405	-	6	-	5	-	-	9 L2F	0	-	8	4	-	-	6	
1LA8 407 to 1LA8 457	-	6	-	5	0	-	On request	0	-	8	4	-	-	6	

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".



For possible 2-pole motors, see "Technical information", "Outputs at 60 Hz".

Parallel supply cables required (see "Technical information", "Connections, circuits and terminal blocks")

Voltage	1LG4										1LA8												
	183	206	207	223	253	280	283	310	313	316	317	315	317	353	355	357	403	405	407	453	455	457	
230 V	■	■	■	■		■	■		■														
400 V											■	■	■	■	■	■	■	■					
500 V														■	■			■	■	■	■	■	■
690 V																					■	■	

Squirrel-cage motors 1LA/1LG · Cast iron housing · Basic version

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Efficiency class 	Operating data at rated output						Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight kg Type of constr. IM B 3 approx.
				Rated speed rpm	Efficiency η at 4/4-load %	Power factor p.f.	Rated current at 400 V A	Rated torque Nm	Rated torque Nm						
Energy-saving motor to CEMEP "Improved Efficiency" eff2, IP55 degree of protection, temperature class F 															
1500 rpm, 4-pole, 50 Hz															
2.2	100 L	1LA6 106-4AA ..	2	1420	82.0	82.5	0.82	4.7	15	2.5	5.6	2.8	16	0.0047	33
3	112 M	1LA6 107-4AA ..	2	1420	83.0	83.5	0.82	6.4	20	2.7	5.6	3.0	16	0.0055	36
4	112 M	1LA6 113-4AA ..	2	1440	85.0	85.5	0.83	8.2	27	2.7	6.0	3.0	16	0.012	45
5.5	132 S	1LA6 130-4AA ..	2	1455	86.0	86.0	0.81	11.4	36	2.5	6.3	3.1	16	0.018	55
7.5	132 M	1LA6 133-4AA ..	2	1455	87.0	87.5	0.82	15.2	49	2.7	6.7	3.2	16	0.023	62
11	160 M	1LA6 163-4AA ..	2	1460	88.5	89.0	0.84	21.5	72	2.2	6.2	2.7	16	0.043	100
15	160 L	1LA6 166-4AA ..	2	1460	90.0	90.2	0.84	28.5	98	2.6	6.5	3.0	16	0.055	114
18.5	180 M	1LG4 183-4AA ..	2	1465	90.4	90.8	0.84	35.0	121	2.4	6.7	3.1	16	0.099	140
22	180 L	1LG4 186-4AA ..	2	1465	91.0	91.5	0.84	41.5	143	2.5	6.9	3.2	16	0.12	155
30	200 L	1LG4 207-4AA ..	2	1465	91.6	92.0	0.85	56.0	196	2.5	6.7	3.4	16	0.19	205
37	225 S	1LG4 220-4AA ..	2	1475	92.2	92.6	0.85	68.0	240	2.5	6.7	3.1	16	0.37	265
45	225 M	1LG4 223-4AA ..	2	1475	93.1	93.6	0.86	81.0	291	2.7	7.2	3.2	16	0.45	300
55	250 M	1LG4 253-4AA ..	2	1480	93.5	93.8	0.85	100	355	2.4	6.1	2.8	16	0.69	390
75	280 S	1LG4 280-4AA ..	2	1485	94.2	94.1	0.85	136	482	2.5	7.1	3.0	16	1.2	535
90	280 M	1LG4 283-4AA ..	2	1485	94.6	94.6	0.86	160	579	2.5	7.4	3.0	16	1.4	580
110	315 S	1LG4 310-4AA ..		1488	94.6	94.6	0.85	198	706	2.5	6.4	2.8	16	1.9	730
132	315 M	1LG4 313-4AA ..		1488	95.2	95.2	0.85	235	847	2.7	6.8	2.9	16	2.3	810
160	315 L	1LG4 316-4AA ..		1486	95.7	95.8	0.86	280	1028	2.7	6.8	2.8	16	2.9	955
200	315 L	1LG4 317-4AA ..		1486	95.9	96.2	0.88	340	1285	2.6	6.5	2.8	16	3.5	1060
250	315	1LA8 315-4AB ..		1488	96.0	96.0	0.88	425	1600	1.9	6.5	2.8	13	3.6	1300
315	315	1LA8 317-4AB ..		1488	96.3	96.3	0.88	540	2020	2.0	6.8	2.8	13	4.4	1500
355	355	1LA8 353-4AB ..		1488	96.3	96.3	0.87	610	2280	2.1	6.5	2.6	13	6.1	1900
400	355	1LA8 355-4AB ..		1488	96.4	96.4	0.87	690	2570	2.1	6.5	2.6	13	6.8	2000
500	355	1LA8 357-4AB ..		1488	96.8	96.8	0.88	850	3210	2.1	6.5	2.4	13	8.5	2200
560	400	1LA8 403-4AB ..		1492	96.8	96.8	0.88	950	3580	1.9	6.5	2.7	13	13	2800
630	400	1LA8 405-4AB ..		1492	97.0	97.0	0.88	1060	4030	1.9	6.8	2.7	13	14	3000
710	400	1LA8 407-4AB ..		1492	97.0	97.0	0.89	690	4540	1.9	6.8	2.7	13	16	3200
800	450	1LA8 453-4AC ..		1492	97.0	97.0	0.88	780	5120	1.6	7.0	2.6	10	23	4000
900	450	1LA8 455-4AC ..		1492	97.1	97.1	0.88	880	5760	1.6	7.0	2.6	10	26	4200
1000	450	1LA8 457-4AC ..		1492	97.1	97.1	0.89	970	6400	1.7	7.0	2.6	10	28	4400

- Rated current at 690 V. ■ Also supplied for 400 VΔ (voltage identifier "9" and order code L1Y).
 - ▲ **Standardline for 1LA8 motors** is a standard offer for certain designs and can be ordered with Order Code B20. It decreases the price by 10% for the basic machine. The delivery time is 4 weeks. Scope of supply for Standardline:
 - 4-pole design
 - Design designator 0 (IM B3)
 - Available for operation with converter, but not in 690 V design
 - Types 1LA8 315, 1LA8 317, 1LA8 353 and 1LA8 355
 - Voltage distinctive number 6 (400 VΔ/690 VΥ) or 5 (500 VΔ)
- Available Order No.: A12, A23, A61, A72, H70, H73, K09, K10, K45, L97, L98 and L27

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier							
	50 Hz			60 Hz			IM B 3 Price supplement							
	230 VΔ / 400 VΔ / 500 VΥ	500 VΔ	690 VΔ	460 VΥ	460 VΔ		IM B 5	IM V 1 With-out protective cover	IM V 1 With-protective cover	IM B 14 With-stand-ard flange	IM B 14 With special flange	IM B 35		
1LA6 106 to 1LA6 166	1	6	3	5	-	1	6	0	1	1	4	2	3	6
1LG4 183 to 1LG4 313	1	6	3	5	-	1	6	0	1	1	4	-	-	6
1LG4 316 to 1LG4 317	-	6	-	5	-	-	6	0	-	8	4	-	-	6
1LA8 315 to 1LA8 405	-	6	-	5	-	-	9 L2F	0	-	8	4	-	-	6
1LA8 407 to 1LA8 457	-	-	-	5	0	-	On request	0	-	8	4	-	-	6

Other voltage and/or frequency, voltage identifier "9". Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Parallel supply cables required (see "Technical information", "Connections, circuits and terminal blocks")

Voltage	1LG4										1LA8													
	183	186	207	220	223	253	280	283	310	313	316	317	315	317	353	355	357	403	405	407	453	455	457	
230 V	■	■	■	■	■		■	■	■	■														
400 V											■		■	■	■	■	■	■	■					
500 V															■	■			■	■	■	■	■	■
690 V																							■	■

Squirrel-cage motors

1LA/1LG · Cast iron housing · Basic version

Selection and ordering data

3

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output						Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η %	Power factor p.f. %	Rated current at 400 V A	Rated torque Nm							
Energy-saving motor, IP55 degree of protection, temperature class F														
1000 rpm, 6-pole, 50 Hz														
1.5	100 L	1LA6 106-6AA ..	925	74.0	74.0	0.75	3.9	15	2.3	4.0	2.3	16	0.0047	33
2.2	112 M	1LA6 113-6AA ..	940	78.0	78.5	0.78	5.2	22	2.2	4.6	2.5	16	0.0091	40
3	132 S	1LA6 130-6AA ..	950	79.0	79.5	0.76	7.2	30	1.9	4.2	2.2	16	0.015	50
4	132 M	1LA6 133-6AA ..	950	80.5	80.5	0.76	9.4	40	2.1	4.5	2.4	16	0.019	57
5.5	132 M	1LA6 134-6AA ..	950	83.0	83.0	0.76	12.6	55	2.3	5.0	2.6	16	0.025	66
7.5	160 M	1LA6 163-6AA ..	960	86.0	86.0	0.74	17.0	75	2.1	4.6	2.5	16	0.044	103
11	160 L	1LA6 166-6AA ..	960	87.5	87.5	0.74	24.5	109	2.3	4.8	2.6	16	0.063	122
15	180 L	1LG4 186-6AA ..	965	88.9	90.3	0.83	29.5	148	2.3	5.3	2.5	16	0.18	150
18.5	200 L	1LG4 206-6AA ..	975	89.8	90.2	0.81	36.5	181	2.5	5.6	2.5	16	0.24	195
22	200 L	1LG4 207-6AA ..	975	90.3	91.0	0.81	43.5	215	2.6	5.7	2.5	16	0.29	205
30	225 M	1LG4 223-6AA ..	978	91.8	92.8	0.83	57.0	293	2.7	5.6	2.5	16	0.49	280
37	250 M	1LG4 253-6AA ..	980	92.3	93.0	0.83	70.0	361	2.7	6.0	2.3	16	0.76	370
45	280 S	1LG4 280-6AA ..	985	92.4	93.1	0.85	83.0	436	2.4	6.1	2.4	16	1.10	475
55	280 M	1LG4 283-6AA ..	985	92.7	93.3	0.86	100	533	2.5	6.3	2.5	16	1.40	510
75	315 S	1LG4 310-6AA ..	988	93.5	93.7	0.84	138	725	2.5	6.5	2.8	16	2.1	685
90	315 M	1LG4 313-6AA ..	988	93.9	94.2	0.84	164	870	2.6	6.8	2.9	16	2.5	750
110	315 L	1LG4 316-6AA ..	988	94.3	94.6	0.86	196	1063	2.5	6.8	2.9	16	3.2	890
132	315 L	1LG4 317-6AA ..	988	94.8	95.0	0.86	235	1276	3.1	7.3	3.0	16	4.0	980
160	315 L	1LG4 318-6AA ..	988	95.0	95.1	0.86	285	1547	3.0	7.5	3.0	16	4.7	1180
200	315	1LA8 315-6AB ..	989	95.7	95.8	0.86	345	1930	2.0	6.3	2.5	13	6.0	1300
250	315	1LA8 317-6AB ..	989	95.9	96.0	0.86	430	2410	2.0	6.3	2.5	13	7.3	1500
315	355	1LA8 355-6AB ..	993	96.2	96.2	0.86	540	3030	2.2	6.5	2.8	13	13	2000
400	355	1LA8 357-6AB ..	993	96.5	96.5	0.86	690	3850	2.2	6.5	2.8	13	16	2200
450	400	1LA8 403-6AB ..	992	96.5	96.5	0.86	780	4330	2.2	6.5	2.8	13	21	2800
500	400	1LA8 405-6AB ..	992	96.5	96.5	0.86	860	4810	2.3	6.5	2.8	13	24	3000
560	400	1LA8 407-6AB ..	992	96.7	96.7	0.86	960	5390	2.3	6.5	2.8	13	27	3200
630	450	1LA8 453-6AB ..	993	96.8	96.8	0.86	1100	6060	2.0	6.5	2.6	13	35	4000
710	450	1LA8 455-6AB ..	993	96.8	96.8	0.86	710 ■■	6830	2.0	6.5	2.5	13	39	4200
800	450	1LA8 457-6AB ..	993	97.0	97.1	0.86	790 ■■	7690	2.0	6.5	2.5	13	44	4500

● Rated current at 690 V.

■ Also supplied for 400 VΔ (voltage identifier "9" and order code L1Y).

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier							
	50 Hz			60 Hz			IM B 3	Price supplement						
	230 VΔ / 400 VΔ / 500 VY	500 VΔ	690 VΔ	460 VY	460 VΔ	(Outputs at 60 Hz see "Technical information")	IM B 5	IM V 1 With-out protective cover	IM V 1 With-protective cover	IM B 14 With-stand-ard flange	IM B 14 With special flange	IM B 35		
1LA6 106 to 1LA6 166	1	6	3	5	-	1	6	0	1	1	4	2	3	6
1LG4 183 to 1LG4 313	1	6	3	5	-	1	6	0	1	1	4	-	-	6
1LG4 316 to 1LG4 318	-	6	-	5	-	-	6	0	-	8	4	-	-	6
1LA8 315 to 1LA8 453	-	6	-	5	-	-	9 L2F	0	-	8	4	-	-	6
1LA8 455 to 1LA8 457	-	-	-	5	0	-	On request	0	-	8	4	-	-	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Parallel supply cables required (see "Technical information", "Connections, circuits and terminal blocks")

Voltage	1LG4											1LA8											
	186	206	207	223	253	280	283	310	313	316	317	318	315	317	355	357	403	405	407	453	455	457	
230 V				■																			
400 V													■	■	■		■	■	■				
500 V															■					■	■	■	

Squirrel-cage motors

1LA/1LG · Cast iron housing · Basic version

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output						Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η %	Power factor p.f. %	Rated current at 400 V A	Rated torque Nm	4/4-load %						
Energy-saving motor, IP55 degree of protection, temperature class F														
750 rpm, 8-pole, 50 Hz														
0.75	100 L	1LA6 106-8AB ..	680	66.0	65.0	0.76	2.15	11	1.6	3.0	1.9	13	0.0051	29
1.1	100 L	1LA6 107-8AB ..	680	72.0	72.0	0.76	2.90	15	1.8	3.3	2.1	13	0.0063	32
1.5	112 M	1LA6 113-8AB ..	705	74.0	74.0	0.76	3.85	20	1.8	3.7	2.1	13	0.013	39
2.2	132 S	1LA6 130-8AB ..	700	75.0	75.0	0.74	5.70	30	1.9	3.9	2.3	13	0.014	50
3	132 M	1LA6 133-8AB ..	700	77.0	77.5	0.74	7.60	41	2.1	4.1	2.4	13	0.019	57
4	160 M	1LA6 163-8AB ..	715	80.0	80.0	0.72	10.0	53	2.2	4.5	2.6	13	0.036	91
5.5	160 M	1LA6 164-8AB ..	710	83.5	83.5	0.73	13.0	74	2.3	4.7	2.7	13	0.046	102
7.5	160 L	1LA6 166-8AB ..	715	85.5	85.5	0.72	17.6	100	2.7	5.3	3.0	13	0.064	122
11	180 L	1LG4 186-8AB ..	725	87.5	88.3	0.73	25.0	145	1.7	4.2	2.1	13	0.17	150
15	200 L	1LG4 207-8AB ..	725	87.7	88.4	0.76	32.5	198	2.2	4.9	2.6	13	0.29	205
18.5	225 S	1LG4 220-8AB ..	730	89.4	90.4	0.78	38.5	242	2.3	5.5	2.7	13	0.48	270
22	225 M	1LG4 223-8AB ..	730	89.7	90.7	0.79	45.0	288	2.3	5.6	2.8	13	0.55	290
30	250 M	1LG4 253-8AB ..	730	91.4	92.2	0.81	58.0	392	2.3	5.5	2.6	13	0.84	385
37	280 S	1LG4 280-8AB ..	735	92.0	92.8	0.81	72.0	481	2.2	5.0	2.1	13	1.11	475
45	280 M	1LG4 283-8AB ..	735	92.4	93.3	0.81	87.0	585	2.2	5.1	2.1	13	1.40	515
55	315 S	1LG4 310-8AB ..	740	93.0	93.4	0.81	106	710	2.2	5.8	2.6	13	2.1	680
75	315 M	1LG4 313-8AB ..	738	93.3	94.0	0.83	140	971	2.2	5.7	2.6	13	2.5	745
90	315 L	1LG4 316-8AB ..	738	93.4	94.0	0.83	168	1165	2.2	5.8	2.7	13	3.1	865
110	315 L	1LG4 317-8AB ..	738	94.0	94.4	0.83	205	1423	2.4	6.1	2.8	13	3.9	1020
132	315 L	1LG4 318-8AB ..	738	94.2	94.6	0.83	245	1708	2.5	6.5	2.9	13	4.5	1100
160	315	1LA8 315-8AB ..	739	94.9	95.1	0.82	295	2070	2.1	6.0	2.3	13	6.0	1300
200	315	1LA8 317-8AB ..	739	95.2	95.6	0.82	370	2580	2.1	6.0	2.3	13	7.3	1500
250	355	1LA8 355-8AB ..	741	95.7	96.0	0.82	460	3220	2.1	6.1	2.4	13	13	2000
315	355	1LA8 357-8AB ..	741	96.0	96.0	0.82	580	4060	2.1	6.1	2.4	13	16	2200
355	400	1LA8 403-8AB ..	742	96.1	96.2	0.82	650	4570	2.0	6.5	2.6	13	21	2800
400	400	1LA8 405-8AB ..	742	96.2	96.4	0.82	730	5150	2.1	6.5	2.6	13	24	3000
450	400	1LA8 407-8AB ..	742	96.3	96.3	0.82	820	5790	2.1	6.5	2.6	13	27	3200
500	450	1LA8 453-8AB ..	744	96.4	96.4	0.81	920	6420	2.0	6.6	2.4	13	35	4000
560	450	1LA8 455-8AB ..	744	96.5	96.4	0.81	1040	7190	2.0	6.6	2.4	13	39	4200
630	450	1LA8 457-8AB ..	744	96.6	96.6	0.81	1160	8090	2.0	6.6	2.4	13	44	4500

Order No. supplements

Motor type	Penultimate position: Voltage identifier								Final position: Type of construction identifier					
	50 Hz				60 Hz				IM B 3	Price supplement				
	230 VΔ / 400 VΔ / 500 VΥ	500 VΔ	690 VΔ	460 VΥ	460 VΔ	(Outputs at 60 Hz see "Technical information")			IM B 5	IM V 1	IM V 1	IM B 14	IM B 14	IM B 35
	400 VΥ	690 VΥ								With-out protective cover	With-protective cover	With standard flange	With special flange	
1LA6 106 to 1LA6 166	1	6	3	5	-	1	6	0	1	1	4	2	3	6
1LG4 183 to 1LG4 313	1	6	3	5	-	1	6	0	1	1	4	-	-	6
1LG4 316 to 1LG4 318	-	6	-	5	-	-	6	0	-	8	4	-	-	6
1LA8 315 to 1LA8 457	-	6	-	5	-	-	9 L2F	0	-	8	4	-	-	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

■ Parallel supply cables required (see "Technical information", "Connections, circuits and terminal blocks")

Voltage	1LA8									
	315	317	355	357	403	405	407	453	455	457
400 V			■				■	■	■	■
500 V								■	■	

Squirrel-cage motors

1LG · Cast iron housing · Basic version

Selection and ordering data

■ 50 Hz

The motors can also be used for 60 Hz according to EPACT, see Pages 3/18 and 3/19.

For further details, see "Technical information", "Motors for the US market".

3

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Efficiency class EFF I	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg	
				Rated speed rpm	Efficiency η %	Power factor p.f. %	Rated current at 400 V A	Rated torque Nm							
Energy-saving motor to CEMEP "High Efficiency" eff1, IP55 degree of protection, temperature class F														EFF I	
3000 rpm, 2-pole, 50 Hz															
22	180 M	1LG6 183-2AA ..	1	2955	94.1	94.5	0.88	38.5 ¹⁾	71	2.5	7.2	3.4	16	0.086	180
30	200 L	1LG6 206-2AA ..	1	2960	93.5	93.4	0.88	53.0 ¹⁾	97	2.4	7.0	3.3	16	0.15	225
37	200 L	1LG6 207-2AA ..	1	2960	94.1	94.0	0.89	64.0 ¹⁾	119	2.5	7.2	3.3	16	0.18	255
45	225 M	1LG6 223-2AA ..	1	2965	94.9	95.1	0.89	77.0 ¹⁾	145	2.5	7.3	3.2	16	0.27	330
55	250 M	1LG6 253-2AA ..	1	2975	95.3	95.3	0.90	93.0	177	2.4	6.8	3.0	16	0.47	420
75	280 S	1LG6 280-2AB ..	1	2975	95.2	95.2	0.89	128 ¹⁾	241	2.5	7.0	3.0	13	0.83	530
90	280 M	1LG6 283-2AB ..	1	2978	95.6	95.7	0.90	150 ¹⁾	289	2.6	7.6	3.1	13	1.0	615
110	315 S	1LG6 310-2AB ..		2982	95.8	95.7	0.91	182 ¹⁾	352	2.4	6.9	2.8	13	1.4	790
132	315 M	1LG6 313-2AB ..		2982	96.0	95.9	0.91	220 ¹⁾	423	2.6	7.1	2.9	13	1.6	915
160	315 L	1LG6 316-2AB ..		2982	96.4	96.4	0.92	260	512	2.5	7.1	2.9	13	2.1	1055
200	315 L	1LG6 317-2AB ..		2982	96.5	96.5	0.93	320	641	2.5	6.9	2.8	13	2.5	1245
1500 rpm, 4-pole, 50 Hz															
18.5	180 M	1LG6 183-4AA ..	1	1470	92.6	93.2	0.83	34.5 ¹⁾	120	2.5	6.4	3.0	16	0.12	155
22	180 L	1LG6 186-4AA ..	1	1470	93.2	93.5	0.84	40.5 ¹⁾	143	2.5	6.7	3.1	16	0.14	180
30	200 L	1LG6 207-4AA ..	1	1470	93.3	93.4	0.85	55.0 ¹⁾	195	2.6	6.7	3.3	16	0.23	225
37	225 S	1LG6 220-4AA ..	1	1480	94.0	94.4	0.85	67.0 ¹⁾	239	2.7	6.8	3.0	16	0.40	290
45	225 M	1LG6 223-4AA ..	1	1480	94.5	94.7	0.85	81.0 ¹⁾	290	2.8	6.9	3.0	16	0.49	330
55	250 M	1LG6 253-4AA ..	1	1485	95.1	95.3	0.87	96.0	354	2.6	7.5	3.0	16	0.86	460
75	280 S	1LG6 280-4AA ..	1	1485	95.1	95.2	0.87	130 ¹⁾	482	2.5	6.8	2.9	16	1.40	575
90	280 M	1LG6 283-4AA ..	1	1486	95.4	95.5	0.86	158 ¹⁾	578	2.7	7.5	3.1	16	1.70	675
110	315 S	1LG6 310-4AA ..		1488	95.9	96.0	0.87	190 ¹⁾	706	2.7	7.1	2.9	16	2.3	810
132	315 M	1LG6 313-4AA ..		1488	96.1	96.2	0.88	225 ¹⁾	847	2.7	7.3	2.9	16	2.9	965
160	315 L	1LG6 316-4AA ..		1490	96.3	96.4	0.88	275	1026	3.0	7.4	3.0	16	3.5	1105
200	315 L	1LG6 317-4AA ..		1490	96.4	96.5	0.88	340	1282	3.2	7.6	3.0	16	4.2	1305

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier				
	50 Hz			60 Hz			IM B 3	Price supplement			
	230 VΔ / 400 VΥ	400 VΔ / 690 VΥ	500 VΥ	500 VΔ	460 VΥ	460 VΔ	IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 35	
1LG6 183 to 1LG6 313	1	6	3	5	1	6	0	1	1	4	6
1LG6 316 to 1LG6 317	-	6	-	5	-	6	0	-	8	4	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) For connection to 230 V, parallel supply cables are required (see "Technical information", "Connections, circuits and terminal blocks").

Squirrel-cage motors

1LG · Cast iron housing · Basic version

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg	
			Rated speed rpm	Efficiency η %	Power factor p.f. %	Rated current at 400 V A	Rated torque Nm							
Energy-saving motor, IP55 degree of protection, temperature class F														
1000 rpm, 6-pole, 50 Hz														
15	180 L	1LG6 186-6AA ..	975	90.9	91.7	0.81	29.5	147	2.4	5.5	2.5	16	0.20	175
18.5	200 L	1LG6 206-6AA ..	978	91.2	91.8	0.81	36.0	181	2.4	5.6	2.4	16	0.29	210
22		1LG6 207-6AA ..	978	91.9	92.5	0.82	42.0	215	2.4	5.6	2.4	16	0.36	240
30	225 M	1LG6 223-6AA ..	980	93.2	93.7	0.83	56.0 ¹⁾	292	2.8	6.5	2.9	16	0.63	325
37	250 M	1LG6 253-6AA ..	985	93.7	94.1	0.83	69.0	359	2.9	6.8	2.5	16	0.93	405
45	280 S	1LG6 280-6AA ..	988	94.4	94.6	0.85	81.0	435	3.0	6.8	2.7	16	1.40	520
55		1LG6 283-6AA ..	988	94.6	94.8	0.85	99.0	532	3.3	7.3	2.9	16	1.60	570
75	315 S	1LG6 310-6AA ..	990	95.0	95.0	0.83	138	723	2.8	7.3	3.0	16	2.5	760
90	315 M	1LG6 313-6AA ..	990	95.3	95.4	0.85	160	868	2.7	7.3	2.9	16	3.2	935
110	315 L	1LG6 316-6AA ..	990	95.6	95.7	0.85	196	1061	2.9	7.4	2.9	16	4.0	1010
132	315 L	1LG6 317-6AA ..	990	95.8	95.8	0.85	235	1273	3.1	7.8	3.1	16	4.7	1180
160	315 L	1LG6 318-6AA ..	990	95.8	95.9	0.86	280	1543	3.2	7.8	3.1	16	5.4	1245
750 rpm, 8-pole, 50 Hz														
11	180 L	1LG6 186-8AB ..	725	88.7	89.6	0.76	23.5	145	1.9	4.6	2.2	13	0.210	165
15	200 L	1LG6 207-8AB ..	725	89.3	89.8	0.80	30.5	198	2.3	5.3	2.6	13	0.370	235
18.5	225 S	1LG6 220-8AB ..	730	91.1	91.8	0.81	36.0	242	2.3	5.6	2.6	13	0.550	295
22	225 M	1LG6 223-8AB ..	730	91.6	92.1	0.81	43.0	288	2.4	5.8	2.8	13	0.660	335
30	250 M	1LG6 253-8AB ..	735	92.8	93.3	0.82	57.0	390	2.5	6.0	2.8	13	1.10	435
37	280 S	1LG6 280-8AB ..	738	93.1	93.3	0.81	71.0	479	2.3	5.7	2.3	13	1.40	510
45	280 M	1LG6 283-8AB ..	738	93.7	94.0	0.81	86.0	582	2.6	6.1	2.5	13	1.60	560
55	315 S	1LG6 310-8AB ..	740	94.3	94.4	0.82	102	710	2.5	6.3	2.9	13	2.5	750
75	315 M	1LG6 313-8AB ..	740	94.5	94.7	0.83	138	968	2.5	6.7	2.9	13	3.1	840
90	315 L	1LG6 316-8AB ..	740	94.7	95.1	0.84	164	1161	2.4	6.3	2.8	13	3.9	1005
110	315 L	1LG6 317-8AB ..	740	94.8	95.1	0.84	200	1420	2.4	6.4	2.6	13	4.5	1100
132	315 L	1LG6 318-8AB ..	740	94.9	95.2	0.84	240	1704	2.5	6.7	2.9	13	5.3	1270

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier				
	50 Hz			60 Hz			IM B 3	Price supplement			
	230 VΔ / 400 VY	400 VΔ / 690 VY	500 VY	500 VΔ	460 VY	460 V		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 35
1LG6 186 to 1LG6 313	1	6	3	5	1	6	0	1	1	4	6
1LG6 316 to 1LG6 318	-	6	-	5	-	6	0	-	8	4	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) For connection to 230 V, parallel supply cables are required (see "Technical information", "Connections, circuits and terminal blocks").

Squirrel-cage motors

1LG · Cast iron housing · Basic version

Selection and ordering data

■ 60 Hz

The motors can also be used for 50 Hz "High Efficiency" eff1, see Pages 3/16 and 3/17.

For further details, see "Technical information", "Motors for the US market".

3

Rated output HP	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Nominal efficiency level η %	Power factor p.f.	Rated current at 460 V A	Rated torque Nm						
Energy-saving motors according to EPACT, IP55 degree of protection													
3600 rpm, 2-pole, 60 Hz													
30 ●	180 M	1LG6 183-2AA ..	3560	93.6	0.88	34	60	2.7	7.9	3.7	16	0.086	180
40 ●	200 L	1LG6 206-2AA ..	3565	92.4	0.88	46	80	2.7	7.8	3.7	16	0.151	225
50 ●		1LG6 207-2AA ..	3565	92.4	0.89	57	100	2.8	7.8	3.7	16	0.182	255
60 ●	225 M	1LG6 223-2AA ..	3570	94.1	0.89	67	120	2.8	8.3	3.6	16	0.266	330
75 ●		1LG6 228-2AA .. ¹⁾	3570	94.1	0.90	83	150	3.3	8.7	3.7	16	0.319	390
75 ●	250 M	1LG6 253-2AA ..	3578	93.6	0.89	84	149	2.7	7.5	3.2	16	0.466	420
100 ●		1LG6 258-2AA .. ¹⁾	3580	94.1	0.89	112	199	2.8	8.4	3.5	16	0.565	470
100 ●	280 S	1LG6 280-2AB ..	3580	95.0	0.89	110	199	2.8	7.9	3.4	13	0.832	530
125 ●	280 M	1LG6 283-2AB ..	3580	95.0	0.90	136	249	2.9	8.3	3.4	13	1.00	615
150 ●		1LG6 288-2AA .. ¹⁾	3580	95.0	0.90	164	299	3.1	8.5	3.6	16	1.160	660
150 ●	315 S	1LG6 310-2AB ..	3585	94.5	0.91	164	298	2.6	7.5	3.1	13	1.39	790
175 ●	315 M	1LG6 313-2AB ..	3586	95.0	0.91	190	348	3.0	8.3	3.3	13	1.62	915
200 ●		1LG6 316-2AB ..	3588	95.4	0.91	215	397	3.0	8.4	3.5	13	2.09	1055
250 ●	315 L	1LG6 317-2AB ..	3588	95.4	0.93	265	496	3.2	8.6	3.4	13	2.46	1245
300 ●	315 L	1LG6 318-2AA .. ¹⁾	3591	95.4	0.92	320	595	4.1	10.0	3.9	16	2.74	1330
1800 rpm, 4-pole, 60 Hz													
25 ●	180 M	1LG6 183-4AA ..	1775	92.4	0.82	31	100	2.9	7.1	3.3	16	0.122	155
30 ●	180 L	1LG6 186-4AA ..	1775	92.4	0.83	36.5	121	2.8	7.4	3.4	16	0.144	180
40 ●	200 L	1LG6 207-4AA ..	1775	93.0	0.84	48	160	3.0	7.7	3.7	16	0.234	225
50 ●	225 S	1LG6 220-4AA ..	1785	93.6	0.84	60	200	3.1	7.5	3.4	16	0.398	290
60 ●	225 M	1LG6 223-4AA ..	1785	94.1	0.85	70	240	3.3	7.9	3.5	16	0.486	330
75 ●		1LG6 228-4AA .. ¹⁾	1785	94.1	0.85	88	299	3.0	7.8	3.3	16	0.660	355
75 ●	250 M	1LG6 253-4AA ..	1790	94.5	0.86	86	298	2.9	8.2	3.4	16	0.856	460
100 ●		1LG6 258-4AA .. ¹⁾	1788	94.5	0.86	116	398	3.0	8.1	3.3	16	0.990	495
100 ●	280 S	1LG6 280-4AA ..	1788	95.0	0.86	114	398	2.9	7.6	3.2	16	1.39	575
125 ●	280 M	1LG6 283-4AA ..	1790	95.0	0.86	144	497	3.0	8.2	3.4	16	1.71	675
150 ●		1LG6 288-4AA .. ¹⁾	1788	95.0	0.86	172	598	3.1	8.4	3.5	16	1.88	710
150 ●	315 S	1LG6 310-4AA ..	1791	95.0	0.87	170	597	3.1	7.8	3.2	16	2.31	810
175 ●	315 M	1LG6 313-4AA ..	1791	95.4	0.87	198	696	3.2	8.4	3.3	16	2.88	965
200 ●		1LG6 316-4AA ..	1792	95.4	0.87	225	795	3.7	9.0	3.6	16	3.46	1105
250 ●	315 L	1LG6 317-4AA ..	1792	95.8	0.87	280	994	4.0	9.1	3.7	16	4.22	1305
300 ●	315 L	1LG6 318-4AA .. ¹⁾	1792	95.8	0.87	335	1193	4.0	9.3	3.7	16	4.50	1345

● With CC No. CC 032A

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier				
	50 Hz			60 Hz			IM B 3	Price supplement		IM V 1	IM B 35
	230 VΔ / 400 VY	400 VΔ / 690 VY	500 VY	500 VΔ	460 VY	460 VΔ		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	
1LG6 183 to 1LG6 313	1	6	3	5	1	6	0	1	1	4	6
1LG6 316 to 1LG6 318	-	6	-	5	-	6	0	-	8	4	6

Other voltage and/or frequency, voltage identifier "9". Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) Only 60 Hz data according to EPACT shown on the rating plate.

Squirrel-cage motors 1LG · Cast iron housing · Basic version

Selection and ordering data

Rated output HP	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Nominal efficiency level η %	Power factor p.f.	Rated current at 460 V A	Rated torque Nm						
Energy-saving motors according to EPACT, IP55 degree of protection													CC 032A
1200 rpm, 6-pole, 60 Hz													
20 ●	180 L	1LG6 186-6AA ..	1178	91.0	0.80	25.5	121	2.9	6.5	3.0	16	0.203	175
25 ●	200 L	1LG6 206-6AA ..	1180	91.7	0.79	32	151	2.9	6.5	2.7	16	0.285	210
30 ●		1LG6 207-6AA ..	1180	91.7	0.80	38.5	181	2.9	6.4	2.7	16	0.362	240
40 ●	225 M	1LG6 223-6AA ..	1184	93.0	0.82	49	240	3.4	7.2	3.4	16	0.629	325
50 ●		1LG6 228-6AA ..¹⁾	1184	93.0	0.83	61	301	3.2	7.6	3.4	16	0.760	355
50 ●	250 M	1LG6 253-6AA ..	1186	93.0	0.82	61	300	3.4	7.4	2.9	16	0.934	405
60 ●		1LG6 258-6AA ..¹⁾	1186	93.6	0.82	73	361	3.4	7.7	2.9	16	1.07	435
60 ●	280 S	1LG6 280-6AA ..	1190	94.1	0.83	72	360	3.6	7.7	3.1	16	1.37	520
75 ●	280 M	1LG6 283-6AA ..	1190	94.5	0.83	89	449	3.9	8.3	3.3	16	1.65	570
100 ●		1LG6 288-6AA ..¹⁾	1190	94.5	0.84	118	599	4.0	8.4	3.3	16	1.94	615
100 ●	315 S	1LG6 310-6AA ..	1191	94.5	0.82	120	598	3.3	8.4	3.4	16	2.50	760
125 ●	315 M	1LG6 313-6AA ..	1191	94.5	0.84	148	747	3.0	7.9	3.1	16	3.20	935
150 ●	315 L	1LG6 316-6AA ..	1192	95.0	0.84	176	897	3.3	8.5	3.3	16	4.02	1010
175 ●	315 L	1LG6 317-6AA ..	1192	95.4	0.84	205	1046	3.8	8.9	3.6	16	4.71	1180
200 ●	315 L	1LG6 318-6AA ..	1192	95.4	0.84	235	1195	4.0	9.4	4.0	16	5.39	1245

● With CC No. CC 032A

Order No. supplements

Motor type	Penultimate position: Voltage identifier						Final position: Type of construction identifier				
	50 Hz			60 Hz			IM B 3	Price supplement			
	230 VΔ / 400 VY	400 VΔ / 690 VY	500 VY	500 VΔ	460 VY	460 VΔ		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 35
1LG6 186 to 1LG6 313	1	6	3	5	1	6	0	1	1	4	6
1LG6 316 to 1LG6 318	-	6	-	5	-	6	0	-	8	4	6

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) Only 60 Hz data according to EPACT shown on the rating plate.

Squirrel-cage motors

1LG · Cast iron housing · With increased power

Selection and ordering data

3

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg	
			Rated speed rpm	Efficiency η at		Power factor p.f.	Rated current at 400 V A							Rated torque Nm
				4/4-load %	3/4-load %									
IP55 degree of protection, temperature class F														
3000 rpm, 2-pole, 50 Hz														
30	180 M	1LG4188-2AA . .	2950	92.8	92.9	0.86	54 ¹⁾	97	2.4	7.1	3.4	16	0.086	175
45	200 L	1LG4208-2AA . .	2955	93.6	93.7	0.89	78 ¹⁾	145	2.5	6.9	3.2	16	0.18	255
55	225 M	1LG4228-2AA . .	2960	94.8	95.0	0.89	94 ¹⁾	177	2.6	7.3	3.2	16	0.27	335
75	250 M	1LG4258-2AA . .	2970	94.5	94.5	0.88	130 ¹⁾	241	2.4	7.1	3.1	16	0.48	420
110	280 M	1LG4288-2AB . .	2975	95.5	95.6	0.90	184 ¹⁾	353	2.5	7.0	3.0	13	1.00	630
1500 rpm, 4-pole, 50 Hz														
30	180 L	1LG4188-4AA . .	1465	91.7	91.9	0.80	59 ¹⁾	196	2.6	6.3	2.9	16	0.14	180
37	200 L	1LG4208-4AA . .	1465	92.5	92.8	0.83	70 ¹⁾	241	2.6	6.5	3.0	16	0.23	230
55	225 M	1LG4228-4AA . .	1475	93.4	93.9	0.86	99 ¹⁾	356	2.5	6.5	2.7	16	0.49	330
75	250 M	1LG4258-4AA . .	1482	94.3	94.4	0.85	136 ¹⁾	483	2.5	7.0	3.0	16	0.86	460
110	280 M	1LG4288-4AA . .	1488	95.2	94.9	0.84	198 ¹⁾	706	2.8	7.9	3.3	16	1.71	680
1000 rpm, 6-pole, 50 Hz														
18.5	180 L	1LG4188-6AA . .	970	89.6	90.3	0.80	37.5 ¹⁾	182	2.3	4.9	2.4	16	0.20	175
30	200 L	1LG4208-6AA . .	975	90.9	91.3	0.80	60 ¹⁾	294	2.6	5.8	2.6	16	0.36	245
37	225 M	1LG4228-6AA . .	978	92.2	93.0	0.83	70 ¹⁾	361	2.5	5.9	2.8	16	0.62	325
45	250 M	1LG4258-6AA . .	982	93.3	93.8	0.83	84	438	2.7	6.3	2.3	16	0.93	405
75	280 M	1LG4288-6AA . .	985	93.8	94.3	0.85	136 ¹⁾	727	3.0	6.8	2.8	16	1.65	570
750 rpm, 8-pole, 50 Hz														
15	180 L	1LG4188-8AB . .	720	87.8	88.5	0.73	34 ¹⁾	199	2.0	4.5	2.4	13	0.21	165
18.5	200 L	1LG4208-8AB . .	725	88.3	89.2	0.78	39	244	2.4	5.2	2.6	13	0.37	230
30	225 M	1LG4228-8AB . .	730	90.4	91.2	0.79	61 ¹⁾	392	2.6	5.6	2.8	13	0.66	340
37	250 M	1LG4258-8AB . .	730	91.9	92.8	0.82	71	484	2.4	5.6	2.6	13	1.06	430
55	280 M	1LG4288-8AB . .	735	92.9	93.7	0.81	106	715	2.4	5.6	2.3	13	1.63	565

Order No. supplements

Motor type	Penultimate position: Voltage identifier					Final position: Type of construction identifier						
	50 Hz		60 Hz			IM B 3	Price supplement		IM V 1		IM B 35	
	230 VΔ / 400 VY	400 VΔ / 690 VY	500 VY	500 VΔ	460 VY	460 VΔ (Outputs at 60 Hz see "Technical information")		IM B 5	Without protective cover	With protective cover		
1LG4 188 to 1LG4 288	1	6	3	5	1	6	0	1	1	4	6	

Other voltage and/or frequency, voltage identifier "9".
Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

1) For connection to 230 V, parallel supply cables are required (see "Technical information", "Connections, circuits and terminal blocks").

Squirrel-cage motors 1LG · Cast iron housing · Pole-changing

Selection and ordering data

Pole-change motors

The torque classification for pole-change motors only applies once the lowest speed

has been activated until the operating speed when it is switched over to the next highest speed.

The motors can only be started direct-on-line. For circuit diagrams, see online help in SD configurator.

Rated output		Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output				Starting torque		Starting current		Stalling torque		Torque class	Moment of inertia J	Weight of constr. IM B 3 approx.
1000 rpm	1500 rpm			Rated speed	Rated current at 400 V		For direct-on-line starting as multiple of the rated torque		torque		torque					
kW	kW	rpm	A	A	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	KL	kg m ²	kg	

Two-speed pole-change for driving fans, IP55 degree of protection, temperature class F

Rated output		Size	Order No.	Operating data at rated output				Starting torque		Starting current		Stalling torque		Torque class	Moment of inertia J	Weight of constr. IM B 3 approx.
1000 rpm	1500 rpm			Rated speed	Rated current at 400 V		For direct-on-line starting as multiple of the rated torque		torque		torque					
kW	kW	rpm	A	A	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	KL	kg m ²	kg	
1000/1500 rpm, 6-/4-pole, 50 Hz, design with two windings																
5.5	16	180 M	1LG4 183-1BD ..	960/1460	12.0	31.5	1.6	1.7	4.0	5.3	1.8	2.5	10	0.082	155	
6.5	19	180 L	1LG4 186-1BD ..	960/1460	14.0	36.5	1.6	1.7	4.0	5.2	1.8	2.4	10	0.086	175	
9.5	26	200 L	1LG4 207-1BD ..	975/1460	20.0	49.0	1.9	1.7	5.0	5.1	2.2	2.4	10	0.151	235	
12	34	225 S	1LG4 220-1BD ..	980/1465	24.5	63.0	2.3	1.7	5.7	5.6	2.1	2.3	10	0.295	285	
14.5	40	225 M	1LG4 223-1BD ..	980/1470	28.5	72.0	2.2	1.9	5.6	5.8	2.1	2.3	10	0.378	340	
18	52	250 M	1LG4 253-1BD ..	980/1475	34.0	91.0	2.0	2.0	4.9	5.9	2.0	2.7	10	0.447	380	
25	70	280 S	1LG4 280-1BD ..	982/1478	47.0	124.0	2.1	2.2	5.0	6.2	1.9	2.6	10	1.19	540	
30	82	280 M	1LG4 283-1BD ..	984/1480	56.0	148.0	2.5	2.4	5.5	6.6	2.2	2.8	10	1.39	580	
750 rpm	1500 rpm			750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm					
750/1500 rpm, 8-/4-pole, 50 Hz, version with one winding in Dahlander circuit																
4.5	16	180 M	1LG4 183-0BB ..	725/1465	12.6	31.0	1.4	2.2	3.6	6.8	2.0	3.1	10	0.117	155	
5	18.5	180 L	1LG4 186-0BB ..	725/1470	14.2	35.0	1.6	2.4	3.7	7.2	2.1	3.3	10	0.144	180	
7.5	28	200 L	1LG4 207-0BB ..	730/1465	21.5	52.0	2.1	2.7	4.3	7.3	2.5	2.9	10	0.191	220	
9.5	35	225 S	1LG4 220-0BB ..	738/1478	26.0	64.0	2.0	1.7	4.4	6.9	2.3	2.9	10	0.447	295	
11.5	42	225 M	1LG4 223-0BB ..	738/1475	30.5	75.0	1.9	2.4	4.5	6.9	2.2	3.0	10	0.486	330	
14.5	52	250 M	1LG4 253-0BB ..	740/1482	38.0	94.0	2.0	2.5	4.0	6.8	1.8	2.6	10	0.856	430	
19	70	280 S	1LG4 280-0BB ..	742/1482	49.0	124.0	1.8	2.0	4.0	6.3	1.8	2.5	10	1.19	530	
23	83	280 M	1LG4 283-0BB ..	742/1485	58.0	146.0	1.9	2.2	4.2	7.2	1.8	2.7	10	1.71	665	

Order No. supplements

Motor type	Penultimate position: Voltage identifier				Final position: Type of construction identifier				
	50 Hz, direct switch-on				IM B 3	Price supplement			
	230 V	400 V	500 V	690 V		IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 35
1LG4 183 to 1LG4 207	1	6	5	0	0	1	1	4	6
1LG4 220 to 1LG4 283	1	6	5	0	0	1	1	4	6

Other voltage and/or frequency, voltage identifier "9". Order codes are required for this purpose (see "Technical information", "Voltages, currents and frequencies").

For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors for use on SIMOVERT MASTERDRIVES

1LA · With standard insulation for ≤ 500 V

Selection and ordering data

Rated voltage

For motors connected to converters, the tolerance to DIN EN 60034-1 is generally applicable, a rated voltage range

is not usually specified (voltage identifiers 4, 5, 7 and 8).

1LA8 motors

It is important to note the following in the case of these motors:

The motors are designed with standard rotors and are suitable for mains and converter-fed operation. They are fitted with an insulated NDE bearing as standard.

For outputs from 900 kW upwards, operation on two parallel inverters without interphase transformers is possible, on request. 1LA8 motors are also available with separately driven fan (type 1PQ8).

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Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current	Stalling torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η	Power factor p.f.	Rated current at 400 V A	Rated torque Nm						
IP55 degree of protection, temperature class F, 2-, 4-, 6-, 8-pole, 50 Hz													
3000 rpm, 2-pole, 50 Hz													
250	315	1LA8 315-2PC ..	2979	96.3	0.90	415	801	1.8	7.0	2.8	10	2.7	1300
315		1LA8 317-2PC ..	2979	96.7	0.91	520	1010	1.8	7.0	2.8	10	3.3	1500
355	355	1LA8 353-2PC ..	2980	96.6	0.90	590	1140	1.7	6.5	2.5	10	4.8	1900
400		1LA8 355-2PC ..	2980	96.7	0.91	660	1280	1.7	6.5	2.5	10	5.3	2000
500		1LA8 357-2PC ..	2982	97.1	0.91	820	1600	1.8	6.5	2.6	10	6.4	2200
560	400	1LA8 403-2PC ..	2985	97.1	0.91	910	1790	1.6	7.0	2.8	10	8.6	2800
630		1LA8 405-2PC ..	2985	97.1	0.91	1020	2020	1.6	7.0	2.8	10	9.6	3000
710		1LA8 407-2PC ..	2985	97.3	0.91	670 ●	2270	1.7	7.0	2.8	10	11	3200
800		1LA8 453-2PE ..	2986	97.2	0.91	760 ●	2560	0.9	7.0	3.0	5	19	4000
900	450	1LA8 455-2PE ..	2986	97.3	0.92	840 ●	2880	0.9	7.0	2.8	5	21	4200
1000		1LA8 457-2PE ..	2986	97.4	0.93	920 ●	3200	0.9	7.0	2.7	5	23	4400
1500 rpm, 4-pole, 50 Hz													
250	315	▲ 1LA8 315-4PB ..	1486	96.0	0.88	425	1600	1.9	6.5	2.8	13	3.6	1300
315		▲ 1LA8 317-4PB ..	1488	96.3	0.88	540	2020	2.0	6.8	2.8	13	4.4	1500
355	355	▲ 1LA8 353-4PB ..	1488	96.3	0.87	610	2280	2.1	6.5	2.6	13	6.1	1900
400		▲ 1LA8 355-4PB ..	1488	96.3	0.87	690	2570	2.1	6.5	2.6	13	6.8	2000
500		▲ 1LA8 357-4PB ..	1488	96.8	0.88	850	3210	2.1	6.5	2.4	13	8.5	2200
560	400	1LA8 403-4PB ..	1492	96.8	0.88	950	3580	1.9	6.5	2.7	13	13	2800
630		1LA8 405-4PB ..	1492	97.0	0.88	1060	4030	1.9	6.8	2.7	13	14	3000
710		1LA8 407-4PB ..	1492	97.0	0.89	690 ●●	4540	1.9	6.8	2.7	13	16	3200
800		1LA8 453-4PC ..	1492	97.0	0.88	780 ●●	5120	1.6	7.0	2.6	10	23	4000
900	450	1LA8 455-4PC ..	1492	97.1	0.88	880 ●●	5760	1.6	7.0	2.6	10	26	4200
1000		1LA8 457-4PC ..	1492	97.1	0.89	970 ●●	6400	1.7	7.0	2.6	10	28	4400
1000 rpm, 6-pole, 50 Hz													
200	315	1LA8 315-6PB ..	989	95.7	0.86	345	1930	2.0	6.3	2.5	13	6.0	1300
250		1LA8 317-6PB ..	989	95.9	0.86	430	2410	2.0	6.3	2.5	13	7.3	1500
315	355	1LA8 355-6PB ..	993	96.2	0.86	540	3040	2.2	6.5	2.8	13	13	2000
400		1LA8 357-6PB ..	993	96.5	0.86	690	3850	2.2	6.5	2.8	13	16	2200
450	400	1LA8 403-6PB ..	992	96.5	0.86	780	4330	2.2	6.5	2.8	13	21	2800
500		1LA8 405-6PB ..	992	96.5	0.86	860	4810	2.3	6.5	2.8	13	24	3000
560		1LA8 407-6PB ..	992	96.7	0.86	960	5390	2.3	6.5	2.8	13	27	3200
630		1LA8 453-6PB ..	993	96.8	0.86	1100	6060	2.0	6.5	2.6	13	35	4000
710	450	1LA8 455-6PB ..	993	96.8	0.86	710 ●●	6830	2.0	6.5	2.5	13	39	4200
800		1LA8 457-6PB ..	993	97.0	0.86	790 ●●	7690	2.0	6.5	2.5	13	44	4500
750 rpm, 8-pole, 50 Hz													
160	315	1LA8 315-8PB ..	739	94.9	0.82	295	2070	2.1	6.0	2.3	13	6.0	1300
200		1LA8 317-8PB ..	739	95.2	0.82	370	2580	2.1	6.0	2.3	13	7.3	1500
250	355	1LA8 355-8PB ..	741	95.7	0.82	460	3220	2.1	6.1	2.4	13	13	2000
315		1LA8 357-8PB ..	741	96.0	0.82	580	4060	2.1	6.1	2.4	13	16	2200
355	400	1LA8 403-8PB ..	742	96.1	0.82	650	4570	2.0	6.5	2.6	13	21	2800
400		1LA8 405-8PB ..	742	96.2	0.82	730	5150	2.1	6.5	2.6	13	24	3000
450		1LA8 407-8PB ..	742	96.3	0.82	820	5790	2.1	6.5	2.6	13	27	3200
500		1LA8 453-8PB ..	744	96.4	0.81	920	6420	2.0	6.6	2.4	13	35	4000
560	450	1LA8 455-8PB ..	744	96.5	0.81	1040	7190	2.0	6.6	2.4	13	39	4200
630		1LA8 457-8PB ..	744	96.6	0.81	1160	8090	2.0	6.6	2.4	13	44	4500

● Rated current at 690 V.

■ Also supplied for 400 VΔ (voltage identifier "9" and order code L1Y).

▲ Standardline for 1LA8 motors (for more details see Page 3/13)

Order No. supplements

Motor type	Penultimate position: Voltage identifier				Final position: Type of construction identifier			
	50 Hz (no rated voltage range)				IM B 3	Price supplement		
	400 VΔ	400 VΔ / 690 VΥ ³⁾	500 VΔ	690 VΔ ³⁾		IM V 1 Without protective cover	IM V 1 With protective cover	IM B 35
1LA8 315 to 1LA8 405	4	8	5	-	0	8	4	6
1LA8 407 to 1LA8 457	4 ¹⁾	8 ¹⁾	5	7 ²⁾	0	8	4	6

For other types of construction, see "Technical information", "Types of construction".

For footnotes, see Page 3/23.

Squirrel-cage motors for use on SIMOVERT MASTERDRIVES

1LA · With special insulation up to 690 V

Selection and ordering data

Rated voltage

For motors connected to converters, the tolerance to DIN EN 60034-1 is generally applicable, a rated voltage range is not specified.

1LA7, 1LA5 motors

It is important to note the following in the case of these motors: In contrast to the standard ver-

sion, for the windings and motor protection, options C11, C12, C13, Y52, A10, A23 and for the mechanical design options D31,

D40, K45, K46, H15 are not possible. Also, versions for Zone 2, 21 and 22 are not possible.

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Rated current at 690 V A	Rated torque Nm	Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η %	Power factor p.f.	Rated speed	Efficiency								
Aluminum housing, IP55 degree of protection, temperature class F															
3000 rpm, 2-pole, 50 Hz															
3	100 L	1LA7 106-2PM ..	2890	84.0	0.85	3.50	9.9	2.8	6.8	3.0	16	0.0035	21		
4	112 M	1LA7 113-2PM ..	2905	86.0	0.86	4.55	13	2.6	7.2	2.9	16	0.0059	27		
5.5	132 S	1LA7 130-2PM ..	2925	86.5	0.89	6.00	18	2.0	5.9	2.8	16	0.015	37		
7.5		1LA7 131-2PM ..	2930	88.0	0.89	8.00	24	2.3	6.9	3.0	16	0.019	42		
11	160 M	1LA7 163-2PM ..	2940	89.5	0.88	11.6	36	2.1	6.5	2.9	16	0.034	63		
15	160 M	1LA7 164-2PM ..	2940	90.0	0.90	15.4	49	2.2	6.6	3.0	16	0.043	72		
18.5	160 L	1LA7 166-2PM ..	2940	91.0	0.91	18.6	60	2.4	7.0	3.1	16	0.051	82		
22	180 M	1LA5 183-2PM ..	2940	91.7	0.88	23.0	71	2.5	6.9	3.2	16	0.077	113		
30	200 L	1LA5 206-2PM ..	2945	92.3	0.89	30.5	97	2.4	7.2	2.8	16	0.14	159		
37		1LA5 207-2PM ..	2945	92.8	0.89	37.5	120	2.4	7.7	2.8	16	0.16	179		
45	225 M	1LA5 223-2PM ..	2960	93.6	0.89	45.0	145	2.8	7.7	3.4	16	0.2	209		
1500 rpm, 4-pole, 50 Hz															
2.2	100 L	1LA7 106-4PM ..	1420	82.0	0.82	2.75	15	2.5	5.6	2.8	16	0.0047	20		
3		1LA7 107-4PM ..	1420	82.6	0.82	3.70	20	2.7	5.6	3.0	16	0.0055	23		
4	112 M	1LA7 113-4PM ..	1440	85.0	0.83	4.75	27	2.7	6.0	3.0	16	0.012	29		
5.5	132 S	1LA7 130-4PM ..	1455	86.0	0.81	6.60	36	2.5	6.3	3.1	16	0.018	39		
7.5	132 M	1LA7 133-4PM ..	1455	87.0	0.82	8.80	49	2.7	6.7	3.2	16	0.023	46		
11	160 M	1LA7 163-4PM ..	1460	88.5	0.84	12.4	72	2.2	6.2	2.7	16	0.043	67		
15	160 L	1LA7 166-4PM ..	1460	90.0	0.84	16.6	98	2.6	6.5	3.0	16	0.055	81		
18.5	180 M	1LA5 183-4PM ..	1460	90.5	0.83	20.5	121	2.3	7.5	3.0	16	0.13	113		
22	180 L	1LA5 186-4PM ..	1460	91.2	0.84	24.0	144	2.3	7.5	3.0	16	0.15	123		
30	200 L	1LA5 207-4PM ..	1465	91.8	0.86	32.0	196	2.6	7.0	3.2	16	0.24	157		
37	225 S	1LA5 220-4PM ..	1470	92.9	0.87	38.5	240	2.8	7.0	3.2	16	0.32	206		
45	225 M	1LA5 223-4PM ..	1470	93.4	0.87	46.5	292	2.8	7.7	3.3	16	0.36	232		
1000 rpm, 6-pole, 50 Hz															
1.5	100 L	1LA7 106-6PM ..	925	74.0	0.75	2.25	15	2.3	4.0	2.3	16	0.0047	20		
2.2	112 M	1LA7 113-6PM ..	940	78.0	0.78	3.05	22	2.2	4.6	2.5	16	0.0091	24		
3	132 S	1LA7 130-6PM ..	950	79.0	0.76	4.20	30	1.9	4.2	2.2	16	0.015	34		
4	132 M	1LA7 133-6PM ..	950	80.5	0.76	5.50	40	2.1	4.5	2.4	16	0.019	41		
5.5	132 M	1LA7 134-6PM ..	950	83.0	0.76	7.30	55	2.3	5.0	2.6	16	0.025	50		
7.5	160 M	1LA7 163-6PM ..	960	86.0	0.74	9.90	75	2.1	4.6	2.5	16	0.044	70		
11	160 L	1LA7 166-6PM ..	960	87.5	0.74	14.2	109	2.3	4.8	2.6	16	0.063	89		
15	180 L	1LA5 186-6PM ..	970	89.5	0.77	18.2	148	2.0	5.2	2.4	16	0.15	126		
18.5	200 L	1LA5 206-6PM ..	975	90.2	0.77	22.5	181	2.7	5.5	2.8	16	0.24	161		
22		1LA5 207-6PM ..	975	90.8	0.77	26.5	215	2.8	5.5	2.9	16	0.28	183		
30	225 M	1LA5 223-6PM ..	978	91.8	0.77	35.5	293	2.8	5.7	2.9	16	0.36	214		

Order No. supplements

Motor type	Penultimate position: Voltage identifier no rated voltage range 690 VY	Final position: Type of construction identifier		Price supplement				
		IM B 3	IM B 5	IM V 1 Without protective cover	IM V 1 With protective cover	IM B 14 With standard flange	IM B 14 With special flange	IM B 35
1LA7 106 to 1LA7 166	8	0	1	1	4	2	3	6
1LA5 183 to 1LA5 223	8	0	1	1	4	-	-	6

Other voltages with voltage identifier "9" and order code L1Y.
For other types of construction, see "Technical information", "Types of construction".

- 1) Not possible for 2- and 4-pole motors from 1LA8 407 upwards and for 6-pole motors from 1LA8 455 upwards.
- 2) Only for 2- and 4-pole motors from 1LA8 407 upwards and for 6-pole motors from 1LA8 455 upwards.
- 3) Operation of motors with standard insulation is only possible with converter circuit (dv/dt filter or sine filter).

Squirrel-cage motors for use on SIMOVERT MASTERDRIVES

1LA/1LG · With special insulation up to 690 V

Selection and ordering data

Rated voltage

For motors connected to converters, the tolerance to DIN EN 60034-1 is generally applicable, a rated voltage range is not specified.

1LA8 motors

These motors are also available with separately driven fans (type 1PQ8).

1LG6 motors

It is important to note the following in the case of these motors: In contrast to the standard version, for windings and motor protection, options C11, C12, C13, Y52, A10, and for versions

for Zone 2, 21 and 22 options M34, M35, M38, M39, M72, M73 and for the mechanical design options D30, D31, D40, H15 are not possible. Option K30 "VIK version" can be ordered on request.

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Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current	Stalling torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η	Power factor p.f.	Rated current at 690 V A	Rated torque Nm						
Cast iron housing, IP55 degree of protection, temperature class F													
3000 rpm, 2-pole, 50 Hz													
22	180 M	1LG6 183-2PM ..	2955	93.7	0.88	22.5	71	2.5	7.2	3.4	16	0.086	180
30	200 L	1LG6 206-2PM ..	2960	93.1	0.89	30.5	97	2.4	7.0	3.3	16	0.15	225
37		1LG6 207-2PM ..	2960	93.6	0.89	37	119	2.5	7.2	3.3	16	0.18	255
45	225 M	1LG6 223-2PM ..	2965	94.4	0.89	45	145	2.5	7.3	3.2	16	0.27	330
55	250 M	1LG6 253-2PM ..	2975	95.0	0.90	54	177	2.4	6.8	3.0	16	0.47	420
75	280 S	1LG6 280-2PM .. ●	2975	95.0	0.89	74	241	2.5	7.0	3.0	13	0.83	530
90		1LG6 283-2PM .. ●	2978	95.3	0.90	88	289	2.6	7.6	3.1	13	1.00	615
110	315 S	1LG6 310-2PM .. ●	2982	95.5	0.91	106	352	2.4	6.9	2.8	13	1.40	790
132	315 M	1LG6 313-2PM .. ●	2982	95.8	0.91	126	423	2.6	7.1	2.9	13	1.60	915
160	315 L	1LG6 316-2PM .. ●	2982	96.2	0.92	152	512	2.5	7.1	2.9	13	2.1	1055
200		1LG6 317-2PM .. ●	2982	96.2	0.93	188	641	2.5	6.9	2.8	13	2.5	1245
240	315	1LA8 315-2PM ..	2978	96.1	0.90	230	770	1.8	7.0	3.0	10	2.7	1300
300		1LA8 317-2PM ..	2978	96.5	0.91	285	962	1.9	7.0	3.0	10	3.3	1500
345	355	1LA8 353-2PM ..	2981	96.4	0.90	335	1105	1.7	7.0	2.6	10	4.8	1900
390		1LA8 355-2PM ..	2981	96.6	0.91	370	1249	1.7	6.7	2.6	10	5.3	2000
485		1LA8 357-2PM ..	2982	97.0	0.91	460	1553	1.8	7.0	2.6	10	6.4	2200
545	400	1LA8 403-2PM ..	2986	97.1	0.91	520	1743	1.5	7.0	3.0	10	8.6	2800
610		1LA8 405-2PM ..	2986	97.1	0.92	570	1951	1.6	7.0	2.9	10	9.6	3000
680		1LA8 407-2PM ..	2986	97.2	0.92	640	2175	1.7	7.0	3.0	10	11	3200
775	450	1LA8 453-2PM ..	2987	97.2	0.92	730	2478	0.9	7.0	2.8	5	19	4000
875		1LA8 455-2PM ..	2987	97.3	0.92	820	2798	0.9	7.0	2.8	5	21	4200
970		1LA8 457-2PM ..	2987	97.4	0.93	900	3101	0.9	7.0	2.8	5	23	4400
1500 rpm, 4-pole, 50 Hz													
18.5	180 M	1LG6 183-4PM ..	1470	92.1	0.83	20	120	2.5	6.4	3.0	16	0.12	155
22	180 L	1LG6 186-4PM ..	1470	92.7	0.84	23.5	143	2.5	6.7	3.1	16	0.14	180
30	200 L	1LG6 207-4PM ..	1470	92.7	0.85	32	195	2.6	6.7	3.3	16	0.23	225
37	225 S	1LG6 220-4PM ..	1480	93.6	0.85	39	239	2.7	6.8	3.0	16	0.40	290
45	225 M	1LG6 223-4PM ..	1480	94.1	0.85	47	290	2.8	6.9	3.0	16	0.49	330
55	250 M	1LG6 253-4PM ..	1485	94.8	0.87	56	354	2.6	7.5	3.0	16	0.86	460
75	280 S	1LG6 280-4PM .. ●	1485	94.7	0.87	76	482	2.5	6.8	2.9	16	1.40	575
90		1LG6 283-4PM .. ●	1486	95.1	0.86	92	578	2.7	7.5	3.1	16	1.70	675
110	315 S	1LG6 310-4PM .. ●	1488	95.6	0.87	110	706	2.7	7.1	2.9	16	2.3	810
132	315 M	1LG6 313-4PM .. ●	1488	95.9	0.88	130	847	2.7	7.3	2.9	16	2.9	965
160	315 L	1LG6 316-4PM .. ●	1490	96.1	0.88	158	1026	3.0	7.4	3.0	16	3.5	1105
200		1LG6 317-4PM .. ●	1490	96.1	0.88	198	1282	3.2	7.6	3.0	16	4.2	1305
235	315	1LA8 315-4PM ..	1485	95.8	0.87	235	1511	1.8	7.0	2.8	13	3.6	1300
290		1LA8 317-4PM ..	1485	96.0	0.88	285	1865	1.8	7.0	2.8	13	4.4	1500
340	355	1LA8 353-4PM ..	1488	96.0	0.87	340	2182	1.9	7.0	2.6	13	6.1	1900
385		1LA8 355-4PM ..	1488	96.2	0.87	385	2471	2.0	7.0	2.6	13	6.8	2000
480		1LA8 357-4PM ..	1488	96.5	0.87	480	3081	2.1	7.0	2.5	13	8.5	2200
545	400	1LA8 403-4PM ..	1491	96.6	0.88	540	3491	1.9	7.0	2.6	13	13	2800
615		1LA8 405-4PM ..	1491	96.8	0.88	600	3939	1.9	7.0	2.7	13	14	3000
690		1LA8 407-4PM ..	1491	96.9	0.89	670	4420	1.9	7.0	2.6	13	16	3200
785	450	1LA8 453-4PM ..	1492	96.8	0.88	770	5025	1.5	6.9	2.5	10	23	4000
880		1LA8 455-4PM ..	1492	97.0	0.87	870	5633	1.6	7.0	2.6	10	26	4200
980		1LA8 457-4PM ..	1492	97.1	0.89	950	6273	1.7	7.0	2.6	10	28	4400

● Insulated NDE bearing is recommended (Order Code L27)

Order No. supplements

Motor type	Penultimate position: Voltage identifier no rated voltage range		Final position: Type of construction identifier				
	690 VY	690 VΔ	IM B 3	IM B 5	Price supplement		IM B 35
					IM V 1 Without protective cover	IM V 1 With protective cover	
1LG6 183 to 1LG6 313	8	—	0	1	1	4	6
1LG6 316 to 1LG6 318	8	—	0	—	8	4	6
1LA8 315 to 1LA8 405	8	—	0	—	8	4	6
1LA8 407 to 1LA8 457	—	7	0	—	8	4	6

Other voltages with voltage identifier "9" and order code L1Y. For other types of construction, see "Technical information", "Types of construction".

Squirrel-cage motors for use on SIMOVERT MASTERDRIVES

1LA/1LG · With special insulation up to 690 V

Selection and ordering data

Rated output kW	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output					Starting torque For direct-on-line starting as multiple of the rated torque	Starting current current	Stalling torque torque	Torque class KL	Moment of inertia J kg m ²	Weight Type of constr. IM B 3 approx. kg
			Rated speed rpm	Efficiency η %	Power factor p.f.	Rated current at 690 V A	Rated torque Nm						
Cast iron housing, IP55 degree of protection, temperature class F													
1000 rpm, 6-pole, 50 Hz													
15	180 L	1LG6 186-6PM ..	975	90.0	0.81	17.2	147	2.4	5.5	2.5	16	0.20	175
18.5	200 L	1LG6 206-6PM ..	978	90.5	0.81	21	181	2.4	5.6	2.4	16	0.29	210
22	200 L	1LG6 207-6PM ..	978	91.4	0.82	24.5	215	2.4	5.6	2.4	16	0.36	240
30	225 M	1LG6 223-6PM ..	980	92.6	0.83	32.5	292	2.8	6.5	2.9	16	0.63	325
37	250 M	1LG6 253-6PM ..	985	93.1	0.83	40	359	2.9	6.8	2.5	16	0.93	405
45	280 S	1LG6 280-6PM .. ●	988	93.9	0.85	47	435	3.0	6.8	2.7	16	1.40	520
55	280 M	1LG6 283-6PM .. ●	988	93.9	0.85	58	532	3.3	7.3	2.9	16	1.60	570
75	315 S	1LG6 310-6PM .. ●	990	94.6	0.83	80	723	2.8	7.3	3.0	16	2.5	760
90	315 M	1LG6 313-6PM .. ●	990	94.9	0.85	93	868	2.7	7.3	2.9	16	3.2	935
110	315 L	1LG6 316-6PM .. ●	990	95.2	0.85	114	1061	2.9	7.4	2.9	16	4.0	1010
132		1LG6 317-6PM .. ●	990	95.4	0.85	136	1273	3.1	7.8	3.1	16	4.7	1180
160		1LG6 318-6PM .. ●	990	95.3	0.86	164	1543	3.2	7.8	3.1	16	5.4	1245
190	315	1LA8 315-6PM ..	990	95.5	0.85	196	1833	2.1	7.0	2.7	13	6.0	1300
235		1LA8 317-6PM ..	990	95.7	0.86	240	2267	2.2	7.0	2.7	13	7.3	1500
300	355	1LA8 355-6PM ..	992	96.2	0.86	305	2888	2.2	7.0	2.8	13	13	2000
380		1LA8 357-6PM ..	992	96.4	0.86	385	3658	2.3	7.0	2.9	13	16	2200
435	400	1LA8 403-6PM ..	993	96.4	0.85	445	4184	2.1	7.0	2.8	13	21	2800
485		1LA8 405-6PM ..	993	96.5	0.86	490	4664	2.1	7.0	2.8	13	24	3000
545		1LA8 407-6PM ..	993	96.6	0.86	550	5241	2.1	7.0	2.7	13	27	3200
615	450	1LA8 453-6PM ..	993	96.8	0.84	630	5915	2.0	7.0	2.7	13	35	4000
690		1LA8 455-6PM ..	993	96.8	0.85	700	6636	1.9	7.0	2.5	13	39	4200
780		1LA8 457-6PM ..	993	96.9	0.85	790	7502	2.0	7.0	2.6	13	44	4500
750 rpm, 8-pole, 50 Hz													
11	180 L	1LG6 186-8PM ..	725	88.1	0.76	13.8	145	1.9	4.6	2.2	13	0.21	165
15	200 L	1LG6 207-8PM ..	725	88.2	0.80	17.8	198	2.3	5.3	2.6	13	0.37	235
18.5	225 S	1LG6 220-8PM ..	730	89.9	0.81	21.5	242	2.3	5.6	2.6	13	0.55	295
22	225 M	1LG6 223-8PM ..	730	90.6	0.81	25	288	2.4	5.8	2.8	13	0.66	335
30	250 M	1LG6 253-8PM ..	735	91.9	0.82	33.5	390	2.5	6.0	2.8	13	1.10	435
37	280 S	1LG6 280-8PM .. ●	738	92.6	0.81	41.5	479	2.3	5.7	2.3	13	1.40	510
45	280 M	1LG6 283-8PM .. ●	738	93.3	0.81	50	582	2.6	6.1	2.4	13	1.60	560
55	315 S	1LG6 310-8PM .. ●	740	93.8	0.82	60	710	2.5	6.3	2.9	13	2.5	750
75	315 M	1LG6 313-8PM .. ●	740	93.9	0.83	81	968	2.5	6.7	2.9	13	3.1	840
90	315 L	1LG6 316-8PM .. ●	740	94.2	0.84	95	1161	2.4	6.3	2.8	13	3.9	1005
110		1LG6 317-8PM .. ●	740	94.3	0.84	116	1420	2.4	6.4	2.6	13	4.5	1100
132		1LG6 318-8PM .. ●	740	94.4	0.84	140	1704	2.5	6.7	2.9	13	5.3	1270
145	315	1LA8 315-8PM ..	740	94.6	0.79	162	1871	2.2	6.4	2.5	13	6.0	1300
180		1LA8 317-8PM ..	740	94.9	0.80	198	2323	2.2	6.4	2.5	13	7.3	1500
230	355	1LA8 355-8PM ..	743	95.5	0.80	250	2956	2.1	6.8	2.4	13	13	2000
290		1LA8 357-8PM ..	743	95.7	0.81	315	3727	2.1	6.8	2.4	13	16	2200
335	400	1LA8 403-8PM ..	743	96.0	0.80	365	4306	1.9	6.6	2.6	13	21	2800
375		1LA8 405-8PM ..	743	96.1	0.80	410	4820	1.9	6.9	2.7	13	24	3000
425		1LA8 407-8PM ..	743	96.2	0.79	470	5463	1.9	6.8	2.7	13	27	3200
485	450	1LA8 453-8PM ..	745	96.5	0.78	540	6217	1.9	6.8	2.5	13	35	4000
545		1LA8 455-8PM ..	745	96.6	0.78	610	6986	2.0	6.8	2.5	13	39	4200
600		1LA8 457-8PM ..	745	96.7	0.79	660	7691	2.0	6.8	2.5	13	44	4500

● Insulated NDE bearing is recommended (Order Code L27)

Order No. supplements

Motor type	Penultimate position: Voltage identifier no rated voltage range		Final position: Type of construction		Price supplement		
	690 VY	690 VΔ	IM B 3	IM B 5	Without protective cover	IM V 1 With protective cover	IM B 35
1LG6 183 to 1LG6 313	8	—	0	1	1	4	6
1LG6 316 to 1LG6 318	8	—	0	—	8	4	6
1LA8 315 to 1LA8 457	8 ¹⁾	7 ²⁾	0	—	8	4	6

Other voltages with voltage identifier "9" and order code L1Y.

For other types of construction, see "Technical information", "Types of construction".

1) Not possible for 6-pole motors from 1LA8 455 upwards.

2) Available for 6-pole motors from 1LA8 455 upwards only.