

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".

Rated output	Size	Order No. Order No. supplement for voltage and type of construction, see table below	Operating data at rated output			Rated current at 460 V	Rated torque	Starting torque	Starting current	Stalling torque	Torque class	Moment of inertia J	Weight
			Rated speed	Nominal efficiency	Power factor p.f.			For direct-on-line starting as multiple of the rated torque	current	torque		kg m ²	
HP			rpm	%		A	Nm				KL		Type of constr. IM B 3 approx. kg
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	90 L	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	132 M	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

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	Starting current	Stalling torque	Torque class	Moment of inertia J	Weight
HP			Rated speed rpm	Nominal efficiency %	Power factor p.f.	Rated current at 460 V A	Rated torque Nm	For direct-on-line starting as multiple of the rated torque	current	torque	KL	kg m ²	Type of constr. IM B 3 approx. kg
Energy-saving motor according to EPACT, IP55 degree of protection, temperature class F													CC 032A
	1200 rpm, 6-pole, 60 Hz												
1 1.5	90 S 90 L	1LA9 090-6KA .. 1LA9 096-6KA ..	1140 1150	80.0 85.5	0.66 0.64	1.78 2.55	6.2 9.3	3.0 3.7	5.6 6.4	3.0 3.7	16 16	0.0033 0.0050	16 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 7.5	132 M 132 M	1LA9 133-6KA .. 1LA9 134-6KA ..	1160 1160	87.5 89.5	0.77 0.73	6.90 10.8	31 46	3.0 3.7	7.9 8.4	3.6 4.3	16 16	0.025 0.034	49 64
10 15	160 M 160 L	1LA9 163-6KA .. 1LA9 166-6KA ..	1165 1165	89.5 90.2	0.70 0.77	15.0 20.0	61 92	2.4 3.1	6.4 8.3	2.8 3.8	16 16	0.063 0.072	98 105
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 30	200 L	1LA9 206-6WA .. 1LA9 207-6WA ..	1175 1175	91.7 91.7	0.75 0.75	34.0 41.0	152 182	2.8 2.8	7.1 7.2	2.8 2.8	16 16	0.28 0.36	183 214

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".