SIMOTICS GP 1LA Standard Motors

Motors with Standard Efficiency IE1

Self-ventilated motors
Aluminum series 1LA9 with increased output

Please observe legal minimum efficiencies in the EEA!

Selection and ordering data

P_{rated}, 50 Hz	P_{rated}, 60 Hz [1]	Frame size	Operating values at rated output: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	$\cos\varphi$ rated, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}	I_{LR}/I_{rated}	T_B/T_{rated}	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LA9 – *IE1 version in accordance with IEC 60034-30 with increased output* Order No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)	▶ Successor 1LE1001	kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) • Efficiency: Standard Efficiency, service factor (SF) 1.1 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																			
0.33	0.38	63 M	2775	1.1	–	67.0	66.5	62.0	0.80	0.89	2.3	4.4	2.2	49	60	1LA9060-2LA ■■	4.0	0.00022	16
0.45	0.52	63 M	2720	1.6	–	67.6	67.1	63.6	0.84	1.14	2.2	4.2	2.3	49	60	1LA9063-2LA ■■	4.7	0.00026	16
0.65	0.75	71 M	2720	2.3	–	70.9	70.9	66.9	0.83	1.59	2.4	4.5	2.5	52	63	1LA9070-2LA ■■	6.0	0.00041	16
0.94	1.08	71 M	2735	3.3	–	73.8	73.8	70.8	0.82	2.25	2.5	4.8	2.4	52	63	1LA9073-2LA ■■	7.2	0.00050	16
1.5	1.67	80 M	2820	5.1	–	77.2	77.7	74.2	0.83	3.40	3.1	6.7	3.1	56	67	1LA9080-2LA ■■	10.7	0.0010	16
1.75	2.01	80 M	2840	5.9	–	78.3	78.8	75.8	0.82	3.95	3.7	7.4	3.5	56	67	1LA9083-2LA ■■	12.4	0.0013	16
3	3.34	90 S	2825	10	–	81.5	81.5	80.5	0.82	6.5	3.2	6.5	3.0	60	72	1LA9090-2LA ■■	16.2	0.0018	16
3.8	4.37	90 L	2810	13	–	80.2	80.2	79.2	0.85	8.0	3.1	6.5	2.7	60	72	1LA9096-2LA ■■	18.6	0.0022	16
4.4	5.06	100 L	2880	15	–	81.0	81.0	80.0	0.83	9.4	3.0	7.8	3.2	62	74	▶ 1LA9106-2LA ■■	25	0.0044	16
6.5	7.48	112 M	2900	21	–	85.4	85.4	84.4	0.83	13.2	3.0	8.6	3.8	63	75	▶ 1LA9113-2LA ■■	36.7	0.0077	16
9	10.35	132 S	2915	29	–	86.8	86.8	85.8	0.90	16.6	2.0	6.4	2.6	68	80	▶ 1LA9130-2LA ■■	47.2	0.019	16
12	13.8	132 S	2915	39	–	85.6	85.6	84.6	0.89	22.5	3.0	7.4	3.2	68	80	▶ 1LA9131-2LA ■■	58.1	0.024	16
18	20.7	160 M	2920	59	–	89.3	89.3	88.3	0.87	33.5	2.2	7.0	3.1	70	82	▶ 1LA9163-2LA ■■	78.6	0.044	16
21	24.15	160 M	2930	68	–	89.7	89.7	88.7	0.91	37	2.0	6.9	2.7	70	82	▶ 1LA9164-2LA ■■	87.6	0.051	16
26	29.9	160 L	2935	85	–	90.3	90.3	89.3	0.91	45.5	2.2	7.7	3.2	70	82	▶ 1LA9166-2LA ■■	110.4	0.065	16
33	37.95	180 M	2940	107	–	91.0	91.0	90.0	0.86	61	2.5	7.4	3.3	70	83	1LA9183-2AA ■■	131	0.090	16
44	50.6	200 L	2945	143	–	91.6	91.6	90.6	0.86	81	2.4	7.8	3.2	71	84	1LA9206-2AA ■■	182	0.16	16
53	60.95	200 L	2945	172	–	92.0	92.0	91.0	0.87	96	2.6	8.2	3.3	71	84	1LA9207-2AA ■■	211	0.20	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																			
0.21	0.24	63 M	1335	1.5	–	60.0	58.5	54.0	0.77	0.66	2.1	2.9	2.1	42	53	1LA9060-4LA ■■	4.0	0.00037	16
0.29	0.33	63 M	1330	2.1	–	63.4	62.4	57.4	0.71	0.93	2.3	2.9	2.3	42	53	1LA9063-4LA ■■	4.7	0.00045	16
0.45	0.52	71 M	1340	3.2	–	63.5	62.5	58.5	0.71	1.44	2.3	3.4	2.3	44	55	1LA9070-4LA ■■	6.0	0.00076	16
0.6	0.69	71 M	1340	4.3	–	70.2	70.2	66.2	0.75	1.64	2.3	3.6	2.3	44	55	1LA9073-4LA ■■	7.0	0.00095	16
0.9	1.04	80 M	1340	6.4	–	68.0	67.5	64.0	0.81	2.35	2.3	4.1	2.4	47	58	1LA9080-4LA ■■	10.7	0.0017	16
1.25	1.44	80 M	1340	8.9	–	68.0	67.5	64.0	0.83	3.2	2.7	4.5	2.4	47	58	1LA9083-4LA ■■	12.4	0.0024	16
1.8	2.07	90 S	1380	12	–	78.4	78.9	75.9	0.83	4.0	2.4	5.1	2.4	48	60	1LA9090-4LA ■■	16.2	0.0033	16
2.5	2.88	90 L	1390	17	–	74.2	74.2	71.2	0.81	6.0	2.5	5.1	2.3	48	60	1LA9096-4LA ■■	18.6	0.0040	16
4	4.6	100 L	1410	27	–	75.3	75.3	72.3	0.81	9.5	2.7	6.0	3.0	53	65	▶ 1LA9107-4LA ■■	26	0.0062	16
5.5	6.33	112 M	1440	36	–	80.4	80.4	79.4	0.80	12.3	3.0	6.8	3.0	53	65	▶ 1LA9113-4LA ■■	38.7	0.014	16
8.6	9.89	132 S	1440	57	–	82.5	82.5	81.5	0.83	18.1	2.3	6.8	2.7	62	74	▶ 1LA9130-4LA ■■	49.2	0.023	16
11	12.65	132 M	1450	72	–	83.5	83.5	82.5	0.83	23	2.8	7.4	3.1	62	74	▶ 1LA9133-4LA ■■	62.1	0.029	16
17	19.55	160 M	1455	112	–	86.6	86.6	85.6	0.84	33.5	2.9	7.5	2.8	66	78	▶ 1LA9163-4LA ■■	86.6	0.055	16
22	25.3	160 L	1455	144	–	86.7	86.7	85.7	0.82	44.5	3.1	8.3	3.4	66	78	▶ 1LA9166-4LA ■■	115.4	0.072	16
26	30	180 M	1460	170	–	90.3	90.3	89.3	0.83	50	2.4	7.5	3.2	63	76	1LA9183-4AA ■■	126	0.15	16
32	38	180 L	1465	209	–	90.9	90.9	89.9	0.84	60	2.5	7.9	3.4	63	76	1LA9186-4AA ■■	146	0.19	16
43	49.6	200 L	1465	280	–	91.6	91.6	90.6	0.85	80	2.7	7.8	3.5	65	78	1LA9207-4AA ■■	196	0.32	16

Voltages				No. poles	Motor type	Version		Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	2, 4	1LA9060 ... 207	**Standard**	1	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	2, 4	1LA9060 ... 207	**Standard**	6	–
50 Hz	500 VY			2, 4	1LA9060 ... 207	Without add. charge	3	–
50 Hz	500 VΔ			2, 4	1LA9106 ... 207	Without add. charge	5	–
Further voltages [1]		For additional charges, code numbers and descriptions, see supplements and special versions.					9	. . .

Types of construction		No. poles	Motor type	Version		Order code(s)
Without flange	IM B3/6/7/8, IM V6, IM V5 without prot. cover	2, 4	1LA9060 ... 207	**Standard**	0	–
With flange	IM B5, IM V1 without protective cover	2, 4	1LA9060 ... 207	With add. charge	1	–
	IM V3	2, 4	1LA9060 ... 166	With add. charge	1	–
		2, 4	1LA9183 ... 207	With add. charge	9	M1G
	IM V1 with protective cover [2]	2, 4	1LA9060 ... 207	With add. charge	4	–
	IM B35	2, 4	1LA9060 ... 207	With add. charge	6	–
With standard flange	IM B14, IM V19, IM V18 without prot. cover	2, 4	1LA9060 ... 166	With add. charge	2	–
	IM B34	2, 4	1LA9060 ... 166	With add. charge	7	–
With special flange	IM B14, IM V19, IM V18 without protective cover	2, 4	1LA9060 ... 166	With add. charge	3	–
Further types of construct.	For additional charges, code numbers and descriptions, see supplements and special versions.				9	. . .

Special versions				Order code(s)
Options	For add.charges, code numbers and descriptions, see suppl.and special versions.	1LA9 . . . -. . . ■■	-Z	. . .+. . .+. . .+. . .

[1] Operating values at rated output for 60 Hz are available on request.

[2] The "Second shaft extension" option, order code K16 is not possible.