

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 | | | | | Rated current at 400 V | Rated torque | Starting torque For direct-on-line starting as multiple of the rated torque | Starting current | Stalling torque | Torque class | Moment of inertia J | Weight |
|--|-------|---|--------------------------------|----------------------|-------------------|---------------|--------------------|------------------------|--------------|--|------------------|-----------------|-------------------|---------------------|--------|
| | | | Rated speed | Efficiency η at | Power factor p.f. | Rated current | Rated torque | | | | | | | | |
| kW | | | rpm | % | % | A | Nm | | | | | KL | kg m ² | approx. kg | |
| 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 VY | 400 VY | 690 VY | 500 VΔ | 460 VY | 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").