

Technical data at a glance

This table lists the most important technical data.

Type of motor	IEC Squirrel-Cage Motors 1LE1/1PC1
Connection types	Star connection/delta connection You can establish the connection type used from the Order No. supplements in the selection and ordering data for the required motor.
Number of poles	2, 4, 6, 8 and pole-changing 4-/2-, 6-/4-, 8-/4-pole
Frame sizes	100 L to 160 L
Rated output	0.75 ... 22 kW (motor series 1LE1)/0.3 ... 9 kW (motor series 1PC1)
Frequencies	50 Hz and 60 Hz
Versions	Self-ventilated 1LE1 energy-saving motors with: <ul style="list-style-type: none">• "Standard Efficiency" (IE1) according to IEC 60034-30• "High Efficiency" (IE2) according to IEC 60034-30 Self-ventilated 1LE1 motors with increased output and: <ul style="list-style-type: none">• "Standard Efficiency" (IE1) according to IEC 60034-30• "High Efficiency" (IE2) according to IEC 60034-30 Forced-air-cooled 1LE1 motors without external fan and fan cover with: <ul style="list-style-type: none">• "Standard Efficiency" (IE1) according to IEC 60034-30• "High Efficiency" (IE2) according to IEC 60034-30 Self-cooled 1PC1 motors without external fan and fan cover with: <ul style="list-style-type: none">• Improved efficiency• High efficiency
Marking	Efficiency classification according to IEC 60034-30, IE2: 2-, 4-, 6-pole, IE1: 2-, 4-, 6-pole US Energy Policy Act EPACT: 2-, 4-, 6-pole
Rated speed (synchronous speed)	750 ... 3000 rpm
Rated torque	9.9 ... 150 Nm (motor series 1LE1)/4.05 ... 60 Nm (motor series 1PC1)
Insulation of the stator winding according to EN 60034-1 (IEC 60034-1)	Temperature class 155 (F), used acc. to temperature class 130 (B) (also for motors with increased output) DURIGNIT IR 2000 insulation system
Degree of protection according to EN 60034-5 (IEC 60034-5)	IP55 as standard
Cooling according to EN 60034-6 (IEC 60034-6)	Self-ventilated (motor series 1LE1) frame sizes 100 L to 160 L (IC 411) Forced-air-cooled (motor series 1LE1 with order code F90) frame sizes 100 L to 160 L (IC 416) Self-cooled (motor series 1PC1) frame sizes 100 L to 160 L (IC 410)
Admissible coolant temperature and site altitude	–20 °C ... +40 °C as standard, site altitude up to 1000 m above sea level.
Standard voltages according to EN 60038 (IEC 60038)	50 Hz: 230 V, 400 V, 500 V, 690 V The voltage to be used can be found in the selection and ordering data for the required motor.
Type of construction according to EN 60034-7 (IEC 60034-7)	Without flange: IM B3, IM B6, IM B7, IM B8, IM V5 without protective cover, IM V6, IM V5 with protective cover With flange: IM B5, IM V1 without protective cover, IM V1 with protective cover, IM V3, IM B35 With standard flange and special flange (next larger flange): IM B14, IM V19, IM V18 without protective cover, IM V18 with protective cover, IM B34
Paint finish Suitability of paint finish for climate group according to IEC 60721, Part 2-1	Standard: Color RAL 7030 stone gray
Vibration quantity level according to EN 60034-14 (IEC 60034-14)	Level A (normal – without special vibration requirements) Optionally: Level B (with special vibration requirements)
Shaft extension according to DIN 748 (IEC 60072)	Balance type: Half-key balancing as standard
Sound pressure level according to DIN EN ISO 1680 (tolerance +3 dB)	The sound pressure level is listed in the selection and ordering data for the required motor.
Weights	The weight is listed in the selection and ordering data for the required motor.
Modular mounting concept	Rotary pulse encoder, brake, separately driven fan or prepared for mountings
Consistent series concept	<ul style="list-style-type: none">• Cast housing feet, screw-mounted feet available as an option and retrofittable• Connection box obliquely partitioned and rotatable through 4 x 90°• Bearings at DE and NDE are of identical design, reinforced bearings available as an option
Options	See the selection and ordering data for "Special versions"