

Technical specifications*General technical specifications*

Type of motor	SIMOTICS FD IEC low-voltage motors
Frame sizes	315, 355, 400, 450
Rated power	200 ... 1800 kW
Rated speed	750 ... 3600 rpm
Rated torque	610 ... 14600 Nm
Versions	Air-cooled, enclosed version • with self-ventilation • with forced ventilation Water-cooled version • with water-jacket cooling • with heat exchanger Air-cooled, open version • with self-ventilation • with forced ventilation
Efficiency marking	Only for line motors efficiency class in accordance with IEC 60034-30-1: IE2, IE3 (4, 6 and 8-pole)
Insulation of the stator winding in accordance with EN 60034-1 (IEC 60034-1)	Temperature class 180 (H) DURIGNIT IR 2000 insulating system
Degree of protection according to EN 60034-5 (IEC 60034-5)	As standard IP55/IP54: Air-cooled, enclosed version, water-cooled version IP23: Air-cooled, open version
Cooling according to EN 60034-6 (IEC 60034-6)	• Self-ventilated 1LM1/1MM1 (IC411) motors • Force-ventilated 1LQ1/1MQ1 (IC416) motors • Water-cooled motors 1LH1/1MH1 (IC71W) • Air-to-water heat exchanger 1LN1/1MN1 motors (IC86W) • Self-ventilated, open-circuit ventilated 1LL1 motors (IC01) • Force-ventilated, open-circuit ventilated 1LP1 motors (IC06)
Permissible coolant temperature and installation altitude	As standard Air-cooled motors: Coolant temperature -20 ... +40 °C, installation altitude up to 1000 m above sea level Water-cooled motors: Cooling water inlet temperature +5 ... +25 °C, installation altitude up to 1000 m above sea level
Standard voltages according to EN 60038 (IEC 60038)	VSD: 50 Hz systems: 400 V, 500 V, 690 V 60 Hz systems: 460 V and 575 V DOL: 50 Hz systems: 400 V and 690 V 60 Hz systems: 460 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 V5, IM V6 • With flange: IM B35, IM V1, IM V15, IM B5 with support foot
Paint finish Suitability of paint finish for climate group according to IEC 60721, Part 2-1	As standard: color RAL 7030 stone gray
Vibration quantity level according to EN 60034-14 (IEC 60034-14)	Level A (normal) 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 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	Prepared for mounting of rotary pulse encoder or brake.
Options	See "Article No. supplements and special versions"