

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7064-7AF71-1SH0-Z
N05

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Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K) 3000 rpm

Number of poles 6

Rated torque (100 K) 8.0 Nm

Rated current 7.5 A

Static torque (60 K) 9.00 Nm

Static torque (100 K) 12.0 Nm

Stall current (60 K) 8.50 A

Stall current (100 K) 11.00 A

Moment of inertia 6.840 kgcm²

Efficiency 93.0 %

Physical constants

Torque constant 1.03 Nm/A

Voltage constant at 20° C 68.0 V/1000*min⁻¹

Winding resistance at 20° C 0.35 Ω

Rotating field inductance 10.7 mH

Electrical time constant 30.50 ms

Mechanical time constant 0.64 ms

Thermal time constant 55 min

Shaft torsional stiffness 30000 Nm/rad

Net weight of the motor 16.8 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type High Dynamic

Shaft height 63

Cooling Natural cooling

Radial runout tolerance 0.040 mm

Concentricity tolerance 0.10 mm

Axial runout tolerance 0.10 mm

Vibration severity grade Grade A

Connector size 1

Degree of protection IP64

Design acc. to Code I IM B5 (IM V1, IM V3)

Temperature monitoring KTY84 temperature sensor in the stator winding

Electrical connectors Connectors for signals and power rotatable

Color of the housing without

Holding brake with holding brake

Shaft end Plain shaft

Encoder system Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor)

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Optimum operating point

Optimum speed	3000 rpm
Optimum power	2.5 kW

Limiting data

Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	8500 rpm
Maximum torque	32.0 Nm
Maximum current	31.0 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	13.0 Nm
Power supply voltage	DC 24 V \pm 10 %
Coil current	0.8 A
Opening time	100 ms
Closing time	50 ms
Highest braking work	380 J

Recommended Motor Module

Rated inverter current	18 A
Maximum inverter current	36 A
Maximum torque	32.00 Nm

Special design

N05 Non-standard shaft end (dimensions as for 1FT5 motors)