

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7105-5AC71-1UH0

No image available for this configuration.

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K) 2000 rpm

Number of poles 8

Rated torque (100 K) 37.0 Nm

Rated current 16.0 A

Static torque (60 K) 40.00 Nm

Static torque (100 K) 48.0 Nm

Stall current (60 K) 17.00 A

Stall current (100 K) 20.00 A

Moment of inertia 169.000 kgcm²

Efficiency 93.0 %

Physical constants

Torque constant 2.37 Nm/A

Voltage constant at 20° C 151.0 V/1000*min⁻¹

Winding resistance at 20° C 0.17 Ω

Rotating field inductance 4.4 mH

Electrical time constant 26.00 ms

Mechanical time constant 1.40 ms

Thermal time constant 70 min

Shaft torsional stiffness 125000 Nm/rad

Net weight of the motor 41.5 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

Shaft height 100

Cooling Natural cooling

Radial runout tolerance 0.050 mm

Concentricity tolerance 0.10 mm

Axial runout tolerance 0.10 mm

Vibration severity grade Grade A

Connector size 1.5

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 extension Plain shaft

Encoder system Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)

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Figure similar

Optimum operating point

Optimum speed	2000 rpm
Optimum power	7.8 kW

Limiting data

Max. permissible speed (mech.)	5000 rpm
Max. permissible speed (inverter)	3800 rpm
Maximum torque	150.0 Nm
Maximum current	72.0 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	43.0 Nm
Power supply voltage	DC 24 V \pm 10 %
Coil current	1.0 A
Opening time	300 ms
Closing time	70 ms
Highest braking work	3380 J

Recommended Motor Module

Rated inverter current	30 A
Maximum inverter current	56 A
Maximum torque	127.00 Nm