

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7064-4CF71-1UH1

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 7.6 A

Static torque (60 K) 10.00 Nm

Static torque (100 K) 12.00 Nm

Stall current (60 K) 8.70 A

Stall current (100 K) 10.80 A

Moment of inertia 8.500 kgcm²

Efficiency 93.0 %

Physical constants

Torque constant 1.11 Nm/A

Voltage constant at 20° C 70.5 V/1000*min⁻¹

Winding resistance at 20° C 0.35 Ω

Rotating field inductance 12.0 mH

Electrical time constant 34.50 ms

Mechanical time constant 0.64 ms

Thermal time constant 55 min

Shaft torsional stiffness 22500 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 IP65

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

Temperature monitoring Pt1000 temperature sensor

Electrical connectors Connectors for signals and power rotatable

Color of the housing Standard (Anthracite RAL 7016)

Holding brake with holding brake

Shaft end Plain shaft

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



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Optimum operating point

Optimum speed	3000 rpm
Optimum power	2.5 kW

Limiting data

Max. permissible speed (mech.)	7500 rpm
Max. permissible speed (inverter)	7500 rpm
Maximum torque	32.0 Nm
Maximum current	33.0 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	54 A
Maximum torque	32.00 Nm