

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7044-4CH71-1BA1



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K) 4500 rpm

Number of poles 6

Rated torque (100 K) 3.0 Nm

Rated current 3.9 A

Static torque (60 K) 3.75 Nm

Static torque (100 K) 4.50 Nm

Stall current (60 K) 4.35 A

Stall current (100 K) 5.40 A

Moment of inertia 1.260 kgcm²

Efficiency 91.0 %

Physical constants

Torque constant 0.83 Nm/A

Voltage constant at 20° C 53.0 V/1000*min⁻¹

Winding resistance at 20° C 0.81 Ω

Rotating field inductance 10.2 mH

Electrical time constant 12.50 ms

Mechanical time constant 0.44 ms

Thermal time constant 45 min

Shaft torsional stiffness 9800 Nm/rad

Net weight of the motor 7.4 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type High Dynamic

Shaft height 48

Cooling Natural cooling

Radial runout tolerance 0.040 mm

Concentricity tolerance 0.08 mm

Axial runout tolerance 0.08 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 without holding brake

Shaft end Feather key

Encoder system Encoder AS24DQI: absolute encoder single-turn 24 bits



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	4500 rpm	Rated inverter current	9 A
Optimum power	1.4 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	13.00 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	9000 rpm		
Maximum torque	13.0 Nm		
Maximum current	16.4 A		