

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7081-2AH74-1TA0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K) 4500 rpm

Number of poles 8

Rated torque (100 K) 3.8 Nm

Rated current 4.9 A

Static torque (60 K) 10.00 Nm

Static torque (100 K) 12.00 Nm

Stall current (60 K) 10.60 A

Stall current (100 K) 13.10 A

Moment of inertia 20.000 kgcm²

Efficiency 93.0 %

Physical constants

Torque constant 0.92 Nm/A

Voltage constant at 20° C 59.0 V/1000*min⁻¹

Winding resistance at 20° C 0.19 Ω

Rotating field inductance 3.4 mH

Electrical time constant 17.90 ms

Mechanical time constant 1.36 ms

Thermal time constant 45 min

Shaft torsional stiffness 109000 Nm/rad

Net weight of the motor 12.9 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

Shaft height 80

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

Degree of protection IP64

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 Resolver 2-pole



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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	18 A
Optimum power	2.8 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	37.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	6000 rpm		
Maximum torque	37.0 Nm		
Maximum current	45.0 A		