

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7063-2AH74-1AH0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	3.0 Nm	Shaft height	63
Rated current	3.8 A	Cooling	Natural cooling
Static torque (60 K)	9.10 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	11.0 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	9.70 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	12.00 A	Vibration severity grade	Grade A
Moment of inertia	15.700 kgcm ²	Connector size	1
Efficiency	90.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.92 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	60.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.29 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	3.8 mH	Holding brake	with holding brake
Electrical time constant	13.20 ms	Shaft extension	Plain shaft
Mechanical time constant	1.51 ms	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
Thermal time constant	40 min		
Shaft torsional stiffness	25000 Nm/rad		
Net weight of the motor	12.5 kg		



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Optimum operating point

Optimum speed 3300 rpm

Optimum power 2.3 kW

Limiting data

Max. permissible speed (mech.) 7200 rpm

Max. permissible speed (inverter) 7200 rpm

Maximum torque 35.0 Nm

Maximum current 42.0 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 35.00 Nm