

Data sheet for SIMOTICS S-1FK7

No image available for this configuration.

MLFB-Ordering data

1FK7060-5AF71-1AH0

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	8	Motor type	Compact		
Rated torque (100 K)	4.7 Nm	Shaft height	63		
Rated current	3.7 A	Cooling	Natural cooling		
Static torque (60 K)	5.00 Nm	Radial runout tolerance	0.040 mm		
Static torque (100 K)	6.0 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	3.70 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	4.50 A	Vibration severity grade	Grade A		
Moment of inertia	10.200 kgcm ²	Connector size	1		
Efficiency	90.0 %	Degree of protection	IP64		
<th colspan="2">Physical constants</th>		Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Torque constant	1.33 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
		Voltage constant at 20° C	84.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	1.44 Ω	Color of the housing	without
		Rotating field inductance	14.7 mH	Holding brake	with holding brake
		Electrical time constant	10.20 ms	Shaft end	Plain shaft
		Mechanical time constant	1.94 ms	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
		Thermal time constant	30 min		
		Shaft torsional stiffness	42000 Nm/rad		
		Net weight of the motor	8.0 kg		

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Figure similar

Optimum operating point

Optimum speed 3000 rpm

Optimum power 1.5 kW

Limiting data

Max. permissible speed (mech.) 7200 rpm

Max. permissible speed (inverter) 6800 rpm

Maximum torque 18.0 Nm

Maximum current 15.0 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 5 A

Maximum inverter current 10 A

Maximum torque 13.20 Nm