

## Data sheet for SIMOTICS S-1FK7

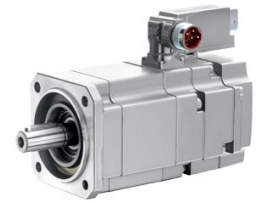


Figure similar

MLFB-Ordering data

1FK7060-5AF71-1TA0

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)	3.7 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	4.5 A	Vibration severity grade	Grade A		
Moment of inertia	7.950 kgcm <sup>2</sup>	Connector size	1		
Efficiency	90.0 %	Degree of protection	IP64		
<th colspan="2">Physical constants</th> <td>Design acc. to Code I</td> <td>IM B5 (IM V1, IM V3)</td>		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 <sup>-1</sup>	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	without holding brake
		Electrical time constant	10.20 ms	Shaft extension	Feather key
		Mechanical time constant	1.94 ms	Encoder system	Resolver 2-pole
		Thermal time constant	30 min		
		Shaft torsional stiffness	42000 Nm/rad		
		Net weight of the motor	7.0 kg		

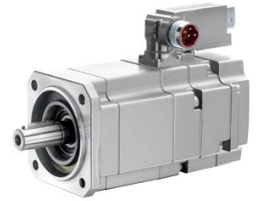


Figure similar

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1FK7060-5AF71-1TA0

### 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

### Recommended Motor Module

Rated inverter current 5 A

Maximum inverter current 10 A

Maximum torque 13.20 Nm