

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7011-5AK24-1JA3

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	6000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	0.1 Nm	Shaft height	20
Rated current	0.5 A	Cooling	Natural cooling
Static torque (60 K)	0.15 Nm	Radial runout tolerance	0.000 mm
Static torque (100 K)	0.2 Nm	Concentricity tolerance	0.00 mm
Stall current (60 K)	0.70 A	Axial runout tolerance	0.00 mm
Stall current (100 K)	0.85 A	Vibration severity grade	Grade A
Moment of inertia	0.064 kgcm <sup>2</sup>	Connector size	0.5
Efficiency	62.0 %	Degree of protection	IP54
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.21 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	14.0 V/1000*min <sup>-1</sup>	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	9.40 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	13.0 mH	Holding brake	without holding brake
Electrical time constant	1.40 ms	Shaft extension	Feather key
Mechanical time constant	4.10 ms	Encoder system	Encoder AM16S/R: absolute encoder 16 S/R, 4096 revolutions multi-turn, with EnDat interface
Thermal time constant	14 min		
Shaft torsional stiffness	1400 Nm/rad		
Net weight of the motor	0.9 kg		

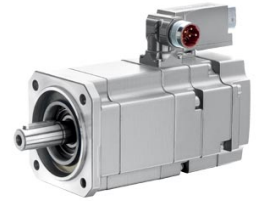


Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	5000 rpm	Rated inverter current	1 A
Optimum power	0.1 kW	Maximum inverter current	2 A
Limiting data		Maximum torque	0.37 Nm
Max. permissible speed (mech.)	8000 rpm		
Max. permissible speed (inverter)	8000 rpm		
Maximum torque	0.5 Nm		
Maximum current	2.4 A		