

Data sheet for SIMOTICS S-1FK7

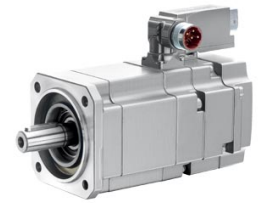


Figure similar

MLFB-Ordering data

1FK7022-5AK71-1AA3

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	6	Motor type	Compact
Rated torque (100 K)	0.6 Nm	Shaft height	28
Rated current	1.4 A	Cooling	Natural cooling
Static torque (60 K)	0.70 Nm	Radial runout tolerance	0.035 mm
Static torque (100 K)	0.8 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	1.50 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	1.80 A	Vibration severity grade	Grade A
Moment of inertia	0.280 kgcm ²	Connector size	1
Efficiency	86.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	KTY84 temperature sensor in the stator winding
Torque constant	0.46 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	29.0 V/1000*min ⁻¹	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	4.20 Ω	Holding brake	without holding brake
Rotating field inductance	9.1 mH	Shaft extension	Feather key
Electrical time constant	2.20 ms	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
Mechanical time constant	1.70 ms		
Thermal time constant	18 min		
Shaft torsional stiffness	3000 Nm/rad		
Net weight of the motor	1.8 kg		

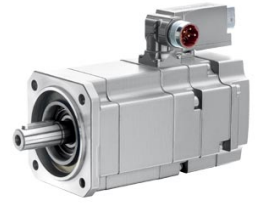


Figure similar

MLFB-Ordering data

1FK7022-5AK71-1AA3

Optimum operating point

Optimum speed 6000 rpm

Optimum power 0.4 kW

Limiting data

Max. permissible speed (mech.) 10000 rpm

Max. permissible speed (inverter) 10000 rpm

Maximum torque 3.4 Nm

Maximum current 8.0 A

Recommended Motor Module

Rated inverter current 3 A

Maximum inverter current 6 A

Maximum torque 2.65 Nm