SIEMENS

Data sheet for SIMOTICS S-1FK7

Article No. : 1FK7011-5AK71-1AA3



Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed (100 K)	6,000 rpm
Number of poles	8
Rated torque (100 K)	0.1 Nm
Rated current	0.8 A
Static torque (60 K)	0.15 Nm
Static torque (100 K)	0.18 Nm
Stall current (60 K)	1.20 A
Stall current (100 K)	1.50 A
Moment of inertia	0.064 kgcm²
Efficiency	62.0 %

Physical constants	
Torque constant	0.12 Nm/A
Voltage constant at 20° C	8.0 V/1000*min^{-1}
Winding resistance at 20° C	3.00 Ω
Rotating field inductance	4.2 mH
Electrical time constant	1.40 ms
Mechanical time constant	4.00 ms
Thermal time constant	14 min
Shaft torsional stiffness	1,400 Nm/rad
Net weight of the motor	0.9 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	20
Cooling	Natural cooling
Radial runout tolerance	0.000 mm
Concentricity tolerance	0.00 mm
Axial runout tolerance	0.00 mm
Vibration severity grade	Grade A
Connector size	M17
Degree of protection	IP54
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft end	Feather key
Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track

Optimum operating point	
Optimum speed	5,000 rpm
Optimum power	0.1 kW

Limiting data	
Max. permissible speed (mech.)	8,000 rpm
Max. permissible speed (inverter)	8,000 rpm
Maximum torque	0.5 Nm
Maximum current	4.2 A

Recommended Motor Module	
Rated inverter current	3 A
Maximum inverter current	6 A
Maximum torque	0.50 Nm

Subject to change. Calculated values may differ from nameplate ratings. © Copyright Siemens