

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7060-5AH71-1DG3

No image available for this configuration.

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	8	Motor type	Compact		
Rated torque (100 K)	3.7 Nm	Shaft height	63		
Rated current	4.1 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)	5.10 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	6.20 A	Vibration severity grade	Grade A		
Moment of inertia	7.950 kgcm ²	Connector size	1		
Efficiency	90.0 %	Degree of protection	IP64		
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)		
		Torque constant	0.95 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
		Voltage constant at 20° C	60.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	0.73 Ω	Color of the housing	Standard (Anthracite RAL 7016)
		Rotating field inductance	7.0 mH	Holding brake	without holding brake
		Electrical time constant	9.60 ms	Shaft extension	Plain shaft
		Mechanical time constant	1.93 ms	Encoder system	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits
		Thermal time constant	30 min		
		Shaft torsional stiffness	42000 Nm/rad		
		Net weight of the motor	7.0 kg		

MLFB-Ordering data

1FK7060-5AH71-1DG3

Figure similar

Optimum operating point

Optimum speed 4500 rpm

Optimum power 1.7 kW

Limiting data

Max. permissible speed (mech.) 7200 rpm

Max. permissible speed (inverter) 9500 rpm

Maximum torque 18.0 Nm

Maximum current 19.5 A

Recommended Motor Module

Rated inverter current 9 A

Maximum inverter current 18 A

Maximum torque 16.80 Nm