

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7032-2AK71-1QG0-Z
M03

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)	0.8 Nm	Shaft height	36
Rated current	1.3 A	Cooling	Natural cooling
Static torque (60 K)	0.95 Nm	Radial runout tolerance	0.035 mm
Static torque (100 K)	1.10 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	1.40 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	1.70 A	Vibration severity grade	Grade A
Moment of inertia	0.650 kgcm ²	Connector size	1
Efficiency	88.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	Pt1000 temperature sensor
Torque constant	0.67 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	45.0 V/1000*min ⁻¹	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	5.05 Ω	Holding brake	without holding brake
Rotating field inductance	17.3 mH	Shaft end	Plain shaft
Electrical time constant	3.45 ms	Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits
Mechanical time constant	2.20 ms		
Thermal time constant	25 min		
Shaft torsional stiffness	6000 Nm/rad		
Net weight of the motor	2.7 kg		



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Optimum operating point

Optimum speed	6000 rpm
Optimum power	0.5 kW

Limiting data

Max. permissible speed (mech.)	5500 rpm
Max. permissible speed (inverter)	10000 rpm
Maximum torque	4.5 Nm
Maximum current	7.0 A

Recommended Motor Module

Rated inverter current	3 A
Maximum inverter current	9 A
Maximum torque	4.50 Nm

Special design

M03 Version for Zone 2 hazardous areas according to EN 50021/IEC 60079-15