

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7032-2AK71-1TB2

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)	1.1 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	0.750 kgcm <sup>2</sup>	Connector size	1		
Efficiency	88.0 %	Degree of protection	IP65 and DE flange IP67		
<b>Physical constants</b>		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	with holding brake		
		Shaft extension	Feather key		
		Encoder system	Resolver 2-pole		
		Torque constant	0.67 Nm/A		
		Voltage constant at 20° C	45.0 V/1000*min <sup>-1</sup>		
		Winding resistance at 20° C	5.05 Ω		
Rotating field inductance	17.3 mH				
Electrical time constant	3.45 ms				
Mechanical time constant	2.20 ms				
Thermal time constant	25 min				
Shaft torsional stiffness	4100 Nm/rad				
Net weight of the motor	3.1 kg				



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### Optimum operating point

Optimum speed	6000 rpm
Optimum power	0.5 kW

### Limiting data

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

### Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	1.9 Nm
Power supply voltage	DC 24 V $\pm$ 10 %
Coil current	0.3 A
Opening time	50 ms
Closing time	30 ms
Highest braking work	40 J

### Recommended Motor Module

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