

## Data sheet for SIMOTICS S-1FK7

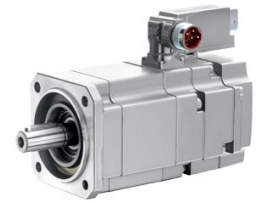


Figure similar

### Ordering data

1FK7033-7AK71-1AH0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Physical constants	
Rated speed	6000 rpm	Torque constant	0.60 Nm/A
Number of poles	6	Voltage constant at 20° C	40.0 V/1000*min <sup>-1</sup>
Rated torque (100 K)	0.9 Nm	Winding resistance at 20° C	3.70 Ω
Rated current	1.5 A	Rotating field inductance	18.0 mH
Static torque (60 K)	1.00 Nm	Electrical time constant	4.90 ms
Static torque (100 K)	1.3 Nm	Mechanical time constant	0.83 ms
Stall current (60 K)	1.7 A	Thermal time constant	25 min
Stall current (100 K)	2.2 A	Shaft torsional stiffness	8000 Nm/rad
Rotor moment of inertia	0.300 kgcm <sup>2</sup>	Net weight of the motor	3.4 kg
Efficiency	88.0 %		

Mechanical data			
Motor type	High Dynamic	Electrical connectors	Connectors for signals and power rotatable
Shaft height	36	Color of the housing	unpainted
Cooling	Natural cooling	Holding brake	with holding brake
Radial runout tolerance	0.035 mm	Shaft extension	Plain shaft
Concentricity tolerance	0.08 mm	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
Axial runout tolerance	0.08 mm		
Vibration severity grade	Grade A		
Connector size	1		
Degree of protection	IP64		
Design acc. to Code I	IM B5 (IM V1, IM V3)		
Temperature monitoring	KTY84 temperature sensor in the stator winding		

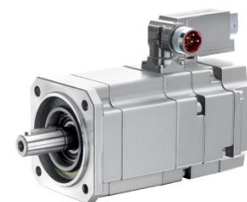


Figure similar

Ordering data

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Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	3 A
Optimum power	0.6 kW	Maximum inverter current	6 A
		Maximum torque	3.50 Nm