

Data sheet for SIMOTICS S-1FK7



Figure similar

Ordering data 1FK7040-5AK71-1KH0

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

Item no. :
Consignment no. :
Project :

Engineering data		Physical constants	
Rated speed	6000 rpm	Torque constant	0.68 Nm/A
Number of poles	8	Voltage constant at 20° C	43.0 V/1000*min ⁻¹
Rated torque (100 K)	1.1 Nm	Winding resistance at 20° C	3.30 Ω
Rated current	1.7 A	Rotating field inductance	17.0 mH
Static torque (60 K)	1.30 Nm	Electrical time constant	5.15 ms
Static torque (100 K)	1.6 Nm	Mechanical time constant	3.62 ms
Stall current (60 K)	1.8 A	Thermal time constant	25 min
Stall current (100 K)	2.2 A	Shaft torsional stiffness	19000 Nm/rad
Rotor moment of inertia	2.130 kgcm ²	Net weight of the motor	4.0 kg
Efficiency	88.0 %		

Mechanical data			
Motor type	Compact	Electrical connectors	Connectors for signals and power rotatable
Shaft height	48	Color of the housing	unpainted
Cooling	Natural cooling	Holding brake	with holding brake
Radial runout tolerance	0.040 mm	Shaft extension	Plain shaft
Concentricity tolerance	0.08 mm	Encoder system	Encoder AM16DQ: absolute encoder 16 bits (resolution 65536, encoder-internal 32 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
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		



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Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	3 A
Optimum power	0.7 kW	Maximum inverter current	6 A
		Maximum torque	4.10 Nm