

Data sheet for SIMOTICS S-1FK7



Figure similar

Ordering data 1FK7083-5AH71-1EH0

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

Item no. :
Consignment no. :
Project :

Engineering data		Physical constants	
Rated speed	4500 rpm	Torque constant	1.05 Nm/A
Number of poles	8	Voltage constant at 20° C	67.0 V/1000*min ⁻¹
Rated torque (100 K)	3.0 Nm	Winding resistance at 20° C	0.17 Ω
Rated current	3.6 A	Rotating field inductance	2.9 mH
Static torque (60 K)	13.30 Nm	Electrical time constant	17.00 ms
Static torque (100 K)	16.0 Nm	Mechanical time constant	1.26 ms
Stall current (60 K)	12.4 A	Thermal time constant	50 min
Stall current (100 K)	15.0 A	Shaft torsional stiffness	105000 Nm/rad
Rotor moment of inertia	35.900 kgcm ²	Net weight of the motor	16.5 kg
Efficiency	93.0 %		

Mechanical data			
Motor type	Compact	Electrical connectors	Connectors for signals and power rotatable
Shaft height	80	Color of the housing	unpainted
Cooling	Natural cooling	Holding brake	with holding brake
Radial runout tolerance	0.050 mm	Shaft extension	Plain shaft
Concentricity tolerance	0.10 mm	Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
Axial runout tolerance	0.10 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	3000 rpm	Rated inverter current	18 A
Optimum power	3.3 kW	Maximum inverter current	36 A
		Maximum torque	37.70 Nm