

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7084-2AF71-1PA1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	8	Motor type	Compact		
Rated torque (100 K)	10.0 Nm	Shaft height	80		
Rated current	6.5 A	Cooling	Natural cooling		
Static torque (60 K)	16.60 Nm	Radial runout tolerance	0.050 mm		
Static torque (100 K)	20.0 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	9.80 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	12.10 A	Vibration severity grade	Grade A		
Moment of inertia	32.500 kgcm ²	Connector size	1		
Efficiency	93.0 %	Degree of protection	IP65		
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)		
		Torque constant	1.66 Nm/A	Temperature monitoring	Pt1000 temperature sensor
		Voltage constant at 20° C	106.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	0.28 Ω	Color of the housing	Standard (Anthracite RAL 7016)
		Rotating field inductance	5.9 mH	Holding brake	without holding brake
		Electrical time constant	21.00 ms	Shaft extension	Feather key
		Mechanical time constant	1.01 ms	Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)
		Thermal time constant	55 min		
		Shaft torsional stiffness	93000 Nm/rad		
		Net weight of the motor	18.3 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	2500 rpm	Rated inverter current	18 A
Optimum power	3.2 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	61.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5400 rpm		
Maximum torque	61.0 Nm		
Maximum current	41.0 A		