

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7060-2AH71-1CG2

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	8	Motor type	Compact		
Rated torque (100 K)	3.7 Nm	Shaft height	63		
Rated current	4.3 A	Cooling	Natural cooling		
Static torque (60 K)	5.00 Nm	Radial runout tolerance	0.040 mm		
Static torque (100 K)	6.0 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	5.10 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	6.30 A	Vibration severity grade	Grade A		
Moment of inertia	7.700 kgcm ²	Connector size	1		
Efficiency	90.0 %	Degree of protection	IP65 and DE flange IP67		
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)		
		Temperature monitoring	Pt1000 temperature sensor		
		Electrical connectors	Connectors for signals and power rotatable		
		Color of the housing	Standard (Anthracite RAL 7016)		
		Holding brake	without holding brake		
		Shaft extension	Plain shaft		
		Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)		
		Torque constant	0.95 Nm/A		
		Voltage constant at 20° C	60.5 V/1000*min ⁻¹		
		Winding resistance at 20° C	0.69 Ω		
Rotating field inductance	7.6 mH				
Electrical time constant	10.90 ms				
Mechanical time constant	1.78 ms				
Thermal time constant	30 min				
Shaft torsional stiffness	40500 Nm/rad				
Net weight of the motor	7.1 kg				



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	4500 rpm	Rated inverter current	9 A
Optimum power	1.7 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	18.00 Nm
Max. permissible speed (mech.)	7200 rpm		
Max. permissible speed (inverter)	7200 rpm		
Maximum torque	18.0 Nm		
Maximum current	21.5 A		