

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7061-4CH71-1RA2-Z
N16+X08

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	6	Motor type	High Dynamic		
Rated torque (100 K)	4.3 Nm	Shaft height	63		
Rated current	6.2 A	Cooling	Natural cooling		
Static torque (60 K)	5.30 Nm	Radial runout tolerance	0.040 mm		
Static torque (100 K)	6.4 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	7.10 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	8.70 A	Vibration severity grade	Grade A		
Moment of inertia	4.100 kgcm ²	Connector size	1		
Efficiency	93.0 %	Degree of protection	IP65 and DE flange IP67		
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)		
		Torque constant	0.73 Nm/A	Temperature monitoring	Pt1000 temperature sensor
		Voltage constant at 20° C	47.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	0.35 Ω	Color of the housing	Suitable for food grade applications white aluminum RAL 9006
		Rotating field inductance	10.7 mH	Holding brake	without holding brake
		Electrical time constant	30.50 ms	Shaft extension	Feather key
		Mechanical time constant	0.79 ms	Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
		Thermal time constant	45 min		
		Shaft torsional stiffness	36500 Nm/rad		
		Net weight of the motor	9.5 kg		



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Optimum operating point		Recommended Motor Module	
Optimum speed	4500 rpm	Rated inverter current	9 A
Optimum power	2.0 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	17.30 Nm
Max. permissible speed (mech.)	7500 rpm	Special design	
Max. permissible speed (inverter)	7500 rpm	N16	Nickel plated connectors and paint varnish for increased chemical resistance
Maximum torque	17.3 Nm	X08	Paint finish: Food-suited color white aluminium RAL 9006
Maximum current	26.5 A		