

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data **1FK7064-4CH71-1RG0-Z
X05**

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)	5.0 Nm	Shaft height	63		
Rated current	7.0 A	Cooling	Natural cooling		
Static torque (60 K)	10.00 Nm	Radial runout tolerance	0.040 mm		
Static torque (100 K)	12.00 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	12.20 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	15.00 A	Vibration severity grade	Grade A		
Moment of inertia	7.500 kgcm ²	Connector size	1		
Efficiency	93.0 %	Degree of protection	IP64		
<th colspan="2">Physical constants</th>		Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Torque constant	0.80 Nm/A	Temperature monitoring	Pt1000 temperature sensor
		Voltage constant at 20° C	50.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	0.17 Ω	Color of the housing	Sky blue RAL 5015
		Rotating field inductance	6.2 mH	Holding brake	without holding brake
		Electrical time constant	36.50 ms	Shaft end	Plain shaft
		Mechanical time constant	0.60 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	55 min		
		Shaft torsional stiffness	29500 Nm/rad		
		Net weight of the motor	15.4 kg		



Figure similar

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Optimum operating point

Optimum speed	3500 rpm
Optimum power	2.8 kW

Limiting data

Max. permissible speed (mech.)	7500 rpm
Max. permissible speed (inverter)	7500 rpm
Maximum torque	32.0 Nm
Maximum current	46.0 A

Recommended Motor Module

Rated inverter current	18 A
Maximum inverter current	54 A
Maximum torque	32.00 Nm

Special design

X05 Paint finish: Sky blue RAL 5015