

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data 1FK7043-4CK71-1UA0-Z
X05

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

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed (100 K)	6000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	6	Motor type	High Dynamic
Rated torque (100 K)	2.0 Nm	Shaft height	48
Rated current	3.5 A	Cooling	Natural cooling
Static torque (60 K)	2.90 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	3.5 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	4.50 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	5.60 A	Vibration severity grade	Grade A
Moment of inertia	1.000 kgcm²	Connector size	1
Efficiency	90.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.63 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	39.8 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.65 Ω	Color of the housing	Sky blue RAL 5015
Rotating field inductance	7.4 mH	Holding brake	without holding brake
Electrical time constant	11.50 ms	Shaft extension	Feather key
Mechanical time constant	0.49 ms	Encoder system	Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)
Thermal time constant	40 min		
Shaft torsional stiffness	11400 Nm/rad		
Net weight of the motor	6.0 kg		



Figure similar

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Optimum operating point	
Optimum speed	6000 rpm
Optimum power	1.3 kW
Limiting data	
Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	9000 rpm
Maximum torque	10.0 Nm
Maximum current	17.0 A
Recommended Motor Module	
Rated inverter current	9 A
Maximum inverter current	27 A
Maximum torque	10.00 Nm
Special design	
X05	Paint finish: Sky blue RAL 5015