

Data sheet for SIMOTICS S-1FK7



MLFB-Ordering data 1FK7060-2AF71-1QA0-Z
X01

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)	4.7 Nm	Shaft height	63
Rated current	3.7 A	Cooling	Natural cooling
Static torque (60 K)	5.00 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	6.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	3.60 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	4.45 A	Vibration severity grade	Grade A
Moment of inertia	7.700 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	1.33 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	85.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	1.35 Ω	Color of the housing	Jet black, matt RAL 9005
Rotating field inductance	15.2 mH	Holding brake	without holding brake
Electrical time constant	11.30 ms	Shaft end	Feather key
Mechanical time constant	1.71 ms	Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits
Thermal time constant	30 min		
Shaft torsional stiffness	40500 Nm/rad		
Net weight of the motor	7.1 kg		



Figure similar

MLFB-Ordering data

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Optimum operating point	
Optimum speed	3000 rpm
Optimum power	1.5 kW
Limiting data	
Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	6700 rpm
Maximum torque	18.0 Nm
Maximum current	15.0 A
Recommended Motor Module	
Rated inverter current	5 A
Maximum inverter current	15 A
Maximum torque	18.00 Nm
Special design	
X01	Paint finish: Jet black, matt RAL 9005