

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7084-2AC71-1QB2



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	2000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	15.0 Nm	Shaft height	80
Rated current	6.7 A	Cooling	Natural cooling
Static torque (60 K)	16.60 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	20.0 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	6.90 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	8.50 A	Vibration severity grade	Grade A
Moment of inertia	35.500 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)
		Temperature monitoring	Pt1000 temperature sensor
		Electrical connectors	Connectors for signals and power rotatable
		Color of the housing	Standard (Anthracite RAL 7016)
		Holding brake	with holding brake
		Shaft extension	Feather key
		Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits
Torque constant	2.36 Nm/A		
Voltage constant at 20° C	152.0 V/1000*min ⁻¹		
Winding resistance at 20° C	0.58 Ω		
Rotating field inductance	12.0 mH		
Electrical time constant	20.50 ms		
Mechanical time constant	1.02 ms		
Thermal time constant	55 min		
Shaft torsional stiffness	68000 Nm/rad		
Net weight of the motor	21.3 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	9 A
Optimum power	3.1 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	58.40 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	3800 rpm		
Maximum torque	61.0 Nm		
Maximum current	28.5 A		
Holding brake			
Holding brake version	Permanent-magnet brake		
Holding torque	22.0 Nm		
Power supply voltage	DC 24 V ± 10 %		
Coil current	0.9 A		
Opening time	200 ms		
Closing time	60 ms		
Highest braking work	1400 J		