

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7062-3BF74-1EB2

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	High Inertia		
Rated torque (100 K)	6.0 Nm	Shaft height	63		
Rated current	4.0 A	Cooling	Natural cooling		
Static torque (60 K)	7.10 Nm	Radial runout tolerance	0.040 mm		
Static torque (100 K)	8.5 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	4.30 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	5.30 A	Vibration severity grade	Grade A		
Moment of inertia	24.500 kgcm ²	Connector size	1		
Efficiency	91.0 %	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 AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface		
		Torque constant	1.60 Nm/A		
		Voltage constant at 20° C	102.5 V/1000*min ⁻¹		
		Winding resistance at 20° C	1.15 Ω		
Rotating field inductance	14.6 mH				
Electrical time constant	12.80 ms				
Mechanical time constant	3.15 ms				
Thermal time constant	35 min				
Shaft torsional stiffness	25000 Nm/rad				
Net weight of the motor	12.1 kg				



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Optimum operating point

Optimum speed	3000 rpm
Optimum power	1.6 kW

Limiting data

Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	5600 rpm
Maximum torque	26.0 Nm
Maximum current	19.2 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	13.0 Nm
Power supply voltage	DC 24 V \pm 10 %
Coil current	0.8 A
Opening time	100 ms
Closing time	50 ms
Highest braking work	380 J

Recommended Motor Module

Rated inverter current	5 A
Maximum inverter current	15 A
Maximum torque	22.10 Nm