

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7034-2AF21-1BA1

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	6	Motor type	Compact
Rated torque (100 K)	1.4 Nm	Shaft height	36
Rated current	1.8 A	Cooling	Natural cooling
Static torque (60 K)	1.35 Nm	Radial runout tolerance	0.035 mm
Static torque (100 K)	1.6 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	1.55 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	1.90 A	Vibration severity grade	Grade A
Moment of inertia	0.900 kgcm ²	Connector size	1
Efficiency	85.0 %	Degree of protection	IP65
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	Pt1000 temperature sensor
Torque constant	0.84 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	55.0 V/1000*min ⁻¹	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	4.46 Ω	Holding brake	without holding brake
Rotating field inductance	17.2 mH	Shaft extension	Feather key
Electrical time constant	3.85 ms	Encoder system	Encoder AS24DQI: absolute encoder single-turn 24 bits
Mechanical time constant	1.71 ms		
Thermal time constant	30 min		
Shaft torsional stiffness	5300 Nm/rad		
Net weight of the motor	3.5 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	2 A
Optimum power	0.5 kW	Maximum inverter current	5 A
Limiting data		Maximum torque	3.90 Nm
Max. permissible speed (mech.)	10000 rpm		
Max. permissible speed (inverter)	5200 rpm		
Maximum torque	6.5 Nm		
Maximum current	8.0 A		