

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7083-2AF74-1SG0

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)	10.5 Nm	Shaft height	80
Rated current	7.2 A	Cooling	Natural cooling
Static torque (60 K)	13.30 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	16.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	8.20 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	10.10 A	Vibration severity grade	Grade A
Moment of inertia	26.000 kgcm ²	Connector size	1
Efficiency	93.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	Pt1000 temperature sensor
Torque constant	1.58 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	102.5 V/1000*min ⁻¹	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	0.38 Ω	Holding brake	without holding brake
Rotating field inductance	7.0 mH	Shaft end	Plain shaft
Electrical time constant	18.60 ms	Encoder system	Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor)
Mechanical time constant	1.18 ms		
Thermal time constant	50 min		
Shaft torsional stiffness	101000 Nm/rad		
Net weight of the motor	15.6 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	3.3 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	40.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5600 rpm		
Maximum torque	50.0 Nm		
Maximum current	37.0 A		