

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7103-2AC71-1AA1



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)	25.0 Nm	Shaft height	100
Rated current	11.0 A	Cooling	Natural cooling
Static torque (60 K)	30.00 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	36.0 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	11.60 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	14.40 A	Vibration severity grade	Grade A
Moment of inertia	104.000 kgcm ²	Connector size	1.5
Efficiency	93.0 %	Degree of protection	IP65
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	KTY84 temperature sensor in the stator winding
Torque constant	2.45 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	162.0 V/1000*min ⁻¹	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	0.29 Ω	Holding brake	without holding brake
Rotating field inductance	7.9 mH	Shaft extension	Feather key
Electrical time constant	27.50 ms	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
Mechanical time constant	1.43 ms		
Thermal time constant	65 min		
Shaft torsional stiffness	148000 Nm/rad		
Net weight of the motor	28.5 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	18 A
Optimum power	5.2 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	108.00 Nm
Max. permissible speed (mech.)	5000 rpm		
Max. permissible speed (inverter)	3550 rpm		
Maximum torque	108.0 Nm		
Maximum current	46.5 A		