

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7105-2AC71-1AA1

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)	37.0 Nm	Shaft height	100		
Rated current	16.0 A	Cooling	Natural cooling		
Static torque (60 K)	40.00 Nm	Radial runout tolerance	0.050 mm		
Static torque (100 K)	48.0 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	16.20 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	20.00 A	Vibration severity grade	Grade A		
Moment of inertia	154.000 kgcm ²	Connector size	1.5		
Efficiency	93.0 %	Degree of protection	IP65		
<th colspan="2">Physical constants</th>		Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Torque constant	2.37 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
		Voltage constant at 20° C	157.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	0.17 Ω	Color of the housing	Standard (Anthracite RAL 7016)
		Rotating field inductance	4.5 mH	Holding brake	without holding brake
		Electrical time constant	25.50 ms	Shaft extension	Feather key
		Mechanical time constant	1.40 ms	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
		Thermal time constant	70 min		
		Shaft torsional stiffness	125000 Nm/rad		
		Net weight of the motor	39.0 kg		



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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	30 A
Optimum power	7.7 kW	Maximum inverter current	72 A
Limiting data		Maximum torque	150.00 Nm
Max. permissible speed (mech.)	5000 rpm		
Max. permissible speed (inverter)	3650 rpm		
Maximum torque	150.0 Nm		
Maximum current	71.0 A		