

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7105-2AC74-1SH2



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)	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	162.000 kgcm ²	Connector size	1.5		
Efficiency	93.0 %	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	Plain shaft		
		Encoder system	Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor)		
		Torque constant	2.37 Nm/A		
		Voltage constant at 20° C	157.5 V/1000*min ⁻¹		
		Winding resistance at 20° C	0.17 Ω		
Rotating field inductance	4.5 mH				
Electrical time constant	25.50 ms				
Mechanical time constant	1.40 ms				
Thermal time constant	70 min				
Shaft torsional stiffness	95000 Nm/rad				
Net weight of the motor	43.5 kg				



Figure similar

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Optimum operating point

Optimum speed 2000 rpm

Optimum power 7.7 kW

Limiting data

Max. permissible speed (mech.) 5000 rpm

Max. permissible speed (inverter) 3650 rpm

Maximum torque 150.0 Nm

Maximum current 71.0 A

Holding brake

Holding brake version Permanent-magnet brake

Holding torque 43.0 Nm

Power supply voltage DC 24 V \pm 10 %

Coil current 1.0 A

Opening time 300 ms

Closing time 70 ms

Highest braking work 3380 J

Recommended Motor Module

Rated inverter current 30 A

Maximum inverter current 72 A

Maximum torque 150.00 Nm