

Data sheet for SIMOTICS S-1FK7

No image available for this configuration.

MLFB-Ordering data

1FK7105-5AF71-1GH5

Figure similar

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)	26.0 Nm	Shaft height	100
Rated current	18.0 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)	25.00 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	31.00 A	Vibration severity grade	Grade A
Moment of inertia	169.000 kgcm ²	Connector size	1.5
Efficiency	94.0 %	Degree of protection	IP65 and DE flange IP67
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.57 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	100.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.07 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	1.9 mH	Holding brake	with holding brake
Electrical time constant	26.00 ms	Shaft extension	Plain shaft
Mechanical time constant	1.40 ms	Encoder system	Encoder AM32S/R: absolute encoder 32 S/R, 4096 revolutions multi-turn, with EnDat interface
Thermal time constant	70 min		
Shaft torsional stiffness	125000 Nm/rad		
Net weight of the motor	41.5 kg		

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Figure similar

Optimum operating point

Optimum speed 3000 rpm

Optimum power 8.2 kW

Limiting data

Max. permissible speed (mech.) 5000 rpm

Max. permissible speed (inverter) 5700 rpm

Maximum torque 150.0 Nm

Maximum current 109.0 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 56 A

Maximum torque 87.00 Nm