

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7033-4CF21-1AA2

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K)	3000 rpm
Number of poles	6
Rated torque (100 K)	1.2 Nm
Rated current	2.0 A
Static torque (60 K)	1.08 Nm
Static torque (100 K)	1.3 Nm
Stall current (60 K)	1.70 A
Stall current (100 K)	2.10 A
Moment of inertia	0.250 kgcm ²
Efficiency	86.0 %

Physical constants

Torque constant	0.62 Nm/A
Voltage constant at 20° C	39.5 V/1000*min ⁻¹
Winding resistance at 20° C	3.51 Ω
Rotating field inductance	22.0 mH
Electrical time constant	6.30 ms
Mechanical time constant	0.68 ms
Thermal time constant	25 min
Shaft torsional stiffness	7300 Nm/rad
Net weight of the motor	3.0 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
Shaft height	36
Cooling	Natural cooling
Radial runout tolerance	0.035 mm
Concentricity tolerance	0.08 mm
Axial runout tolerance	0.08 mm
Vibration severity grade	Grade A
Connector size	1
Degree of protection	IP65 and DE flange IP67
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft extension	Feather key
Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track



Figure similar

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Optimum operating point

Optimum speed 3000 rpm

Optimum power 0.4 kW

Limiting data

Max. permissible speed (mech.) 10000 rpm

Max. permissible speed (inverter) 7150 rpm

Maximum torque 4.3 Nm

Maximum current 7.6 A

Recommended Motor Module

Rated inverter current 2 A

Maximum inverter current 5 A

Maximum torque 2.70 Nm