

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7034-5AK71-1AA0

No image available for this configuration.

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K)	6000 rpm
Number of poles	6
Rated torque (100 K)	1.0 Nm
Rated current	1.3 A
Static torque (60 K)	1.35 Nm
Static torque (100 K)	1.6 Nm
Stall current (60 K)	1.60 A
Stall current (100 K)	1.90 A
Moment of inertia	0.900 kgcm ²
Efficiency	88.0 %

Physical constants

Torque constant	0.86 Nm/A
Voltage constant at 20° C	55.0 V/1000*min ⁻¹
Winding resistance at 20° C	4.50 Ω
Rotating field inductance	16.5 mH
Electrical time constant	3.70 ms
Mechanical time constant	1.60 ms
Thermal time constant	30 min
Shaft torsional stiffness	5500 Nm/rad
Net weight of the motor	3.7 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
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	IP64
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	without
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

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Figure similar

Optimum operating point

Optimum speed 6000 rpm

Optimum power 0.6 kW

Limiting data

Max. permissible speed (mech.) 10000 rpm

Max. permissible speed (inverter) 10500 rpm

Maximum torque 6.5 Nm

Maximum current 8.0 A

Recommended Motor Module

Rated inverter current 3 A

Maximum inverter current 6 A

Maximum torque 4.90 Nm