

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7060-5AF71-1AB0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	4.7 Nm
Rated current	3.7 A
Static torque (60 K)	5.00 Nm
Static torque (100 K)	6.0 Nm
Stall current (60 K)	3.70 A
Stall current (100 K)	4.50 A
Moment of inertia	10.200 kgcm <sup>2</sup>
Efficiency	90.0 %

Physical constants	
Torque constant	1.33 Nm/A
Voltage constant at 20° C	84.5 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	1.44 Ω
Rotating field inductance	14.7 mH
Electrical time constant	10.20 ms
Mechanical time constant	1.94 ms
Thermal time constant	30 min
Shaft torsional stiffness	42000 Nm/rad
Net weight of the motor	8.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	63
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 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	with 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

MLFB-Ordering data

1FK7060-5AF71-1AB0

Figure similar

### Optimum operating point

Optimum speed 3000 rpm

Optimum power 1.5 kW

### Limiting data

Max. permissible speed (mech.) 7200 rpm

Max. permissible speed (inverter) 6800 rpm

Maximum torque 18.0 Nm

Maximum current 15.0 A

### Holding brake

Holding brake version Permanent-magnet brake

Holding torque 13.0 Nm

Power supply voltage DC 24 V ± 10 %

Coil current 0.8 A

Opening time 100 ms

Closing time 50 ms

Highest braking work 380 J

### Recommended Motor Module

Rated inverter current 5 A

Maximum inverter current 10 A

Maximum torque 13.20 Nm