

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7064-7AF71-1TH0

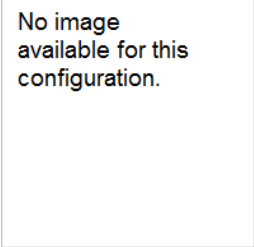


Figure similar

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) | 8.0 Nm |
| Rated current | 7.5 A |
| Static torque (60 K) | 9.00 Nm |
| Static torque (100 K) | 12.00 Nm |
| Stall current (60 K) | 8.50 A |
| Stall current (100 K) | 11.00 A |
| Moment of inertia | 6.840 kgcm ² |
| Efficiency | 93.0 % |

Physical constants

| | |
|-----------------------------|-------------------------------|
| Torque constant | 1.03 Nm/A |
| Voltage constant at 20° C | 68.0 V/1000*min ⁻¹ |
| Winding resistance at 20° C | 0.35 Ω |
| Rotating field inductance | 10.7 mH |
| Electrical time constant | 30.50 ms |
| Mechanical time constant | 0.64 ms |
| Thermal time constant | 55 min |
| Shaft torsional stiffness | 30000 Nm/rad |
| Net weight of the motor | 16.8 kg |

Mechanical data

| | |
|--------------------------|--|
| Motor type | Permanent-magnet synchronous motor |
| Motor type | High Dynamic |
| 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 end | Plain shaft |
| Encoder system | Resolver 2-pole |

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Figure similar

Optimum operating point

Optimum speed 3000 rpm

Optimum power 2.5 kW

Limiting data

Max. permissible speed (mech.) 6000 rpm

Max. permissible speed (inverter) 8500 rpm

Maximum torque 32.0 Nm

Maximum current 31.0 A

Holding brake

Holding brake version Permanent-magnet brake

Holding torque 13.0 Nm

Power supply voltage DC 24 V \pm 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 18 A

Maximum inverter current 36 A

Maximum torque 32.00 Nm