

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7064-4CC71-1KB2



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

| Engineering data | | Mechanical data | | | |
|---------------------------|-------------------------|-----------------------------|---|--|--|
| Rated speed (100 K) | 2000 rpm | Motor type | Permanent-magnet synchronous motor | | |
| Number of poles | 6 | Motor type | High Dynamic | | |
| Rated torque (100 K) | 10.0 Nm | Shaft height | 63 | | |
| Rated current | 7.1 A | Cooling | Natural cooling | | |
| Static torque (60 K) | 10.00 Nm | Radial runout tolerance | 0.040 mm | | |
| Static torque (100 K) | 12.0 Nm | Concentricity tolerance | 0.10 mm | | |
| Stall current (60 K) | 6.60 A | Axial runout tolerance | 0.10 mm | | |
| Stall current (100 K) | 8.10 A | Vibration severity grade | Grade A | | |
| Moment of inertia | 8.500 kgcm ² | Connector size | 1 | | |
| Efficiency | 93.0 % | Degree of protection | IP65 and DE flange IP67 | | |
| Physical constants | | Design acc. to Code I | IM B5 (IM V1, IM V3) | | |
| | | Temperature monitoring | Pt1000 temperature sensor | | |
| | | Electrical connectors | Connectors for signals and power rotatable | | |
| | | Color of the housing | Standard (Anthracite RAL 7016) | | |
| | | Holding brake | with holding brake | | |
| | | Shaft extension | Feather key | | |
| | | Encoder system | Encoder AM16DQ: absolute encoder 16 bits (resolution 65536, encoder-internal 32 S/R) + 12 bits multi-turn (traversing range 4096 revolutions) | | |
| | | Torque constant | 1.48 Nm/A | | |
| | | Voltage constant at 20° C | 94.0 V/1000*min ⁻¹ | | |
| | | Winding resistance at 20° C | 0.58 Ω | | |
| Rotating field inductance | 21.5 mH | | | | |
| Electrical time constant | 37.00 ms | | | | |
| Mechanical time constant | 0.60 ms | | | | |
| Thermal time constant | 55 min | | | | |
| Shaft torsional stiffness | 22500 Nm/rad | | | | |
| Net weight of the motor | 16.8 kg | | | | |



Figure similar

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Optimum operating point

| | |
|---------------|----------|
| Optimum speed | 2000 rpm |
| Optimum power | 2.1 kW |

Limiting data

| | |
|-----------------------------------|----------|
| Max. permissible speed (mech.) | 7500 rpm |
| Max. permissible speed (inverter) | 6150 rpm |
| Maximum torque | 32.0 Nm |
| Maximum current | 25.0 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 | 9 A |
| Maximum inverter current | 27 A |
| Maximum torque | 32.00 Nm |