

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7061-4CH71-1SG0



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

| Engineering data | | Mechanical data | |
|-----------------------------|-------------------------------|--------------------------|---|
| Rated speed (100 K) | 4500 rpm | Motor type | Permanent-magnet synchronous motor |
| Number of poles | 6 | Motor type | High Dynamic |
| Rated torque (100 K) | 4.3 Nm | Shaft height | 63 |
| Rated current | 6.2 A | Cooling | Natural cooling |
| Static torque (60 K) | 5.30 Nm | Radial runout tolerance | 0.040 mm |
| Static torque (100 K) | 6.4 Nm | Concentricity tolerance | 0.10 mm |
| Stall current (60 K) | 7.10 A | Axial runout tolerance | 0.10 mm |
| Stall current (100 K) | 8.70 A | Vibration severity grade | Grade A |
| Moment of inertia | 4.100 kgcm ² | Connector size | 1 |
| Efficiency | 93.0 % | Degree of protection | IP64 |
| Physical constants | | Design acc. to Code I | IM B5 (IM V1, IM V3) |
| Torque constant | 0.73 Nm/A | Temperature monitoring | KTY84 temperature sensor in the stator winding |
| Voltage constant at 20° C | 47.0 V/1000*min ⁻¹ | Electrical connectors | Connectors for signals and power rotatable |
| Winding resistance at 20° C | 0.35 Ω | Color of the housing | Standard (Anthracite RAL 7016) |
| Rotating field inductance | 10.7 mH | Holding brake | without holding brake |
| Electrical time constant | 30.50 ms | Shaft extension | Plain shaft |
| Mechanical time constant | 0.79 ms | Encoder system | Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor) |
| Thermal time constant | 45 min | | |
| Shaft torsional stiffness | 36500 Nm/rad | | |
| Net weight of the motor | 9.5 kg | | |



Figure similar

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| Optimum operating point | | Recommended Motor Module | |
|-----------------------------------|----------|--------------------------|----------|
| Optimum speed | 4500 rpm | Rated inverter current | 9 A |
| Optimum power | 2.0 kW | Maximum inverter current | 27 A |
| Limiting data | | Maximum torque | 17.30 Nm |
| Max. permissible speed (mech.) | 7500 rpm | | |
| Max. permissible speed (inverter) | 7500 rpm | | |
| Maximum torque | 17.3 Nm | | |
| Maximum current | 26.5 A | | |