

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7064-4CH71-1SG1

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) | 5.0 Nm | Shaft height | 63 |
| Rated current | 7.0 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) | 12.20 A | Axial runout tolerance | 0.10 mm |
| Stall current (100 K) | 15.00 A | Vibration severity grade | Grade A |
| Moment of inertia | 7.500 kgcm ² | Connector size | 1 |
| Efficiency | 93.0 % | Degree of protection | IP65 |
| Physical constants | | Design acc. to Code I | IM B5 (IM V1, IM V3) |
| Torque constant | 0.80 Nm/A | Temperature monitoring | KTY84 temperature sensor in the stator winding |
| Voltage constant at 20° C | 50.5 V/1000*min ⁻¹ | Electrical connectors | Connectors for signals and power rotatable |
| Winding resistance at 20° C | 0.17 Ω | Color of the housing | Standard (Anthracite RAL 7016) |
| Rotating field inductance | 6.2 mH | Holding brake | without holding brake |
| Electrical time constant | 36.50 ms | Shaft extension | Plain shaft |
| Mechanical time constant | 0.60 ms | Encoder system | Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor) |
| Thermal time constant | 55 min | | |
| Shaft torsional stiffness | 29500 Nm/rad | | |
| Net weight of the motor | 15.4 kg | | |



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| Optimum operating point | | Recommended Motor Module | |
|-----------------------------------|----------|--------------------------|----------|
| Optimum speed | 3500 rpm | Rated inverter current | 18 A |
| Optimum power | 2.8 kW | Maximum inverter current | 54 A |
| Limiting data | | Maximum torque | 32.00 Nm |
| Max. permissible speed (mech.) | 7500 rpm | | |
| Max. permissible speed (inverter) | 7500 rpm | | |
| Maximum torque | 32.0 Nm | | |
| Maximum current | 46.0 A | | |