

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7015-5AK74-1JG3

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

| Engineering data | | Mechanical data | |
|-----------------------------|-------------------------------|--------------------------|---|
| Rated speed (100 K) | 6000 rpm | Motor type | Permanent-magnet synchronous motor |
| Number of poles | 8 | Motor type | Compact |
| Rated torque (100 K) | 0.2 Nm | Shaft height | 20 |
| Rated current | 0.8 A | Cooling | Natural cooling |
| Static torque (60 K) | 0.29 Nm | Radial runout tolerance | 0.000 mm |
| Static torque (100 K) | 0.3 Nm | Concentricity tolerance | 0.00 mm |
| Stall current (60 K) | 1.20 A | Axial runout tolerance | 0.00 mm |
| Stall current (100 K) | 1.50 A | Vibration severity grade | Grade A |
| Moment of inertia | 0.083 kgcm ² | Connector size | 0.5 |
| Efficiency | 68.0 % | Degree of protection | IP54 |
| Physical constants | | Design acc. to Code I | IM B5 (IM V1, IM V3) |
| Torque constant | 0.24 Nm/A | Temperature monitoring | Pt1000 temperature sensor |
| Voltage constant at 20° C | 16.0 V/1000*min ⁻¹ | Electrical connectors | Connectors for signals and power rotatable |
| Winding resistance at 20° C | 4.30 Ω | Color of the housing | Standard (Anthracite RAL 7016) |
| Rotating field inductance | 8.4 mH | Holding brake | without holding brake |
| Electrical time constant | 2.00 ms | Shaft extension | Plain shaft |
| Mechanical time constant | 1.90 ms | Encoder system | Encoder AM16S/R: absolute encoder 16 S/R, 4096 revolutions multi-turn, with EnDat interface |
| Thermal time constant | 16 min | | |
| Shaft torsional stiffness | 1300 Nm/rad | | |
| Net weight of the motor | 1.1 kg | | |



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Optimum operating point

Optimum speed 5000 rpm

Optimum power 0.1 kW

Limiting data

Max. permissible speed (mech.) 8000 rpm

Max. permissible speed (inverter) 8000 rpm

Maximum torque 1.0 Nm

Maximum current 4.2 A

Recommended Motor Module

Rated inverter current 3 A

Maximum inverter current 6 A

Maximum torque 1.00 Nm