

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7015-5AK71-1AG3

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 | -/- | | |
| Static torque (100 K) | 0.35 Nm | Concentricity tolerance | -/- | | |
| Stall current (60 K) | 1.20 A | Axial runout tolerance | -/- | | |
| 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 | | |
| <th colspan="2">Physical constants</th> | | Physical constants | | Design acc. to Code I | IM B5 (IM V1, IM V3) |
| | | Torque constant | 0.24 Nm/A | Temperature monitoring | KTY84 temperature sensor in the stator winding |
| | | 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 end | Plain shaft |
| | | Mechanical time constant | 1.90 ms | Encoder system | Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track |
| | | 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 | | Recommended Motor Module | |
|-----------------------------------|----------|--------------------------|---------|
| Optimum speed | 5000 rpm | Rated inverter current | 3 A |
| Optimum power | 0.1 kW | Maximum inverter current | 6 A |
| Limiting data | | Maximum torque | 1.00 Nm |
| Max. permissible speed (mech.) | 8000 rpm | | |
| Max. permissible speed (inverter) | 8000 rpm | | |
| Maximum torque | 1.0 Nm | | |
| Maximum current | 4.2 A | | |