

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7032-2AK71-1AG0

No image available for this configuration.

Figure similar

Client order no. :

Order no. :

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Remarks :

| Engineering data | | Mechanical data | |
|-----------------------------|-------------------------------|--|--|
| Rated speed (100 K) | 6000 rpm | Motor type | Permanent-magnet synchronous motor |
| Number of poles | 6 | Motor type | Compact |
| Rated torque (100 K) | 0.8 Nm | Shaft height | 36 |
| Rated current | 1.3 A | Cooling | Natural cooling |
| Static torque (60 K) | 0.95 Nm | Radial runout tolerance | 0.035 mm |
| Static torque (100 K) | 1.1 Nm | Concentricity tolerance | 0.08 mm |
| Stall current (60 K) | 1.40 A | Axial runout tolerance | 0.08 mm |
| Stall current (100 K) | 1.70 A | Vibration severity grade | Grade A |
| Moment of inertia | 0.650 kgcm ² | Connector size | 1 |
| Efficiency | 88.0 % | Degree of protection | IP64 |
| Physical constants | | Design acc. to Code I | |
| Torque constant | 0.67 Nm/A | IM B5 (IM V1, IM V3) | |
| Voltage constant at 20° C | 45.0 V/1000*min ⁻¹ | Temperature monitoring | KTY84 temperature sensor in the stator winding |
| Winding resistance at 20° C | 5.05 Ω | Electrical connectors | Connectors for signals and power rotatable |
| Rotating field inductance | 17.3 mH | Color of the housing | Standard (Anthracite RAL 7016) |
| Electrical time constant | 3.45 ms | Holding brake | without holding brake |
| Mechanical time constant | 2.20 ms | Shaft extension | Plain shaft |
| Thermal time constant | 25 min | Encoder system | |
| Shaft torsional stiffness | 6000 Nm/rad | Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track | |
| Net weight of the motor | 2.7 kg | | |

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| Optimum operating point | | Recommended Motor Module | |
|-----------------------------------|--|--------------------------|--|
| Optimum speed | | 6000 rpm | |
| Optimum power | | 0.5 kW | |
| Limiting data | | | |
| Max. permissible speed (mech.) | | 10000 rpm | |
| Max. permissible speed (inverter) | | 10000 rpm | |
| Maximum torque | | 4.5 Nm | |
| Maximum current | | 7.0 A | |