

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7034-5AK71-1TA2-Z
N05

No image
available for this
configuration.

Figure similar

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 | 6 | Motor type | Compact | | |
| Rated torque (100 K) | 1.0 Nm | Shaft height | 36 | | |
| Rated current | 1.3 A | Cooling | Natural cooling | | |
| Static torque (60 K) | 1.35 Nm | Radial runout tolerance | 0.035 mm | | |
| Static torque (100 K) | 1.6 Nm | Concentricity tolerance | 0.08 mm | | |
| Stall current (60 K) | 1.60 A | Axial runout tolerance | 0.08 mm | | |
| Stall current (100 K) | 1.90 A | Vibration severity grade | Grade A | | |
| Moment of inertia | 0.900 kgcm ² | Connector size | 1 | | |
| Efficiency | 88.0 % | Degree of protection | IP65 and DE flange IP67 | | |
| Physical constants | | Design acc. to Code I | IM B5 (IM V1, IM V3) | | |
| | | Temperature monitoring | KTY84 temperature sensor in the stator winding | | |
| | | Electrical connectors | Connectors for signals and power rotatable | | |
| | | Color of the housing | without | | |
| | | Holding brake | without holding brake | | |
| | | Shaft extension | Feather key | | |
| | | Encoder system | Resolver 2-pole | | |
| | | Torque constant | 0.86 Nm/A | | |
| | | Voltage constant at 20° C | 55.0 V/1000*min ⁻¹ | | |
| | | Winding resistance at 20° C | 4.50 Ω | | |
| Rotating field inductance | 16.5 mH | | | | |
| Electrical time constant | 3.70 ms | | | | |
| Mechanical time constant | 1.60 ms | | | | |
| Thermal time constant | 30 min | | | | |
| Shaft torsional stiffness | 5500 Nm/rad | | | | |
| Net weight of the motor | 3.7 kg | | | | |

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Figure similar

Optimum operating point

| | |
|---------------|----------|
| Optimum speed | 6000 rpm |
| Optimum power | 0.6 kW |

Limiting data

| | |
|-----------------------------------|-----------|
| Max. permissible speed (mech.) | 10000 rpm |
| Max. permissible speed (inverter) | 10500 rpm |
| Maximum torque | 6.5 Nm |
| Maximum current | 8.0 A |

Recommended Motor Module

| | |
|--------------------------|---------|
| Rated inverter current | 3 A |
| Maximum inverter current | 6 A |
| Maximum torque | 4.90 Nm |

Special design

N05 Non-standard shaft extension (dimensions as for 1FT5 motors)