

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7082-5AC70-1DG1-Z
X09

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

| Engineering data | | Mechanical data | |
|-----------------------------|--------------------------------|--------------------------|--|
| Rated speed | 2000 rpm | Motor type | Permanent-magnet synchronous motor |
| Number of poles | 10 | Design of the motor type | Compact |
| Rated torque (100 K) | 11.4 Nm | Shaft height | 80 mm |
| Rated current | 4.9 A | Cooling | Natural cooling |
| Static torque (60 K) | 10.60 Nm | Radial runout tolerance | N |
| Static torque (100 K) | 13.0 Nm | Vibration severity grade | Grade A |
| Stall current (60 K) | 4.2 A | Degree of protection | IP65 |
| Stall current (100 K) | 5.0 A | Design acc. to Code I | IM B5 (new flange design) |
| Rotor moment of inertia | 0.0026500 kgm ² | Temperature monitoring | Pt1000 temperature sensor |
| Efficiency | 93.0 % | Color of the housing | Anthracite RAL 7016 |
| Physical constants | | Holding brake version | no value |
| Torque constant | 2.50 Nm/A | Shaft end type | Plain shaft |
| Voltage constant at 20° C | 159.5 V/1000*min ⁻¹ | Sensor design | Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits |
| Winding resistance at 20° C | 1.38 Ω | | |
| Rotating field inductance | 21.0 mH | Electrical connectors | Connector turnable |
| Electrical time constant | 15.00 ms | Connector size | 1 |
| Mechanical time constant | 1.80 ms | | |
| Thermal time constant | 40 min | | |
| Shaft torsional stiffness | 76000 Nm/rad | | |
| Net weight of the motor | 14.0 kg | | |

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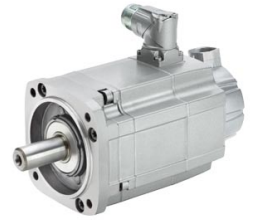


Figure similar

| Optimum operating point | | Recommended Motor Module | |
|-----------------------------------|----------|--------------------------|--|
| Optimum speed | 2000 rpm | Rated inverter current | 5 A |
| Optimum power | 2.4 kW | Maximum inverter current | 15 A |
| Limiting data | | Maximum torque | 35.00 Nm |
| Max. permissible speed (mech.) | 8000 rpm | Special design | |
| Max. permissible speed (inverter) | 3500 rpm | X09 | Paint finish anthracite, similar to RAL 7016 |
| Maximum torque | 52.0 Nm | | |
| Maximum current | 26.0 A | | |