

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7108-5SF70-1CB0



Figure similar

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

Item no. :
Consignment no. :
Project :

| Engineering data | | Mechanical data | |
|-----------------------------|--------------------------------|--------------------------|--|
| Rated speed | 3000 rpm | Motor type | Permanent-magnet synchronous motor |
| Number of poles | 10 | Design of the motor type | Compact |
| Rated torque (100 K) | 60.0 Nm | Shaft height | 100 mm |
| Rated current | 38.0 A | Cooling | Forced ventilation |
| Static torque (60 K) | 74.00 Nm | Radial runout tolerance | N |
| Static torque (100 K) | 91.0 Nm | Vibration severity grade | Grade A |
| Stall current (60 K) | 46.0 A | Degree of protection | IP64 |
| Stall current (100 K) | 57.0 A | Design acc. to Code I | IM B5 (new flange design) |
| Rotor moment of inertia | 0.0276000 kgm ² | Temperature monitoring | Pt1000 temperature sensor |
| Efficiency | 93.0 % | Color of the housing | |
| Physical constants | | Holding brake version | Permanent-magnet brake |
| Torque constant | 1.60 Nm/A | Shaft end type | Fitted key and keyway |
| Voltage constant at 20° C | 101.5 V/1000*min ⁻¹ | Sensor design | Encoder AM24DQI: Absolute encoder 24 bit (resolution 16777216, encoder-internal 2048 S/R) + 12 bit Multiturn (traversing range 4096 revolutions) - with signal connection RJ45 |
| Winding resistance at 20° C | 0.04 Ω | Electrical connectors | Transverse facing to right site |
| Rotating field inductance | 1.1 mH | Connector size | 3 |
| Electrical time constant | 26.00 ms | | |
| Mechanical time constant | 1.30 ms | | |
| Thermal time constant | 60 min | | |
| Shaft torsional stiffness | 96000 Nm/rad | | |
| Net weight of the motor | 70.0 kg | | |

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| Optimum operating point | | Recommended Motor Module | |
|-----------------------------------|----------|--------------------------|-----------|
| Optimum speed | 3000 rpm | Rated inverter current | 60 A |
| Optimum power | 18.8 kW | Maximum inverter current | 113 A |
| Limiting data | | Maximum torque | 177.00 Nm |
| Max. permissible speed (mech.) | 6000 rpm | | |
| Max. permissible speed (inverter) | 5600 rpm | | |
| Maximum torque | 280.0 Nm | | |
| Maximum current | 205.0 A | | |