

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7086-5WF71-1BG0



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) | 49.0 Nm | Shaft height | 80 mm |
| Rated current | 36.0 A | Cooling | Water cooling |
| Static torque (60 K) | 41.00 Nm | Radial runout tolerance | N |
| Static torque (100 K) | 50.0 Nm | Vibration severity grade | Grade A |
| Stall current (60 K) | 28.1 A | Degree of protection | IP64 |
| Stall current (100 K) | 34.0 A | Design acc. to Code I | IM B5 (compatible with 1FT6) |
| Rotor moment of inertia | 0.0067800 kgm ² | Temperature monitoring | Pt1000 temperature sensor |
| Efficiency | 94.0 % | Color of the housing | |
| Physical constants | | Holding brake version | no value |
| Torque constant | 1.46 Nm/A | Shaft end type | Plain shaft |
| Voltage constant at 20° C | 92.0 V/1000*min ⁻¹ | Sensor design | Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45 |
| Winding resistance at 20° C | 0.11 Ω | Electrical connectors | Connector turnable |
| Rotating field inductance | 2.2 mH | Connector size | 1.5 |
| Electrical time constant | 19.00 ms | | |
| Mechanical time constant | 1.10 ms | | |
| Thermal time constant | 2 min | | |
| Shaft torsional stiffness | 57000 Nm/rad | | |
| Net weight of the motor | 34.1 kg | | |

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| Optimum operating point | | Recommended Motor Module | |
|-----------------------------------|----------|--------------------------|-----------|
| Optimum speed | 3000 rpm | Rated inverter current | 45 A |
| Optimum power | 15.4 kW | Maximum inverter current | 85 A |
| Limiting data | | Maximum torque | 102.00 Nm |
| Max. permissible speed (mech.) | 8000 rpm | | |
| Max. permissible speed (inverter) | 6300 rpm | | |
| Maximum torque | 125.0 Nm | | |
| Maximum current | 111.0 A | | |