

Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7065-7SF71-1BG0-Z
Y84

Figure similar

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

Item no. :
Consignment no. :
Project :

| Engineering data | |
|-------------------------|------------------------|
| Rated speed | 3,000 rpm |
| Number of poles | 6 |
| Rated torque (100 K) | 12.0 Nm |
| Rated current | 10.50 A |
| Static torque (60 K) | 11.0 Nm |
| Static torque (100 K) | 14.0 Nm |
| Stall current (60 K) | 9.50 A |
| Stall current (100 K) | 12.00 A |
| Rotor moment of inertia | 6.40 kgcm ² |
| Efficiency | 92.0 % |

| Physical constants | |
|-----------------------------|-------------------------------|
| Torque constant | 1.17 Nm/A |
| Voltage constant at 20° C | 75.0 V/1000*min ⁻¹ |
| Winding resistance at 20° C | 0.45 Ω |
| Rotary field inductance | 8.2 mH |
| Electrical time constant | 18.00 ms |
| Mechanical time constant | 0.60 ms |
| Thermal time constant | 20 min |
| Shaft torsional stiffness | 27,500 Nm/rad |
| Net weight of the motor | 19.0 kg |

| Mechanical data | |
|--------------------------|----------------------------------------------------------------------------------------|
| Motor type | Permanent-magnet synchronous motor |
| Motor type | High Dynamic |
| Shaft height | 63 |
| Cooling | Forced ventilation |
| Radial runout tolerance | 0.040 mm |
| Concentricity tolerance | 0.100 mm |
| Axial runout tolerance | 0.100 mm |
| Vibration severity grade | Grade A |
| Degree of protection | IP64 |
| Design acc. to Code I | IM B5 (compatible with 1FT6) |
| Temperature monitoring | Pt1000 temperature sensor |
| Color of the housing | Standard (pearl dark gray similar to RAL 9023) |
| Shaft end type | Plain shaft |
| Sensor design | Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45 |
| Electrical connection | Connector turnable |
| Connector size | 1.5 |

| Optimum operating point | |
|-------------------------|-----------|
| Optimum speed | 3,000 rpm |
| Optimum power | 3.8 kW |

| Limiting data | |
|-----------------------------------|-----------|
| Max. permissible speed (mech.) | 9,000 rpm |
| Max. permissible speed (inverter) | 7,700 rpm |
| Maximum torque | 45.0 Nm |
| Maximum current | 49.00 A |

| Recommended Motor Module | |
|--------------------------|---------|
| Rated inverter current | 18.00 A |
| Maximum inverter current | 54.00 A |
| Maximum torque | 45.0 Nm |

| Special design | |
|----------------|------------------------------------------|
| Y84 | Customer specifications on rating plate: |