

Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7064-5WF71-1MH1

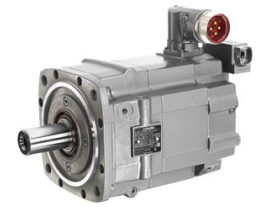


Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data

| | |
|-------------------------|-------------------------|
| Rated speed | 3,000 rpm |
| Number of poles | 10 |
| Rated torque (100 K) | 16.0 Nm |
| Rated current | 12.51 A |
| Static torque (60 K) | 12.8 Nm |
| Static torque (100 K) | 16.0 Nm |
| Stall current (60 K) | 9.60 A |
| Stall current (100 K) | 11.90 A |
| Rotor moment of inertia | 15.40 kgcm ² |
| Efficiency | 91.0 % |

Physical constants

| | |
|-----------------------------|-------------------------------|
| Torque constant | 1.34 Nm/A |
| Voltage constant at 20° C | 84.5 V/1000*min ⁻¹ |
| Winding resistance at 20° C | 0.50 Ω |
| Rotary field inductance | 5.3 mH |
| Electrical time constant | 11.00 ms |
| Mechanical time constant | 1.10 ms |
| Thermal time constant | 2 min |
| Shaft torsional stiffness | 26,000 Nm/rad |
| Net weight of the motor | 14.8 kg |

Mechanical data

| | |
|--------------------------|---|
| Motor type | Permanent-magnet synchronous motor |
| Motor type | Compact |
| Shaft height | 63 |
| Cooling | Water cooling |
| 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 | IP65 |
| Design acc. to Code I | IM B5 (compatible with 1FT6) |
| Temperature monitoring | KTY84 temperature sensor in the stator winding |
| Color of the housing | Standard (pearl dark gray similar to RAL 9023) |
| Shaft end type | Plain shaft |
| Sensor design | Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface |
| Electrical connection | Connector turnable |
| Connector size | 1 |

Optimum operating point

| | |
|---------------|-----------|
| Optimum speed | 3,000 rpm |
| Optimum power | 5.0 kW |

Limiting data

| | |
|-----------------------------------|-----------|
| Max. permissible speed (mech.) | 9,000 rpm |
| Max. permissible speed (inverter) | 6,800 rpm |
| Maximum torque | 40.0 Nm |
| Maximum current | 39.30 A |

Recommended Motor Module

| | |
|--------------------------|---------|
| Rated inverter current | 18.00 A |
| Maximum inverter current | 54.00 A |
| Maximum torque | 40.0 Nm |

Holding brake

| | |
|------------------------|------------------------|
| Holding brake version | Permanent-magnet brake |
| Holding torque | 18.0 Nm |
| Braking torque | 11.0 Nm |
| Power supply voltage | DC 24 V |
| Coil current | 0.80 A |
| Permissible brake work | 880 J |
| Opening time | 150 ms |
| Closing time | 50 ms |