

Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7134-5SC71-4BB1



Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data

Rated speed	2,000 rpm
Number of poles	8
Rated torque (100 K)	160.0 Nm
Rated current	73.00 A
Static torque (60 K)	160.0 Nm
Static torque (100 K)	190.0 Nm
Stall current (60 K)	70.00 A
Stall current (100 K)	85.00 A
Rotor moment of inertia	657.00 kgcm ²
Efficiency	95.0 %

Physical constants

Torque constant	2.25 Nm/A
Voltage constant at 20° C	154.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.05 Ω
Rotary field inductance	1.6 mH
Electrical time constant	32.00 ms
Mechanical time constant	1.80 ms
Thermal time constant	22 min
Shaft torsional stiffness	220,000 Nm/rad
Net weight of the motor	108.0 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	132
Cooling	Forced ventilation
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.125 mm
Axial runout tolerance	0.125 mm
Vibration severity grade	Grade A
Degree of protection	IP65
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	Fitted key and keyway
Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Electrical connection	Axial DE
Connector size	3

Optimum operating point

Optimum speed	2,000 rpm
Optimum power	33.5 kW

Limiting data

Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	3,600 rpm
Maximum torque	410.0 Nm
Maximum current	210.00 A

Recommended Motor Module

Rated inverter current	85.00 A
Maximum inverter current	141.00 A
Maximum torque	300.0 Nm

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	140.0 Nm
Braking torque	60.0 Nm
Power supply voltage	DC 24 V
Coil current	1.80 A
Permissible brake work	9,800 J
Opening time	350 ms
Closing time	70 ms