SIEMENS

Data sheet for SIMOTICS S-1FT7



Figure similar

Article No. : 1FT7138-5SB74-3MA0

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

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed	1,500 rpm
Number of poles	8
Rated torque (100 K)	250.0 Nm
Rated current	79.00 A
Static torque (60 K)	230.0 Nm
Static torque (100 K)	280.0 Nm
Stall current (60 K)	74.00 A
Stall current (100 K)	85.00 A
Rotor moment of inertia	896.00 kgcm²
Efficiency	95.0 %

Physical constants	
Torque constant	3.20 Nm/A
Voltage constant at 20° C	211.0 V/1000*min^{-1}
Winding resistance at 20° C	0.05 Ω
Rotary field inductance	2.0 mH
Electrical time constant	38.00 ms
Mechanical time constant	1.40 ms
Thermal time constant	28 min
Shaft torsional stiffness	283,000 Nm/rad
Net weight of the motor	129.0 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	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	Fitted key and keyway
Sensor design	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
Safety Integrated - Suitable encoder	Yes
Electrical connection	Axial NDE
Connector size	3

Optimum operating point	
Optimum speed	1,500 rpm
Optimum power	39.0 kW

Limiting data	
Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	2,700 rpm
Maximum torque	605.0 Nm
Maximum current	225.00 A

Recommended Motor Module	
Rated inverter current	85.00 A
Maximum inverter current	141.00 A
Maximum torque	415.0 Nm

Subject to change. Calculated values may differ from nameplate ratings. © Copyright Siemens