SIEMENS

Data sheet for SIMOTICS S-1FT7



Figure similar

Article No. : 1FT7067-7WH70-1FB0

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

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed	4,500 rpm
Number of poles	6
Rated torque (100 K)	22.0 Nm
Rated current	25.00 A
Static torque (60 K)	20.0 Nm
Static torque (100 K)	25.0 Nm
Stall current (60 K)	20.00 A
Stall current (100 K)	28.00 A
Rotor moment of inertia	10.90 kgcm²
Efficiency	94.0 %

Physical constants	
Torque constant	0.89 Nm/A
Voltage constant at 20° C	57.0 V/1000*min^{-1}
Winding resistance at 20° C	0.18 Ω
Rotary field inductance	3.5 mH
Electrical time constant	19.00 ms
Mechanical time constant	0.60 ms
Thermal time constant	11 min
Shaft torsional stiffness	21,500 Nm/rad
Net weight of the motor	23.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
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	IP64
Design acc. to Code I	IM B5 (new flange design)
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 AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Safety Integrated - Suitable encoder	Yes
Electrical connection	Connector turnable
Connector size	1.5

Optimum operating point	
Optimum speed	4,500 rpm
Optimum power	10.4 kW

Limiting data	
Max. permissible speed (mech.)	9,000 rpm
Max. permissible speed (inverter)	9,000 rpm
Maximum torque	60.0 Nm
Maximum current	80.00 A

Recommended Motor Module	
Rated inverter current	30.00 A
Maximum inverter current	90.00 A
Maximum torque	60.0 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

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