SIEMENS

Data sheet for SIMOTICS S-1FT7



Figure similar

Article No. : 1FT7067-7WF71-1CL3

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)	23.5 Nm
Rated current	21.00 A
Static torque (60 K)	20.0 Nm
Static torque (100 K)	25.0 Nm
Stall current (60 K)	17.50 A
Stall current (100 K)	22.00 A
Rotor moment of inertia	10.90 kgcm²
Efficiency	94.0 %

Physical constants	
Torque constant	1.14 Nm/A
Voltage constant at 20° C	73.0 V/1000*min^{-1}
Winding resistance at 20° C	0.30 Ω
Rotary field inductance	5.7 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	0.021 mm
Concentricity tolerance	0.050 mm
Axial runout tolerance	0.050 mm
Vibration severity grade	Grade R
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 AM24DQI: Absolute encoder 24 bit (resolution 16777216, encoder-internal 2048 S/R) + 12 bit Multiturn (traversing range 4096 revolutions) - with signal connection RJ45
Safety Integrated - Suitable encoder	Yes
Electrical connection	Connector turnable
Connector size	1.5

Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	7.4 kW

Limiting data	
Max. permissible speed (mech.)	9,000 rpm
Max. permissible speed (inverter)	7,900 rpm
Maximum torque	60.0 Nm
Maximum current	63.00 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