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Data sheet for SIMOTICS S-1FT7

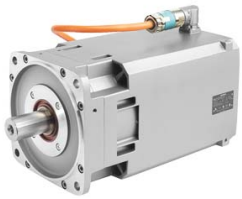


Figure similar

Article No. : 1FT7138-5AB71-4LA0

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)	108.0 Nm
Rated current	28.50 A
Static torque (60 K)	140.0 Nm
Static torque (100 K)	170.0 Nm
Stall current (60 K)	35.50 A
Stall current (100 K)	43.00 A
Rotor moment of inertia	896.00 kgcm²
Efficiency	94.0 %

Physical constants	
Torque constant	3.95 Nm/A
Voltage constant at 20° C	260.0 V/1000*min^{-1}
Winding resistance at 20° C	0.08 Ω
Rotary field inductance	3.1 mH
Electrical time constant	39.00 ms
Mechanical time constant	1.40 ms
Thermal time constant	100 min
Shaft torsional stiffness	283,000 Nm/rad
Net weight of the motor	124.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	132
Cooling	Natural cooling
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 AM24DQI: Absolute encoder 24 bit (resolution 16777216, encoder-internal 2048 S/R) + 12 bit Multiturn (traversing range 4096 revolutions) - with signal connection via M17 rotary plug
Safety Integrated - Suitable encoder	Yes
Electrical connection	Axial DE
Connector size	3

Optimum operating point	
Optimum speed	1,500 rpm
Optimum power	17.0 kW

Limiting data	
Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	2,200 rpm
Maximum torque	590.0 Nm
Maximum current	183.00 A

Recommended Motor Module	
Rated inverter current	45.00 A
Maximum inverter current	85.00 A
Maximum torque	320.0 Nm

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