SIEMENS

Data sheet for SIMOTICS S-1FT7

Figure similar

Article No. : 1FT7134-5SF71-5CH0

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

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed	3,000 rpm
Number of poles	8
Rated torque (100 K)	145.0 Nm
Rated current	91.00 A
Static torque (60 K)	160.0 Nm
Static torque (100 K)	190.0 Nm
Stall current (60 K)	97.00 A
Stall current (100 K)	115.00 A
Rotor moment of inertia	657.00 kgcm²
Efficiency	96.0 %

Physical constants	
Torque constant	1.61 Nm/A
Voltage constant at 20° C	110.0 V/1000*min^{-1}
Winding resistance at 20° C	0.03 Ω
Rotary field inductance	0.8 mH
Electrical time constant	32.00 ms
Mechanical time constant	1.70 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	IP64
Design acc. to Code I	IM B5 (compatible with 1FT6)
Temperature monitoring	Pt1000 temperature sensor
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
Electrical connection	Terminal box transverse right

Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	45.5 kW

Limiting data	
Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	3,600 rpm
Maximum torque	410.0 Nm
Maximum current	295.00 A

Recommended Motor Module	
Rated inverter current	132.00 A
Maximum inverter current	210.00 A
Maximum torque	315.0 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