SIEMENS



Figure similar

Data sheet for SIMOTICS S-1FT7

Article No. : **1FT7108-5WF70-4BA3**

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

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed	3,000 rpm
Number of poles	10
Rated torque (100 K)	109.0 Nm
Rated current	59.99 A
Static torque (60 K)	100.0 Nm
Static torque (100 K)	125.0 Nm
Stall current (60 K)	53.80 A
Stall current (100 K)	65.00 A
Rotor moment of inertia	265.00 kgcm²
Efficiency	95.0 %

Physical constants	
Torque constant	1.86 Nm/A
Voltage constant at 20° C	117.0 V/1000*min^{-1}
Winding resistance at 20° C	0.04 Ω
Rotary field inductance	0.9 mH
Electrical time constant	21.00 ms
Mechanical time constant	1.00 ms
Thermal time constant	2 min
Shaft torsional stiffness	126,000 Nm/rad
Net weight of the motor	68.6 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	100
Cooling	Water cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.100 mm
Axial runout tolerance	0.100 mm
Vibration severity grade	Grade R
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 AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Electrical connection	Axial DE
Connector size	3

Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	34.2 kW

Limiting data	
Max. permissible speed (mech.)	6,000 rpm
Max. permissible speed (inverter)	4,900 rpm
Maximum torque	330.0 Nm
Maximum current	205.00 A

Recommended Motor Module	
Rated inverter current	85.00 A
Maximum inverter current	141.00 A
Maximum torque	238.5 Nm

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