

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7108-5WF70-4CG4



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed	3000 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	10	Design of the motor type	Compact		
Rated torque (100 K)	109.0 Nm	Shaft height	100 mm		
Rated current	60.0 A	Cooling	Water cooling		
Static torque (60 K)	100.00 Nm	Radial runout tolerance	N		
Static torque (100 K)	125.0 Nm	Vibration severity grade	Grade R		
Stall current (60 K)	53.8 A	Degree of protection	IP65		
Stall current (100 K)	65.0 A	Design acc. to Code I	IM B5 (new flange design)		
Rotor moment of inertia	0.0265000 kgm ²	Temperature monitoring	Pt1000 temperature sensor		
Efficiency	95.0 %	Color of the housing			
<th colspan="2">Physical constants</th>		Physical constants		Holding brake version	no value
		Torque constant	1.86 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	117.0 V/1000*min ⁻¹	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		
Winding resistance at 20° C	0.04 Ω		Electrical connectors	Axial DE	
Rotating field inductance	0.9 mH	Connector size	3		
Electrical time constant	21.00 ms				
Mechanical time constant	1.00 ms				
Thermal time constant	2 min				
Shaft torsional stiffness	96000 Nm/rad				
Net weight of the motor	68.6 kg				

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	85 A
Optimum power	34.2 kW	Maximum inverter current	141 A
Limiting data		Maximum torque	238.50 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	4900 rpm		
Maximum torque	330.0 Nm		
Maximum current	205.0 A		