

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7108-5WB71-1CH1



Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed	1500 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	10	Design of the motor type	Compact
Rated torque (100 K)	125.0 Nm	Shaft height	100 mm
Rated current	40.3 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 A
Stall current (60 K)	31.6 A	Degree of protection	IP65
Stall current (100 K)	39.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0291000 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	94.0 %	Color of the housing	
Physical constants		Holding brake version	Permanent-magnet brake
Torque constant	3.16 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	199.5 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	0.11 Ω	Electrical connectors	Connector turnable
Rotating field inductance	2.7 mH	Connector size	1.5
Electrical time constant	24.00 ms		
Mechanical time constant	0.90 ms		
Thermal time constant	2 min		
Shaft torsional stiffness	96000 Nm/rad		
Net weight of the motor	72.9 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	1500 rpm	Rated inverter current	45 A
Optimum power	19.6 kW	Maximum inverter current	85 A
Limiting data		Maximum torque	249.50 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	2900 rpm		
Maximum torque	330.0 Nm		
Maximum current	120.5 A		