

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7108-5SF71-1CD3



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)	60.0 Nm	Shaft height	100 mm
Rated current	38.0 A	Cooling	Forced ventilation
Static torque (60 K)	74.00 Nm	Radial runout tolerance	R
Static torque (100 K)	91.0 Nm	Vibration severity grade	Grade R
Stall current (60 K)	46.0 A	Degree of protection	IP64
Stall current (100 K)	57.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0248000 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	93.0 %	Color of the housing	
Physical constants		Holding brake version	no value
Torque constant	1.60 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	101.5 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	0.04 Ω	Electrical connectors	Transverse facing to right site
Rotating field inductance	1.1 mH	Connector size	3
Electrical time constant	26.00 ms		
Mechanical time constant	1.30 ms		
Thermal time constant	60 min		
Shaft torsional stiffness	96000 Nm/rad		
Net weight of the motor	64.0 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	60 A
Optimum power	18.8 kW	Maximum inverter current	113 A
Limiting data		Maximum torque	177.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5600 rpm		
Maximum torque	280.0 Nm		
Maximum current	205.0 A		