

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7108-5AC70-1DG1



Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed	2000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	10	Design of the motor type	Compact
Rated torque (100 K)	50.0 Nm	Shaft height	100 mm
Rated current	18.0 A	Cooling	Natural cooling
Static torque (60 K)	58.00 Nm	Radial runout tolerance	N
Static torque (100 K)	70.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	21.0 A	Degree of protection	IP65
Stall current (100 K)	25.0 A	Design acc. to Code I	IM B5 (new flange design)
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	2.72 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	173.5 V/1000*min ⁻¹	Sensor design	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits
Winding resistance at 20° C	0.11 Ω	Electrical connectors	Connector turnable
Rotating field inductance	3.1 mH	Connector size	1.5
Electrical time constant	28.00 ms		
Mechanical time constant	1.00 ms		
Thermal time constant	95 min		
Shaft torsional stiffness	96000 Nm/rad		
Net weight of the motor	59.0 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	30 A
Optimum power	10.5 kW	Maximum inverter current	90 A
Limiting data		Maximum torque	215.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	3310 rpm		
Maximum torque	280.0 Nm		
Maximum current	120.0 A		