

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7105-5AB70-1FA1

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)	42.0 Nm	Shaft height	100 mm
Rated current	13.0 A	Cooling	Natural cooling
Static torque (60 K)	41.00 Nm	Radial runout tolerance	N
Static torque (100 K)	50.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	12.0 A	Degree of protection	IP65
Stall current (100 K)	15.0 A	Design acc. to Code I	IM B5 (new flange design)
Rotor moment of inertia	0.0178000 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	93.0 %	Color of the housing	
Physical constants		Holding brake version	no value
Torque constant	3.33 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	214.0 V/1000*min ⁻¹	Sensor design	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Winding resistance at 20° C	0.26 Ω	Electrical connectors	Connector turnable
Rotating field inductance	6.8 mH	Connector size	1.5
Electrical time constant	27.00 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	80 min		
Shaft torsional stiffness	107000 Nm/rad		
Net weight of the motor	44.2 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	1500 rpm	Rated inverter current	18 A
Optimum power	6.6 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	165.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	2670 rpm		
Maximum torque	200.0 Nm		
Maximum current	67.0 A		