

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7102-1AC70-1DG1

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 core type		
Rated torque (100 K)	24.0 Nm	Shaft height	100 mm		
Rated current	10.0 A	Cooling	Natural cooling		
Static torque (60 K)	25.00 Nm	Radial runout tolerance	N		
Static torque (100 K)	30.0 Nm	Vibration severity grade	Grade A		
Stall current (60 K)	10.5 A	Degree of protection	IP65		
Stall current (100 K)	12.5 A	Design acc. to Code I	IM B5 (new flange design)		
Rotor moment of inertia	0.0091400 kgm ²	Temperature monitoring	Pt1000 temperature sensor		
Efficiency	93.0 %	Color of the housing	Pearl dark grey RAL 9023		
Physical constants		Holding brake version	no value		
		Torque constant	2.40 Nm/A	Shaft end type	Plain shaft
		Voltage constant at 20° C	152.0 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	0.30 Ω	Electrical connectors	Connector turnable
		Rotating field inductance	6.2 mH	Connector size	1.5
		Electrical time constant	20.70 ms		
		Mechanical time constant	1.40 ms		
		Thermal time constant	70 min		
		Shaft torsional stiffness	124000 Nm/rad		
		Net weight of the motor	26.1 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	18 A
Optimum power	5.0 kW	Maximum inverter current	36 A

Limiting data	
Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	3800 rpm
Maximum torque	120.0 Nm
Maximum current	64.0 A