

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7044-1AF71-1FG1

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	6	Design of the motor type	Compact core type
Rated torque (100 K)	4.3 Nm	Shaft height	48 mm
Rated current	2.6 A	Cooling	Natural cooling
Static torque (60 K)	4.40 Nm	Radial runout tolerance	N
Static torque (100 K)	5.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	2.5 A	Degree of protection	IP65
Stall current (100 K)	2.8 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0005430 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	92.0 %	Color of the housing	Standard (pearl dark gray similar to RAL 9023)
Physical constants		Holding brake version	no value
Torque constant	1.79 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	49.0 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	2.30 Ω	Electrical connectors	Connector turnable
Rotating field inductance	15.0 mH	Connector size	1
Electrical time constant	6.50 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	35 min		
Shaft torsional stiffness	9500 Nm/rad		
Net weight of the motor	7.2 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	3 A
Optimum power	1.4 kW	Maximum inverter current	6 A

Limiting data	
Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	5200 rpm
Maximum torque	23.0 Nm
Maximum current	16.0 A