

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7044-1AF70-1DH1

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 (new flange design)
Rotor moment of inertia	0.0006300 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	92.0 %	Color of the housing	Pearl dark grey RAL 9023
Physical constants		Holding brake version	Permanent-magnet brake
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 IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits
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	8.1 kg		

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Optimum operating point

Optimum speed 3000 rpm

Optimum power 1.4 kW

Limiting data

Max. permissible speed (mech.) 9000 rpm

Max. permissible speed (inverter) 5200 rpm

Maximum torque 23.0 Nm

Maximum current 16.0 A

Recommended Motor Module

Rated inverter current 3 A

Maximum inverter current 6 A