

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7034-5AK71-1DG1

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

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed	6000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	6	Design of the motor type	Compact
Rated torque (100 K)	1.4 Nm	Shaft height	36 mm
Rated current	2.1 A	Cooling	Natural cooling
Static torque (60 K)	1.60 Nm	Radial runout tolerance	N
Static torque (100 K)	2.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	2.1 A	Degree of protection	IP65
Stall current (100 K)	2.7 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0000850 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	90.0 %	Color of the housing	
Physical constants		Holding brake version	no value
Torque constant	0.76 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	48.5 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	2.40 Ω	Electrical connectors	Connector turnable
Rotating field inductance	9.7 mH	Connector size	1
Electrical time constant	4.00 ms		
Mechanical time constant	1.10 ms		
Thermal time constant	25 min		
Shaft torsional stiffness	3650 Nm/rad		
Net weight of the motor	3.8 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	3 A
Optimum power	0.9 kW	Maximum inverter current	9 A
Limiting data		Maximum torque	6.30 Nm
Max. permissible speed (mech.)	10000 rpm		
Max. permissible speed (inverter)	10000 rpm		
Maximum torque	8.0 Nm		
Maximum current	12.0 A		