

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7105-1AC71-1DG1



Figure similar

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)	38.0 Nm	Shaft height	100 mm
Rated current	15.0 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)	15.0 A	Degree of protection	IP65
Stall current (100 K)	18.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0178000 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	2.78 Nm/A
Voltage constant at 20° C	173.0 V/1000*min ⁻¹	Shaft end type	Plain shaft
Winding resistance at 20° C	0.15 Ω	Sensor design	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits
Rotating field inductance	4.3 mH	Electrical connectors	Connector turnable
Electrical time constant	28.70 ms	Connector size	1.5
Mechanical time constant	1.00 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	2000 rpm	Rated inverter current	18 A
Optimum power	8.0 kW	Maximum inverter current	36 A

Limiting data	
Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	3350 rpm
Maximum torque	200.0 Nm
Maximum current	84.0 A