

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7066-5WF71-1FG1



Figure similar

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	10	Design of the motor type	Compact
Rated torque (100 K)	19.6 Nm	Shaft height	63 mm
Rated current	14.4 A	Cooling	Water cooling
Static torque (60 K)	16.00 Nm	Radial runout tolerance	N
Static torque (100 K)	20.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	11.3 A	Degree of protection	IP65
Stall current (100 K)	14.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0017700 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	91.0 %	Color of the housing	Standard (pearl dark gray similar to RAL 9023)
Physical constants		Holding brake version	no value
Torque constant	1.42 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	89.5 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	0.40 Ω	Electrical connectors	Connector turnable
Rotating field inductance	4.1 mH	Connector size	1.5
Electrical time constant	10.00 ms		
Mechanical time constant	1.00 ms		
Thermal time constant	2 min		
Shaft torsional stiffness	24000 Nm/rad		
Net weight of the motor	16.3 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	18 A
Optimum power	6.2 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	55.00 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	6400 rpm		
Maximum torque	55.0 Nm		
Maximum current	50.0 A		