

## Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7066-5AF70-1FA1

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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)	9.3 Nm	Shaft height	63 mm
Rated current	7.2 A	Cooling	Natural cooling
Static torque (60 K)	10.00 Nm	Radial runout tolerance	N
Static torque (100 K)	12.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	7.1 A	Degree of protection	IP65
Stall current (100 K)	8.4 A	Design acc. to Code I	IM B5 (new flange design)
Rotor moment of inertia	0.0016400 kgm <sup>2</sup>	Temperature monitoring	Pt1000 temperature sensor
Efficiency	92.0 %	Color of the housing	Pearl dark grey RAL 9023
<b>Physical constants</b>		Holding brake version	no value
Torque constant	1.41 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	89.5 V/1000*min <sup>-1</sup>	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	0.50 Ω	Electrical connectors	Connector turnable
Rotating field inductance	5.5 mH	Connector size	1
Electrical time constant	11.00 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	40 min		
Shaft torsional stiffness	24000 Nm/rad		
Net weight of the motor	12.3 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	2.9 kW	Maximum inverter current	27 A
<b>Limiting data</b>		Maximum torque	35.20 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	6500 rpm		
Maximum torque	49.0 Nm		
Maximum current	44.0 A		