

## Data sheet for SIMOTICS S-1FT7



Figure similar

### MLFB-Ordering data

**1FT7117-7AF71-3LB0-Z**  
L06+N27

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	8	Design of the motor type	High Dynamic
Rated torque (100 K)	30.0 Nm	Shaft height	100 mm
Rated current	17.0 A	Cooling	Natural cooling
Static torque (60 K)	67.00 Nm	Radial runout tolerance	N
Static torque (100 K)	81.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	30.0 A	Degree of protection	IP64
Stall current (100 K)	41.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0106500 kgm <sup>2</sup>	Temperature monitoring	Pt1000 temperature sensor
Efficiency	95.0 %	Color of the housing	
<b>Physical constants</b>		Holding brake version	Permanent-magnet brake
Torque constant	1.98 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	127.0 V/1000*min <sup>-1</sup>	Sensor design	Encoder AM24DQI: Absolute encoder 24 bit (resolution 16777216, encoder-internal 2048 S/R) + 12 bit Multiturn (traversing range 4096 revolutions) - with signal connection via M17 rotary plug
Winding resistance at 20° C	0.06 Ω	Electrical connectors	Axial NDE
Rotating field inductance	1.7 mH	Connector size	3
Electrical time constant	30.00 ms		
Mechanical time constant	0.30 ms		
Thermal time constant	80 min		
Shaft torsional stiffness	62000 Nm/rad		
Net weight of the motor	65.0 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	132 A
Optimum power	9.4 kW	Maximum inverter current	210 A
Limiting data		Maximum torque	290.00 Nm
Max. permissible speed (mech.)	5000 rpm	Special design	
Max. permissible speed (inverter)	4500 rpm	L06	Version for increased shock stress
Maximum torque	290.0 Nm	N27	Holding brake with reduced moment of inertia
Maximum current	205.0 A		