

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

**1FT7105-5AF71-1FB1-Z
N05**

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)	28.0 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)	21.0 A	Degree of protection	IP65
Stall current (100 K)	26.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0206000 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	94.0 %	Color of the housing	
Physical constants		Holding brake version	Permanent-magnet brake
Torque constant	1.92 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	123.5 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	0.08 Ω	Electrical connectors	Connector turnable
Rotating field inductance	2.3 mH	Connector size	1.5
Electrical time constant	27.00 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	80 min		
Shaft torsional stiffness	107000 Nm/rad		
Net weight of the motor	50.4 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	30 A
Optimum power	8.8 kW	Maximum inverter current	90 A
Limiting data		Maximum torque	157.00 Nm
Max. permissible speed (mech.)	6000 rpm	Special design	
Max. permissible speed (inverter)	4630 rpm	N05	Non-standard shaft extension (dimensions as for 1FT5 motors)
Maximum torque	200.0 Nm		
Maximum current	116.0 A		