

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7105-5SC70-1BB3



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
Rated torque (100 K)	56.0 Nm	Shaft height	100 mm
Rated current	29.0 A	Cooling	Forced ventilation
Static torque (60 K)	51.00 Nm	Radial runout tolerance	N
Static torque (100 K)	65.0 Nm	Vibration severity grade	Grade R
Stall current (60 K)	24.0 A	Degree of protection	IP64
Stall current (100 K)	31.0 A	Design acc. to Code I	IM B5 (new flange design)
Rotor moment of inertia	0.0206000 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	93.0 %	Color of the housing	Standard (pearl dark gray similar to RAL 9023)
Physical constants		Holding brake version	Permanent-magnet brake
Torque constant	2.11 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	134.5 V/1000*min ⁻¹	Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Winding resistance at 20° C	0.10 Ω	Electrical connectors	Connector turnable
Rotating field inductance	2.7 mH	Connector size	1.5
Electrical time constant	26.00 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	50 min		
Shaft torsional stiffness	107000 Nm/rad		
Net weight of the motor	56.0 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	45 A
Optimum power	11.7 kW	Maximum inverter current	85 A
Limiting data		Maximum torque	168.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	4250 rpm		
Maximum torque	200.0 Nm		
Maximum current	107.0 A		