

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7086-5WC71-1BG0



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)	50.0 Nm	Shaft height	80 mm
Rated current	24.0 A	Cooling	Water 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)	19.0 A	Degree of protection	IP64
Stall current (100 K)	23.0 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0067800 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	94.0 %	Color of the housing	
Physical constants		Holding brake version	no value
Torque constant	2.16 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	136.5 V/1000*min ⁻¹	Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Winding resistance at 20° C	0.24 Ω	Electrical connectors	Connector turnable
Rotating field inductance	4.8 mH	Connector size	1.5
Electrical time constant	20.00 ms		
Mechanical time constant	1.10 ms		
Thermal time constant	2 min		
Shaft torsional stiffness	57000 Nm/rad		
Net weight of the motor	34.1 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	30 A
Optimum power	10.5 kW	Maximum inverter current	90 A
Limiting data		Maximum torque	125.00 Nm
Max. permissible speed (mech.)	8000 rpm		
Max. permissible speed (inverter)	4300 rpm		
Maximum torque	125.0 Nm		
Maximum current	75.0 A		