

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7068-5AF71-1FB0



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)	10.9 Nm	Shaft height	63 mm
Rated current	6.7 A	Cooling	Natural cooling
Static torque (60 K)	13.00 Nm	Radial runout tolerance	N
Static torque (100 K)	15.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	7.3 A	Degree of protection	IP64
Stall current (100 K)	8.3 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0026100 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	92.0 %	Color of the housing	Pearl dark grey RAL 9023
Physical constants		Holding brake version	Permanent-magnet brake
Torque constant	1.78 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	113.0 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	0.54 Ω	Electrical connectors	Connector turnable
Rotating field inductance	6.4 mH	Connector size	1
Electrical time constant	12.00 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	45 min		
Shaft torsional stiffness	21500 Nm/rad		
Net weight of the motor	18.0 kg		



Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	3.4 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	46.00 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	5100 rpm		
Maximum torque	63.0 Nm		
Maximum current	43.0 A		