

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7064-5WK71-1DE3



Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed	6000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	10	Design of the motor type	Compact
Rated torque (100 K)	14.2 Nm	Shaft height	63 mm
Rated current	20.0 A	Cooling	Water cooling
Static torque (60 K)	12.80 Nm	Radial runout tolerance	R
Static torque (100 K)	16.0 Nm	Vibration severity grade	Grade R
Stall current (60 K)	16.3 A	Degree of protection	IP64
Stall current (100 K)	20.2 A	Design acc. to Code I	IM B5 (compatible with 1FT6)
Rotor moment of inertia	0.0015400 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	92.0 %	Color of the housing	Standard (pearl dark gray similar to RAL 9023)
Physical constants		Holding brake version	Permanent-magnet brake
Torque constant	0.79 Nm/A	Shaft end type	Fitted key and keyway
Voltage constant at 20° C	49.6 V/1000*min ⁻¹	Sensor design	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits
Winding resistance at 20° C	0.18 Ω	Electrical connectors	Connector turnable
Rotating field inductance	1.8 mH	Connector size	1
Electrical time constant	10.00 ms		
Mechanical time constant	1.10 ms		
Thermal time constant	2 min		
Shaft torsional stiffness	26000 Nm/rad		
Net weight of the motor	14.8 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	30 A
Optimum power	8.9 kW	Maximum inverter current	90 A
Limiting data		Maximum torque	40.00 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	8000 rpm		
Maximum torque	40.0 Nm		
Maximum current	67.0 A		