

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7082-1AF71-1CG1



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed	3000 rpm
Number of poles	10
Rated torque (100 K)	10.3 Nm
Rated current	6.6 A
Static torque (60 K)	10.60 Nm
Static torque (100 K)	13.0 Nm
Stall current (60 K)	6.1 A
Stall current (100 K)	7.6 A
Rotor moment of inertia	0.0026500 kgm ²
Efficiency	93.0 %

Physical constants	
Torque constant	1.71 Nm/A
Voltage constant at 20° C	108.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.59 Ω
Rotating field inductance	9.3 mH
Electrical time constant	15.80 ms
Mechanical time constant	1.60 ms
Thermal time constant	40 min
Shaft torsional stiffness	75700 Nm/rad
Net weight of the motor	14.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Design of the motor type	Compact core type
Shaft height	80 mm
Cooling	Natural cooling
Radial runout tolerance	N
Vibration severity grade	Grade A
Degree of protection	IP65
Design acc. to Code I	IM B5 (compatible with 1FT6)
Temperature monitoring	Pt1000 temperature sensor
Color of the housing	Pearl dark grey RAL 9023
Holding brake version	no value
Shaft end type	Plain shaft
Sensor design	Encoder AM24DQI: Absolute encoder 24 bit (resolution 16777216, encoder-internal 2048 S/R) + 12 bit Multiturn (traversing range 4096 revolutions) - with signal connection RJ45
Electrical connectors	Connector turnable
Connector size	1



Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	3.2 kW	Maximum inverter current	18 A

Limiting data	
Max. permissible speed (mech.)	8000 rpm
Max. permissible speed (inverter)	5400 rpm
Maximum torque	52.0 Nm
Maximum current	39.0 A