

## Data sheet for SIMOTICS S-1FT7

Article No. : **1FT7117-7SC71-1LB0-Z  
L06+Q41**



Figure similar

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

Item no. :  
Consignment no. :  
Project :

Engineering data	
Rated speed	2,000 rpm
Number of poles	8
Rated torque (100 K)	82.0 Nm
Rated current	28.00 A
Static torque (60 K)	87.0 Nm
Static torque (100 K)	105.0 Nm
Stall current (60 K)	29.00 A
Stall current (100 K)	36.00 A
Rotor moment of inertia	106.50 kgcm <sup>2</sup>
Efficiency	95.0 %

Physical constants	
Torque constant	2.95 Nm/A
Voltage constant at 20° C	186.0 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	0.12 Ω
Rotary field inductance	3.7 mH
Electrical time constant	41.00 ms
Mechanical time constant	0.30 ms
Thermal time constant	55 min
Shaft torsional stiffness	62,000 Nm/rad
Net weight of the motor	72.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
Shaft height	100
Cooling	Forced ventilation
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.100 mm
Axial runout tolerance	0.100 mm
Vibration severity grade	Grade A
Degree of protection	IP64
Design acc. to Code I	IM B5 (compatible with 1FT6)
Temperature monitoring	Pt1000 temperature sensor
Color of the housing	Standard (pearl dark gray similar to RAL 9023)
Shaft end type	Fitted key and keyway
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 via M17 rotary plug
Electrical connection	Transverse facing to right site
Connector size	3

Optimum operating point	
Optimum speed	2,000 rpm
Optimum power	17.2 kW

Limiting data	
Max. permissible speed (mech.)	5,000 rpm
Max. permissible speed (inverter)	3,050 rpm
Maximum torque	290.0 Nm
Maximum current	140.00 A

Recommended Motor Module	
Rated inverter current	60.00 A
Maximum inverter current	113.00 A
Maximum torque	260.0 Nm

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	85.0 Nm
Braking torque	35.0 Nm
Power supply voltage	DC 24 V
Coil current	1.60 A
Permissible brake work	5,300 J
Opening time	250 ms
Closing time	70 ms

Special design	
L06	Version for increased shock stress
Q41	Fan connector outlet right transverse