

## Data sheet for SIMOTICS S-1FT7

Article No. : **1FT7134-5AB71-1LB1-Z**  
**B02+X23+Y84**



Figure similar

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

Item no. :  
 Consignment no. :  
 Project :

Engineering data	
Rated speed	1,500 rpm
Number of poles	8
Rated torque (100 K)	82.0 Nm
Rated current	22.00 A
Static torque (60 K)	100.0 Nm
Static torque (100 K)	118.0 Nm
Stall current (60 K)	25.50 A
Stall current (100 K)	30.00 A
Rotor moment of inertia	657.00 kgcm <sup>2</sup>
Efficiency	95.0 %

Physical constants	
Torque constant	3.92 Nm/A
Voltage constant at 20° C	258.0 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	0.14 Ω
Rotary field inductance	5.2 mH
Electrical time constant	36.00 ms
Mechanical time constant	1.70 ms
Thermal time constant	80 min
Shaft torsional stiffness	220,000 Nm/rad
Net weight of the motor	103.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	132
Cooling	Natural cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.125 mm
Axial runout tolerance	0.125 mm
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	Signal blue RAL 5005
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	Connector turnable
Connector size	1.5

Optimum operating point	
Optimum speed	1,500 rpm
Optimum power	12.9 kW

Limiting data	
Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	2,200 rpm
Maximum torque	390.0 Nm
Maximum current	122.00 A

Recommended Motor Module	
Rated inverter current	30.00 A
Maximum inverter current	90.00 A
Maximum torque	305.0 Nm

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	140.0 Nm
Braking torque	60.0 Nm
Power supply voltage	DC 24 V
Coil current	1.80 A
Permissible brake work	9,800 J
Opening time	350 ms
Closing time	70 ms

Special design	
B02	Works test certificate
X23	Paint finish: Signal blue RAL 5005
Y84	Customer specifications on rating plate: