

## Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7134-5AB71-1CG0



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	604.00 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	323,000 Nm/rad
Net weight of the motor	92.0 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	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	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 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