

## Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7134-5AB71-1CA2



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	IP67
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 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