

## Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7134-5AC71-1CH1



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)	66.0 Nm
Rated current	21.00 A
Static torque (60 K)	100.0 Nm
Static torque (100 K)	118.0 Nm
Stall current (60 K)	30.50 A
Stall current (100 K)	36.00 A
Rotor moment of inertia	657.00 kgcm <sup>2</sup>
Efficiency	95.0 %

### Physical constants

Torque constant	3.27 Nm/A
Voltage constant at 20° C	215.0 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	0.10 Ω
Rotary field inductance	3.6 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	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	1,880 rpm
Optimum power	14.0 kW

### Limiting data

Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	2,650 rpm
Maximum torque	390.0 Nm
Maximum current	146.00 A

### Recommended Motor Module

Rated inverter current	45.00 A
Maximum inverter current	85.00 A
Maximum torque	260.0 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