

## Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7136-5AC74-1NG0



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)	71.0 Nm
Rated current	23.00 A
Static torque (60 K)	115.0 Nm
Static torque (100 K)	140.0 Nm
Stall current (60 K)	35.00 A
Stall current (100 K)	43.00 A
Rotor moment of inertia	748.00 kgcm <sup>2</sup>
Efficiency	94.0 %

### 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	0.07 Ω
Rotary field inductance	2.8 mH
Electrical time constant	39.00 ms
Mechanical time constant	1.50 ms
Thermal time constant	90 min
Shaft torsional stiffness	210,000 Nm/rad
Net weight of the motor	109.0 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 IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
Electrical connection	Transverse facing to right site
Connector size	3

### Optimum operating point

Optimum speed	1,840 rpm
Optimum power	15.2 kW

### Limiting data

Max. permissible speed (mech.)	3,600 rpm
Max. permissible speed (inverter)	2,650 rpm
Maximum torque	490.0 Nm
Maximum current	183.00 A

### Recommended Motor Module

Rated inverter current	45.00 A
Maximum inverter current	85.00 A
Maximum torque	265.0 Nm