

Data sheet for SIMOTICS S-1FT7

Article No. : 1FT7108-5WB75-1MB1

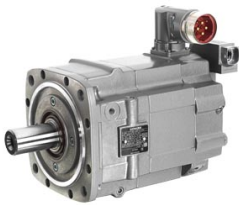


Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data	
Rated speed	1,500 rpm
Number of poles	10
Rated torque (100 K)	125.0 Nm
Rated current	40.32 A
Static torque (60 K)	100.0 Nm
Static torque (100 K)	125.0 Nm
Stall current (60 K)	31.60 A
Stall current (100 K)	39.00 A
Rotor moment of inertia	291.00 kgcm ²
Efficiency	94.0 %

Physical constants	
Torque constant	3.16 Nm/A
Voltage constant at 20° C	199.5 V/1000*min ⁻¹
Winding resistance at 20° C	0.11 Ω
Rotary field inductance	2.7 mH
Electrical time constant	24.00 ms
Mechanical time constant	0.90 ms
Thermal time constant	2 min
Shaft torsional stiffness	96,000 Nm/rad
Net weight of the motor	72.9 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	100
Cooling	Water cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.100 mm
Axial runout tolerance	0.100 mm
Vibration severity grade	Grade A
Degree of protection	IP65
Design acc. to Code I	IM B5 (new flange design)
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 AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
Electrical connection	Connector turnable
Connector size	1.5

Optimum operating point	
Optimum speed	1,500 rpm
Optimum power	19.6 kW

Limiting data	
Max. permissible speed (mech.)	6,000 rpm
Max. permissible speed (inverter)	2,900 rpm
Maximum torque	330.0 Nm
Maximum current	120.50 A

Recommended Motor Module	
Rated inverter current	45.00 A
Maximum inverter current	85.00 A
Maximum torque	249.5 Nm

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	85.0 Nm
Braking torque	35.0 Nm
Power supply voltage	DC 24 V
Coil current	1.60 A
Permissible brake work	5,300 J
Opening time	250 ms
Closing time	70 ms