

## Data sheet for SIMOTICS S-1FT7



Figure similar

### Ordering data

1FT7102-1AC70-1NH1

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

Item no. :  
Consignment no. :  
Project :

Engineering data		Physical constants	
Rated speed	2000 rpm	Torque constant	2.40 Nm/A
Number of poles	10	Voltage constant at 20° C	152.0 V/1000*min <sup>-1</sup>
Rated torque (100 K)	24.0 Nm	Winding resistance at 20° C	0.30 Ω
Rated current	10.0 A	Rotating field inductance	6.2 mH
Static torque (60 K)	25.00 Nm	Electrical time constant	20.70 ms
Static torque (100 K)	30.0 Nm	Mechanical time constant	1.40 ms
Stall current (60 K)	10.5 A	Thermal time constant	70 min
Stall current (100 K)	12.5 A	Shaft torsional stiffness	124000 Nm/rad
Rotor moment of inertia	0.0119000 kgm <sup>2</sup>	Net weight of the motor	32.3 kg
Efficiency	93.0 %		

Mechanical data		Optimum operating point	
Design of the motor type	Compact core type	Optimum speed	2000 rpm
Shaft height	100 mm	Optimum power	5.0 kW
Sensor design	Encoder IC2048S/R; incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track		
Cooling	Natural cooling		
Holding brake type	Permanent-magnet brake		
Shaft end type	Plain shaft		
Radial runout tolerance	N		
Vibration severity grade	Grade A		
Degree of protection	IP65		
Design acc. to Code I	IM B5 (new flange design)		
Electrical connectors	Connector turnable		
Color of the housing	Pearl dark grey RAL 9023		
Temperature monitoring	KTY84 temperature sensor in the stator winding		

Recommended Motor Module	
Rated inverter current	18 A
Maximum inverter current	36 A