

Data sheet for SIMOTICS S-1FT7



Figure similar

MLFB-Ordering data

1FT7105-5AF71-1BH1-Z
J36

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed	3000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	10	Design of the motor type	Compact
Rated torque (100 K)	28.0 Nm	Shaft height	100 mm
Rated current	15.0 A	Cooling	Natural cooling
Static torque (60 K)	41.00 Nm	Radial runout tolerance	N
Static torque (100 K)	50.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	21.0 A	Connector size	1.5
Stall current (100 K)	26.0 A	Degree of protection	IP65
Rotor moment of inertia	0.0234200 kgm ²	Design acc. to Code I	IM B5 (compatible with 1FT6)
Physical constants		Temperature monitoring	Pt1000 temperature sensor
		Electrical connectors	Connector turnable
Torque constant	1.92 Nm/A	Color of the housing	
Voltage constant at 20° C	123.5 V/1000*min ⁻¹	Holding brake version	Permanent-magnet brake
Winding resistance at 20° C	0.08 Ω	Shaft end type	Plain shaft
Rotating field inductance	2.3 mH	Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Electrical time constant	27.00 ms		
Mechanical time constant	1.20 ms		
Thermal time constant	80 min		
Shaft torsional stiffness	107000 Nm/rad		
Net weight of the motor	131.0 kg		
Recommended Motor Module			
Rated inverter current	30 A		
Maximum inverter current	90 A		
Maximum torque	157.00 Nm		

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Gearbox data

Gearbox type	Planetary gearbox	Moment of inertia of gearbox	0.0028200 kgm ²
Designation	SP 240S-MF2	Radial output shaft loading, max.	30000 N
Gearbox ratio	40	Axial output shaft load, max.	33000 N
Motor speed S3-60 %	3500 rpm	Efficiency of gearbox	0.94
Motor speed S1	2500 rpm	Torsional backlash	5 '
Output torque S1	2500 Nm	Gearbox weight	80.60 kg
Rated output torque at duty type S3-60 %	4000 Nm		

Limiting data

Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	4630 rpm
Maximum torque	200.0 Nm
Maximum current	116.0 A

Special design

J36 Mounting of SP+ planetary gearbox