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Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data **1FT7105-5AC71-1BA0**

Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data

Rated speed	2000 rpm
Number of poles	10
Rated torque (100 K)	38.0 Nm
Rated current	15.0 A
Static torque (60 K)	41.00 Nm
Static torque (100 K)	50.0 Nm
Stall current (60 K)	15.0 A
Stall current (100 K)	18.0 A
Rotor moment of inertia	0.0178000 kgm²
Efficiency	93.0 %

Physical constants

Torque constant	2.68 Nm/A
Voltage constant at 20° C	170.5 V/1000*min⁻¹
Winding resistance at 20° C	0.16 Ω
Rotating field inductance	4.3 mH
Electrical time constant	27.00 ms
Mechanical time constant	1.00 ms
Thermal time constant	80 min
Shaft torsional stiffness	107000 Nm/rad
Net weight of the motor	44.2 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Design of the motor type	Compact
Shaft height	100 mm
Cooling	Natural cooling
Radial runout tolerance	N
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)
Holding brake version	no value
Shaft end type	Fitted key and keyway
Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Electrical connectors	Connector turnable
Connector size	1.5

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.

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Figure similar

Optimum operating point	
Optimum speed	2000 rpm
Optimum power	8.0 kW

Limiting data	
Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	3350 rpm
Maximum torque	200.0 Nm
Maximum current	84.0 A

Recommended Motor Module	
Rated inverter current	18 A
Maximum inverter current	54 A
Maximum torque	135.00 Nm

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