

Data sheet for SIMOTICS S-1FT7

MLFB-Ordering data

1FT7085-7SF70-1BG1-Z
K23



Figure similar

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	8	Design of the motor type	High Dynamic
Rated torque (100 K)	23.0 Nm	Shaft height	80 mm
Rated current	20.0 A	Cooling	Forced ventilation
Static torque (60 K)	26.00 Nm	Radial runout tolerance	N
Static torque (100 K)	34.0 Nm	Vibration severity grade	Grade A
Stall current (60 K)	22.0 A	Degree of protection	IP65
Stall current (100 K)	28.0 A	Design acc. to Code I	IM B5 (new flange design)
Rotor moment of inertia	0.0020700 kgm ²	Temperature monitoring	Pt1000 temperature sensor
Efficiency	92.0 %	Color of the housing	
Physical constants		Holding brake version	no value
Torque constant	1.20 Nm/A	Shaft end type	Plain shaft
Voltage constant at 20° C	77.0 V/1000*min ⁻¹	Sensor design	Encoder AS24DQI: Absolut encoder Singleturn 24 bit - with signal connection RJ45
Winding resistance at 20° C	0.12 Ω	Electrical connectors	Connector turnable
Rotating field inductance	3.1 mH	Connector size	1.5
Electrical time constant	26.00 ms		
Mechanical time constant	0.50 ms		
Thermal time constant	24 min		
Shaft torsional stiffness	51000 Nm/rad		
Net weight of the motor	34.0 kg		

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	30 A
Optimum power	7.2 kW	Maximum inverter current	90 A
Limiting data		Maximum torque	89.00 Nm
Max. permissible speed (mech.)	8000 rpm	Special design	
Max. permissible speed (inverter)	7500 rpm	K23	Special painting for climate group Worldwide: Primer and varnish
Maximum torque	105.0 Nm		
Maximum current	126.0 A		