



MLFB-Ordering data1FK7042-5AF71-1AG5

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

Item no. :
Consignment no. :
Project :

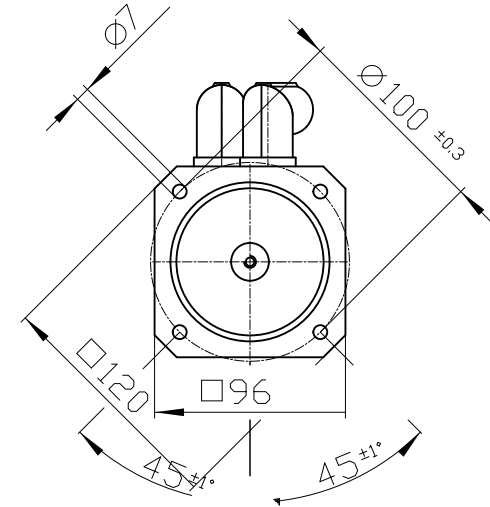
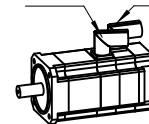
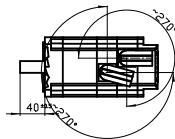
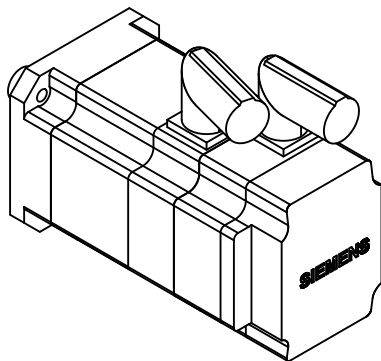
Engineering data	
Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	2.6 Nm
Rated current	1.9 A
Static torque (60 K)	2.50 Nm
Static torque (100 K)	3.00 Nm
Stall current (60 K)	1.80 A
Stall current (100 K)	2.20 A
Moment of inertia	3.010 kgcm²
Efficiency	89.0 %
Physical constants	
Torque constant	1.40 Nm/A
Voltage constant at 20° C	89.0 V/1000*min ⁻¹
Winding resistance at 20° C	5.15 Ω
Rotating field inductance	29.0 mH
Electrical time constant	5.60 ms
Mechanical time constant	2.37 ms
Thermal time constant	30 min
Shaft torsional stiffness	16000 Nm/rad
Net weight of the motor	4.9 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	48
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.08 mm
Axial runout tolerance	0.08 mm
Vibration severity grade	Grade A
Connector size	1
Degree of protection	IP65 and DE flange IP67
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft end	Plain shaft
Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	3 A
Optimum power	0.8 kW	Maximum inverter current	6 A
Limiting data		Maximum torque	8.40 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	6500 rpm		
Maximum torque	10.5 Nm		
Maximum current	7.4 A		

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Connector size M23, 17-pole

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Unit	mm [in]	1FK7042-5AF71-1AG5
Date	2/27/23	
SIEMENS AG -		-
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