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Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data **1FK7060-5AF71-1AB0**

Figure similar

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)	4.7 Nm
Rated current	3.7 A
Static torque (60 K)	5.00 Nm
Static torque (100 K)	6.00 Nm
Stall current (60 K)	3.70 A
Stall current (100 K)	4.50 A
Moment of inertia	10.200 kgcm²
Efficiency	90.0 %

Physical constants

Torque constant	1.33 Nm/A
Voltage constant at 20° C	84.5 V/1000*min⁻¹
Winding resistance at 20° C	1.44 Ω
Rotating field inductance	14.7 mH
Electrical time constant	10.20 ms
Mechanical time constant	1.94 ms
Thermal time constant	30 min
Shaft torsional stiffness	42000 Nm/rad
Net weight of the motor	8.0 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	63
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1
Degree of protection	IP64
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	without
Holding brake	with holding brake
Shaft end	Feather key
Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track

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No image available for this configuration.

Figure similar

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Optimum operating point

Optimum speed	3000 rpm
Optimum power	1.5 kW

Limiting data

Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	6800 rpm
Maximum torque	18.0 Nm
Maximum current	15.0 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	13.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.8 A
Opening time	100 ms
Closing time	50 ms
Highest braking work	380 J

Recommended Motor Module

Rated inverter current	5 A
Maximum inverter current	10 A
Maximum torque	13.20 Nm

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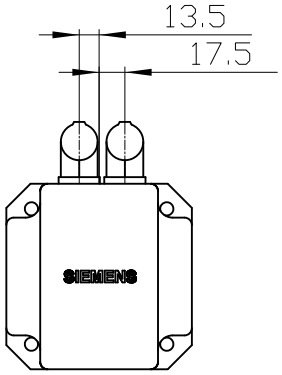

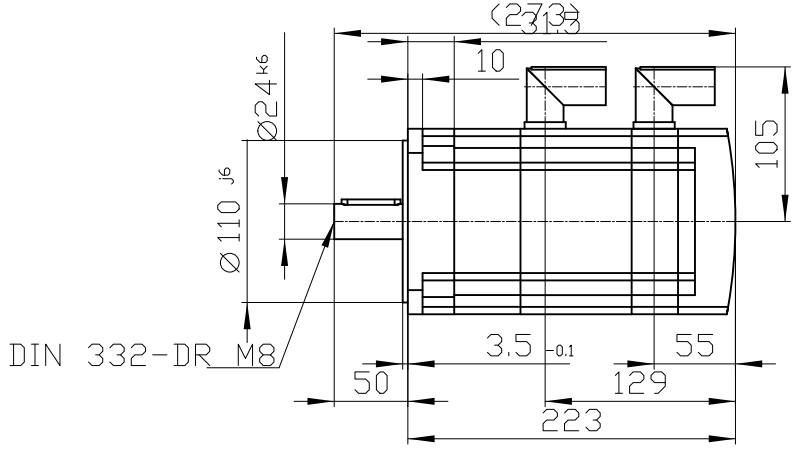

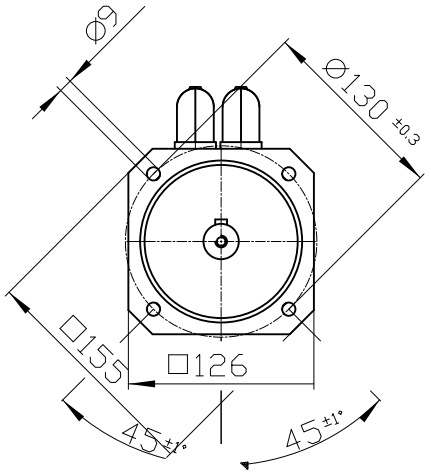

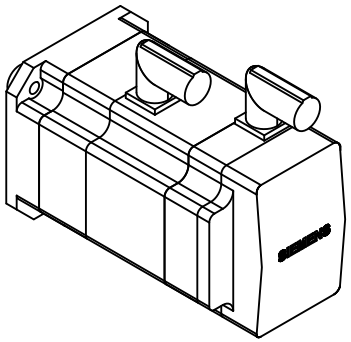

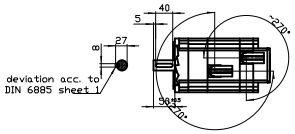

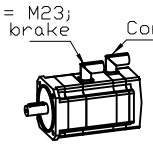

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Unit	mm [in]	1FK7060-5AF71-1AB0
Date	3/14/23	
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