

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7040-5AK71-1AG0

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

Item no. :
 Consignment no. :
 Project :

Engineering data

Mechanical data

Rated speed (100 K)	6000 rpm
Number of poles	8
Rated torque (100 K)	1.1 Nm
Rated current	1.7 A
Static torque (60 K)	1.30 Nm
Static torque (100 K)	1.60 Nm
Stall current (60 K)	1.80 A
Stall current (100 K)	2.25 A
Moment of inertia	1.690 kgcm ²
Efficiency	88.0 %

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	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	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

Physical constants

Torque constant	0.68 Nm/A
Voltage constant at 20° C	43.0 V/1000*min ⁻¹
Winding resistance at 20° C	3.30 Ω
Rotating field inductance	17.0 mH
Electrical time constant	5.15 ms
Mechanical time constant	3.62 ms
Thermal time constant	25 min
Shaft torsional stiffness	19000 Nm/rad
Net weight of the motor	3.5 kg

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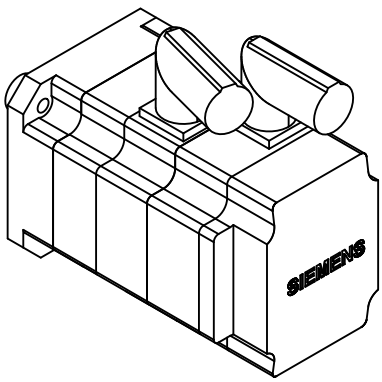
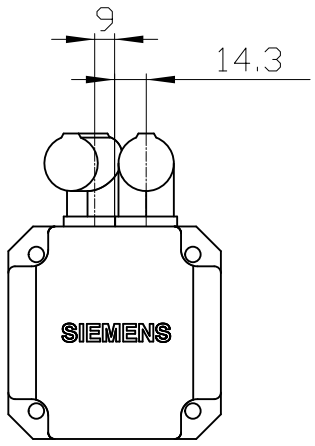
Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	3 A
Optimum power	0.7 kW	Maximum inverter current	6 A
Limiting data		Maximum torque	4.10 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	9990 rpm		
Maximum torque	5.1 Nm		
Maximum current	7.7 A		

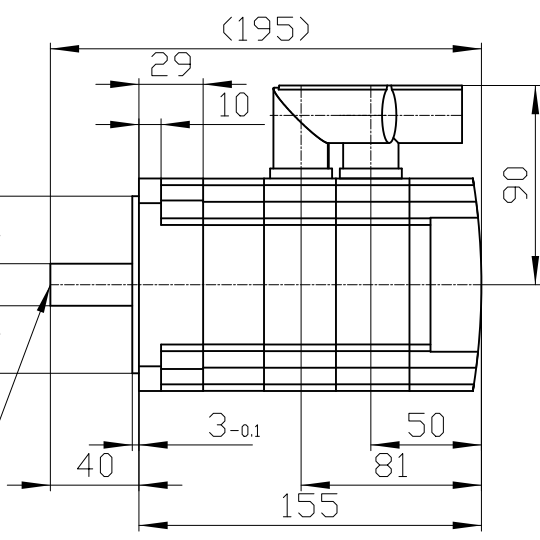
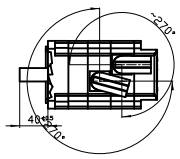
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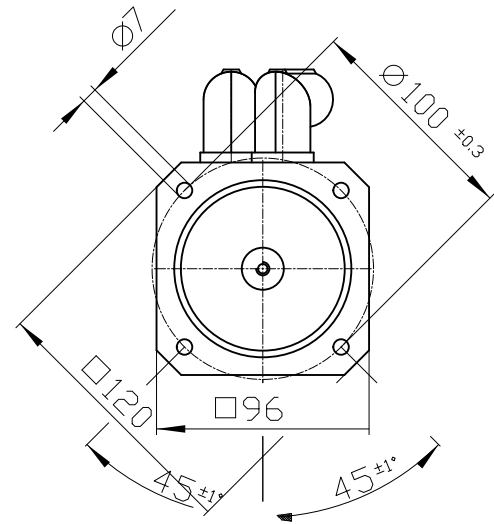
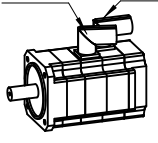


DIN 332-DR M6



Connector size 1 = M23;
 6-pole for power and brake

Connector size M23, 17-pole



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Unit	mm (in)	1FK7040-5AK71-1AG0
Date	2/7/23	
SIEMENS AG		-
		DT