

MLFB-Ordering data1FK7080-5AH71-1PB0

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

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	4.5 Nm	Shaft height	80
Rated current	4.7 A	Cooling	Natural cooling
Static torque (60 K)	6.60 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	8.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	6.10 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	7.40 A	Vibration severity grade	Grade A
Moment of inertia	18.100 kgcm²	Connector size	1
Efficiency	92.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.06 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	68.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.44 Ω	Color of the housing	without
Rotating field inductance	6.3 mH	Holding brake	with holding brake
Electrical time constant	14.30 ms	Shaft end	Feather key
Mechanical time constant	1.76 ms	Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)
Thermal time constant	40 min		
Shaft torsional stiffness	126000 Nm/rad		
Net weight of the motor	12.5 kg		

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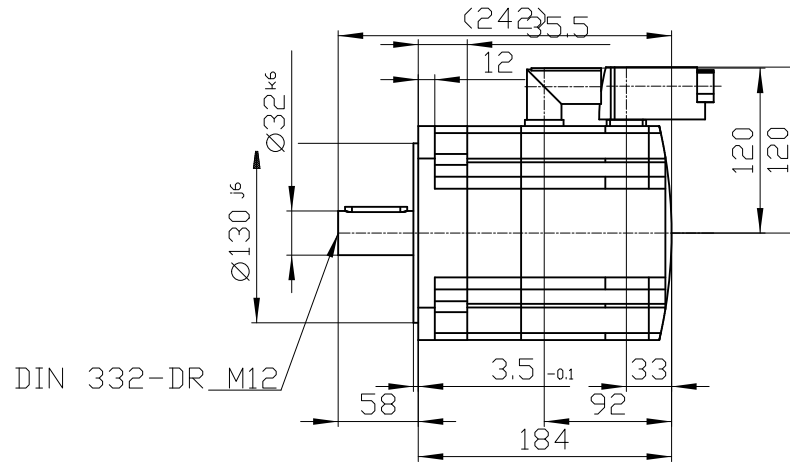
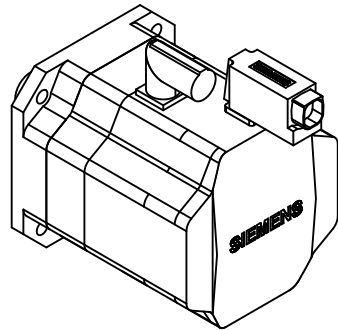
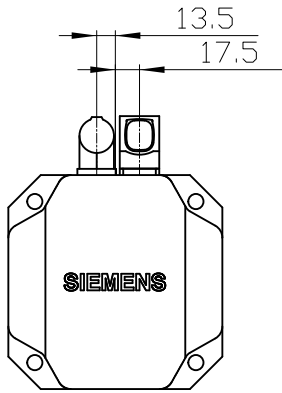
Optimum operating point		Recommended Motor Module	
Optimum speed	4000 rpm	Rated inverter current	9 A
Optimum power	2.4 kW	Maximum inverter current	18 A
Limiting data		Maximum torque	19.10 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	8500 rpm		
Maximum torque	25.0 Nm		
Maximum current	25.0 A		
Holding brake			
Holding brake version	Permanent-magnet brake		
Holding torque	22.0 Nm		
Power supply voltage	DC 24 V ± 10 %		
Coil current	0.9 A		
Opening time	200 ms		
Closing time	60 ms		
Highest braking work	1400 J		

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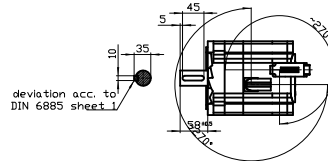
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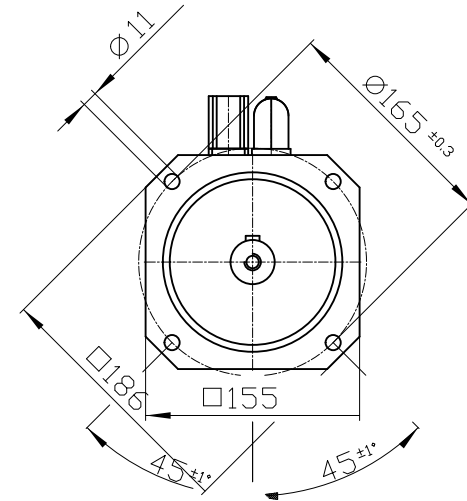
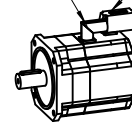
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DIN 332-DR_M12



Connector size 1 = M23;
6-pole for power and brake 10-pole RJ45 socket



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Unit	mm [in]	1FK7080-5AH71-1PB0
Date	6/27/23	
SIEMENS AG		—
—		DT