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Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data **1FK7103-5AC71-1FA2**

Figure similar

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

Item no. :
Consignment no. :
Project :

Engineering data

Rated speed (100 K)	2000 rpm
Number of poles	8
Rated torque (100 K)	25.0 Nm
Rated current	11.5 A
Static torque (60 K)	30.00 Nm
Static torque (100 K)	36.00 Nm
Stall current (60 K)	12.00 A
Stall current (100 K)	14.70 A
Moment of inertia	105.000 kgcm²
Efficiency	93.0 %

Physical constants

Torque constant	2.45 Nm/A
Voltage constant at 20° C	156.0 V/1000*min⁻¹
Winding resistance at 20° C	0.28 Ω
Rotating field inductance	6.5 mH
Electrical time constant	23.00 ms
Mechanical time constant	1.50 ms
Thermal time constant	65 min
Shaft torsional stiffness	149000 Nm/rad
Net weight of the motor	29.0 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	100
Cooling	Natural cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1.5
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	without
Holding brake	without holding brake
Shaft end	Feather key
Encoder system	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

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No image available for this configuration.

Figure similar

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Optimum operating point

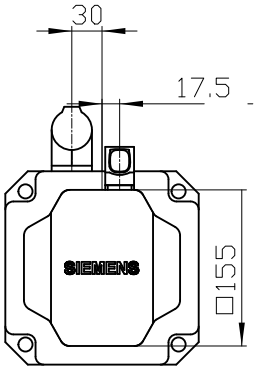
Optimum speed	2000 rpm
Optimum power	5.2 kW

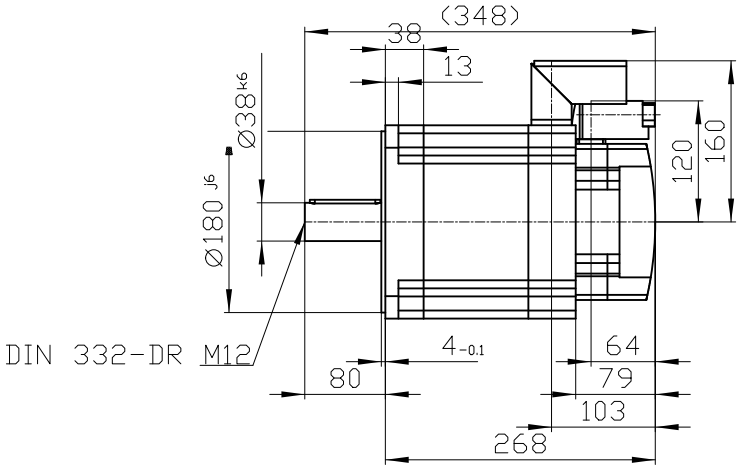
Limiting data

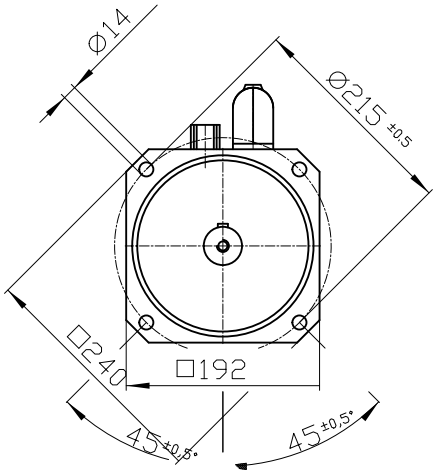
Max. permissible speed (mech.)	5000 rpm
Max. permissible speed (inverter)	3700 rpm
Maximum torque	108.0 Nm
Maximum current	46.0 A

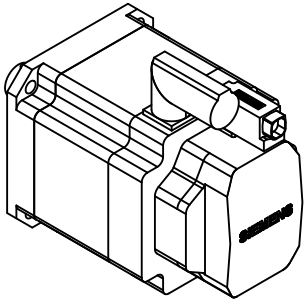
Recommended Motor Module

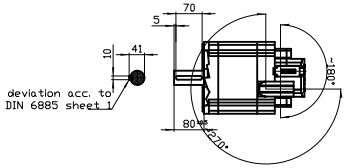
Rated inverter current	18 A
Maximum inverter current	36 A
Maximum torque	86.00 Nm



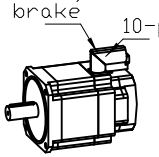








Connector size 1.5 = M40;
6-pole for power and brake



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Unit	mm [in]	1FK7103-5AC71-1FA2
Date	7/28/23	
SIEMENS AG		–
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