

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data 1FK7101-5AF71-1EB3

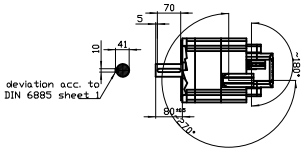
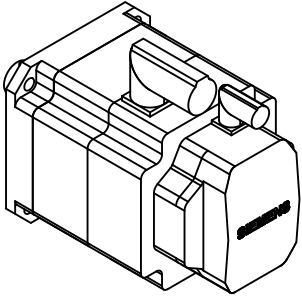
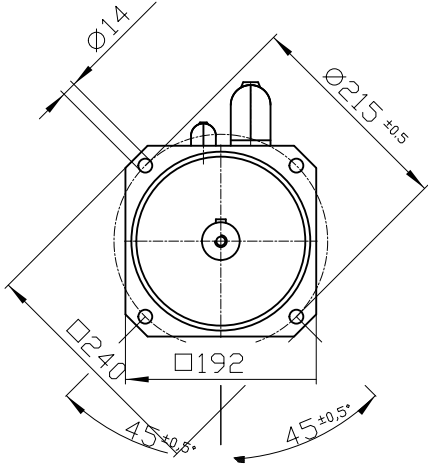
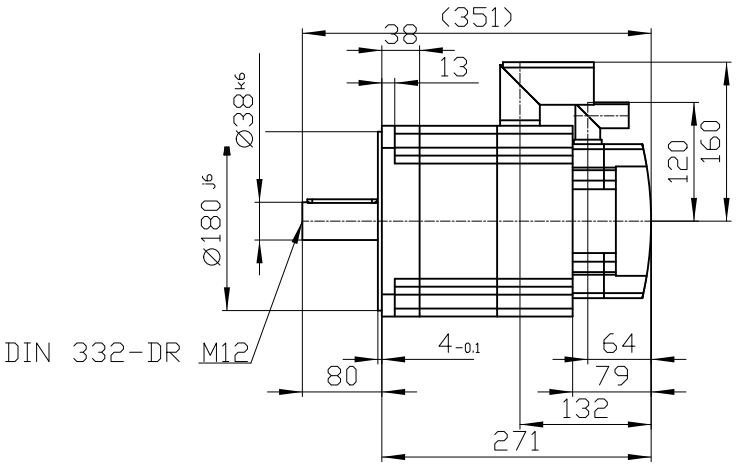
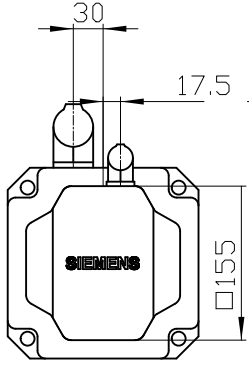


Client order no. :
Order no. :
Offer no. :
Remarks :
Item no. :
Consignment no. :
Project :

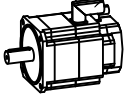
Engineering data		Mechanical data	
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	15.5 Nm	Shaft height	100
Rated current	11.8 A	Cooling	Natural cooling
Static torque (60 K)	22.40 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	27.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	15.70 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	19.00 A	Vibration severity grade	Grade A
Moment of inertia	92.300 kgcm²	Connector size	1.5
Efficiency	93.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.41 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	90.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.15 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	3.0 mH	Holding brake	with holding brake
Electrical time constant	20.00 ms	Shaft end	Feather key
Mechanical time constant	1.80 ms	Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
Thermal time constant	60 min		
Shaft torsional stiffness	165000 Nm/rad		
Net weight of the motor	24.0 kg		

MLFB-Ordering data 1FK7101-5AF71-1EB3

Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	18 A
Optimum power	4.9 kW	Maximum inverter current	36 A
Limiting data		Maximum torque	51.00 Nm
Max. permissible speed (mech.)	5000 rpm		
Max. permissible speed (inverter)	6400 rpm		
Maximum torque	80.0 Nm		
Maximum current	63.0 A		
Holding brake			
Holding brake version	Permanent-magnet brake		
Holding torque	43.0 Nm		
Power supply voltage	DC 24 V ± 10 %		
Coil current	1.0 A		
Opening time	300 ms		
Closing time	70 ms		
Highest braking work	3380 J		



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



Connector size M23, 17-pole

		-	
Unit		mm [in]	1FK7101-5AF71-1EB3
Date		7/27/23	
SIEMENS AG		-	
-		DT	

Confie a titre de secret d'entreprise. Tous droits réservés.
Confidado como secreto industrial. Nos reservados todos los derechos
Comunicado como segredo empresarial. Reservados todos os direitos

Weitergabe sowie Vervielfältigung dieser Unterlage. Verwer-
tung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht
ausdrücklich zugestanden. Zuwahlhandlungen verpflichten
zu Schadenersatz. Alle Rechte vorbehalten, insbesondere fuer
den Fall der Patenterteilung oder Gk-Entragung.

The reproduction or use of this document or its
contents is not permitted without express written authority.
Diffenders will be liable for damages. All rights, including rights
created by patent grant or registration of a utility model or design,
are reserved.

Copyright© Siemens AG 2005
Cada-drawing do not make any
manual changes