

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data 1FK7080-5AF71-1EB3



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)	6.8 Nm	Shaft height	80
Rated current	4.4 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)	4.00 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	4.80 A	Vibration severity grade	Grade A
Moment of inertia	18.100 kgcm ²	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	1.61 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	102.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	1.04 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	14.0 mH	Holding brake	with holding brake
Electrical time constant	13.50 ms	Shaft end	Feather key
Mechanical time constant	1.78 ms	Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
Thermal time constant	40 min		
Shaft torsional stiffness	126000 Nm/rad		
Net weight of the motor	12.5 kg		

MLFB-Ordering data 1FK7080-5AF71-1EB3

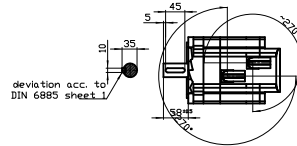
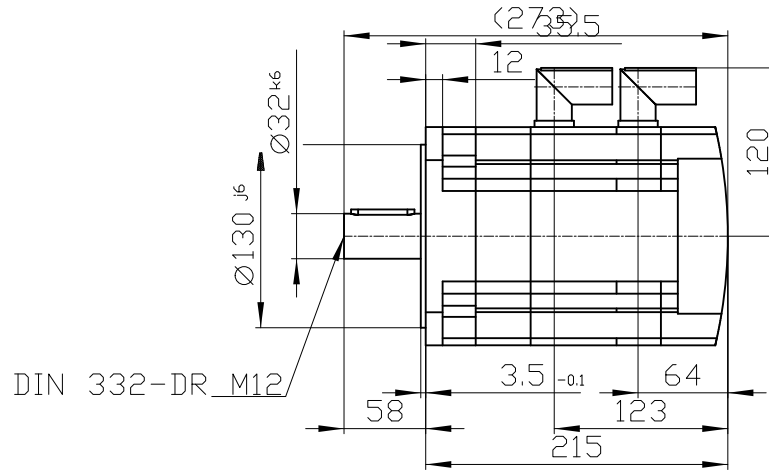
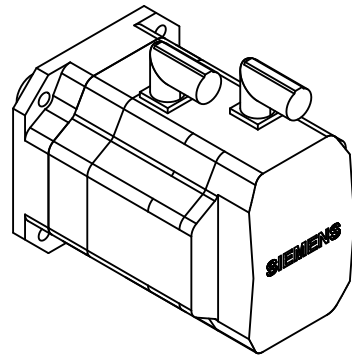
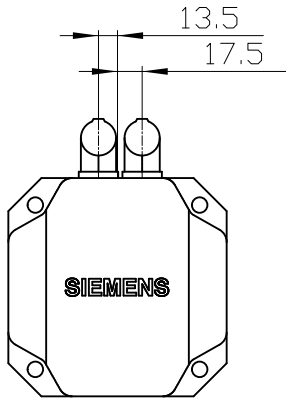
Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	5 A
Optimum power	2.1 kW	Maximum inverter current	10 A
Limiting data		Maximum torque	16.60 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5600 rpm		
Maximum torque	25.0 Nm		
Maximum current	18.0 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		

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

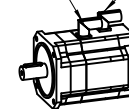
Weitergabe sowie Vervielfältigung dieser Unterlage. Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht ausdrücklich zugestanden. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte vorbehalten, insbesondere für den Fall der Patenterteilung oder der Eintragung.

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

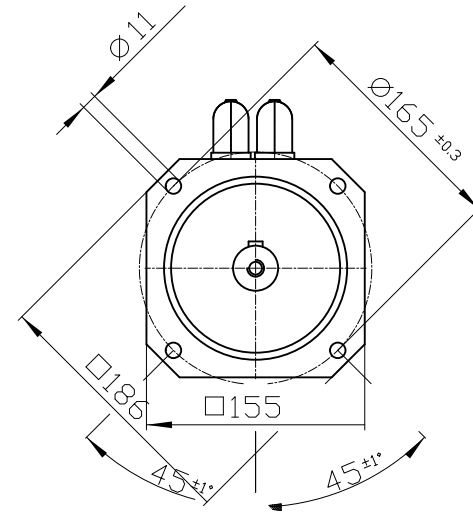
Copyright© Siemens AG 2005
Cada-drawing do not make any manual changes



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



Connector size M23, 17-pole



	—	
	—	
Unit	mm [in]	1FK7080-5AF 71-1EB3
Date	5/29/23	
SIEMENS AG		—
—		DT