

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data1FK7100-5AF71-1AA0



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)	12.0 Nm	Shaft height	100
Rated current	8.0 A	Cooling	Natural cooling
Static torque (60 K)	15.00 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	18.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	9.20 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	11.20 A	Vibration severity grade	Grade A
Moment of inertia	55.300 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	1.59 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	101.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.34 Ω	Color of the housing	without
Rotating field inductance	7.0 mH	Holding brake	without holding brake
Electrical time constant	20.50 ms	Shaft end	Feather key
Mechanical time constant	2.23 ms	Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track
Thermal time constant	55 min		
Shaft torsional stiffness	184000 Nm/rad		
Net weight of the motor	19.0 kg		

MLFB-Ordering data 1FK7100-5AF71-1AA0

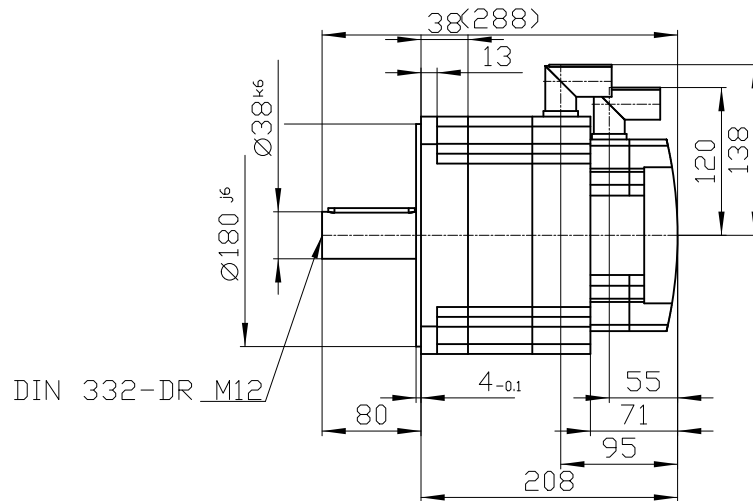
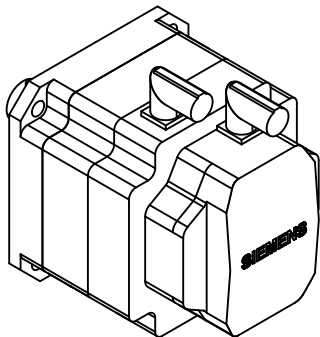
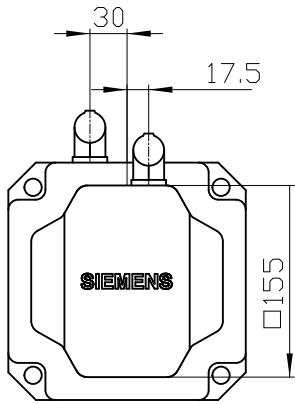
Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	18 A
Optimum power	3.8 kW	Maximum inverter current	36 A
Limiting data		Maximum torque	53.80 Nm
Max. permissible speed (mech.)	5000 rpm		
Max. permissible speed (inverter)	5700 rpm		
Maximum torque	55.0 Nm		
Maximum current	37.0 A		

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

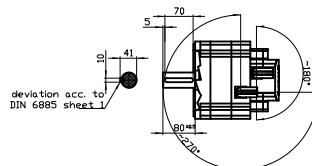
Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht ausdrücklich zugestanden. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte vorbehalten, insbesondere fuer den Fall der Patenterteilung oder der Eintragung.

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

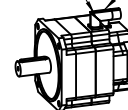


DIN 332-DR M12

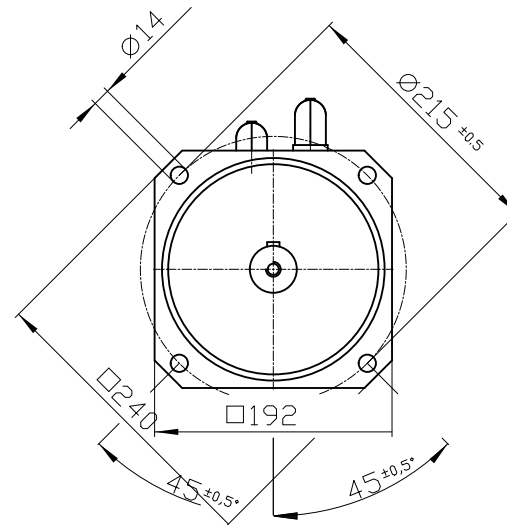


deviation acc. to
DIN 6885 sheet 1

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



Connector size M23, 17-pole



Unit	mm [in]	1FK7100-5AF71-1AA0	
Date	7/24/23		
SIEMENS AG			
		DT	