

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data1FK7083-5AF71-1FH3



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

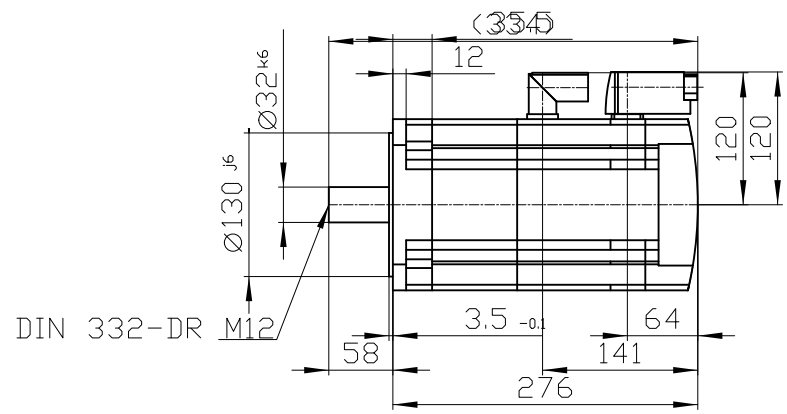
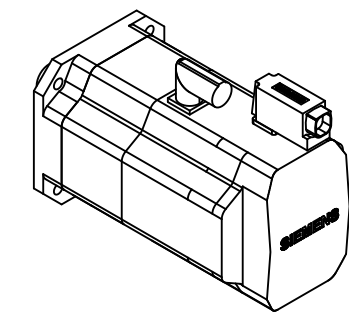
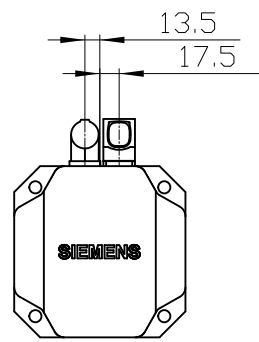
Item no. :
Consignment no. :
Project :

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)	10.5 Nm	Shaft height	80
Rated current	7.4 A	Cooling	Natural cooling
Static torque (60 K)	13.30 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	16.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	8.60 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	10.40 A	Vibration severity grade	Grade A
Moment of inertia	35.900 kgcm²	Connector size	1
Efficiency	93.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.52 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	97.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.40 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	6.0 mH	Holding brake	with holding brake
Electrical time constant	15.50 ms	Shaft end	Plain shaft
Mechanical time constant	1.41 ms	Encoder system	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Thermal time constant	50 min		
Shaft torsional stiffness	105000 Nm/rad		
Net weight of the motor	16.5 kg		

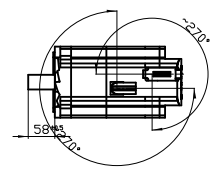
MLFB-Ordering data 1FK7083-5AF71-1FH3

Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	3.3 kW	Maximum inverter current	18 A
Limiting data		Maximum torque	27.80 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5900 rpm		
Maximum torque	50.0 Nm		
Maximum current	37.0 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		

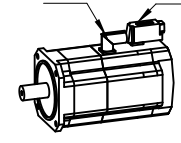
Copyright© Siemens AG 2005
Cod-drawing do not make any manual changes
The reproduction or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.
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 Gk-Entragung.
Confide a titre de secret d'entreprise. Tous droits reserves. Confido como secreto industrial. Nos reservamos todos los derechos Comunicado como segredo empresarial. Reservados todos os direitos



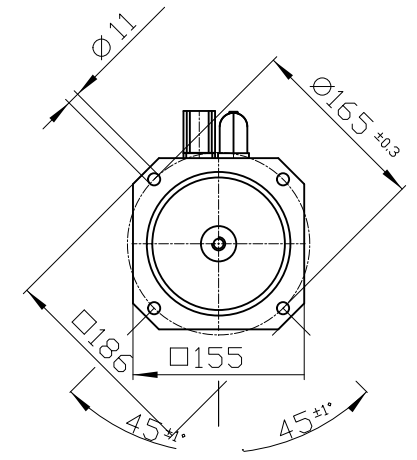
DIN 332-DR M12



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



10-pole RJ45 socket



	Unit	mm [in]	1FK7083-5AF71-1FH3
	Date	12/23/22	
SIEMENS AG		-	
-		DT	