

Data sheet for SIMOTICS S-1FK7



MLFB-Ordering data 1FK7083-2AF71-1PG0

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

Item no. :
Consignment no. :
Project :

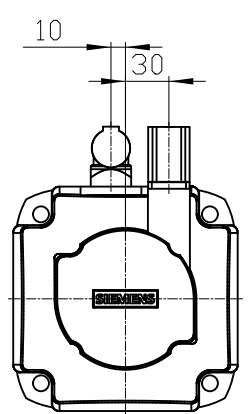
Engineering data		Mechanical data	
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	10.5 Nm	Shaft height	80
Rated current	7.2 A	Cooling	Natural cooling
Static torque (60 K)	13.30 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	16.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	8.20 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	10.10 A	Vibration severity grade	Grade A
Moment of inertia	26.000 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	1.58 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	102.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.38 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	7.0 mH	Holding brake	without holding brake
Electrical time constant	18.60 ms	Shaft end	Plain shaft
Mechanical time constant	1.18 ms	Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)
Thermal time constant	50 min		
Shaft torsional stiffness	101000 Nm/rad		
Net weight of the motor	15.6 kg		



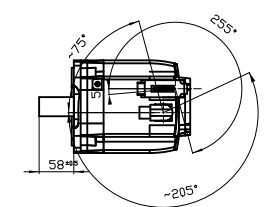
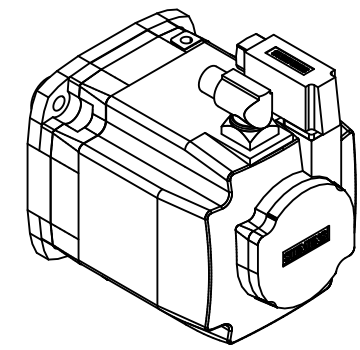
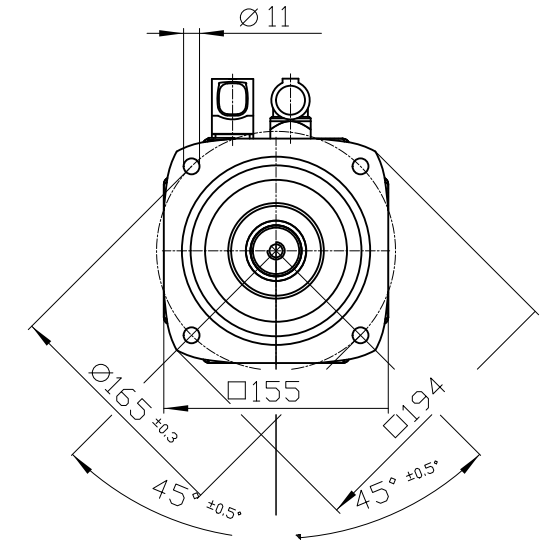
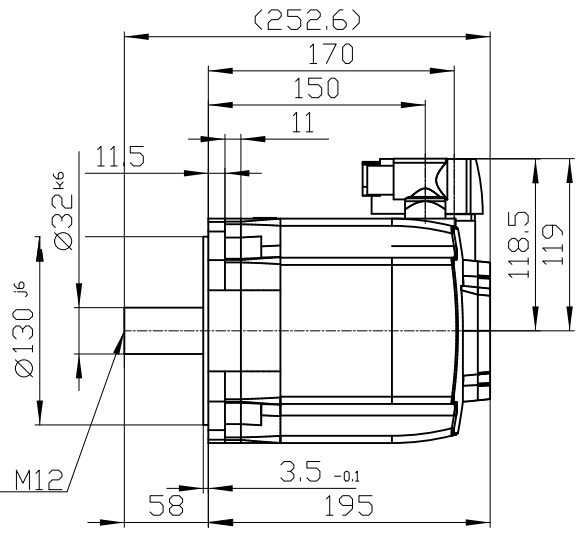
Figure similar

MLFB-Ordering data 1FK7083-2AF71-1PG0

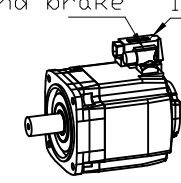
Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	3.3 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	40.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5600 rpm		
Maximum torque	50.0 Nm		
Maximum current	37.0 A		



DIN 332-DR M12



Connector size 1 = M23;
6-pole for power and brake 10-pole RJ45 socket



Unit	mm [in]	1FK7083-2AF 71-1PG0	
Date	6/21/23		
SIEMENS AG			
		DT	

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, Vervielfältigung 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