

Data sheet for SIMOTICS S-1FK7



MLFB-Ordering data 1FK7081-2AC71-1CH1

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

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed (100 K)	2000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	10.0 Nm	Shaft height	80
Rated current	4.4 A	Cooling	Natural cooling
Static torque (60 K)	10.00 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	12.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	4.05 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	5.00 A	Vibration severity grade	Grade A
Moment of inertia	23.500 kgcm²	Connector size	1
Efficiency	93.0 %	Degree of protection	IP65
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	2.40 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	154.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	1.27 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	23.5 mH	Holding brake	with holding brake
Electrical time constant	18.40 ms	Shaft end	Plain shaft
Mechanical time constant	1.33 ms	Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Thermal time constant	45 min		
Shaft torsional stiffness	76000 Nm/rad		
Net weight of the motor	15.9 kg		



MLFB-Ordering data 1FK7081-2AC71-1CH1

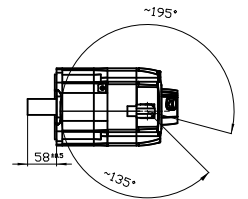
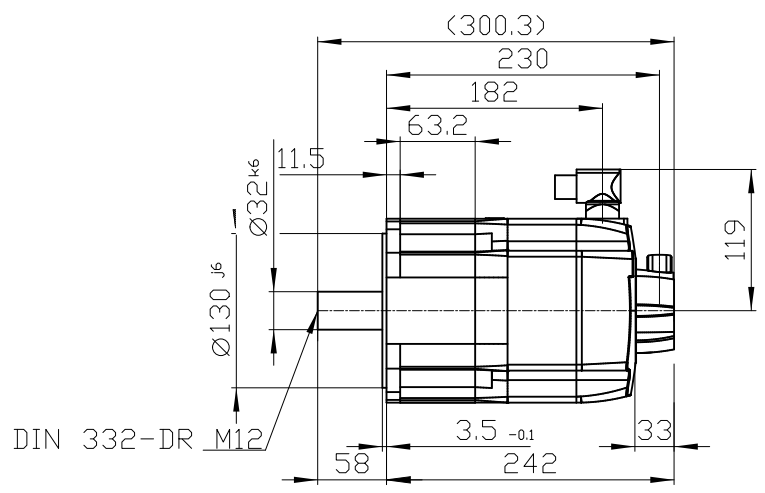
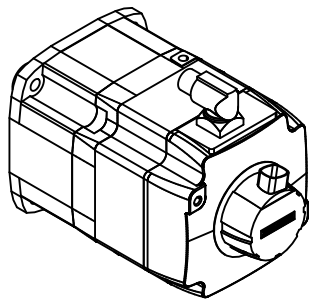
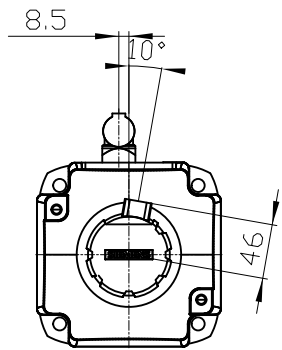
Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	5 A
Optimum power	2.1 kW	Maximum inverter current	15 A
Limiting data		Maximum torque	33.30 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	3750 rpm		
Maximum torque	37.0 Nm		
Maximum current	17.2 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

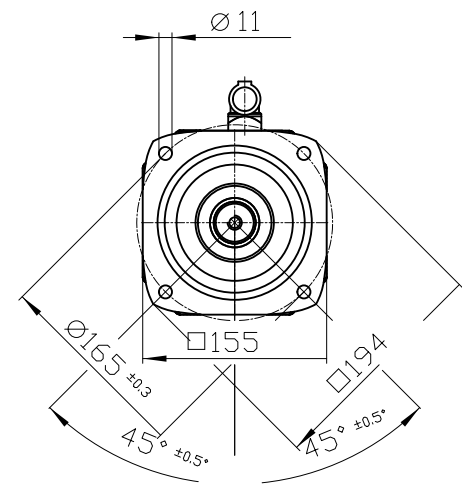
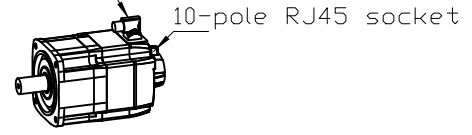
The reproduction or use of this document or its
contents is not permitted without express written authority.
Diffenders will be liable for damages. All rights, including rights
created by patent grant or registration of a utility model or design,
are reserved.

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwer-
tung 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.

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



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



		-	
Unit		mm [in]	1FK7081-2AC71-1CH1
Date		6/26/23	
SIEMENS AG		-	
-		DT	