

Data sheet for SIMOTICS S-1FK7



MLFB-Ordering data 1FK7101-2AF71-1BG1

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)	15.5 Nm	Shaft height	100
Rated current	11.6 A	Cooling	Natural cooling
Static torque (60 K)	22.50 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	27.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	15.20 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	18.80 A	Vibration severity grade	Grade A
Moment of inertia	79.000 kgcm²	Connector size	1.5
Efficiency	93.0 %	Degree of protection	IP65
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.44 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	92.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.14 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	3.5 mH	Holding brake	without holding brake
Electrical time constant	25.00 ms	Shaft end	Plain shaft
Mechanical time constant	1.62 ms	Encoder system	Encoder AS24DQI: absolute encoder single-turn 24 bits
Thermal time constant	60 min		
Shaft torsional stiffness	164000 Nm/rad		
Net weight of the motor	23.0 kg		



Figure similar

MLFB-Ordering data 1FK7101-2AF71-1BG1

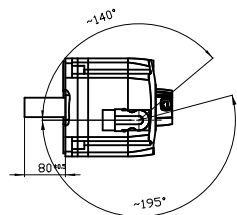
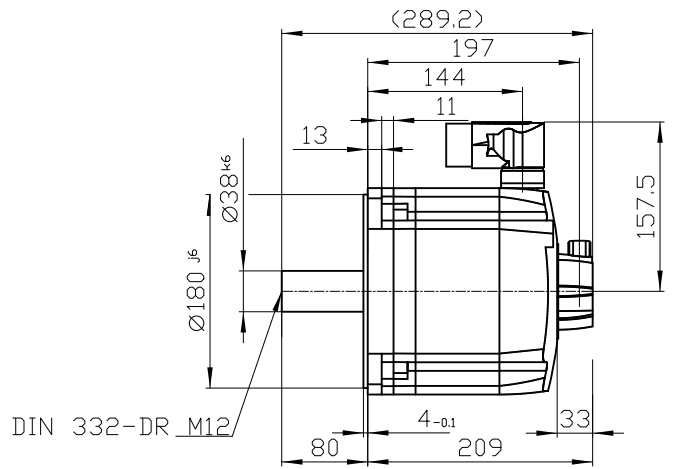
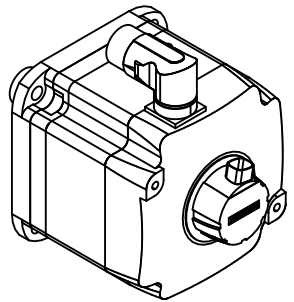
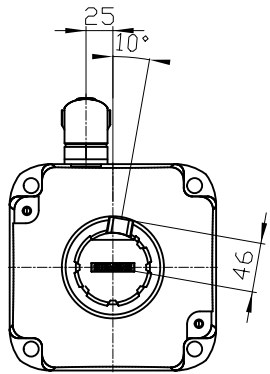
Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	18 A
Optimum power	4.8 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	72.00 Nm
Max. permissible speed (mech.)	5000 rpm		
Max. permissible speed (inverter)	5000 rpm		
Maximum torque	80.0 Nm		
Maximum current	63.0 A		

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

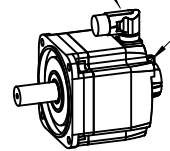
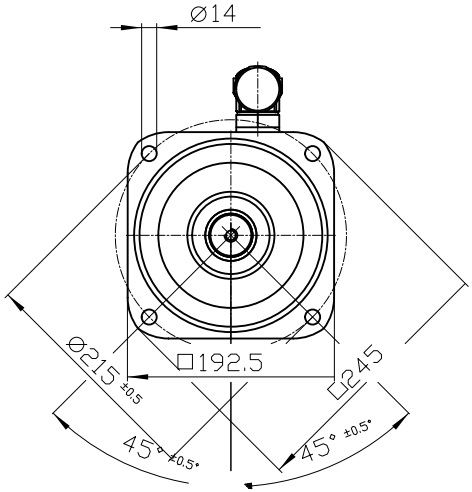
The reproduction or use of this document or its
contents is not permitted without express written authority.
Diffenders will be liable for damages. All rights, including rights
created by patent grant or registration of a utility model or design,
are reserved.

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 titre de secret d'entreprise. Tous droits reserves.
Confido como secreto industrial. No reservamos todos los derechos
Comunicado como segredo empresarial. Reservados todos os direitos



Connector size 1.5 = M40;
6-pole for power and brake



10-pole RJ45 socket

Unit	mm [in]	1FK7101-2AF71-1BG1	
Date	7/21/23		
SIEMENS AG			
		DT	