

Data sheet for SIMOTICS S-1FK7



MLFB-Ordering data 1FK7086-4CF71-1QG0

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	High Dynamic
Rated torque (100 K)	6.5 Nm	Shaft height	80
Rated current	5.7 A	Cooling	Natural cooling
Static torque (60 K)	23.00 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	28.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	17.40 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	21.50 A	Vibration severity grade	Grade A
Moment of inertia	22.000 kgcm²	Connector size	1.5
Efficiency	93.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.30 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	84.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.12 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	3.1 mH	Holding brake	without holding brake
Electrical time constant	26.50 ms	Shaft end	Plain shaft
Mechanical time constant	0.46 ms	Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits
Thermal time constant	65 min		
Shaft torsional stiffness	84000 Nm/rad		
Net weight of the motor	23.0 kg		



Figure similar

MLFB-Ordering data 1FK7086-4CF71-1QG0

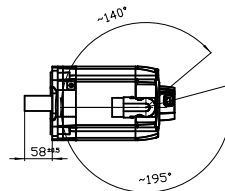
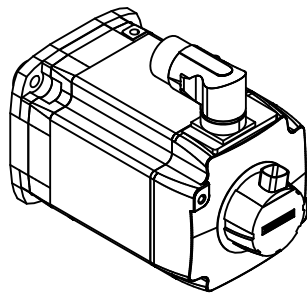
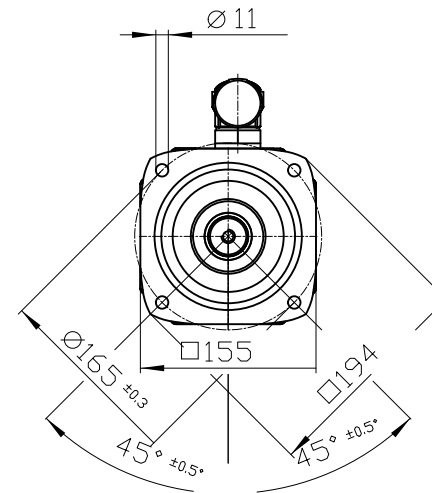
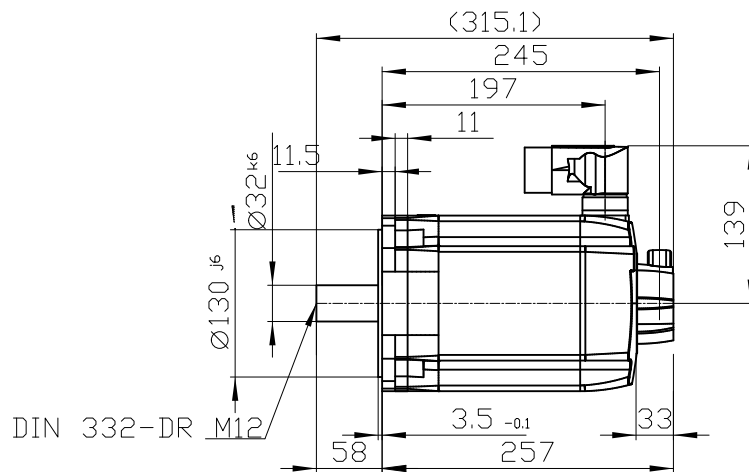
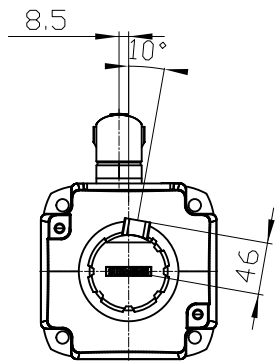
Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	30 A
Optimum power	3.8 kW	Maximum inverter current	72 A
Limiting data		Maximum torque	79.30 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	6000 rpm		
Maximum torque	105.0 Nm		
Maximum current	115.0 A		

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

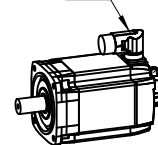
Weitergabe sowie Vervielfältigung dieser Unterlage. Verwer-
tung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht
ausdrücklich zugestanden. Zuwiderhandlungen verpflichten
zu Schadenersatz. Alle Rechte vorbehalten, insbesondere fuer
den Fall der Patenterteilung oder GK-Entragung.

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.

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



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



10-pole RJ45 socket

	-	
	-	
Unit	mm [in]	1FK7086-4CF71-1QG0
Date	7/31/23	
SIEMENS AG		-
-		DT