

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7086-4CF71-1DA2



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	6.5 Nm
Rated current	5.7 A
Static torque (60 K)	23.00 Nm
Static torque (100 K)	28.00 Nm
Stall current (60 K)	17.40 A
Stall current (100 K)	21.50 A
Moment of inertia	22.000 kgcm²
Efficiency	93.0 %
Physical constants	
Torque constant	1.30 Nm/A
Voltage constant at 20° C	84.5 V/1000*min ⁻¹
Winding resistance at 20° C	0.12 Ω
Rotating field inductance	3.1 mH
Electrical time constant	26.50 ms
Mechanical time constant	0.46 ms
Thermal time constant	65 min
Shaft torsional stiffness	84000 Nm/rad
Net weight of the motor	23.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
Shaft height	80
Cooling	Natural cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1.5
Degree of protection	IP65 and DE flange IP67
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	Pt1000 temperature sensor
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft end	Feather key
Encoder system	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits



MLFB-Ordering data 1FK7086-4CF71-1DA2

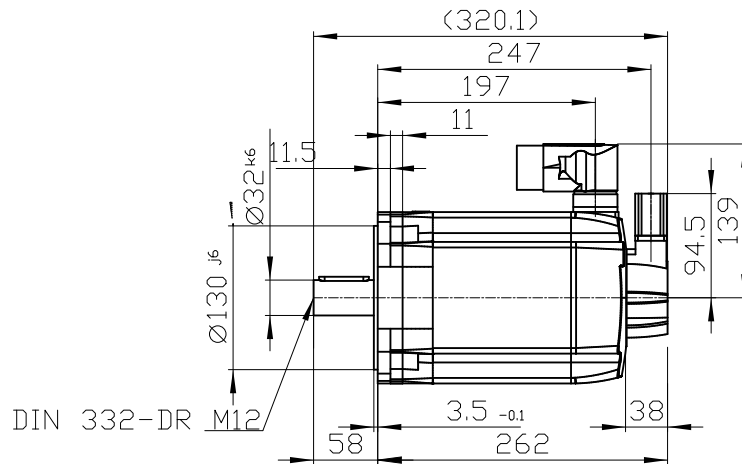
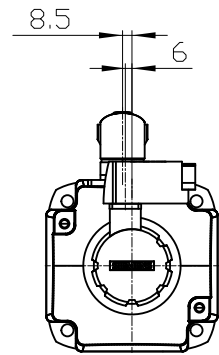
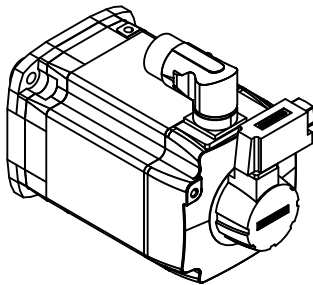
Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	30 A
Optimum power	3.8 kW	Maximum inverter current	72 A
Limiting data		Maximum torque	79.30 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	6000 rpm		
Maximum torque	105.0 Nm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

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

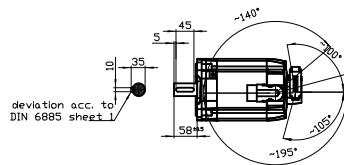
The reproduction or use of this document or its
contents is not permitted without express written authority.
Diffenders will be liable for damages. All rights, including rights
created by patent grant or registration of a utility model or design,
are reserved.

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. Nos reservamos todos los derechos
Comunicado como segredo empresarial. Reservados todos os direitos

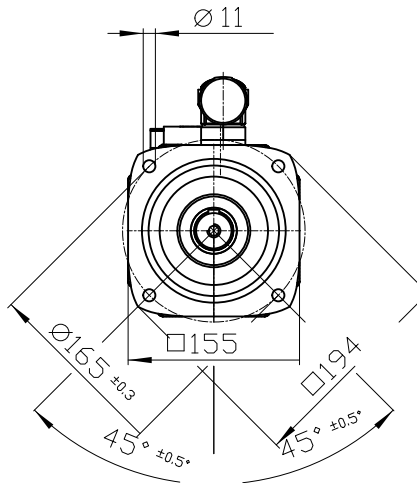
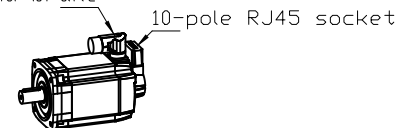


DIN 332-DR M12



deviation acc. to
DIN 6885 sheet 1

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



		-
		-
Unit	mm [in]	1FK7086-4CF71-1DA2
Date	7/7/23	
SIEMENS AG		-
-		DT