



MLFB-Ordering data1FK7043-7AK71-1FH0

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

Item no. :  
Consignment no. :  
Project :

| Engineering data            |                               | Mechanical data          |                                                                                                                                                   |
|-----------------------------|-------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated speed (100 K)         | 6000 rpm                      | Motor type               | Permanent-magnet synchronous motor                                                                                                                |
| Number of poles             | 6                             | Motor type               | High Dynamic                                                                                                                                      |
| Rated torque (100 K)        | 2.0 Nm                        | Shaft height             | 48                                                                                                                                                |
| Rated current               | 4.4 A                         | Cooling                  | Natural cooling                                                                                                                                   |
| Static torque (60 K)        | 2.50 Nm                       | Radial runout tolerance  | 0.040 mm                                                                                                                                          |
| Static torque (100 K)       | 3.10 Nm                       | Concentricity tolerance  | 0.08 mm                                                                                                                                           |
| Stall current (60 K)        | 4.80 A                        | Axial runout tolerance   | 0.08 mm                                                                                                                                           |
| Stall current (100 K)       | 6.40 A                        | Vibration severity grade | Grade A                                                                                                                                           |
| Moment of inertia           | 1.140 kgcm²                   | Connector size           | 1                                                                                                                                                 |
| Efficiency                  | 90.0 %                        | Degree of protection     | IP64                                                                                                                                              |
| Physical constants          |                               | Design acc. to Code I    | IM B5 (IM V1, IM V3)                                                                                                                              |
| Torque constant             | 0.48 Nm/A                     | Temperature monitoring   | KTY84 temperature sensor in the stator winding                                                                                                    |
| Voltage constant at 20° C   | 32.0 V/1000*min <sup>-1</sup> | Electrical connectors    | Connectors for signals and power rotatable                                                                                                        |
| Winding resistance at 20° C | 0.65 Ω                        | Color of the housing     | without                                                                                                                                           |
| Rotating field inductance   | 9.0 mH                        | Holding brake            | with holding brake                                                                                                                                |
| Electrical time constant    | 13.80 ms                      | Shaft end                | Plain shaft                                                                                                                                       |
| Mechanical time constant    | 0.85 ms                       | Encoder system           | Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions) |
| Thermal time constant       | 40 min                        |                          |                                                                                                                                                   |
| Shaft torsional stiffness   | 11000 Nm/rad                  |                          |                                                                                                                                                   |
| Net weight of the motor     | 7.0 kg                        |                          |                                                                                                                                                   |

MLFB-Ordering data                      1FK7043-7AK71-1FH0

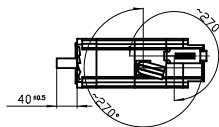
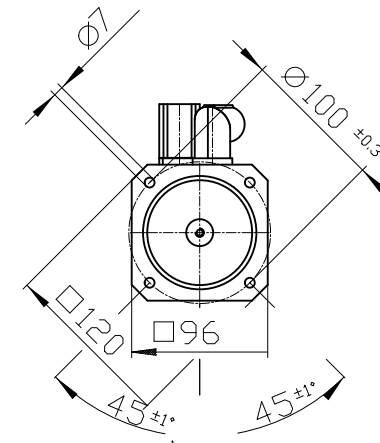
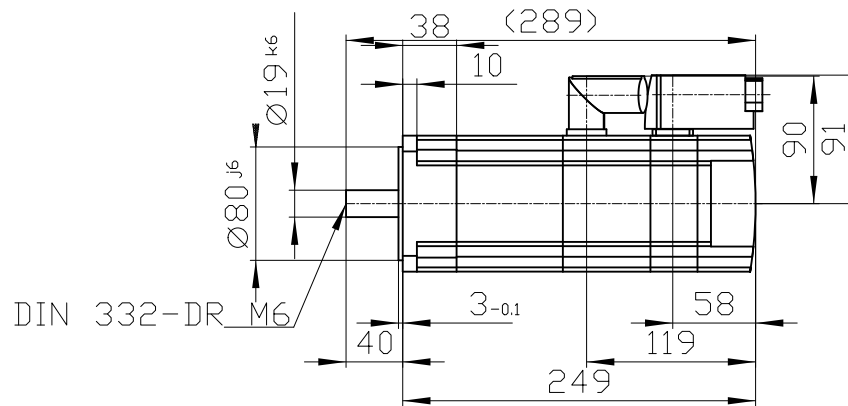
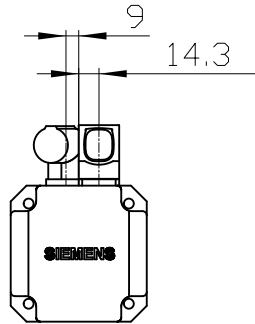
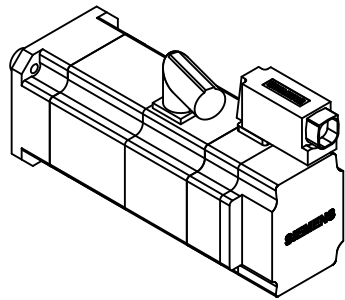
| Optimum operating point           |                        | Recommended Motor Module |         |
|-----------------------------------|------------------------|--------------------------|---------|
| Optimum speed                     | 6000 rpm               | Rated inverter current   | 9 A     |
| Optimum power                     | 1.3 kW                 | Maximum inverter current | 18 A    |
| Limiting data                     |                        | Maximum torque           | 8.50 Nm |
| Max. permissible speed (mech.)    | 8000 rpm               |                          |         |
| Max. permissible speed (inverter) | 13300 rpm              |                          |         |
| Maximum torque                    | 9.4 Nm                 |                          |         |
| Maximum current                   | 20.0 A                 |                          |         |
| Holding brake                     |                        |                          |         |
| Holding brake version             | Permanent-magnet brake |                          |         |
| Holding torque                    | 4.0 Nm                 |                          |         |
| Power supply voltage              | DC 24 V ± 10 %         |                          |         |
| Coil current                      | 0.5 A                  |                          |         |
| Opening time                      | 70 ms                  |                          |         |
| Closing time                      | 30 ms                  |                          |         |
| Highest braking work              | 150 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.

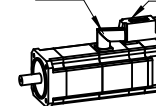
Wetergabe soale Vervielfaeligung dieser Unterlage. Verwer-  
tung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht  
ausdruecklich zugestanden. Zuwiderhandlungen verpflichten  
zu Schadenersatz. Alle Rechte vorbehalten, insbesondere fuer  
den Fall der Patenterteilung oder GK-Entragung.

Confie a titre de secret d'entreprise. Tous droits reserves.  
Confidado 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

10-pole RJ45 socket



|            |         |                    |
|------------|---------|--------------------|
|            | -       |                    |
|            | -       |                    |
| Unit       | mm [in] | 1FK7043-7AK71-1FH0 |
| Date       | 3/13/23 |                    |
| SIEMENS AG |         | -                  |
| -          |         | DT                 |