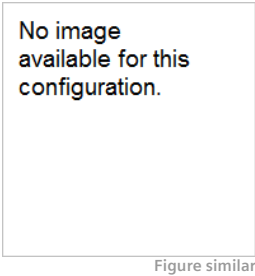


MLFB-Ordering data1FK7044-7AF71-1AG3



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             | 6                             | Motor type               | High Dynamic                                                                     |
| Rated torque (100 K)        | 3.5 Nm                        | Shaft height             | 48                                                                               |
| Rated current               | 4.0 A                         | Cooling                  | Natural cooling                                                                  |
| Static torque (60 K)        | 3.00 Nm                       | Radial runout tolerance  | 0.040 mm                                                                         |
| Static torque (100 K)       | 4.00 Nm                       | Concentricity tolerance  | 0.08 mm                                                                          |
| Stall current (60 K)        | 3.40 A                        | Axial runout tolerance   | 0.08 mm                                                                          |
| Stall current (100 K)       | 4.50 A                        | Vibration severity grade | Grade A                                                                          |
| Moment of inertia           | 1.280 kgcm²                   | Connector size           | 1                                                                                |
| Efficiency                  | 91.0 %                        | Degree of protection     | IP64                                                                             |
| Physical constants          |                               | Design acc. to Code I    | IM B5 (IM V1, IM V3)                                                             |
| Torque constant             | 0.86 Nm/A                     | Temperature monitoring   | KTY84 temperature sensor in the stator winding                                   |
| Voltage constant at 20° C   | 57.0 V/1000*min <sup>-1</sup> | Electrical connectors    | Connectors for signals and power rotatable                                       |
| Winding resistance at 20° C | 1.50 Ω                        | Color of the housing     | Standard (Anthracite RAL 7016)                                                   |
| Rotating field inductance   | 20.0 mH                       | Holding brake            | without holding brake                                                            |
| Electrical time constant    | 13.30 ms                      | Shaft end                | Plain shaft                                                                      |
| Mechanical time constant    | 0.78 ms                       | Encoder system           | Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track |
| Thermal time constant       | 45 min                        |                          |                                                                                  |
| Shaft torsional stiffness   | 9500 Nm/rad                   |                          |                                                                                  |
| Net weight of the motor     | 7.7 kg                        |                          |                                                                                  |

MLFB-Ordering data                    1FK7044-7AF71-1AG3

| Optimum operating point           |           | Recommended Motor Module |         |
|-----------------------------------|-----------|--------------------------|---------|
| Optimum speed                     | 3000 rpm  | Rated inverter current   | 5 A     |
| Optimum power                     | 1.1 kW    | Maximum inverter current | 10 A    |
| Limiting data                     |           | Maximum torque           | 8.80 Nm |
| Max. permissible speed (mech.)    | 8000 rpm  |                          |         |
| Max. permissible speed (inverter) | 10100 rpm |                          |         |
| Maximum torque                    | 12.0 Nm   |                          |         |
| Maximum current                   | 14.8 A    |                          |         |

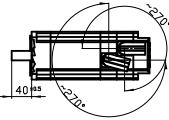
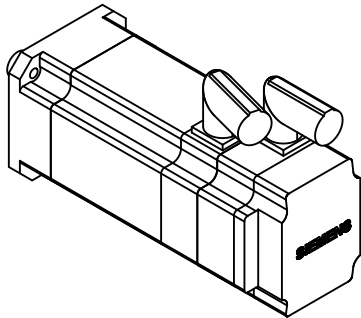
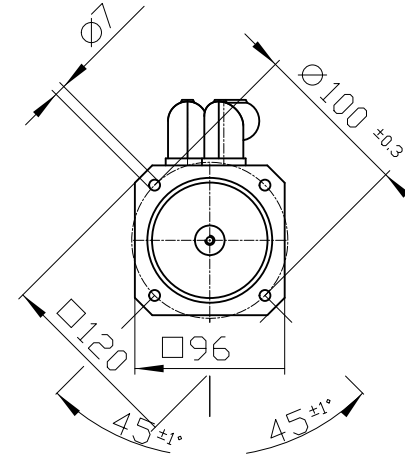
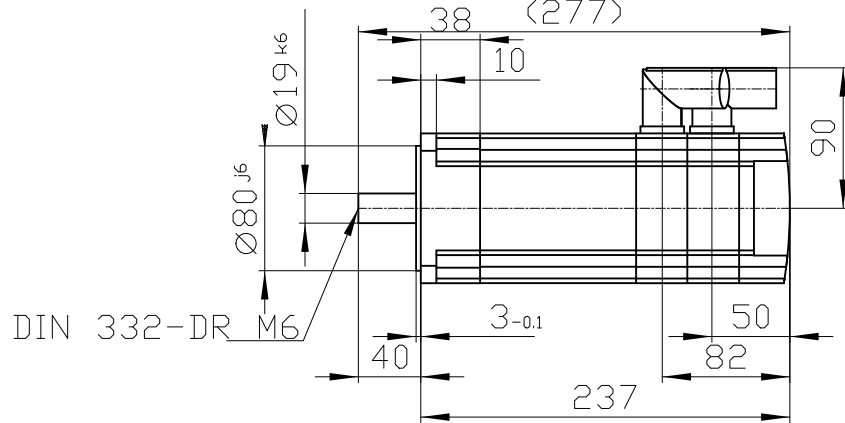
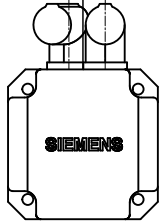
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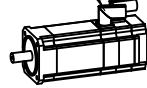
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14.3  
9



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



Connector size M23, 17-pole

|            |         |                    |  |
|------------|---------|--------------------|--|
|            |         |                    |  |
| Unit       | mm [in] | 1FK7044-7AF71-1AG3 |  |
| Date       | 3/13/23 |                    |  |
| SIEMENS AG |         |                    |  |
|            |         | DT                 |  |