



MLFB-Ordering data1FK7101-5AF71-1TA2

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               | 11.8 A                        | Cooling                  | Natural cooling                                |
| Static torque (60 K)        | 22.40 Nm                      | Radial runout tolerance  | 0.050 mm                                       |
| Static torque (100 K)       | 27.00 Nm                      | Concentricity tolerance  | 0.10 mm                                        |
| Stall current (60 K)        | 15.70 A                       | Axial runout tolerance   | 0.10 mm                                        |
| Stall current (100 K)       | 19.00 A                       | Vibration severity grade | Grade A                                        |
| Moment of inertia           | 79.900 kgcm²                  | Connector size           | 1.5                                            |
| Efficiency                  | 93.0 %                        | Degree of protection     | IP65 and DE flange IP67                        |
| Physical constants          |                               | Design acc. to Code I    | IM B5 (IM V1, IM V3)                           |
| Torque constant             | 1.41 Nm/A                     | Temperature monitoring   | KTY84 temperature sensor in the stator winding |
| Voltage constant at 20° C   | 90.0 V/1000*min <sup>-1</sup> | Electrical connectors    | Connectors for signals and power rotatable     |
| Winding resistance at 20° C | 0.15 Ω                        | Color of the housing     | without                                        |
| Rotating field inductance   | 3.0 mH                        | Holding brake            | without holding brake                          |
| Electrical time constant    | 20.00 ms                      | Shaft end                | Feather key                                    |
| Mechanical time constant    | 1.80 ms                       | Encoder system           | Resolver 2-pole                                |
| Thermal time constant       | 60 min                        |                          |                                                |
| Shaft torsional stiffness   | 165000 Nm/rad                 |                          |                                                |
| Net weight of the motor     | 21.0 kg                       |                          |                                                |

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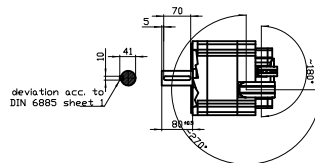
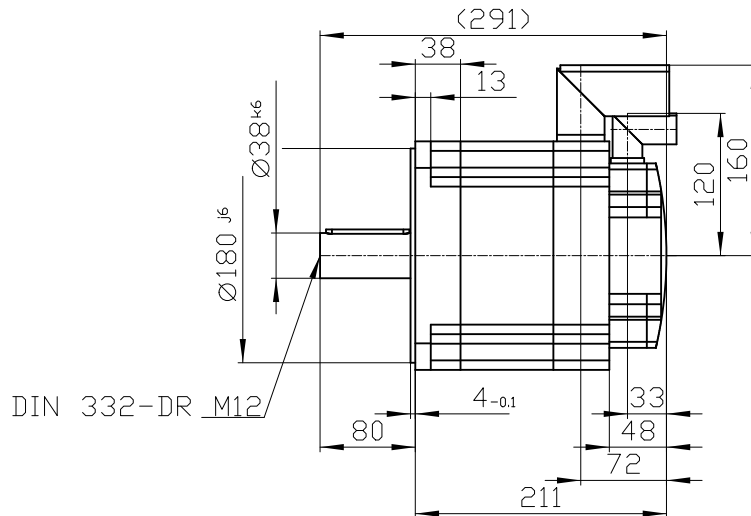
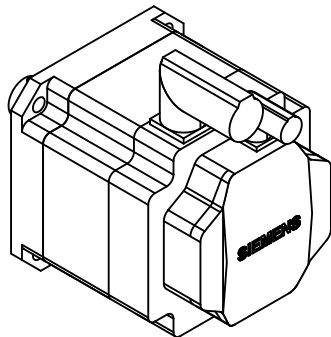
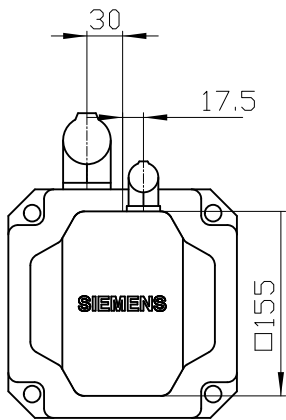
| Optimum operating point           |          | Recommended Motor Module |          |
|-----------------------------------|----------|--------------------------|----------|
| Optimum speed                     | 3000 rpm | Rated inverter current   | 18 A     |
| Optimum power                     | 4.9 kW   | Maximum inverter current | 36 A     |
| Limiting data                     |          | Maximum torque           | 51.00 Nm |
| Max. permissible speed (mech.)    | 5000 rpm |                          |          |
| Max. permissible speed (inverter) | 6400 rpm |                          |          |
| Maximum torque                    | 80.0 Nm  |                          |          |
| Maximum current                   | 63.0 A   |                          |          |

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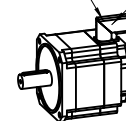
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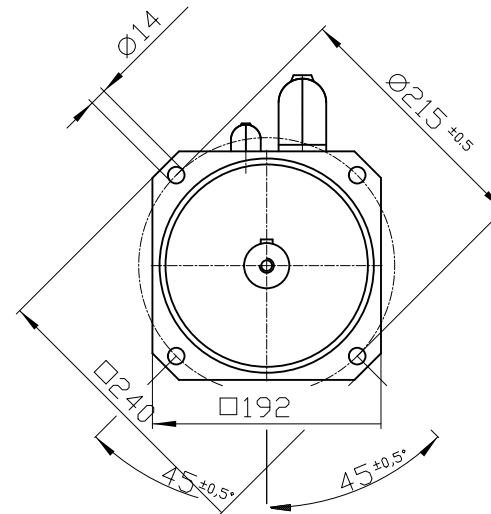
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Connector size 1.5 = M40;  
6-pole for power and brake



Connector size M23, 12-pole



|            |          |                    |
|------------|----------|--------------------|
|            | -        |                    |
|            | -        |                    |
| Unit       | mm [in]  | 1FK7101-5AF71-1TA2 |
| Date       | 12/22/22 |                    |
| SIEMENS AG |          | -                  |
| -          |          | DT                 |