

Article No. : 1FK7040-5AK71-1UA5-Z  
X01

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

Item no. :  
Consignment no. :  
Project :

Figure similar

| Engineering data      |             |
|-----------------------|-------------|
| Rated speed (100 K)   | 6,000 rpm   |
| Number of poles       | 8           |
| Rated torque (100 K)  | 1.1 Nm      |
| Rated current         | 1.7 A       |
| Static torque (60 K)  | 1.30 Nm     |
| Static torque (100 K) | 1.60 Nm     |
| Stall current (60 K)  | 1.80 A      |
| Stall current (100 K) | 2.25 A      |
| Moment of inertia     | 1.690 kgcm² |
| Efficiency            | 88.0 %      |

| Physical constants          |                               |
|-----------------------------|-------------------------------|
| Torque constant             | 0.68 Nm/A                     |
| Voltage constant at 20° C   | 43.0 V/1000*min <sup>-1</sup> |
| Winding resistance at 20° C | 3.30 Ω                        |
| Rotating field inductance   | 17.0 mH                       |
| Electrical time constant    | 5.15 ms                       |
| Mechanical time constant    | 3.62 ms                       |
| Thermal time constant       | 25 min                        |
| Shaft torsional stiffness   | 19,000 Nm/rad                 |
| Net weight of the motor     | 3.5 kg                        |

| Mechanical data          |                                                                          |
|--------------------------|--------------------------------------------------------------------------|
| Motor type               | Permanent-magnet synchronous motor                                       |
| Motor type               | Compact                                                                  |
| Shaft height             | 48                                                                       |
| Cooling                  | Natural cooling                                                          |
| Radial runout tolerance  | 0.040 mm                                                                 |
| Concentricity tolerance  | 0.08 mm                                                                  |
| Axial runout tolerance   | 0.08 mm                                                                  |
| Vibration severity grade | Grade A                                                                  |
| Connector size           | 1                                                                        |
| Degree of protection     | IP65 and DE flange IP67                                                  |
| Design acc. to Code I    | IM B5 (IM V1, IM V3)                                                     |
| Temperature monitoring   | KTY84 temperature sensor in the stator winding                           |
| Electrical connectors    | Connectors for signals and power rotatable                               |
| Color of the housing     | Jet black, matt RAL 9005                                                 |
| Holding brake            | without holding brake                                                    |
| Shaft end                | Feather key                                                              |
| Encoder system           | Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole) |

| Optimum operating point |           |
|-------------------------|-----------|
| Optimum speed           | 6,000 rpm |
| Optimum power           | 0.7 kW    |

| Limiting data                     |           |
|-----------------------------------|-----------|
| Max. permissible speed (mech.)    | 9,000 rpm |
| Max. permissible speed (inverter) | 9,990 rpm |
| Maximum torque                    | 5.1 Nm    |
| Maximum current                   | 7.7 A     |

| Recommended Motor Module |         |
|--------------------------|---------|
| Rated inverter current   | 3 A     |
| Maximum inverter current | 6 A     |
| Maximum torque           | 4.10 Nm |

| Special design |                                        |
|----------------|----------------------------------------|
| X01            | Paint finish: Jet black, matt RAL 9005 |