



Figure similar

Article No. : 1FK7034-2AK71-1CB0-Z  
N05

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

Item no. :  
Consignment no. :  
Project :

| Engineering data      |             |
|-----------------------|-------------|
| Rated speed (100 K)   | 6,000 rpm   |
| Number of poles       | 6           |
| Rated torque (100 K)  | 1.0 Nm      |
| Rated current         | 1.3 A       |
| Static torque (60 K)  | 1.35 Nm     |
| Static torque (100 K) | 1.60 Nm     |
| Stall current (60 K)  | 1.55 A      |
| Stall current (100 K) | 1.90 A      |
| Moment of inertia     | 1.000 kgcm² |
| Efficiency            | 88.0 %      |

| Physical constants          |                               |
|-----------------------------|-------------------------------|
| Torque constant             | 0.84 Nm/A                     |
| Voltage constant at 20° C   | 55.0 V/1000*min <sup>-1</sup> |
| Winding resistance at 20° C | 4.46 Ω                        |
| Rotating field inductance   | 17.2 mH                       |
| Electrical time constant    | 3.85 ms                       |
| Mechanical time constant    | 1.71 ms                       |
| Thermal time constant       | 30 min                        |
| Shaft torsional stiffness   | 3,750 Nm/rad                  |
| Net weight of the motor     | 3.9 kg                        |

| Mechanical data          |                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor type               | Permanent-magnet synchronous motor                                                                                                                  |
| Motor type               | Compact                                                                                                                                             |
| Shaft height             | 36                                                                                                                                                  |
| Cooling                  | Natural cooling                                                                                                                                     |
| Radial runout tolerance  | 0.035 mm                                                                                                                                            |
| Concentricity tolerance  | 0.08 mm                                                                                                                                             |
| Axial runout tolerance   | 0.08 mm                                                                                                                                             |
| Vibration severity grade | Grade A                                                                                                                                             |
| Connector size           | 1                                                                                                                                                   |
| Degree of protection     | IP64                                                                                                                                                |
| 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            | with holding brake                                                                                                                                  |
| Shaft end                | Feather key                                                                                                                                         |
| Encoder system           | Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions) |

| Optimum operating point |           |
|-------------------------|-----------|
| Optimum speed           | 6,000 rpm |
| Optimum power           | 0.6 kW    |

| Limiting data                     |            |
|-----------------------------------|------------|
| Max. permissible speed (mech.)    | 10,000 rpm |
| Max. permissible speed (inverter) | 10,000 rpm |
| Maximum torque                    | 6.5 Nm     |
| Maximum current                   | 8.0 A      |

| Holding brake         |                        |
|-----------------------|------------------------|
| Holding brake version | Permanent-magnet brake |
| Holding torque        | 1.9 Nm                 |
| Power supply voltage  | DC 24 V ± 10 %         |
| Coil current          | 0.3 A                  |
| Opening time          | 50 ms                  |
| Closing time          | 30 ms                  |
| Highest braking work  | 40 J                   |

| Recommended Motor Module |         |
|--------------------------|---------|
| Rated inverter current   | 3 A     |
| Maximum inverter current | 9 A     |
| Maximum torque           | 6.50 Nm |

| Special design |                                                        |
|----------------|--------------------------------------------------------|
| N05            | Non-standard shaft end (dimensions as for 1FT5 motors) |