



Figure similar

MLFB-Ordering data

1FK7042-2AC71-1PG0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

| Engineering data            |                                | Mechanical data          |  |
|-----------------------------|--------------------------------|--------------------------|--|
| Rated speed (100 K)         | 2000 rpm                       | Motor type               | Permanent-magnet synchronous motor                                   |
| Number of poles             | 8                              | Motor type               | Compact  |
| Rated torque (100 K)        | 2.8 Nm                         | Shaft height             | 48   |
| Rated current               | 1.6 A                          | Cooling                  | Natural cooling  |
| Static torque (60 K)        | 2.50 Nm                        | Radial runout tolerance  | 0.040 mm   |
| Static torque (100 K)       | 3.0 Nm                         | Concentricity tolerance  | 0.08 mm  |
| Stall current (60 K)        | 1.30 A                         | Axial runout tolerance   | 0.08 mm  |
| Stall current (100 K)       | 1.61 A                         | Vibration severity grade | Grade A  |
| Moment of inertia           | 2.900 kgcm <sup>2</sup>        | Connector size           | 1  |
| Efficiency                  | 88.0 %                         | Degree of protection     | IP64   |
| Physical constants          |                                | Design acc. to Code I    | IM B5 (IM V1, IM V3)   |
| Torque constant             | 1.86 Nm/A                      | Temperature monitoring   | Pt1000 temperature sensor  |
| Voltage constant at 20° C   | 122.0 V/1000*min <sup>-1</sup> | Electrical connectors    | Connectors for signals and power rotatable                           |
| Winding resistance at 20° C | 8.60 Ω                         | Color of the housing     | Standard (Anthracite RAL 7016)                                       |
| Rotating field inductance   | 64.0 mH                        | Holding brake            | without holding brake  |
| Electrical time constant    | 7.40 ms                        | Shaft extension          | Plain shaft  |
| Mechanical time constant    | 2.15 ms                        | Encoder system           | Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole) |
| Thermal time constant       | 30 min                         |                          |  |
| Shaft torsional stiffness   | 15500 Nm/rad                   |                          |  |
| Net weight of the motor     | 4.6 kg                         |                          |  |



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| Optimum operating point           |          | Recommended Motor Module |          |
|-----------------------------------|----------|--------------------------|----------|
| Optimum speed                     | 2000 rpm | Rated inverter current   | 3 A      |
| Optimum power                     | 0.6 kW   | Maximum inverter current | 9 A      |
| Limiting data                     |          | Maximum torque           | 10.50 Nm |
| Max. permissible speed (mech.)    | 9000 rpm |                          |          |
| Max. permissible speed (inverter) | 4750 rpm |                          |          |
| Maximum torque                    | 10.5 Nm  |                          |          |
| Maximum current                   | 5.6 A    |                          |          |