

### MLFB-Ordering data

1FK7103-5AF71-1DU5-Z  
D66+G31+H11+X02



Figure similar

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)        | 14.0 Nm                       | Shaft height             | 100                                                                                                                        |
| Rated current               | 12.0 A                        | Cooling                  | Natural cooling                                                                                                            |
| Static torque (60 K)        | 30.00 Nm                      | Radial runout tolerance  | 0.050 mm                                                                                                                   |
| Static torque (100 K)       | 36.0 Nm                       | Concentricity tolerance  | 0.10 mm                                                                                                                    |
| Stall current (60 K)        | 22.80 A                       | Axial runout tolerance   | 0.10 mm                                                                                                                    |
| Stall current (100 K)       | 27.50 A                       | Vibration severity grade | Grade A                                                                                                                    |
| Moment of inertia           | 105.000 kgcm <sup>2</sup>     | Connector size           | 1.5                                                                                                                        |
| Physical constants          |                               | Degree of protection     | IP65 and DE flange IP67                                                                                                    |
| Torque constant             | 1.35 Nm/A                     | Design acc. to Code I    | IM B5 (IM V1, IM V3)                                                                                                       |
| Voltage constant at 20° C   | 86.0 V/1000*min <sup>-1</sup> | Temperature monitoring   | KTY84 temperature sensor in the stator winding                                                                             |
| Winding resistance at 20° C | 0.09 Ω                        | Electrical connectors    | Connectors for signals and power rotatable                                                                                 |
| Rotating field inductance   | 2.0 mH                        | Color of the housing     | Cream RAL 9001                                                                                                             |
| Electrical time constant    | 22.20 ms                      | Holding brake            | without holding brake                                                                                                      |
| Mechanical time constant    | 1.55 ms                       | Shaft end                | Fitted key and keyway                                                                                                      |
| Thermal time constant       | 65 min                        | Encoder system           | Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits |
| Shaft torsional stiffness   | 149000 Nm/rad                 |                          |                                                                                                                            |
| Net weight of the motor     | 116.5 kg                      |                          |                                                                                                                            |
| Recommended Motor Module    |                               |                          |                                                                                                                            |
| Rated inverter current      | 30 A                          |                          |                                                                                                                            |
| Maximum inverter current    | 56 A                          |                          |                                                                                                                            |
| Maximum torque              | 73.00 Nm                      |                          |                                                                                                                            |

MLFB-Ordering data1FK7103-5AF71-1DU5-Z  
D66+G31+H11+X02



Figure similar

| Gearbox data                             |                |                            |                                           |
|------------------------------------------|----------------|----------------------------|-------------------------------------------|
| Gearbox type                             | Helical geared | Overload factor            | 3.40                                      |
| Designation                              | C612           | Type of construction       | IM B3 / IM B5 / IM B14 / IM B34 / IM B35  |
| Gearbox ratio                            | 35             | Mounting position          | no value                                  |
| Output speed at the gearbox shaft        | 72 rpm         | Connector position         | Connector position on gearbox side 2, top |
| Rated output torque at duty type S3-60 % | 694 Nm         | Type                       | Flange (round)                            |
| Acceleration torque max.                 | 1380 Nm        | Gearbox shaft end          | Solid shaft with fitted key               |
| Power at duty type S3-60%                | 5.23 kW        | Gearbox output arrangement | no value                                  |
| Radial output shaft loading, max.        | 9838 N         | Arrangement of shrink disk | no value                                  |
| Precise ratio                            | 1360/39        |                            |                                           |

| Limiting data                     |          |
|-----------------------------------|----------|
| Max. permissible speed (mech.)    | 5000 rpm |
| Max. permissible speed (inverter) | 6700 rpm |
| Maximum torque                    | 108.0 Nm |
| Maximum current                   | 84.0 A   |

| Special design |                                                                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| D66            | Helical geared motors                                                                                                                          |
| G31            | Flange (round), Solid shaft with fitted key (Plug-in gearbox side 5 for parallel shaft gearboxes; plug-in side 4 for bevel and worm gearboxes) |
| H11            | Connector position on gearbox side 2, top                                                                                                      |
| X02            | Paint finish: Cream white RAL 9001                                                                                                             |