



Figure similar

### MLFB-Ordering data

**1FK7060-2AF71-1CH1-Z**  
J09

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)     | 4.7 Nm                   | Shaft height             | 63                                                                                                                                                  |
| Rated current            | 3.7 A                    | Cooling                  | Natural cooling                                                                                                                                     |
| Static torque (60 K)     | 5.00 Nm                  | Radial runout tolerance  | 0.040 mm                                                                                                                                            |
| Static torque (100 K)    | 6.0 Nm                   | Concentricity tolerance  | 0.10 mm                                                                                                                                             |
| Stall current (60 K)     | 3.60 A                   | Axial runout tolerance   | 0.10 mm                                                                                                                                             |
| Stall current (100 K)    | 4.45 A                   | Vibration severity grade | Grade A                                                                                                                                             |
| Moment of inertia        | 10.770 kgcm <sup>2</sup> | Connector size           | 1                                                                                                                                                   |
| Physical constants       |                          | Degree of protection     | IP65                                                                                                                                                |
|                          |                          | 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                | Plain shaft                                                                                                                                         |
|                          |                          | Encoder system           | Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions) |
|                          |                          | Recommended Motor Module |                                                                                                                                                     |
|                          |                          |                          |                                                                                                                                                     |
|                          |                          |                          |                                                                                                                                                     |
| Rated inverter current   | 5 A                      |                          |                                                                                                                                                     |
| Maximum inverter current | 15 A                     |                          |                                                                                                                                                     |
| Maximum torque           | 18.00 Nm                 |                          |                                                                                                                                                     |



Figure similar

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| Gearbox data                             |                       |                                   |             |
|------------------------------------------|-----------------------|-----------------------------------|-------------|
| Gearbox type                             | Planetary gearbox SP+ | Moment of inertia of gearbox      | 2.070 kgcm² |
| Designation                              | SP 100S-MF1           | Radial output shaft loading, max. | 6600 N      |
| Gearbox shaft end                        | With feather key      | Axial output shaft load, max.     | 5650 N      |
| Gear ratio + steps                       | 10 (1-step)           | Efficiency of gearbox             | 0.97        |
| Motor speed S3-60 %                      | 5500 rpm              | Torsional backlash                | 3 '         |
| Motor speed S1                           | 2800 rpm              | Gearbox weight                    | 7.70 kg     |
| Output torque S1                         | 174 Nm                |                                   |             |
| Rated output torque at duty type S3-60 % | 282 Nm                |                                   |             |

| Limiting data                     |          |
|-----------------------------------|----------|
| Max. permissible speed (mech.)    | 7200 rpm |
| Max. permissible speed (inverter) | 6700 rpm |
| Maximum torque                    | 18.0 Nm  |
| Maximum current                   | 15.0 A   |

| Holding brake         |                        |
|-----------------------|------------------------|
| Holding brake version | Permanent-magnet brake |
| Holding torque        | 13.0 Nm                |
| Power supply voltage  | DC 24 V ± 10 %         |
| Coil current          | 0.8 A                  |
| Opening time          | 100 ms                 |
| Closing time          | 50 ms                  |
| Highest braking work  | 380 J                  |

| Special design |                                   |
|----------------|-----------------------------------|
| J09            | Mounting of SP+ planetary gearbox |