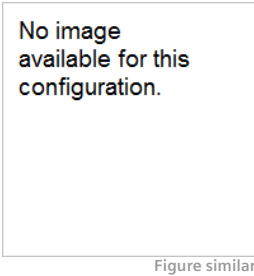


Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data 1FK7063-5AF71-1EA3



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)        | 7.3 Nm                        | Shaft height             | 63                                                                                              |
| Rated current               | 5.6 A                         | Cooling                  | Natural cooling                                                                                 |
| Static torque (60 K)        | 9.10 Nm                       | Radial runout tolerance  | 0.040 mm                                                                                        |
| Static torque (100 K)       | 11.00 Nm                      | Concentricity tolerance  | 0.10 mm                                                                                         |
| Stall current (60 K)        | 6.60 A                        | Axial runout tolerance   | 0.10 mm                                                                                         |
| Stall current (100 K)       | 8.00 A                        | Vibration severity grade | Grade A                                                                                         |
| Moment of inertia           | 15.100 kgcm²                  | Connector size           | 1                                                                                               |
| Efficiency                  | 91.0 %                        | Degree of protection     | IP64                                                                                            |
| Physical constants          |                               | Design acc. to Code I    | IM B5 (IM V1, IM V3)                                                                            |
| Torque constant             | 1.37 Nm/A                     | Temperature monitoring   | KTY84 temperature sensor in the stator winding                                                  |
| Voltage constant at 20° C   | 87.5 V/1000*min <sup>-1</sup> | Electrical connectors    | Connectors for signals and power rotatable                                                      |
| Winding resistance at 20° C | 0.65 Ω                        | Color of the housing     | Standard (Anthracite RAL 7016)                                                                  |
| Rotating field inductance   | 7.7 mH                        | Holding brake            | without holding brake                                                                           |
| Electrical time constant    | 11.80 ms                      | Shaft end                | Feather key                                                                                     |
| Mechanical time constant    | 1.56 ms                       | Encoder system           | Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface |
| Thermal time constant       | 40 min                        |                          |                                                                                                 |
| Shaft torsional stiffness   | 35000 Nm/rad                  |                          |                                                                                                 |
| Net weight of the motor     | 11.5 kg                       |                          |                                                                                                 |

MLFB-Ordering data                      1FK7063-5AF71-1EA3

| Optimum operating point           |          | Recommended Motor Module |          |
|-----------------------------------|----------|--------------------------|----------|
| Optimum speed                     | 3000 rpm | Rated inverter current   | 9 A      |
| Optimum power                     | 2.3 kW   | Maximum inverter current | 18 A     |
| Limiting data                     |          | Maximum torque           | 24.50 Nm |
| Max. permissible speed (mech.)    | 7200 rpm |                          |          |
| Max. permissible speed (inverter) | 6600 rpm |                          |          |
| Maximum torque                    | 35.0 Nm  |                          |          |
| Maximum current                   | 28.0 A   |                          |          |