

## Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7064-4CC74-1EA0



Figure similar

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             | 6                             | Motor type               | High Dynamic  |
| Rated torque (100 K)        | 10.0 Nm                       | Shaft height             | 63  |
| Rated current               | 7.1 A                         | Cooling                  | Natural cooling   |
| Static torque (60 K)        | 10.00 Nm                      | Radial runout tolerance  | 0.040 mm  |
| Static torque (100 K)       | 12.0 Nm                       | Concentricity tolerance  | 0.10 mm   |
| Stall current (60 K)        | 6.60 A                        | Axial runout tolerance   | 0.10 mm   |
| Stall current (100 K)       | 8.10 A                        | Vibration severity grade | Grade A   |
| Moment of inertia           | 7.500 kgcm <sup>2</sup>       | Connector size           | 1   |
| Efficiency                  | 93.0 %                        | Degree of protection     | IP64  |
| Physical constants          |                               | Design acc. to Code I    | IM B5 (IM V1, IM V3)  |
| Torque constant             | 1.48 Nm/A                     | Temperature monitoring   | Pt1000 temperature sensor   |
| Voltage constant at 20° C   | 94.0 V/1000*min <sup>-1</sup> | Electrical connectors    | Connectors for signals and power rotatable  |
| Winding resistance at 20° C | 0.58 Ω                        | Color of the housing     | Standard (Anthracite RAL 7016)  |
| Rotating field inductance   | 21.5 mH                       | Holding brake            | without holding brake   |
| Electrical time constant    | 37.00 ms                      | Shaft extension          | Feather key   |
| Mechanical time constant    | 0.60 ms                       | Encoder system           | Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface |
| Thermal time constant       | 55 min                        |                          |   |
| Shaft torsional stiffness   | 29500 Nm/rad                  |                          |   |
| Net weight of the motor     | 15.4 kg                       |                          |   |



Figure similar

MLFB-Ordering data

1FK7064-4CC74-1EA0

| Optimum operating point           |          | Recommended Motor Module |          |
|-----------------------------------|----------|--------------------------|----------|
| Optimum speed                     | 2000 rpm | Rated inverter current   | 9 A      |
| Optimum power                     | 2.1 kW   | Maximum inverter current | 27 A     |
| Limiting data                     |          | Maximum torque           | 32.00 Nm |
| Max. permissible speed (mech.)    | 7500 rpm |                          |          |
| Max. permissible speed (inverter) | 6150 rpm |                          |          |
| Maximum torque                    | 32.0 Nm  |                          |          |
| Maximum current                   | 25.0 A   |                          |          |