

Data sheet for SIMOTICS S-1FK2

Article No. : 1FK2204-5AK10-2MB0

Client order no. :  
Order no. :  
Offer no. :  
Remarks :



Figure similar

Item no. :  
Consignment no. :  
Project :

| Basic motor data        |                                                           |
|-------------------------|-----------------------------------------------------------|
| Motor type              | Permanent-magnet synchronous motor, Natural cooling, IP64 |
| Motor type              | Compact                                                   |
| Static torque           | 2.40 Nm                                                   |
| Static current          | 4.4 A                                                     |
| Maximum torque          | 7.10 Nm                                                   |
| Maximum current         | 14.2 A                                                    |
| Maximum speed           | 8,000 rpm                                                 |
| Rotor moment of inertia | 1.3100 kgcm <sup>2</sup>                                  |
| Weight                  | 3.8 kg                                                    |

| Rated data                      |           |
|---------------------------------|-----------|
| SINAMICS S120, BLM/SLM 3AC 400V |           |
| Rated speed                     | 6,000 rpm |
| Rated torque                    | 0.90 Nm   |
| Rated current                   | 2.0 A     |
| Rated power                     | 0.57 kW   |

| Encoder system |                                                             |
|----------------|-------------------------------------------------------------|
| Encoder system | Encoder AM22DQC: Absolute encoder 22 bit + 12 bit multiturn |

| Motor connection                |                                  |
|---------------------------------|----------------------------------|
| Connection type                 | Double cable connection for S120 |
| Connector size power connector  | M17                              |
| Connector size signal connector | M17                              |

| Mechanical data               |                                            |
|-------------------------------|--------------------------------------------|
| Design acc. to Code I         | IM B5 (IM V1, IM V3)                       |
| Vibration severity grade      | Grade A                                    |
| Shaft height                  | 40                                         |
| Flange size (AB)              | 80 mm                                      |
| Centering ring (N)            | 70 mm                                      |
| Hole circle (M)               | 90 mm                                      |
| Screw-on hole (S)             | 6.5 mm                                     |
| Overall length (LB)           | 170 mm                                     |
| Diameter of shaft (D)         | 14 mm                                      |
| Length of shaft (E)           | 30 mm                                      |
| Length of flange diagonal (P) | 105 mm                                     |
| Shaft end                     | Plain shaft                                |
| Color of the housing          | Standard (Anthracite, similar to RAL 7016) |



| Holding brake                                 |          |
|-----------------------------------------------|----------|
| Holding torque                                | 3.30 Nm  |
| Average dynamic torque                        | 3.30 Nm  |
| Opening time                                  | 110 ms   |
| Closing time                                  | 40 ms    |
| Maximum single switching energy <sup>1)</sup> | 270 J    |
| Service life, operating energy                | 35,000 J |
| Rated current <sup>2)</sup>                   | 0.5 A    |

<sup>1)</sup>Up to three consecutive emergency stops and up to 25% of all emergency stops as a Wmax high energy stop possible.  
<sup>2)</sup>Typical value for 20°C ambient temperature. At -15°C the brake-induced currents can be increased by up to 30%.