

## Data sheet for SIMOTICS S-1FK2

Article No. : 1FK2104-5AK10-1MA0



Figure similar

Client order no. :  
Order no. :  
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Item no. :  
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### Basic motor data

|                         |   |
|-------------------------|---|
| Motor type              | Permanent-magnet synchronous motor, Natural cooling, IP64 |
| Motor type              | High Dynamic  |
| Static torque           | 2.40 Nm   |
| Static current          | 4.4 A   |
| Maximum torque          | 7.60 Nm   |
| Maximum current         | 16.0 A  |
| Maximum speed           | 8,000 rpm   |
| Rotor moment of inertia | 0.6500 kgcm <sup>2</sup>                                  |
| Weight                  | 3.7 kg  |

### Rated data

SINAMICS S210, 3AC 400V

|               |           |
|---------------|-----------|
| Rated speed   | 6,000 rpm |
| Rated torque  | 1.70 Nm   |
| Rated current | 3.2 A     |
| Rated power   | 1.07 kW   |

### Encoder system

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

### Motor connection

|                    |              |
|--------------------|--------------|
| Connection type    | OCC for S210 |
| Connector size OCC | 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)         | 19 mm                                      |
| Length of shaft (E)           | 40 mm                                      |
| Length of flange diagonal (P) | 105 mm                                     |
| Shaft end                     | Fitted key                                 |
| 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                                   | 50 ms     |
| Closing time                                   | 40 ms     |
| Maximum single switching energy <sup>1)</sup>  | 270 J     |
| Service life, operating energy                 | 120,000 J |
| Holding current <sup>2)</sup>                  | 0.2 A     |
| Break-induced current for 500 ms <sup>2)</sup> | 1.2 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 break-induced currents can be increased by up to 30%.