

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7032-2AF21-1UA0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K) 3000 rpm

Number of poles 6

Rated torque (100 K) 1.0 Nm

Rated current 1.6 A

Static torque (60 K) 0.95 Nm

Static torque (100 K) 1.1 Nm

Stall current (60 K) 1.40 A

Stall current (100 K) 1.70 A

Moment of inertia 0.650 kgcm<sup>2</sup>

Efficiency 85.0 %

### Physical constants

Torque constant 0.67 Nm/A

Voltage constant at 20° C 45.0 V/1000\*min<sup>-1</sup>

Winding resistance at 20° C 5.05 Ω

Rotating field inductance 17.3 mH

Electrical time constant 3.45 ms

Mechanical time constant 2.20 ms

Thermal time constant 25 min

Shaft torsional stiffness 6000 Nm/rad

Net weight of the motor 2.7 kg

### Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

Shaft height 36

Cooling Natural cooling

Radial runout tolerance 0.035 mm

Concentricity tolerance 0.08 mm

Axial runout tolerance 0.08 mm

Vibration severity grade Grade A

Connector size 1

Degree of protection IP64

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 without holding brake

Shaft end Feather key

Encoder system Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)



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### Optimum operating point

Optimum speed 3000 rpm

Optimum power 0.3 kW

### Limiting data

Max. permissible speed (mech.) 10000 rpm

Max. permissible speed (inverter) 6400 rpm

Maximum torque 4.5 Nm

Maximum current 7.0 A

### Recommended Motor Module

Rated inverter current 2 A

Maximum inverter current 5 A

Maximum torque 3.00 Nm