

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7060-2AF71-1UG0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K) 3000 rpm

Number of poles 8

Rated torque (100 K) 4.7 Nm

Rated current 3.7 A

Static torque (60 K) 5.00 Nm

Static torque (100 K) 6.0 Nm

Stall current (60 K) 3.60 A

Stall current (100 K) 4.45 A

Moment of inertia 7.700 kgcm<sup>2</sup>

Efficiency 90.0 %

### Physical constants

Torque constant 1.33 Nm/A

Voltage constant at 20° C 85.5 V/1000\*min<sup>-1</sup>

Winding resistance at 20° C 1.35 Ω

Rotating field inductance 15.2 mH

Electrical time constant 11.30 ms

Mechanical time constant 1.71 ms

Thermal time constant 30 min

Shaft torsional stiffness 40500 Nm/rad

Net weight of the motor 7.1 kg

### Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

Shaft height 63

Cooling Natural cooling

Radial runout tolerance 0.040 mm

Concentricity tolerance 0.10 mm

Axial runout tolerance 0.10 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 Plain shaft

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



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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	5 A
Optimum power	1.5 kW	Maximum inverter current	15 A
Limiting data		Maximum torque	18.00 Nm
Max. permissible speed (mech.)	7200 rpm		
Max. permissible speed (inverter)	6700 rpm		
Maximum torque	18.0 Nm		
Maximum current	15.0 A		