

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7064-4CH71-1QG0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K) 4500 rpm

Number of poles 6

Rated torque (100 K) 5.0 Nm

Rated current 7.0 A

Static torque (60 K) 10.00 Nm

Static torque (100 K) 12.00 Nm

Stall current (60 K) 12.20 A

Stall current (100 K) 15.00 A

Moment of inertia 7.500 kgcm<sup>2</sup>

Efficiency 93.0 %

### Physical constants

Torque constant 0.80 Nm/A

Voltage constant at 20° C 50.5 V/1000\*min<sup>-1</sup>

Winding resistance at 20° C 0.17 Ω

Rotating field inductance 6.2 mH

Electrical time constant 36.50 ms

Mechanical time constant 0.60 ms

Thermal time constant 55 min

Shaft torsional stiffness 29500 Nm/rad

Net weight of the motor 15.4 kg

### Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type High Dynamic

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 Encoder AS20DQI: absolute encoder single-turn 20 bits



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Optimum operating point		Recommended Motor Module	
Optimum speed	3500 rpm	Rated inverter current	18 A
Optimum power	2.8 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	32.00 Nm
Max. permissible speed (mech.)	7500 rpm		
Max. permissible speed (inverter)	7500 rpm		
Maximum torque	32.0 Nm		
Maximum current	46.0 A		