

## Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7085-4CC71-1UG1



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K) 2000 rpm

Number of poles 8

Rated torque (100 K) 15.0 Nm

Rated current 10.0 A

Static torque (60 K) 18.30 Nm

Static torque (100 K) 22.00 Nm

Stall current (60 K) 10.90 A

Stall current (100 K) 13.50 A

Moment of inertia 22.000 kgcm<sup>2</sup>

Efficiency 92.0 %

### Physical constants

Torque constant 1.63 Nm/A

Voltage constant at 20° C 105.0 V/1000\*min<sup>-1</sup>

Winding resistance at 20° C 0.31 Ω

Rotating field inductance 9.8 mH

Electrical time constant 31.50 ms

Mechanical time constant 0.77 ms

Thermal time constant 45 min

Shaft torsional stiffness 84000 Nm/rad

Net weight of the motor 23.0 kg

### Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type High Dynamic

Shaft height 80

Cooling Natural cooling

Radial runout tolerance 0.050 mm

Concentricity tolerance 0.10 mm

Axial runout tolerance 0.10 mm

Vibration severity grade Grade A

Connector size 1

Degree of protection IP65

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)



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	18 A
Optimum power	3.1 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	65.00 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5500 rpm		
Maximum torque	65.0 Nm		
Maximum current	51.0 A		