

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7022-5AK74-1HA5

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K) 6000 rpm

Number of poles 6

Rated torque (100 K) 0.6 Nm

Rated current 1.4 A

Static torque (60 K) 0.70 Nm

Static torque (100 K) 0.8 Nm

Stall current (60 K) 1.50 A

Stall current (100 K) 1.80 A

Moment of inertia 0.280 kgcm<sup>2</sup>

Efficiency 86.0 %

### Physical constants

Torque constant 0.46 Nm/A

Voltage constant at 20° C 29.0 V/1000\*min<sup>-1</sup>

Winding resistance at 20° C 4.20 Ω

Rotating field inductance 9.1 mH

Electrical time constant 2.20 ms

Mechanical time constant 1.70 ms

Thermal time constant 18 min

Shaft torsional stiffness 3000 Nm/rad

Net weight of the motor 1.8 kg

### Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

Shaft height 28

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 IP65 and DE flange IP67

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 Encoder AM512S/R: absolute encoder 512 S/R, 4096 revolutions multi-turn, with EnDat interface



Figure similar

MLFB-Ordering data

1FK7022-5AK74-1HA5

Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	3 A
Optimum power	0.4 kW	Maximum inverter current	6 A
Limiting data		Maximum torque	2.65 Nm
Max. permissible speed (mech.)	10000 rpm		
Max. permissible speed (inverter)	10000 rpm		
Maximum torque	3.4 Nm		
Maximum current	8.0 A		