

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7081-2AC71-1PA2

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) 10.0 Nm

Rated current 4.4 A

Static torque (60 K) 10.00 Nm

Static torque (100 K) 12.00 Nm

Stall current (60 K) 4.05 A

Stall current (100 K) 5.00 A

Moment of inertia 20.000 kgcm²

Efficiency 93.0 %

Physical constants

Torque constant 2.40 Nm/A

Voltage constant at 20° C 154.5 V/1000*min⁻¹

Winding resistance at 20° C 1.27 Ω

Rotating field inductance 23.5 mH

Electrical time constant 18.40 ms

Mechanical time constant 1.33 ms

Thermal time constant 45 min

Shaft torsional stiffness 109000 Nm/rad

Net weight of the motor 12.9 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

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 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 Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)



Figure similar

MLFB-Ordering data

1FK7081-2AC71-1PA2

Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	5 A
Optimum power	2.1 kW	Maximum inverter current	15 A
Limiting data		Maximum torque	33.30 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	3750 rpm		
Maximum torque	37.0 Nm		
Maximum current	17.2 A		