

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7101-2AC71-1BG1



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) 20.5 Nm

Rated current 9.7 A

Static torque (60 K) 22.50 Nm

Static torque (100 K) 27.0 Nm

Stall current (60 K) 10.00 A

Stall current (100 K) 12.30 A

Moment of inertia 79.000 kgcm²

Efficiency 93.0 %

Physical constants

Torque constant 2.15 Nm/A

Voltage constant at 20° C 144.5 V/1000*min⁻¹

Winding resistance at 20° C 0.34 Ω

Rotating field inductance 8.5 mH

Electrical time constant 25.00 ms

Mechanical time constant 1.62 ms

Thermal time constant 60 min

Shaft torsional stiffness 164000 Nm/rad

Net weight of the motor 23.0 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type Compact

Shaft height 100

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 1.5

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 extension Plain shaft

Encoder system Encoder AS24DQI: absolute encoder single-turn 24 bits



Figure similar

MLFB-Ordering data

1FK7101-2AC71-1BG1

Optimum operating point		Recommended Motor Module	
Optimum speed	2000 rpm	Rated inverter current	18 A
Optimum power	4.3 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	80.00 Nm
Max. permissible speed (mech.)	5000 rpm		
Max. permissible speed (inverter)	4000 rpm		
Maximum torque	80.0 Nm		
Maximum current	40.5 A		