

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7043-4CK71-1UA1



Figure similar

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) 2.0 Nm

Rated current 3.5 A

Static torque (60 K) 2.90 Nm

Static torque (100 K) 3.50 Nm

Stall current (60 K) 4.50 A

Stall current (100 K) 5.60 A

Moment of inertia 1.000 kgcm²

Efficiency 90.0 %

Physical constants

Torque constant 0.63 Nm/A

Voltage constant at 20° C 39.8 V/1000*min⁻¹

Winding resistance at 20° C 0.65 Ω

Rotating field inductance 7.4 mH

Electrical time constant 11.50 ms

Mechanical time constant 0.49 ms

Thermal time constant 40 min

Shaft torsional stiffness 11400 Nm/rad

Net weight of the motor 6.0 kg

Mechanical data

Motor type Permanent-magnet synchronous motor

Motor type High Dynamic

Shaft height 48

Cooling Natural cooling

Radial runout tolerance 0.040 mm

Concentricity tolerance 0.08 mm

Axial runout tolerance 0.08 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 Feather key

Encoder system Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)



Figure similar

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Optimum operating point

Optimum speed	6000 rpm
Optimum power	1.3 kW

Limiting data

Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	9000 rpm
Maximum torque	10.0 Nm
Maximum current	17.0 A

Recommended Motor Module

Rated inverter current	9 A
Maximum inverter current	27 A
Maximum torque	10.00 Nm