

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7063-5AF71-1UH0-Z
N05

No image
available for this
configuration.

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	7.3 Nm
Rated current	5.6 A
Static torque (60 K)	9.10 Nm
Static torque (100 K)	11.0 Nm
Stall current (60 K)	6.60 A
Stall current (100 K)	8.00 A
Moment of inertia	17.300 kgcm ²
Efficiency	91.0 %

Physical constants

Torque constant	1.37 Nm/A
Voltage constant at 20° C	87.5 V/1000*min ⁻¹
Winding resistance at 20° C	0.65 Ω
Rotating field inductance	7.7 mH
Electrical time constant	11.80 ms
Mechanical time constant	1.56 ms
Thermal time constant	40 min
Shaft torsional stiffness	35000 Nm/rad
Net weight of the motor	12.0 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	63
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1
Degree of protection	IP64
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	without
Holding brake	with holding brake
Shaft extension	Plain shaft
Encoder system	Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)

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Figure similar

Optimum operating point

Optimum speed	3000 rpm
Optimum power	2.3 kW

Limiting data

Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	6600 rpm
Maximum torque	35.0 Nm
Maximum current	28.0 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	13.0 Nm
Power supply voltage	DC 24 V \pm 10 %
Coil current	0.8 A
Opening time	100 ms
Closing time	50 ms
Highest braking work	380 J

Recommended Motor Module

Rated inverter current	9 A
Maximum inverter current	18 A
Maximum torque	24.50 Nm

Special design

N05 Non-standard shaft extension (dimensions as for 1FT5 motors)