

Data sheet for SIMOTICS S-1FK7

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MLFB-Ordering data

1FK7064-7AH71-1FB5

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K)	4500 rpm
Number of poles	6
Rated torque (100 K)	5.0 Nm
Rated current	7.0 A
Static torque (60 K)	9.00 Nm
Static torque (100 K)	12.0 Nm
Stall current (60 K)	12.0 A
Stall current (100 K)	15.0 A
Moment of inertia	6.840 kgcm ²
Efficiency	93.0 %

Physical constants

Torque constant	0.77 Nm/A
Voltage constant at 20° C	51.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.18 Ω
Rotating field inductance	5.6 mH
Electrical time constant	31.10 ms
Mechanical time constant	0.59 ms
Thermal time constant	55 min
Shaft torsional stiffness	30000 Nm/rad
Net weight of the motor	16.8 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
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	IP65 and DE flange IP67
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	Standard (Anthracite RAL 7016)
Holding brake	with holding brake
Shaft extension	Feather key
Encoder system	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

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Figure similar

Optimum operating point

Optimum speed 3500 rpm

Optimum power 2.8 kW

Limiting data

Max. permissible speed (mech.) 6000 rpm

Max. permissible speed (inverter) 11300 rpm

Maximum torque 32.0 Nm

Maximum current 42.0 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 18 A

Maximum inverter current 36 A

Maximum torque 28.20 Nm