

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7064-7AH71-1UA0

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)	12.00 A
Stall current (100 K)	15.00 A
Moment of inertia	6.500 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	15.5 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	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	without holding brake
Shaft extension	Feather key
Encoder system	Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)

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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

Recommended Motor Module

Rated inverter current 18 A

Maximum inverter current 36 A

Maximum torque 28.20 Nm