

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7064-4CH74-1SB0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	6	Motor type	High Dynamic
Rated torque (100 K)	5.0 Nm	Shaft height	63
Rated current	7.0 A	Cooling	Natural cooling
Static torque (60 K)	10.00 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	12.0 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	12.20 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	15.00 A	Vibration severity grade	Grade A
Moment of inertia	8.500 kgcm <sup>2</sup>	Connector size	1
Efficiency	93.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.80 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	50.5 V/1000*min <sup>-1</sup>	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.17 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	6.2 mH	Holding brake	with holding brake
Electrical time constant	36.50 ms	Shaft extension	Feather key
Mechanical time constant	0.60 ms	Encoder system	Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor)
Thermal time constant	55 min		
Shaft torsional stiffness	22500 Nm/rad		
Net weight of the motor	16.8 kg		



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### Optimum operating point

Optimum speed	3500 rpm
Optimum power	2.8 kW

### Limiting data

Max. permissible speed (mech.)	7500 rpm
Max. permissible speed (inverter)	7500 rpm
Maximum torque	32.0 Nm
Maximum current	46.0 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	54 A
Maximum torque	32.00 Nm