

## Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7064-4CF74-1TH0



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	6	Motor type	High Dynamic
Rated torque (100 K)	8.0 Nm	Shaft height	63
Rated current	7.6 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)	8.70 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	10.80 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	1.11 Nm/A	Temperature monitoring	Pt1000 temperature sensor
Voltage constant at 20° C	70.5 V/1000*min <sup>-1</sup>	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.35 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	12.0 mH	Holding brake	with holding brake
Electrical time constant	34.50 ms	Shaft extension	Plain shaft
Mechanical time constant	0.64 ms	Encoder system	Resolver 2-pole
Thermal time constant	55 min		
Shaft torsional stiffness	22500 Nm/rad		
Net weight of the motor	16.8 kg		



Figure similar

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### Optimum operating point

Optimum speed 3000 rpm

Optimum power 2.5 kW

### Limiting data

Max. permissible speed (mech.) 7500 rpm

Max. permissible speed (inverter) 7500 rpm

Maximum torque 32.0 Nm

Maximum current 33.0 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