

## Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7063-5AF71-1SA3-Z  
X01

No image  
available for this  
configuration.

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	8	Motor type	Compact
Rated torque (100 K)	7.3 Nm	Shaft height	63
Rated current	5.6 A	Cooling	Natural cooling
Static torque (60 K)	9.10 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	11.0 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	6.60 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	8.00 A	Vibration severity grade	Grade A
Moment of inertia	15.100 kgcm <sup>2</sup>	Connector size	1
Efficiency	91.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	1.37 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	87.5 V/1000*min <sup>-1</sup>	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.65 Ω	Color of the housing	Jet black, matt RAL 9005
Rotating field inductance	7.7 mH	Holding brake	without holding brake
Electrical time constant	11.80 ms	Shaft extension	Feather key
Mechanical time constant	1.56 ms	Encoder system	Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor)
Thermal time constant	40 min		
Shaft torsional stiffness	35000 Nm/rad		
Net weight of the motor	11.5 kg		

MLFB-Ordering data

1FK7063-5AF71-1SA3-Z  
X01

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

### Recommended Motor Module

Rated inverter current 9 A

Maximum inverter current 18 A

Maximum torque 24.50 Nm

### Special design

X01

Paint finish: Jet black, matt RAL 9005