

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data 1FK7063-2AF71-1EG0-Z
N16



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)	11.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	6.50 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	8.00 A	Vibration severity grade	Grade A
Moment of inertia	14.700 kgcm²	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	90.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.64 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	8.5 mH	Holding brake	without holding brake
Electrical time constant	13.40 ms	Shaft end	Plain shaft
Mechanical time constant	1.48 ms	Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
Thermal time constant	40 min		
Shaft torsional stiffness	34000 Nm/rad		
Net weight of the motor	11.1 kg		

MLFB-Ordering data 1FK7063-2AF71-1EG0-Z
N16

Optimum operating point

Optimum speed	3000 rpm
Optimum power	2.3 kW

Recommended Motor Module

Rated inverter current	9 A
Maximum inverter current	27 A
Maximum torque	34.00 Nm

Limiting data

Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	6400 rpm
Maximum torque	35.0 Nm
Maximum current	28.0 A

Special design

N16 Nickel plated connectors and paint varnish for increased chemical resistance