

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data 1FK7063-2AH71-1CH0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed (100 K)	4500 rpm
Number of poles	8
Rated torque (100 K)	3.0 Nm
Rated current	3.8 A
Static torque (60 K)	9.10 Nm
Static torque (100 K)	11.0 Nm
Stall current (60 K)	9.70 A
Stall current (100 K)	12.00 A
Moment of inertia	15.700 kgcm²
Efficiency	90.0 %
Physical constants	
Torque constant	0.92 Nm/A
Voltage constant at 20° C	60.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.29 Ω
Rotating field inductance	3.8 mH
Electrical time constant	13.20 ms
Mechanical time constant	1.51 ms
Thermal time constant	40 min
Shaft torsional stiffness	25000 Nm/rad
Net weight of the motor	12.5 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
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	Pt1000 temperature sensor
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	with holding brake
Shaft extension	Plain shaft
Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)



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Optimum operating point		Recommended Motor Module	
Optimum speed	3300 rpm	Rated inverter current	18 A
Optimum power	2.3 kW	Maximum inverter current	54 A
Limiting data		Maximum torque	35.00 Nm
Max. permissible speed (mech.)	7200 rpm		
Max. permissible speed (inverter)	7200 rpm		
Maximum torque	35.0 Nm		
Maximum current	42.0 A		
Holding brake			
Holding brake version	Permanent-magnet brake		
Holding torque	13.0 Nm		
Power supply voltage	DC 24 V ± 10 %		
Coil current	0.8 A		
Opening time	100 ms		
Closing time	50 ms		
Highest braking work	380 J		