

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7061-4CF71-1UG0

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)	5.4 Nm	Shaft height	63
Rated current	5.3 A	Cooling	Natural cooling
Static torque (60 K)	5.30 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	6.40 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	4.95 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	6.10 A	Vibration severity grade	Grade A
Moment of inertia	4.100 kgcm ²	Connector size	1
Efficiency	93.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	Pt1000 temperature sensor
Torque constant	1.05 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	67.5 V/1000*min ⁻¹	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	0.71 Ω	Holding brake	without holding brake
Rotating field inductance	22.0 mH	Shaft end	Plain shaft
Electrical time constant	31.00 ms	Encoder system	Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)
Mechanical time constant	0.79 ms		
Thermal time constant	45 min		
Shaft torsional stiffness	36500 Nm/rad		
Net weight of the motor	9.5 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	9 A
Optimum power	1.7 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	17.30 Nm
Max. permissible speed (mech.)	7500 rpm		
Max. permissible speed (inverter)	7500 rpm		
Maximum torque	17.3 Nm		
Maximum current	18.5 A		