

Data sheet for SIMOTICS S-1FK7



MLFB-Ordering data 1FK7060-2AH71-1TG2

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8		
Rated torque (100 K)	3.7 Nm	Motor type	Compact
Rated current	4.3 A	Shaft height	63
Static torque (60 K)	5.00 Nm	Cooling	Natural cooling
Static torque (100 K)	6.0 Nm	Radial runout tolerance	0.040 mm
Stall current (60 K)	5.10 A	Concentricity tolerance	0.10 mm
Stall current (100 K)	6.30 A	Axial runout tolerance	0.10 mm
Moment of inertia	7.700 kgcm²	Vibration severity grade	Grade A
Efficiency	90.0 %	Connector size	1
Physical constants		Degree of protection	IP65 and DE flange IP67
		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.95 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	60.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.69 Ω		
Rotating field inductance	7.6 mH	Color of the housing	Standard (Anthracite RAL 7016)
Electrical time constant	10.90 ms	Holding brake	without holding brake
Mechanical time constant	1.78 ms	Shaft extension	Plain shaft
Thermal time constant	30 min	Encoder system	Resolver 2-pole
Shaft torsional stiffness	40500 Nm/rad		
Net weight of the motor	7.1 kg		



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Optimum operating point		Recommended Motor Module	
Optimum speed	4500 rpm	Rated inverter current	9 A
Optimum power	1.7 kW	Maximum inverter current	27 A
Limiting data		Maximum torque	18.00 Nm
Max. permissible speed (mech.)	7200 rpm		
Max. permissible speed (inverter)	7200 rpm		
Maximum torque	18.0 Nm		
Maximum current	21.5 A		