

Data sheet for SIMOTICS S-1FK7

No image available for this configuration.

MLFB-Ordering data

1FK7044-7AH71-1PA0

Figure similar

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	6	Motor type	High Dynamic
Rated torque (100 K)	3.0 Nm	Shaft height	48
Rated current	4.9 A	Cooling	Natural cooling
Static torque (60 K)	3.00 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	4.0 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	4.60 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	6.30 A	Vibration severity grade	Grade A
Moment of inertia	1.280 kgcm ²	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	0.63 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	42.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.81 Ω	Color of the housing	without
Rotating field inductance	11.0 mH	Holding brake	without holding brake
Electrical time constant	13.50 ms	Shaft extension	Feather key
Mechanical time constant	0.78 ms	Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)
Thermal time constant	45 min		
Shaft torsional stiffness	9500 Nm/rad		
Net weight of the motor	7.7 kg		

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Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	4500 rpm	Rated inverter current	9 A
Optimum power	1.4 kW	Maximum inverter current	18 A
Limiting data		Maximum torque	11.00 Nm
Max. permissible speed (mech.)	8000 rpm		
Max. permissible speed (inverter)	13300 rpm		
Maximum torque	12.0 Nm		
Maximum current	20.0 A		