

Data sheet for SIMOTICS S-1FK7

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MLFB-Ordering data

1FK7043-7AH71-1EG0

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)	2.6 Nm	Shaft height	48
Rated current	4.0 A	Cooling	Natural cooling
Static torque (60 K)	2.50 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	3.1 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	3.60 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	4.50 A	Vibration severity grade	Grade A
Moment of inertia	1.010 kgcm ²	Connector size	1
Efficiency	90.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.67 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	44.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	1.20 Ω	Color of the housing	without
Rotating field inductance	15.0 mH	Holding brake	without holding brake
Electrical time constant	12.50 ms	Shaft extension	Plain shaft
Mechanical time constant	0.81 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	11000 Nm/rad		
Net weight of the motor	6.3 kg		

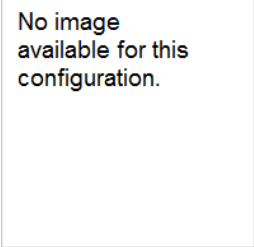


Figure similar

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Optimum operating point	
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Optimum speed	4500 rpm
Optimum power	1.2 kW

Limiting data	
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Max. permissible speed (mech.)	8000 rpm
Max. permissible speed (inverter)	13100 rpm
Maximum torque	9.4 Nm
Maximum current	14.8 A

Recommended Motor Module	
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Rated inverter current	5 A
Maximum inverter current	10 A
Maximum torque	6.80 Nm