

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7064-7AH71-1GG5

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K)	4500 rpm
Number of poles	6
Rated torque (100 K)	5.0 Nm
Rated current	7.0 A
Static torque (60 K)	9.00 Nm
Static torque (100 K)	12.0 Nm
Stall current (60 K)	12.00 A
Stall current (100 K)	15.00 A
Moment of inertia	6.500 kgcm ²
Efficiency	93.0 %

Physical constants

Torque constant	0.77 Nm/A
Voltage constant at 20° C	51.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.18 Ω
Rotating field inductance	5.6 mH
Electrical time constant	31.10 ms
Mechanical time constant	0.59 ms
Thermal time constant	55 min
Shaft torsional stiffness	30000 Nm/rad
Net weight of the motor	15.5 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
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	IP65 and DE flange IP67
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft extension	Plain shaft
Encoder system	Encoder AM32S/R: absolute encoder 32 S/R, 4096 revolutions multi-turn, with EnDat interface

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Optimum operating point		Recommended Motor Module	
Optimum speed	3500 rpm	Rated inverter current	18 A
Optimum power	2.8 kW	Maximum inverter current	36 A
Limiting data		Maximum torque	28.20 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	11300 rpm		
Maximum torque	32.0 Nm		
Maximum current	42.0 A		