

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7043-7AK71-1AG0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed (100 K)	6000 rpm
Number of poles	6
Rated torque (100 K)	2.0 Nm
Rated current	4.4 A
Static torque (60 K)	2.50 Nm
Static torque (100 K)	3.1 Nm
Stall current (60 K)	4.80 A
Stall current (100 K)	6.40 A
Moment of inertia	1.010 kgcm ²
Efficiency	90.0 %

Physical constants	
Torque constant	0.48 Nm/A
Voltage constant at 20° C	32.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.65 Ω
Rotating field inductance	9.0 mH
Electrical time constant	13.80 ms
Mechanical time constant	0.85 ms
Thermal time constant	40 min
Shaft torsional stiffness	11000 Nm/rad
Net weight of the motor	6.3 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
Shaft height	48
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.08 mm
Axial runout tolerance	0.08 mm
Vibration severity grade	Grade A
Connector size	1
Degree of protection	IP64
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	without
Holding brake	without holding brake
Shaft extension	Plain shaft
Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track

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Optimum operating point		Recommended Motor Module	
Optimum speed	6000 rpm	Rated inverter current	9 A
Optimum power	1.3 kW	Maximum inverter current	18 A
Limiting data		Maximum torque	8.50 Nm
Max. permissible speed (mech.)	8000 rpm		
Max. permissible speed (inverter)	13300 rpm		
Maximum torque	9.4 Nm		
Maximum current	20.0 A		