

Data sheet for SIMOTICS S-1FK7

No image available for this configuration.

MLFB-Ordering data

1FK7080-5AF71-1FG0

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	6.8 Nm
Rated current	4.4 A
Static torque (60 K)	6.60 Nm
Static torque (100 K)	8.0 Nm
Stall current (60 K)	4.00 A
Stall current (100 K)	4.80 A
Moment of inertia	15.000 kgcm ²
Efficiency	92.0 %

Physical constants	
Torque constant	1.61 Nm/A
Voltage constant at 20° C	102.5 V/1000*min ⁻¹
Winding resistance at 20° C	1.04 Ω
Rotating field inductance	14.0 mH
Electrical time constant	13.50 ms
Mechanical time constant	1.78 ms
Thermal time constant	40 min
Shaft torsional stiffness	126000 Nm/rad
Net weight of the motor	10.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	80
Cooling	Natural cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 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 AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

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Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	5 A
Optimum power	2.1 kW	Maximum inverter current	10 A
Limiting data		Maximum torque	16.60 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	5600 rpm		
Maximum torque	25.0 Nm		
Maximum current	18.0 A		