

## Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7033-7AF21-1DA0

No image available for this configuration.

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	6
Rated torque (100 K)	1.2 Nm
Rated current	2.0 A
Static torque (60 K)	1.00 Nm
Static torque (100 K)	1.3 Nm
Stall current (60 K)	1.70 A
Stall current (100 K)	2.20 A
Moment of inertia	0.270 kgcm <sup>2</sup>
Efficiency	86.0 %

### Physical constants

Torque constant	0.60 Nm/A
Voltage constant at 20° C	40.0 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	3.70 Ω
Rotating field inductance	18.0 mH
Electrical time constant	4.90 ms
Mechanical time constant	0.83 ms
Thermal time constant	25 min
Shaft torsional stiffness	8000 Nm/rad
Net weight of the motor	3.1 kg

### Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
Shaft height	36
Cooling	Natural cooling
Radial runout tolerance	0.035 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	Feather key
Encoder system	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits

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Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	2 A
Optimum power	0.4 kW	Maximum inverter current	5 A
Limiting data		Maximum torque	2.70 Nm
Max. permissible speed (mech.)	10000 rpm		
Max. permissible speed (inverter)	7240 rpm		
Maximum torque	4.3 Nm		
Maximum current	7.2 A		