

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7032-2AF21-1BG0

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)	1.0 Nm
Rated current	1.6 A
Static torque (60 K)	0.95 Nm
Static torque (100 K)	1.1 Nm
Stall current (60 K)	1.40 A
Stall current (100 K)	1.70 A
Moment of inertia	0.650 kgcm <sup>2</sup>
Efficiency	85.0 %

### Physical constants

Torque constant	0.67 Nm/A
Voltage constant at 20° C	45.0 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	5.05 Ω
Rotating field inductance	17.3 mH
Electrical time constant	3.45 ms
Mechanical time constant	2.20 ms
Thermal time constant	25 min
Shaft torsional stiffness	6000 Nm/rad
Net weight of the motor	2.7 kg

### Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
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	Pt1000 temperature sensor
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 AS24DQI: absolute encoder single-turn 24 bits



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	2 A
Optimum power	0.3 kW	Maximum inverter current	5 A
Limiting data		Maximum torque	3.00 Nm
Max. permissible speed (mech.)	10000 rpm		
Max. permissible speed (inverter)	6400 rpm		
Maximum torque	4.5 Nm		
Maximum current	7.0 A		