

## Data sheet for SIMOTICS S-1FK7

No image available for this configuration.

MLFB-Ordering data

1FK7084-2AF71-1FG1

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	10.0 Nm	Shaft height	80
Rated current	6.5 A	Cooling	Natural cooling
Static torque (60 K)	16.60 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	20.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	9.80 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	12.10 A	Vibration severity grade	Grade A
Moment of inertia	32.500 kgcm <sup>2</sup>	Connector size	1
Efficiency	93.0 %	Degree of protection	IP65
<b>Physical constants</b>		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	Pt1000 temperature sensor
Torque constant	1.66 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	106.5 V/1000*min <sup>-1</sup>	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	0.28 Ω	Holding brake	without holding brake
Rotating field inductance	5.9 mH	Shaft end	Plain shaft
Electrical time constant	21.00 ms	Encoder system	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Mechanical time constant	1.01 ms		
Thermal time constant	55 min		
Shaft torsional stiffness	93000 Nm/rad		
Net weight of the motor	18.3 kg		

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## Optimum operating point

Optimum speed 2500 rpm

Optimum power 3.2 kW

## Limiting data

Max. permissible speed (mech.) 6000 rpm

Max. permissible speed (inverter) 5400 rpm

Maximum torque 61.0 Nm

Maximum current 41.0 A

## Recommended Motor Module

Rated inverter current 18 A

Maximum inverter current 54 A

Maximum torque 61.00 Nm