

## Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7060-2AF71-1DA0



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)	4.7 Nm	Shaft height	63
Rated current	3.7 A	Cooling	Natural cooling
Static torque (60 K)	5.00 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	6.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	3.60 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	4.45 A	Vibration severity grade	Grade A
Moment of inertia	7.700 kgcm <sup>2</sup>	Connector size	1
Efficiency	90.0 %	Degree of protection	IP64
<b>Physical constants</b>		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Temperature monitoring	Pt1000 temperature sensor
Torque constant	1.33 Nm/A	Electrical connectors	Connectors for signals and power rotatable
Voltage constant at 20° C	85.5 V/1000*min <sup>-1</sup>	Color of the housing	Standard (Anthracite RAL 7016)
Winding resistance at 20° C	1.35 Ω	Holding brake	without holding brake
Rotating field inductance	15.2 mH	Shaft end	Feather key
Electrical time constant	11.30 ms	Encoder system	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits
Mechanical time constant	1.71 ms		
Thermal time constant	30 min		
Shaft torsional stiffness	40500 Nm/rad		
Net weight of the motor	7.1 kg		



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	5 A
Optimum power	1.5 kW	Maximum inverter current	15 A
Limiting data		Maximum torque	18.00 Nm
Max. permissible speed (mech.)	7200 rpm		
Max. permissible speed (inverter)	6700 rpm		
Maximum torque	18.0 Nm		
Maximum current	15.0 A		