

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7060-2AF71-1CB0-Z
X01



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)	4.7 Nm
Rated current	3.7 A
Static torque (60 K)	5.00 Nm
Static torque (100 K)	6.0 Nm
Stall current (60 K)	3.60 A
Stall current (100 K)	4.45 A
Moment of inertia	8.700 kgcm²
Efficiency	90.0 %
Physical constants	
Torque constant	1.33 Nm/A
Voltage constant at 20° C	85.5 V/1000*min ⁻¹
Winding resistance at 20° C	1.35 Ω
Rotating field inductance	15.2 mH
Electrical time constant	11.30 ms
Mechanical time constant	1.71 ms
Thermal time constant	30 min
Shaft torsional stiffness	28500 Nm/rad
Net weight of the motor	8.5 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	63
Cooling	Natural cooling
Radial runout tolerance	0.040 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	Pt1000 temperature sensor
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Jet black, matt RAL 9005
Holding brake	with holding brake
Shaft extension	Feather key
Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)



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	Special design	
Max. permissible speed (inverter)	6700 rpm	X01	Paint finish: Jet black, matt RAL 9005
Maximum torque	18.0 Nm		
Maximum current	15.0 A		
Holding brake			
Holding brake version	Permanent-magnet brake		
Holding torque	13.0 Nm		
Power supply voltage	DC 24 V ± 10 %		
Coil current	0.8 A		
Opening time	100 ms		
Closing time	50 ms		
Highest braking work	380 J		