

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7061-7AH71-1UG0



Figure similar

Client order no. :
 Order no. :
 Offer no. :
 Remarks :

Item no. :
 Consignment no. :
 Project :

Engineering data

Mechanical data

Rated speed (100 K)	4500 rpm
Number of poles	6
Rated torque (100 K)	4.3 Nm
Rated current	5.9 A
Static torque (60 K)	4.90 Nm
Static torque (100 K)	6.4 Nm
Stall current (60 K)	7.00 A
Stall current (100 K)	8.00 A
Moment of inertia	3.400 kgcm ²
Efficiency	93.0 %

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
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	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 end	Plain shaft
Encoder system	Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)

Physical constants

Torque constant	0.70 Nm/A
Voltage constant at 20° C	46.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.36 Ω
Rotating field inductance	9.6 mH
Electrical time constant	27.00 ms
Mechanical time constant	0.75 ms
Thermal time constant	45 min
Shaft torsional stiffness	37000 Nm/rad
Net weight of the motor	10.0 kg

MLFB-Ordering data

1FK7061-7AH71-1UG0

Figure similar

Optimum operating point		Recommended Motor Module	
Optimum speed	4500 rpm	Rated inverter current	9 A
Optimum power	2.0 kW	Maximum inverter current	18 A
Limiting data		Maximum torque	14.10 Nm
Max. permissible speed (mech.)	6000 rpm		
Max. permissible speed (inverter)	12500 rpm		
Maximum torque	17.3 Nm		
Maximum current	25.3 A		