

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data1FK7043-7AK71-1TA0-Z
N05



Client order no. :
Order no. :
Offer no. :
Remarks :
Item no. :
Consignment no. :
Project :

Engineering data		Mechanical data	
Rated speed (100 K)	6000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	6	Motor type	High Dynamic
Rated torque (100 K)	2.0 Nm	Shaft height	48
Rated current	4.4 A	Cooling	Natural cooling
Static torque (60 K)	2.50 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	3.10 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	4.80 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	6.40 A	Vibration severity grade	Grade A
Moment of inertia	1.010 kgcm²	Connector size	1
Efficiency	90.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.48 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	32.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	0.65 Ω	Color of the housing	without
Rotating field inductance	9.0 mH	Holding brake	without holding brake
Electrical time constant	13.80 ms	Shaft end	Feather key
Mechanical time constant	0.85 ms	Encoder system	Resolver 2-pole
Thermal time constant	40 min		
Shaft torsional stiffness	11000 Nm/rad		
Net weight of the motor	6.3 kg		

Figure similar

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Optimum operating point	
Optimum speed	6000 rpm
Optimum power	1.3 kW
Limiting data	
Max. permissible speed (mech.)	8000 rpm
Max. permissible speed (inverter)	13300 rpm
Maximum torque	9.4 Nm
Maximum current	20.0 A
Recommended Motor Module	
Rated inverter current	9 A
Maximum inverter current	18 A
Maximum torque	8.50 Nm
Special design	
N05	Non-standard shaft end (dimensions as for 1FT5 motors)