

Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7042-2AK74-1EG0-Z
N05

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data	
Rated speed (100 K)	6000 rpm
Number of poles	8
Rated torque (100 K)	1.5 Nm
Rated current	2.5 A
Static torque (60 K)	2.50 Nm
Static torque (100 K)	3.00 Nm
Stall current (60 K)	3.55 A
Stall current (100 K)	4.40 A
Moment of inertia	2.900 kgcm²
Efficiency	89.0 %
Physical constants	
Torque constant	0.68 Nm/A
Voltage constant at 20° C	44.5 V/1000*min ⁻¹
Winding resistance at 20° C	1.15 Ω
Rotating field inductance	8.6 mH
Electrical time constant	7.50 ms
Mechanical time constant	2.15 ms
Thermal time constant	30 min
Shaft torsional stiffness	15500 Nm/rad
Net weight of the motor	4.6 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	48
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.08 mm
Axial runout tolerance	0.08 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	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft end	Plain shaft
Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface



Figure similar

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Optimum operating point		Recommended Motor Module	
Optimum speed	5000 rpm	Rated inverter current	5 A
Optimum power	1.0 kW	Maximum inverter current	15 A
Limiting data		Maximum torque	10.30 Nm
Max. permissible speed (mech.)	9000 rpm	Special design	
Max. permissible speed (inverter)	9000 rpm	N05	Non-standard shaft end (dimensions as for 1FT5 motors)
Maximum torque	10.5 Nm		
Maximum current	15.3 A		