

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7032-5AF21-1VA0

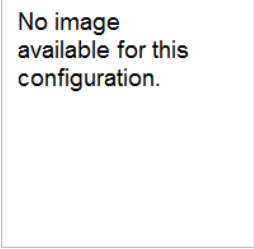


Figure similar

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

Item no. :
 Consignment no. :
 Project :

Engineering data	
Rated speed (100 K)	3000 rpm
Number of poles	6
Rated torque (100 K)	1.0 Nm
Rated current	1.6 A
Static torque (60 K)	0.90 Nm
Static torque (100 K)	1.1 Nm
Stall current (60 K)	1.40 A
Stall current (100 K)	1.70 A
Moment of inertia	0.610 kgcm ²
Efficiency	85.0 %

Physical constants	
Torque constant	0.67 Nm/A
Voltage constant at 20° C	45.0 V/1000*min ⁻¹
Winding resistance at 20° C	5.20 Ω
Rotating field inductance	18.5 mH
Electrical time constant	3.60 ms
Mechanical time constant	2.20 ms
Thermal time constant	25 min
Shaft torsional stiffness	6500 Nm/rad
Net weight of the motor	2.7 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	36
Cooling	Natural cooling
Radial runout tolerance	0.035 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	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 extension	Feather key
Encoder system	Encoder AM15DQ: absolute encoder 15 bits (resolution 32768, encoder-internal 16 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

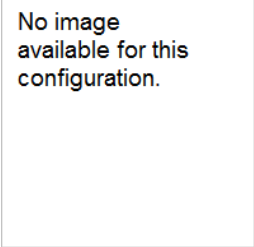


Figure similar

MLFB-Ordering data

1FK7032-5AF21-1VA0

Optimum operating point

Optimum speed	3000 rpm
Optimum power	0.3 kW

Limiting data

Max. permissible speed (mech.)	10000 rpm
Max. permissible speed (inverter)	6440 rpm
Maximum torque	4.5 Nm
Maximum current	7.0 A

Recommended Motor Module

Rated inverter current	2 A
Maximum inverter current	5 A
Maximum torque	3.00 Nm