SIEMENS

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data **1FK7015-5AK71-1JG3**

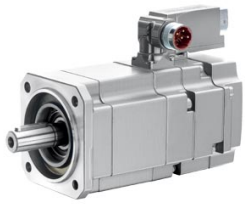

Figure similar

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)	0.2 Nm
Rated current	0.8 A
Static torque (60 K)	0.29 Nm
Static torque (100 K)	0.3 Nm
Stall current (60 K)	1.20 A
Stall current (100 K)	1.50 A
Moment of inertia	0.083 kgcm²
Efficiency	68.0 %

Physical constants

Torque constant	0.42 Nm/A
Voltage constant at 20° C	16.0 V/1000*min⁻¹
Winding resistance at 20° C	4.30 Ω
Rotating field inductance	8.4 mH
Electrical time constant	2.00 ms
Mechanical time constant	1.90 ms
Thermal time constant	16 min
Shaft torsional stiffness	1300 Nm/rad
Net weight of the motor	1.1 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	20
Cooling	Natural cooling
Radial runout tolerance	0.000 mm
Concentricity tolerance	0.00 mm
Axial runout tolerance	0.00 mm
Vibration severity grade	Grade A
Connector size	0.5
Degree of protection	IP54
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	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft extension	Plain shaft
Encoder system	Encoder AM16S/R: absolute encoder 16 S/R, 4096 revolutions multi-turn, with EnDat interface

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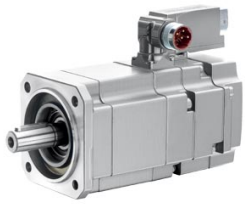

Figure similar

Optimum operating point

Optimum speed	5000 rpm
Optimum power	0.1 kW

Limiting data

Max. permissible speed (mech.)	8000 rpm
Max. permissible speed (inverter)	8000 rpm
Maximum torque	1.0 Nm
Maximum current	4.2 A

Recommended Motor Module

Rated inverter current	3 A
Maximum inverter current	6 A
Maximum torque	1.00 Nm