

## Data sheet for SIMOTICS S-1FK7



Figure similar

MLFB-Ordering data

1FK7062-3BF71-1FG1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	6.0 Nm
Rated current	4.0 A
Static torque (60 K)	7.10 Nm
Static torque (100 K)	8.5 Nm
Stall current (60 K)	4.30 A
Stall current (100 K)	5.30 A
Moment of inertia	23.500 kgcm <sup>2</sup>
Efficiency	91.0 %

### Physical constants

Torque constant	1.60 Nm/A
Voltage constant at 20° C	102.5 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	1.15 Ω
Rotating field inductance	14.6 mH
Electrical time constant	12.80 ms
Mechanical time constant	3.15 ms
Thermal time constant	35 min
Shaft torsional stiffness	34500 Nm/rad
Net weight of the motor	10.7 kg

### Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Inertia
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	IP65
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 extension	Plain shaft
Encoder system	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)



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### Optimum operating point

Optimum speed	3000 rpm
Optimum power	1.6 kW

### Limiting data

Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	5600 rpm
Maximum torque	26.0 Nm
Maximum current	19.2 A

### Recommended Motor Module

Rated inverter current	5 A
Maximum inverter current	15 A
Maximum torque	22.10 Nm