

## Data sheet for SIMOTICS S-1FK7

No image available for this configuration.

MLFB-Ordering data

1FK7061-7AH71-1DG5

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K)	4500 rpm
Number of poles	6
Rated torque (100 K)	4.3 Nm
Rated current	5.9 A
Static torque (60 K)	4.90 Nm
Static torque (100 K)	6.4 Nm
Stall current (60 K)	7.00 A
Stall current (100 K)	8.00 A
Moment of inertia	3.400 kgcm <sup>2</sup>
Efficiency	93.0 %

### Physical constants

Torque constant	0.70 Nm/A
Voltage constant at 20° C	46.0 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	0.36 Ω
Rotating field inductance	9.6 mH
Electrical time constant	27.00 ms
Mechanical time constant	0.75 ms
Thermal time constant	45 min
Shaft torsional stiffness	37000 Nm/rad
Net weight of the motor	10.0 kg

### Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
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 and DE flange IP67
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 IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits

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Figure similar

## Optimum operating point

Optimum speed 4500 rpm

Optimum power 2.0 kW

## Limiting data

Max. permissible speed (mech.) 6000 rpm

Max. permissible speed (inverter) 12500 rpm

Maximum torque 17.3 Nm

Maximum current 25.3 A

## Recommended Motor Module

Rated inverter current 9 A

Maximum inverter current 18 A

Maximum torque 14.10 Nm