

## Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1507-5RF13-2FW1-Z**  
**D12+G23+G99+K07+N23**

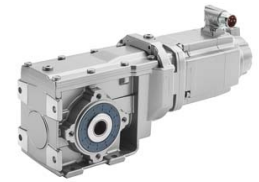


Figure similar

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

Item no. :  
 Consignment no. :  
 Project :

### Gearbox data

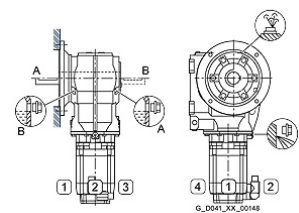
Gear box type	K69
Gearbox basic type	Bevel geared
Gearbox size	69
Transmission stages	3
Transmission (ratio)	69.67
Gear number relation	209/3
Output moment maximum (short-time)	620 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	65 rpm
Emergency off output moment (1000 cycles)	1,020 Nm
Radial force maximum	9,300 N
Max. permissible radial force with Mmax	9,160 N
Moment of inertia	0.81 kgcm <sup>2</sup>
Torsional stiffness	59 Nm/'
Efficiency	0.93
Mounting position	M2-A
Mounting type	Flange version (A type)
Output shaft version	Hollow shaft standard
Output shaft dimension	H40 mm
Gearbox flange diameter	250 mm
Figure 2 torque support	-

### General tech. specifications

Degree of protection	IP65
Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	45.44 kg
1 m-sound pressure level L <sub>pA</sub> (Tol.+3dB(A))	75
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

### Lubrication and sealing

Gear oil	Polyglycol oil CLP ISO PG VG220
Output shaft sealing	Seal longer service life
Oil charge	2.00 l



### Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	80 mm
Cooling	Natural cooling
Rated speed	3,000 rpm
Rated torque (100K)	7.70 Nm
Rated power	2.42 kW
Rated current (100K)	6.10 A
Static torque	11.00 Nm
Static current	8.10 A
Moment of inertia	23.50000 kgcm <sup>2</sup>
Efficiency η	93 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

### Limiting data

Maximum speed (short-time)	6,000 rpm
Maximum torque	37.00 Nm
Motor current short term	30.0 A

### Optimum operating point

Optimum speed	3,000 rpm
Optimum power	2.40 kW

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### Recommended Motor Module

Rated inverter current	9.0 A
Maximum inverter current	27.0 A
Maximum torque	34.1 Nm

### Holding brake

Holding brake	with holding brake
Holding brake version	Permanent-magnet brake
Power supply voltage	DC 24 V $\pm$ 10 %
Dynamic braking torque $M_{1Br}$	11.00 Nm
Holding torque $M_{4Br}$	22.00 Nm
Opening time	200.0 ms
Closing time	60.0 ms
Maximum switching energy per braking action	1,400.0 J

### Standards

Compliance with standards	CE / UL / CSA / EAC / cRUus
CE marking	EN 60034

### Options

- D12 M2-A for bevel and worm gearboxes
- G23 Seal longer service life
- G99 Version with reduced backlash
- K07 Polyglycol oil CLP ISO PG VG220
- N23 Standard holding brake (permanent magnet brake)

#### Info servo geared motor

Outside the standard temperature range of -10 to +40 °C, further selectable options must be observed, in addition to the lubricant selection.

Further, you have to check the suitability of the components and options used for the requested temperature range.