

## Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1503-5RG33-2FA1-Z  
D12+K12

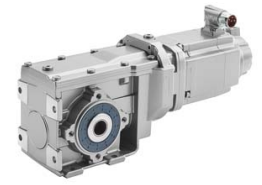


Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Gearbox data

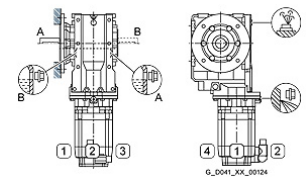
Gear box type	B49
Gearbox basic type	Bevel geared B / K
Gearbox size	49
Transmission stages	2
Transmission (ratio)	3.47
Gear number relation	1476/425
Output moment maximum (short-time)	325 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	1,297 rpm
Emergency off output moment (1000 cycles)	550 Nm
Radial force maximum	1,550 N
Max. permissible radial force with Mmax	1,550 N
Moment of inertia	7.20 kgcm <sup>2</sup>
Torsional stiffness	29 Nm/°
Efficiency	0.97
Mounting position	M2-A
Mounting type	Flange version (A type)
Output shaft version	Hollow shaft standard
Output shaft dimension	H40 mm
Gearbox flange diameter	200 mm
Output shaft bearing	No
Figure 2 torque support	-

### General tech. specifications

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	47.42 kg
1m-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	Synthetic oil CLP PAO VG220
Output shaft sealing	Standard
Oil charge	1.70 l



### Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	100 mm
Cooling	Natural cooling
Rated speed	3,000 rpm
Rated torque (100K)	14.00 Nm
Rated power	4.40 kW
Rated current (100K)	11.20 A
Static torque	31.50 Nm
Static current	23.50 A
Moment of inertia	104.00 kgcm <sup>2</sup>
Efficiency η	90 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1.5
Degree of protection	IP65
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)	5,000 rpm
Maximum torque	108.00 Nm
Motor current short term	84.0 A

### Optimum operating point

Optimum speed	2,400 rpm
Optimum power	4.85 kW

## Data sheet for SIMOTICS S-1FG1

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D12+K12

### Recommended Motor Module

Rated inverter current	30.0 A
Maximum inverter current	56.0 A
Maximum torque	77.0 Nm

### Standards

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

### Options

D12	M2-A for bevel and worm gearboxes
K12	Poly-alpha-olefin oil CLP ISO PAO VG220

#### 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.