

## Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1512-5RG32-2HC2-Z  
D11+G99+K06+N24**

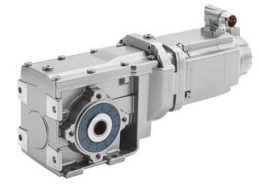


Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Gearbox data

Gear box type	K129
Gearbox basic type	Bevel geared B / K
Gearbox size	129
Transmission stages	3
Transmission (ratio)	127.77
Gear number relation	9583/75
Output moment maximum (short-time)	4,480 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	35 rpm
Emergency off output moment (1000 cycles)	7,480 Nm
Radial force maximum	40,000 N
Max. permissible radial force with Mmax	40,000 N
Moment of inertia	8.40 kgcm <sup>2</sup>
Torsional stiffness	421 Nm/'
Torsional backlash	6.3'
Efficiency	0.94
Mounting position	M1-A
Mounting type	Housing flange (C type)
Output shaft version	Hollow shaft standard
Output shaft dimension	H70 mm
Gearbox flange diameter	-/-
Figure 2 torque support	-

### General tech. specifications

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	180.73 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	Mineral oil CLP VG220
Output shaft sealing	Standard
Oil charge	6.30 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	2,000 rpm
Rated torque (100K)	22.50 Nm
Rated power	4.71 kW
Rated current (100K)	9.50 A
Static torque	31.50 Nm
Static current	12.90 A
Moment of inertia	131.60000 kgcm <sup>2</sup>
Efficiency $\eta$	93 %
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	46.5 A

### Optimum operating point

Optimum speed	2,000 rpm
Optimum power	4.70 kW

### Recommended Motor Module

Rated inverter current	18.0 A
Maximum inverter current	54.0 A
Maximum torque	108.0 Nm

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### Holding brake

Holding brake	reinforced brake
Holding brake version	Permanent-magnet brake
Power supply voltage	DC 24 V $\pm$ 10 %
Dynamic braking torque $M_{1Br}$	35.00 Nm
Holding torque $M_{4Br}$	85.00 Nm
Rated current	1.6 A
Opening time	250.0 ms
Closing time	70.0 ms
Maximum switching energy per braking action	5,300.0 J

### Standards

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

### Options

D11	M1-A for bevel and worm gearboxes
G99	Version with reduced backlash
K06	Mineral oil CLP ISO VG220
N24	Holding brake with increased braking torque (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.