

## Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1102-1QC26-2AW1-Z  
D01+K06+N23

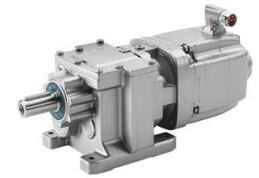


Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Gearbox data

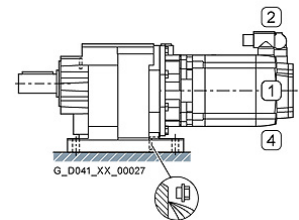
Gear box type	Z29
Gearbox basic type	Helical geared
Gearbox size	29
Transmission stages	2
Transmission (ratio)	31.86
Gear number relation	1593/50
Output moment maximum (short-time)	133 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	141 rpm
Emergency off output moment (1000 cycles)	235 Nm
Radial force maximum	3,350 N
Max. permissible radial force with Mmax	3,190 N
Moment of inertia	0.06 kgcm <sup>2</sup>
Torsional stiffness	9 Nm/°
Efficiency	0.93
Mounting position	M1
Mounting type	Foot-mounted
Output shaft version	Solid shaft standard
Output shaft dimension	V25 x 50 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
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	7.85 kg
1m-sound pressure level L <sub>pA</sub> (Tol.+3dB(A))	65
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

### Lubrication and sealing

Gear oil	Mineral oil CLP ISO VG220
Output shaft sealing	Standard
Oil charge	0.15 l



### Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	36 mm
Cooling	Natural cooling
Rated speed	6,000 rpm
Rated torque (100K)	0.65 Nm
Rated power	0.41 kW
Rated current (100K)	1.09 A
Static torque	1.01 Nm
Static current	1.50 A
Moment of inertia	0.75000 kgcm <sup>2</sup>
Efficiency η	87 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits

### Limiting data

Maximum speed (short-time)	10,000 rpm
Maximum torque	4.50 Nm
Motor current short term	7.0 A

### Optimum operating point

Optimum speed	6,000 rpm
Optimum power	0.41 kW

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### Recommended Motor Module

Rated inverter current	3.0 A
Maximum inverter current	9.0 A
Maximum torque	4.5 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 $M_{1Br}$	1.00 Nm
Holding torque $M_{4Br}$	1.90 Nm
Opening time	50.0 ms
Closing time	30.0 ms
Maximum switching energy per braking action	40.0 J

### Standards

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

### Options

- D01 M1 for helical and parallel shaft gearboxes
- K06 Mineral oil CLP ISO 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.