

## Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1602-1RD06-2AN2-Z**  
D15+K07+N23



Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Gearbox data

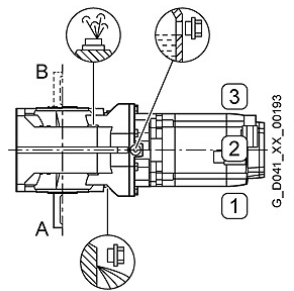
Gear box type	C39A
Gearbox basic type	Helical worm geared C
Gearbox size	39
Transmission (ratio)	299.00
Gear number relation	299/1
Output moment maximum (short-time)	245 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	15 rpm
Emergency off output moment (1000 cycles)	275 Nm
Radial force maximum	6,180 N
Max. permissible radial force with Mmax	5,980 N
Moment of inertia	0.04 kgcm <sup>2</sup>
Torsional stiffness	-/-
Efficiency	0.65
Mounting position	M5-A
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

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	11.49 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	Synthetic oil CLP PG VG220
Output shaft sealing	Standard
Oil charge	0.35 l



### Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	48 mm
Cooling	Natural cooling
Rated speed	6,000 rpm
Rated torque (100K)	0.96 Nm
Rated power	0.60 kW
Rated current (100K)	1.63 A
Static torque	1.47 Nm
Static current	2.25 A
Moment of inertia	1.92000 kgcm <sup>2</sup>
Efficiency η	87 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
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)	9,000 rpm
Maximum torque	5.10 Nm
Motor current short term	7.7 A

### Optimum operating point

Optimum speed	6,000 rpm
Optimum power	0.60 kW

## Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1602-1RD06-2AN2-Z**  
D15+K07+N23

### Recommended Motor Module

Rated inverter current	3.0 A
Maximum inverter current	9.0 A
Maximum torque	5.1 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 $M_{1Br}$	3.00 Nm
Holding torque $M_{4Br}$	4.00 Nm
Rated current	0.5 A
Opening time	70.0 ms
Closing time	30.0 ms
Maximum switching energy per braking action	150.0 J

### Standards

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

### Options

D15	M5-A for bevel and worm gearboxes
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.