

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1208-1RF52-4FD1-Z**
D01+G34+K06+N23

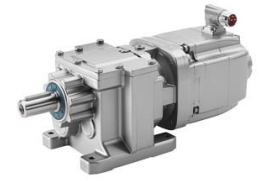


Figure similar

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

Item no. :
 Consignment no. :
 Project :

Gearbox data

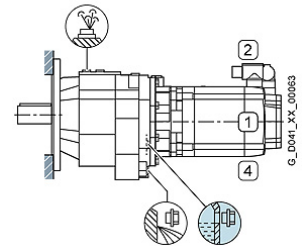
Gear box type	D89
Gearbox basic type	Helical geared Z / D
Gearbox size	89
Transmission stages	3
Transmission (ratio)	74.30
Gear number relation	8544/115
Output moment maximum (short-time)	1,920 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	61 rpm
Emergency off output moment (1000 cycles)	2,850 Nm
Radial force maximum	18,500 N
Max. permissible radial force with Mmax	18,500 N
Moment of inertia	3.80 kgcm ²
Torsional stiffness	96 Nm/°
Efficiency	0.93
Mounting position	M1
Mounting type	Flange version (A type)
Output shaft version	Solid shaft standard
Output shaft dimension	V50 x 100 mm
Gearbox flange diameter	300 mm
Figure 2 torque support	-

General tech. specifications

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	92.71 kg
1m-sound pressure level L _{pA} (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	2.15 l



Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
DC-link voltage, max.	510...720V
Shaft height	80 mm
Cooling	Natural cooling
Rated speed	2,000 rpm
Rated torque (100K)	14.80 Nm
Rated power	3.10 kW
Rated current (100K)	9.80 A
Static torque	20.00 Nm
Static current	12.50 A
Moment of inertia	25.50000 kgcm ²
Efficiency η	92 %
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)	6,000 rpm
Maximum torque	65.00 Nm
Motor current short term	51.0 A

Optimum operating point

Optimum speed	2,000 rpm
Optimum power	3.10 kW

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Recommended Motor Module

Rated inverter current	18.0 A
Maximum inverter current	54.0 A
Maximum torque	65.0 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
Rated current	0.9 A
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

D01	M1 for helical and parallel shaft gearboxes
G34	Oil inspection glass
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.