

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1107-3PF14-2AF1-Z**
D03+K06+N23

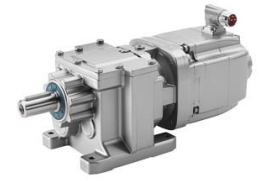


Figure similar

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

Item no. :
 Consignment no. :
 Project :

Gearbox data

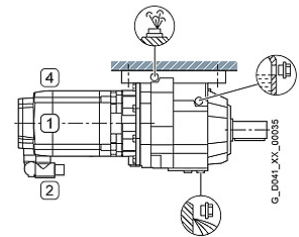
Gear box type	Z79
Gearbox basic type	Helical geared Z / D
Gearbox size	79
Transmission stages	2
Transmission (ratio)	8.19
Gear number relation	3965/484
Output moment maximum (short-time)	290 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	549 rpm
Emergency off output moment (1000 cycles)	1,150 Nm
Radial force maximum	8,110 N
Max. permissible radial force with Mmax	8,030 N
Moment of inertia	4.00 kgcm ²
Torsional stiffness	36 Nm/°
Efficiency	0.97
Mounting position	M3
Mounting type	Foot-mounted
Output shaft version	Solid shaft standard III
Output shaft dimension	V50 x 100 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	51.84 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 ISO VG220
Output shaft sealing	Standard
Oil charge	3.90 l



Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	80 mm
Cooling	Natural cooling
Rated speed	4,500 rpm
Rated torque (100K)	3.55 Nm
Rated power	1.67 kW
Rated current (100K)	4.65 A
Static torque	11.00 Nm
Static current	12.20 A
Moment of inertia	23.50000 kgcm ²
Efficiency η	88 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Degree of protection	IP65
Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)

Limiting data

Maximum speed (short-time)	6,000 rpm
Maximum torque	37.00 Nm
Motor current short term	45.0 A

Optimum operating point

Optimum speed	3,240 rpm
Optimum power	2.35 kW

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Recommended Motor Module

Rated inverter current	18.0 A
Maximum inverter current	54.0 A
Maximum torque	37.0 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
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

- D03 M3 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.