

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1105-1RG53-2AA1-Z
D01+G99+K06+N30

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

Item no. :
Consignment no. :
Project :

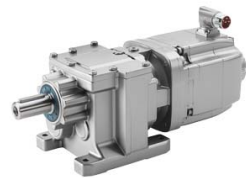
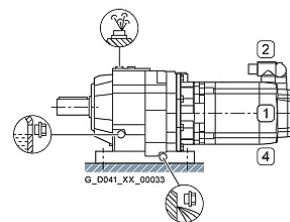


Figure similar

Gearbox data	
Gear box type	Z59
Gearbox basic type	Helical geared Z / D
Gearbox size	59
Transmission stages	2
Transmission (ratio)	3.80
Gear number relation	2376/625
Output moment maximum (short-time)	405 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	1,184 rpm
Emergency off output moment (1000 cycles)	680 Nm
Radial force maximum	2,370 N
Max. permissible radial force with Mmax	2,370 N
Moment of inertia	4.90 kgcm²
Torsional stiffness	17 Nm/°
Efficiency	0.97
Mounting position	M1
Mounting type	Foot-mounted
Output shaft version	Solid shaft standard
Output shaft dimension	V35 x 70 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	64.39 kg
1m-sound pressure level LpA (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	0.65 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	3,000 rpm
Rated torque (100K)	23.50 Nm
Rated power	7.38 kW
Rated current (100K)	16.00 A
Static torque	45.00 Nm
Static current	29.00 A
Moment of inertia	163.15530 kgcm²
Efficiency η	94 %
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	150.00 Nm
Motor current short term	109.0 A

Optimum operating point	
Optimum speed	2,640 rpm
Optimum power	7.60 kW

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Recommended Motor Module	
Rated inverter current	30.0 A
Maximum inverter current	56.0 A
Maximum torque	87.0 Nm

Holding brake	
Holding brake	spring-loaded brake (shaft height 80 - 100)
Holding brake version	Spring-type brake
Power supply voltage	DC 24 V ± 10 %
Dynamic braking torque M _{1Br}	18.00 Nm
Braking torque M _{2Br}	25.00 Nm
Holding torque M _{4Br}	19.00 Nm
Opening time	300.0 ms
Closing time	260.0 ms
Maximum switching energy per braking action	6,500.0 J

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

Options	
D01	M1 for helical and parallel shaft gearboxes
G99	Version with reduced backlash
K06	Mineral oil CLP ISO VG220
N30	Spring-loaded 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.