

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1503-1QG12-2AM1-Z
D14+G99+K07+N23+Y84

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

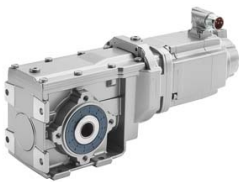


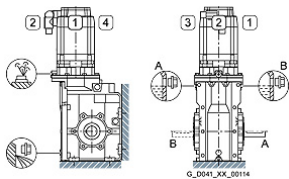
Figure similar

Item no. :
Consignment no. :
Project :

Gearbox data	
Gear box type	B49
Gearbox basic type	Bevel geared B / K
Gearbox size	49
Transmission stages	2
Transmission (ratio)	13.61
Gear number relation	245/18
Output moment maximum (short-time)	465 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	331 rpm
Emergency off output moment (1000 cycles)	765 Nm
Radial force maximum	4,660 N
Max. permissible radial force with Mmax	4,560 N
Moment of inertia	2.10 kgcm²
Torsional stiffness	54 Nm/°
Torsional backlash	8.88°
Efficiency	0.96
Mounting position	M4-A
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	45.07 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	Synthetic oil CLP PG VG220
Output shaft sealing	Standard
Oil charge	2.90 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	2,000 rpm
Rated torque (100K)	18.00 Nm
Rated power	3.77 kW
Rated current (100K)	8.60 A
Static torque	24.50 Nm
Static current	11.10 A
Moment of inertia	87.00000 kgcm²
Efficiency η	93 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1.5
Degree of protection	IP65
Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits

Limiting data	
Maximum speed (short-time)	5,000 rpm
Maximum torque	80.00 Nm
Motor current short term	40.5 A

Optimum operating point	
Optimum speed	2,000 rpm
Optimum power	3.75 kW

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Recommended Motor Module	
Rated inverter current	18.0 A
Maximum inverter current	54.0 A
Maximum torque	80.0 Nm

Holding brake	
Holding brake	with holding brake
Holding brake version	Permanent-magnet brake
Power supply voltage	DC 24 V ± 10 %
Dynamic braking torque M _{1Br}	25.00 Nm
Holding torque M _{4Br}	43.00 Nm
Opening time	300.0 ms
Closing time	70.0 ms
Maximum switching energy per braking action	3,380.0 J

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

Options	
D14	M4-A for bevel and worm gearboxes
G99	Version with reduced backlash
K07	Polyglycol oil CLP ISO PG VG220
N23	Standard holding brake (permanent magnet brake)
Y84	Additional data on the rating plate and on the packing label :

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.