

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1501-1RD26-2FS1-Z
D24+G23+G99+K07+N23



Figure similar

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

Item no. :
Consignment no. :
Project :

Gearbox data

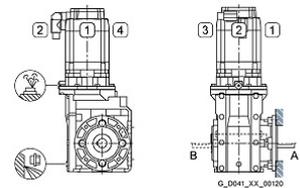
Gear box type	B29
Gearbox basic type	Bevel geared B / K
Gearbox size	29
Transmission stages	2
Transmission (ratio)	20.00
Gear number relation	20/1
Output moment maximum (short-time)	114 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	225 rpm
Emergency off output moment (1000 cycles)	187 Nm
Radial force maximum	4,130 N
Max. permissible radial force with Mmax	4,110 N
Moment of inertia	0.16 kgcm ²
Torsional stiffness	13 Nm/°
Efficiency	0.93
Mounting position	M4-B
Mounting type	Flange version (A type)
Output shaft version	Solid shaft standard
Output shaft dimension	V20 x 40 mm
Gearbox flange diameter	120 mm
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	11.87 kg
1m-sound pressure level L _{pA} (Tol.+3dB(A))	65
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

Lubrication and sealing

Gear oil	Polyglycol oil CLP ISO PG VG220
Output shaft sealing	Seal longer service life
Oil charge	0.85 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)	1.23 Nm
Rated power	0.77 kW
Rated current (100K)	2.15 A
Static torque	2.85 Nm
Static current	4.25 A
Moment of inertia	3.20000 kgcm ²
Efficiency η	88 %
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	10.50 Nm
Motor current short term	15.3 A

Optimum operating point

Optimum speed	4,800 rpm
Optimum power	0.86 kW

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1501-1RD26-2FS1-Z**
D24+G23+G99+K07+N23

Recommended Motor Module

Rated inverter current	5.0 A
Maximum inverter current	15.0 A
Maximum torque	10.3 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
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

- D24 M4-B for bevel and worm gearboxes
- G23 Seal longer service life
- G99 Version with reduced backlash
- 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.