

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1502-9RF42-2DR1-Z**
D11+H3A+K07+N23

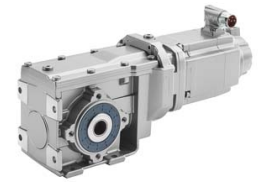


Figure similar

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

Item no. :
 Consignment no. :
 Project :

Gearbox data

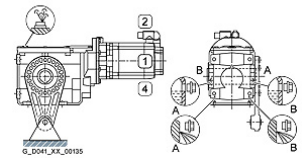
Gear box type	B39
Gearbox basic type	Bevel geared B / K
Gearbox size	39
Transmission stages	2
Transmission (ratio)	25.00
Gear number relation	25/1
Output moment maximum (short-time)	250 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	180 rpm
Emergency off output moment (1000 cycles)	425 Nm
Radial force maximum	6,980 N
Max. permissible radial force with Mmax	6,980 N
Moment of inertia	0.25 kgcm ²
Torsional stiffness	40 Nm/°
Efficiency	0.94
Mounting position	M1-A
Mounting type	Torque plate
Output shaft version	Hollow shaft S disk standard I
Output shaft dimension	HS35 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
Figure 2 torque support	1

General tech. specifications

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	33.13 kg
1 m-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	Synthetic oil CLP PG VG220
Output shaft sealing	Standard
Oil charge	0.50 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	2,000 rpm
Rated torque (100K)	13.90 Nm
Rated power	2.91 kW
Rated current (100K)	6.30 A
Static torque	18.70 Nm
Static current	8.00 A
Moment of inertia	35.50000 kgcm ²
Efficiency η	93 %
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	61.00 Nm
Motor current short term	28.5 A

Optimum operating point

Optimum speed	2,000 rpm
Optimum power	2.90 kW

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Recommended Motor Module

Rated inverter current	9.0 A
Maximum inverter current	27.0 A
Maximum torque	58.4 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

D11	M1-A for bevel and worm gearboxes
H3A	Hollow shaft S disk standard I
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.