

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1205-1RE32-2AL1-Z
D01+G23+K07+N23

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

Item no. :
Consignment no. :
Project :

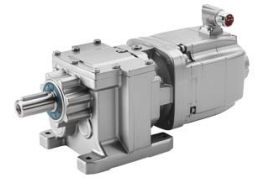
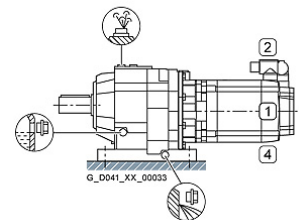


Figure similar

Gearbox data	
Gear box type	D59
Gearbox basic type	Helical geared
Gearbox size	59
Transmission stages	3
Transmission (ratio)	149.81
Gear number relation	2397/16
Output moment maximum (short-time)	480 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	30 rpm
Emergency off output moment (1000 cycles)	765 Nm
Radial force maximum	7,660 N
Max. permissible radial force with Mmax	7,560 N
Moment of inertia	0.16 kgcm ²
Torsional stiffness	25 Nm/°
Efficiency	0.90
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	
Degree of protection	IP65
Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	31.95 kg
1m-sound pressure level L _{pA} (Tol.+3dB(A))	70
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	0.45 l



Motor data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	63 mm
Cooling	Natural cooling
Rated speed	2,000 rpm
Rated torque (100K)	8.00 Nm
Rated power	1.68 kW
Rated current (100K)	4.10 A
Static torque	10.10 Nm
Static current	4.90 A
Moment of inertia	15.70000 kgcm ²
Efficiency η	91 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
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)	7,200 rpm
Maximum torque	35.00 Nm
Motor current short term	18.5 A

Optimum operating point	
Optimum speed	2,000 rpm
Optimum power	1.67 kW

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Recommended Motor Module	
Rated inverter current	5.0 A
Maximum inverter current	15.0 A
Maximum torque	29.5 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}	8.50 Nm
Holding torque M_{4Br}	13.00 Nm
Opening time	100.0 ms
Closing time	50.0 ms
Maximum switching energy per braking action	380.0 J

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

Options	
D01	M1 for helical and parallel shaft gearboxes
G23	Seal longer service life
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.