

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1405-5RF33-2AA1-Z**
D05+K06+N23



Figure similar

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

Item no. :
Consignment no. :
Project :

Gearbox data

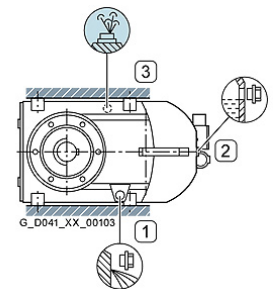
Gear box type	FD79
Gearbox basic type	Parallel shaft geared F
Gearbox size	79
Transmission stages	3
Transmission (ratio)	53.01
Gear number relation	5301/100
Output moment maximum (short-time)	1,010 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	85 rpm
Emergency off output moment (1000 cycles)	1,700 Nm
Radial force maximum	13,600 N
Max. permissible radial force with Mmax	13,600 N
Moment of inertia	3.00 kgcm ²
Torsional stiffness	80 Nm/°
Efficiency	0.93
Mounting position	M5
Mounting type	Foot-mounted
Output shaft version	Hollow shaft standard
Output shaft dimension	H40 mm
Gearbox flange diameter	-/-
Figure 2 torque support	-

General tech. specifications

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	55.30 kg
1m-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	Mineral oil CLP VG220
Output shaft sealing	Standard
Oil charge	2.60 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	3,000 rpm
Rated torque (100K)	9.40 Nm
Rated power	2.95 kW
Rated current (100K)	6.50 A
Static torque	15.50 Nm
Static current	9.90 A
Moment of inertia	29.50000 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	50.00 Nm
Motor current short term	37.0 A

Optimum operating point

Optimum speed	3,000 rpm
Optimum power	2.95 kW

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Recommended Motor Module

Rated inverter current	9.0 A
Maximum inverter current	27.0 A
Maximum torque	40.0 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

D05	M5 for helical and parallel shaft gearboxes
K06	Mineral oil CLP ISO 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.