

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1511-5QG53-2HS1-Z
D16+K06+N24+Q91+R91

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

Item no. :
Consignment no. :
Project :

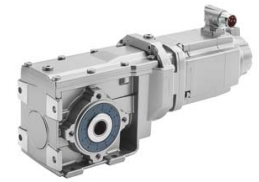
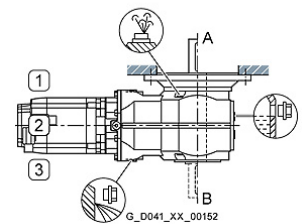


Figure similar

Gearbox data	
Gear box type	K109
Gearbox basic type	Bevel geared B / K
Gearbox size	109
Transmission stages	3
Transmission (ratio)	52.29
Gear number relation	25886/495
Output moment maximum (short-time)	3,030 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	86 rpm
Emergency off output moment (1000 cycles)	4,930 Nm
Radial force maximum	24,500 N
Max. permissible radial force with Mmax	24,500 N
Moment of inertia	9.70 kgcm ²
Torsional stiffness	291 Nm/°
Efficiency	0.95
Mounting position	M6-A
Mounting type	Housing flange (C type)
Output shaft version	Hollow shaft standard
Output shaft dimension	H60 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	136.15 kg
1m-sound pressure level L _{pA} (Tol.+3dB(A))	75
Plug position	right (1)
Adapter flange position	right (1)

Lubrication and sealing	
Gear oil	Mineral oil CLP ISO VG220
Output shaft sealing	Standard
Oil charge	7.90 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	3,000 rpm
Rated torque (100K)	23.50 Nm
Rated power	7.38 kW
Rated current (100K)	16.00 A
Static torque	45.00 Nm
Static current	29.00 A
Moment of inertia	181.60000 kgcm ²
Efficiency η	94 %
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	150.00 Nm
Motor current short term	109.0 A

Optimum operating point	
Optimum speed	2,640 rpm
Optimum power	7.60 kW

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Recommended Motor Module	
Rated inverter current	30.0 A
Maximum inverter current	56.0 A
Maximum torque	87.0 Nm

Holding brake	
Holding brake	reinforced brake
Holding brake version	Permanent-magnet brake
Power supply voltage	DC 24 V ± 10 %
Dynamic braking torque M _{1Br}	35.00 Nm
Holding torque M _{4Br}	85.00 Nm
Opening time	250.0 ms
Closing time	70.0 ms
Maximum switching energy per braking action	5,300.0 J

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

Options	
D16	M6-A for bevel and worm gearboxes
K06	Mineral oil CLP ISO VG220
N24	Holding brake with increased braking torque (permanent magnet brake)
Q91	Plug position right
R91	Adapter flange position: right

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.