

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1510-1QE03-2AB2-Z**
D11+K06+N23



Figure similar

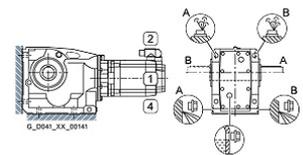
Client order no. :
 Order no. :
 Offer no. :
 Remarks :

Item no. :
 Consignment no. :
 Project :

Gearbox data	
Gear box type	K89
Gearbox basic type	Bevel geared
Gearbox size	89
Transmission stages	3
Transmission (ratio)	102.63
Gear number relation	57575/561
Output moment maximum (short-time)	1,610 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	44 rpm
Emergency off output moment (1000 cycles)	2,720 Nm
Radial force maximum	18,100 N
Max. permissible radial force with Mmax	18,100 N
Moment of inertia	1.60 kgcm ²
Torsional stiffness	164 Nm/°
Efficiency	0.94
Mounting position	M1-A
Mounting type	Foot-mounted
Output shaft version	Solid shaft standard
Output shaft dimension	V50 x 100 mm
Gearbox flange diameter	-/-
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	67.59 kg
1 m-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	Mineral oil CLP ISO VG220
Output shaft sealing	Standard
Oil charge	1.80 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	3,000 rpm
Rated torque (100K)	3.95 Nm
Rated power	1.24 kW
Rated current (100K)	3.25 A
Static torque	5.30 Nm
Static current	4.05 A
Moment of inertia	8.70000 kgcm ²
Efficiency η	91 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits

Limiting data	
Maximum speed (short-time)	7,200 rpm
Maximum torque	18.00 Nm
Motor current short term	15.0 A

Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	1.25 kW

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Recommended Motor Module

Rated inverter current	5.0 A
Maximum inverter current	15.0 A
Maximum torque	18.0 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}	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

- D11 M1-A for bevel and worm 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.