

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1512-5QG33-2AG2-Z**
D14+K06+N23



Figure similar

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

Item no. :
Consignment no. :
Project :

Gearbox data

Gear box type	K129
Gearbox basic type	Bevel geared B / K
Gearbox size	129
Transmission stages	3
Transmission (ratio)	194.04
Gear number relation	8732/45
Output moment maximum (short-time)	4,480 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	23 rpm
Emergency off output moment (1000 cycles)	7,480 Nm
Radial force maximum	40,000 N
Max. permissible radial force with Mmax	40,000 N
Moment of inertia	4.50 kgcm ²
Torsional stiffness	421 Nm/°
Efficiency	0.93
Mounting position	M4-A
Mounting type	Foot-mounted
Output shaft version	Hollow shaft standard
Output shaft dimension	H70 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	197.71 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	18.60 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)	14.00 Nm
Rated power	4.40 kW
Rated current (100K)	11.20 A
Static torque	31.50 Nm
Static current	23.50 A
Moment of inertia	112.00000 kgcm ²
Efficiency η	90 %
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	108.00 Nm
Motor current short term	84.0 A

Optimum operating point

Optimum speed	2,400 rpm
Optimum power	4.85 kW

Recommended Motor Module

Rated inverter current	30.0 A
Maximum inverter current	56.0 A
Maximum torque	77.0 Nm

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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}	25.00 Nm
Holding torque M_{4Br}	43.00 Nm
Rated current	1.0 A
Opening time	300.0 ms
Closing time	70.0 ms
Maximum switching energy per braking action	3,380.0 J

Standards

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

Options

- D14 M4-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.