

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1501-5QD23-2DR1-Z**
D15+K07+N23



Figure similar

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

Item no. :
 Consignment no. :
 Project :

Gearbox data

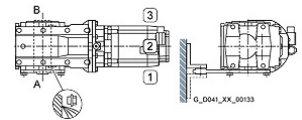
Gear box type	B29
Gearbox basic type	Bevel geared B / K
Gearbox size	29
Transmission stages	2
Transmission (ratio)	17.82
Gear number relation	1925/108
Output moment maximum (short-time)	114 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	253 rpm
Emergency off output moment (1000 cycles)	187 Nm
Radial force maximum	4,130 N
Max. permissible radial force with Mmax	4,110 N
Moment of inertia	0.19 kgcm ²
Torsional stiffness	13 Nm/°
Efficiency	0.93
Mounting position	M5-A
Mounting type	Torque plate
Output shaft version	Hollow shaft standard
Output shaft dimension	H20 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
Figure 2 torque support	1

General tech. specifications

Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	11.03 kg
1 m-sound pressure level L _{pA} (Tol.+3dB(A))	65
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

Lubrication and sealing

Gear oil	Synthetic oil CLP PG VG220
Output shaft sealing	Standard
Oil charge	0.55 l



Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	48 mm
Cooling	Natural cooling
Rated speed	3,000 rpm
Rated torque (100K)	2.35 Nm
Rated power	0.74 kW
Rated current (100K)	1.85 A
Static torque	2.85 Nm
Static current	2.10 A
Moment of inertia	3.20000 kgcm ²
Efficiency η	89 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Degree of protection	IP65
Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits

Limiting data

Maximum speed (short-time)	9,000 rpm
Maximum torque	10.50 Nm
Motor current short term	7.6 A

Optimum operating point

Optimum speed	3,000 rpm
Optimum power	0.74 kW

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Recommended Motor Module

Rated inverter current	3.0 A
Maximum inverter current	9.0 A
Maximum torque	10.5 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}	3.00 Nm
Holding torque M_{4Br}	4.00 Nm
Opening time	70.0 ms
Closing time	30.0 ms
Maximum switching energy per braking action	150.0 J

Standards

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

Options

- D15 M5-A for bevel and worm gearboxes
- 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.