

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1501-1RD23-2HB2-Z
D22+K12+N23

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

Item no. :
Consignment no. :
Project :

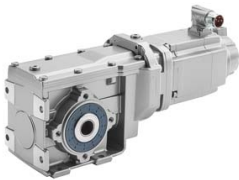
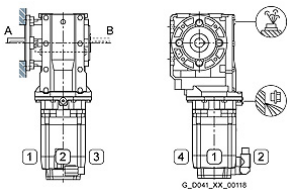


Figure similar

Gearbox data	
Gear box type	B29
Gearbox basic type	Bevel geared B / K
Gearbox size	29
Transmission stages	2
Transmission (ratio)	46.85
Gear number relation	1265/27
Output moment maximum (short-time)	112 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	96 rpm
Emergency off output moment (1000 cycles)	187 Nm
Radial force maximum	4,130 N
Max. permissible radial force with Mmax	4,120 N
Moment of inertia	0.04 kgcm²
Torsional stiffness	13 Nm/°
Efficiency	0.92
Mounting position	M2-B
Mounting type	Housing flange (C type)
Output shaft version	Solid shaft standard
Output shaft dimension	V20 x 40 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
Figure 2 torque support	-

General tech. specifications	
Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	11.20 kg
1m-sound pressure level LpA (Tol.+3dB(A))	65
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

Lubrication and sealing	
Gear oil	Synthetic oil CLP PAO VG220
Output shaft sealing	Standard
Oil charge	0.60 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 kgcm²
Efficiency η	89 %
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)	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	
D22	M2-B for bevel and worm gearboxes
K12	Poly-alpha-olefin oil CLP ISO PAO 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.