

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1602-1QD43-4HU1-Z
D11+G23+K08+N23+Q92

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

Item no. :
Consignment no. :
Project :



Figure similar

Gearbox data	
Gear box type	C39A
Gearbox basic type	Helical worm gearbox
Gearbox size	39
Transmission (ratio)	49.87
Gear number relation	748/15
Output moment maximum (short-time)	250 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	90 rpm
Emergency off output moment (1000 cycles)	250 Nm
Radial force maximum	6,160 N
Max. permissible radial force with Mmax	5,970 N
Moment of inertia	0.06 kgcm ²
Torsional stiffness	-/-
Efficiency	0.89
Mounting position	M1-A
Mounting type	Housing flange (C type)
Output shaft version	Solid shaft standard
Output shaft dimension	V25 x 50 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
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	15.28 kg
1m-sound pressure level L _{pA} (Tol.+3dB(A))	65
Plug position	bottom (4)
Adapter flange position	top (default) (2)

Lubrication and sealing	
Gear oil	Polyglycol oil CLP ISO PG VG460
Output shaft sealing	Seal longer service life
Oil charge	0.15 l

Motor data	
Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
DC-link voltage, max.	510...720V
Shaft height	48 mm
Cooling	Natural cooling
Rated speed	3,000 rpm
Rated torque (100K)	3.20 Nm
Rated power	1.01 kW
Rated current (100K)	3.15 A
Static torque	4.05 Nm
Static current	3.80 A
Moment of inertia	1.62000 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)	9,000 rpm
Maximum torque	11.30 Nm
Motor current short term	10.4 A

Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	1.01 kW

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Recommended Motor Module	
Rated inverter current	5.0 A
Maximum inverter current	15.0 A
Maximum torque	11.3 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	
D11	M1-A for bevel and worm gearboxes
G23	Seal longer service life
K08	Polyglycol oil CLP ISO PG VG460
N23	Standard holding brake (permanent magnet brake)
Q92	Plug position bottom

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.