

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1602-1RC23-1FV1-Z
D12+G23+K12

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

Item no. :
Consignment no. :
Project :

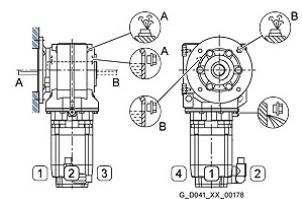


Figure similar

Gearbox data	
Gear box type	C39A
Gearbox basic type	Helical worm gearbox
Gearbox size	39
Transmission (ratio)	52.65
Gear number relation	1053/20
Output moment maximum (short-time)	171 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	85 rpm
Emergency off output moment (1000 cycles)	250 Nm
Radial force maximum	6,260 N
Max. permissible radial force with Mmax	6,230 N
Moment of inertia	0.57 kgcm ²
Torsional stiffness	-/-
Efficiency	0.73
Mounting position	M2-A
Mounting type	Flange version (A type)
Output shaft version	Solid shaft standard
Output shaft dimension	V25 x 50 mm
Gearbox flange diameter	160 mm
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	10.29 kg
1m-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	Poly-alpha-olefin oil CLP ISO PAO VG220
Output shaft sealing	Seal longer service life
Oil charge	0.80 l



Motor data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	270...300V
Shaft height	36 mm
Cooling	Natural cooling
Rated speed	3,000 rpm
Rated torque (100K)	0.87 Nm
Rated power	0.28 kW
Rated current (100K)	1.37 A
Static torque	1.01 Nm
Static current	1.50 A
Moment of inertia	0.65 kgcm ²
Efficiency η	86 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
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)	10,000 rpm
Maximum torque	4.50 Nm
Motor current short term	7.0 A

Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	0.28 kW



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Recommended Motor Module	
Rated inverter current	2.3 A
Maximum inverter current	4.6 A
Maximum torque	3.0 Nm

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

Options	
D12	M2-A for bevel and worm gearboxes
G23	Seal longer service life
K12	Poly-alpha-olefin oil CLP ISO PAO VG220

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.