

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1500-5RC36-4FP1-Z
D23+K12+N23+Q93

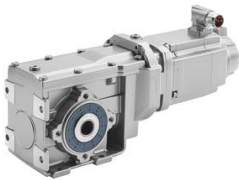


Figure similar

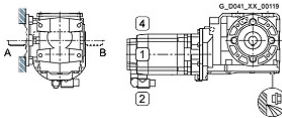
Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Gearbox data	
Gear box type	B19
Gearbox basic type	Bevel geared B / K
Gearbox size	19
Transmission stages	2
Transmission (ratio)	14.57
Gear number relation	1705/117
Output moment maximum (short-time)	52 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	309 rpm
Emergency off output moment (1000 cycles)	85 Nm
Radial force maximum	1,910 N
Max. permissible radial force with Mmax	1,910 N
Moment of inertia	0.17 kgcm²
Torsional stiffness	9 Nm/°
Efficiency	0.93
Mounting position	M3-B
Mounting type	Flange version (A type)
Output shaft version	Hollow shaft standard
Output shaft dimension	H20 mm
Gearbox flange diameter	120 mm
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	8.50 kg
1m-sound pressure level LpA (Tol.+3dB(A))	65
Plug position	left (3)
Adapter flange position	top (default) (2)

Lubrication and sealing	
Gear oil	Synthetic oil CLP PAO VG220
Output shaft sealing	Standard
Oil charge	0.40 l



Motor data	
Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
DC-link voltage, max.	510...720V
Shaft height	36 mm
Cooling	Natural cooling
Rated speed	6,000 rpm
Rated torque (100K)	0.77 Nm
Rated power	0.49 kW
Rated current (100K)	1.43 A
Static torque	1.13 Nm
Static current	1.92 A
Moment of inertia	0.35000 kgcm²
Efficiency η	88 %
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)	10,000 rpm
Maximum torque	4.30 Nm
Motor current short term	7.6 A

Optimum operating point	
Optimum speed	6,000 rpm
Optimum power	0.48 kW

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Recommended Motor Module

Rated inverter current	3.0 A
Maximum inverter current	9.0 A
Maximum torque	4.3 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}	1.00 Nm
Holding torque M_{4Br}	1.90 Nm
Opening time	50.0 ms
Closing time	30.0 ms
Maximum switching energy per braking action	40.0 J

Standards

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

Options

D23	M3-B for bevel and worm gearboxes
K12	Poly-alpha-olefin oil CLP ISO PAO VG220
N23	Standard holding brake (permanent magnet brake)
Q93	Plug position left

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.