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Data sheet for SIMOTICS S-1FG1

Article No. :   1FG1605-1RF43-2FV1-Z
D16+G23+G34+G53+K08+Q92+X57

Figure similar

Client order no. :		Item no. :	
Order no. :		Consignment no. :	
Offer no. :		Project :	
Remarks :			

Gearbox data	
Gear box type	C89
Gearbox basic type	Helical worm gearbox
Gearbox size	89
Transmission (ratio)	65.00
Gear number relation	65/1
Output moment maximum (short-time)	1,050 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	69 rpm
Emergency off output moment (1000 cycles)	1,550 Nm
Radial force maximum	13,400 N
Max. permissible radial force with Mmax	12,600 N
Moment of inertia	8.12 kgcm²
Torsional stiffness	-/-
Efficiency	0.73
Mounting position	M6-A
Mounting type	Flange version (A type)
Output shaft version	Solid shaft standard
Output shaft dimension	V45 x 90 mm
Gearbox flange diameter	250 mm
Output shaft bearing	No
Figure 2 torque support	-

General tech. specifications	
Degree of protection	IP65
Color of the housing	Light blue RAL 5012
Specification	CE / UL / CSA / EAC / cRUus
Net weight	77.74 kg
1m-sound pressure level L_{pA} (Tol.+3dB(A))	75
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	3.04 l
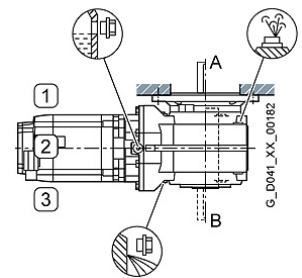
Motor data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	80 mm
Cooling	Natural cooling
Rated speed	3,000 rpm
Rated torque (100K)	10.00 Nm
Rated power	3.14 kW
Rated current (100K)	6.60 A
Static torque	18.70 Nm
Static current	11.40 A
Moment of inertia	32.50 kgcm²
Efficiency η	92 %
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)	6,000 rpm
Maximum torque	61.00 Nm
Motor current short term	41.0 A

Optimum operating point	
Optimum speed	2,700 rpm
Optimum power	3.30 kW

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                       D16+G23+G34+G53+K08+Q92+X57

Recommended Motor Module	
Rated inverter current	18.0 A
Maximum inverter current	54.0 A
Maximum torque	61.0 Nm

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

Options	
D16	M6-A for bevel and worm gearboxes
G23	Seal longer service life
G34	Oil inspection glass
G53	Oil drain plug magnetic
K08	Polyglycol oil CLP ISO PG VG460
Q92	Plug position bottom
X57	Paint finish: Light blue RAL 5012

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.