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Data sheet for SIMOTICS S-1FG1

Figure similar

MLFB-Ordering data 1FG1605-5PF12-2DU1-Z
D23+G24+K08+K82+N30

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

Item no. :
Consignment no. :
Project :

Gearbox data

Gear box type	C89
Gearbox basic type	Helical worm gearbox
Gearbox size	89
Transmission (ratio)	55.61
Gear number relation	1001/18
Output moment maximum (short-time)	1480 Nm
max. input speed (briefly)	4500 rpm
Output speed short-time	81 rpm
Emergency off output moment (1000 cycles)	1480 Nm

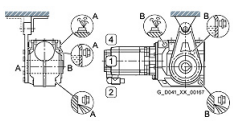
Radial force maximum	8620 N
Max. permissible radial force with Mmax	8350 N
Moment of inertia	0.89 kgcm²
Torsional stiffness	-/-
Efficiency	0.91
Mounting position	M3-B
Mounting type	Torque plate
Output shaft version	Hollow shaft standard
Output shaft dimension	H50 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
Figure 2 torque support	1

General tech. specifications

Degree of protection	IP65
Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	65.00 kg
1m-sound pressure level L_{pA} (Tol.+3dB(A))	75
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

Lubrication and sealing

Gear oil	Polyglycol oil CLP ISO PG VG460
Output shaft sealing	Seal increased environmental load
Oil charge	5.00 l



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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	2000 rpm
Rated torque (100K)	9.10 Nm
Rated power	1.91 kW
Rated current (100K)	4.00 A
Static torque	11.00 Nm
Static current	4.65 A
Moment of inertia	22.32280 kgcm²
Efficiency η	92 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)

Limiting data

Maximum speed (short-time)	6000 rpm
Maximum torque	37.00 Nm
Motor current short term	17.2 A

Optimum operating point

Optimum speed	2000 rpm
Optimum power	1.90 kW

Recommended Motor Module

Rated inverter current	5.0 A
Maximum inverter current	15.0 A
Maximum torque	33.3 Nm

Holding brake

Holding brake	spring-loaded brake (shaft height 80 - 100)
Holding brake version	Spring-type brake
Power supply voltage	DC 24 V ± 10 %
Braking torque M_{1Br} / M_{2Br}	11.00 Nm
Holding torque M_{4Br}	8.00 Nm
Opening time	150.0 ms
Closing time	150.0 ms
Maximum switching energy per braking action	2800.0 J

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.

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D23+G24+K08+K82+N30

Figure similar

Options

D23	M3-B for bevel and worm gearboxes
G24	Seal increased environmental load
K08	Polyglycol oil CLP ISO PG VG460
K82	Manual brake release (only for working brakes)
N30	Spring-loaded brake

Standards

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