

Your configured drive

Part number*: B75D3A7ED6B0 Revision 1

maxon motor

driven by precision

Motor - DCX22S GB KL 12V
Planetary gearhead - GPX22HP 103:1

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Interactive 3D model

Click on the icon to activate your 3D model



Your configuration can be viewed here:

<http://www.maxonmotor.ch/maxon/view/configurator/?ConfigID=B75D3A7ED6B0>

*If the link doesn't work, you can open your configuration with the part number from the catalog.

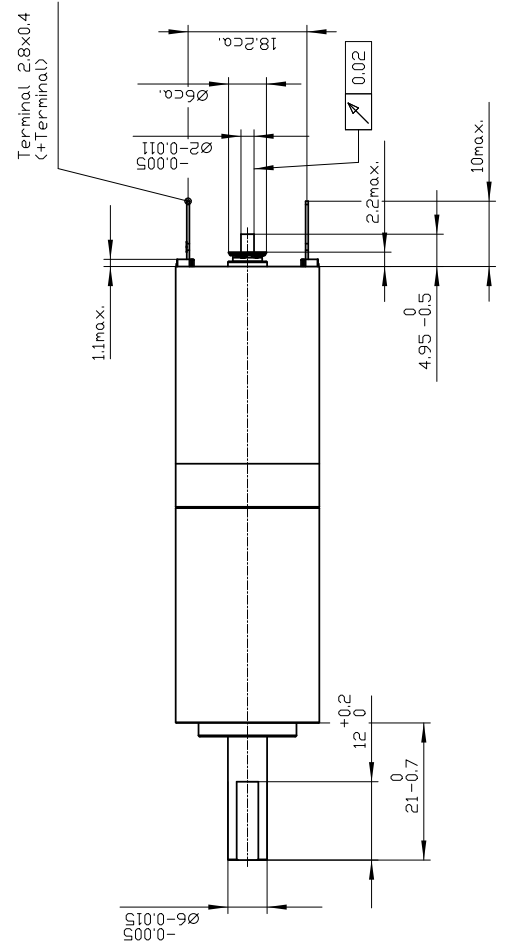
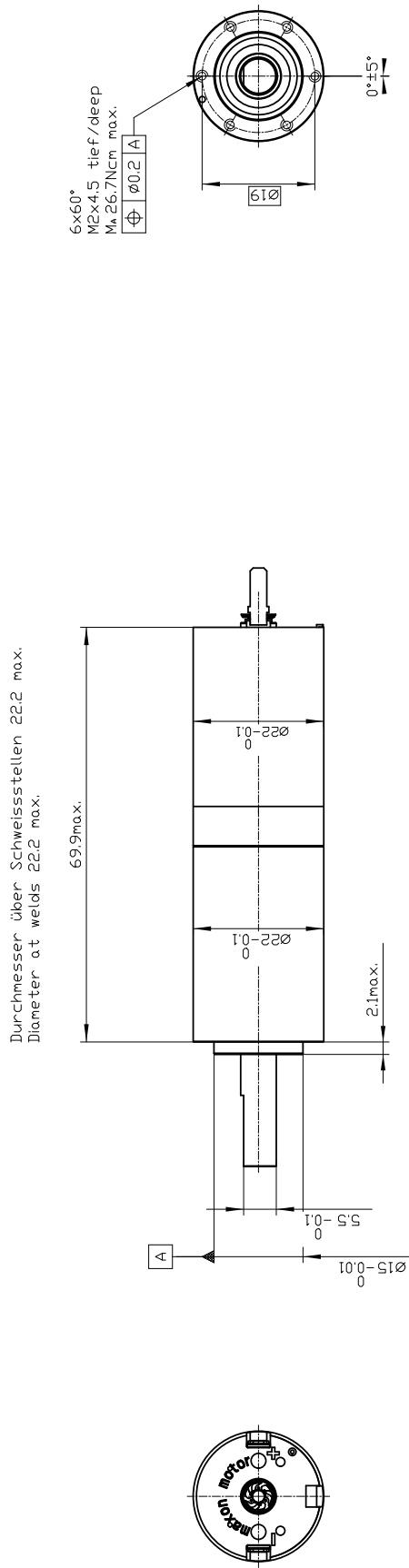
Attachments / CAD files

Please double click with left mouse button on a pushpin symbol to open a file. You could also save a file when you click the symbol with the right mouse button.

B75D3A7ED6B0.stp (STP AP 214)

**Motor - DCX22S GB KL 12V
Planetary gearhead - GPX22HP 103:1**

Drawings are not to scale!



Summary of your selected configuration

Motor - DCX22S GB KL 12V
Planetary gearhead - GPX22HP 103:1

Total weight of the drive: 149 g

Motor: DCX22S GB KL 12V

Commutation	Graphite brushes
Nominal voltage	12 V
Motor bearings	Preloaded ball bearing

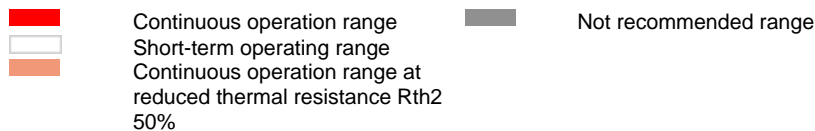
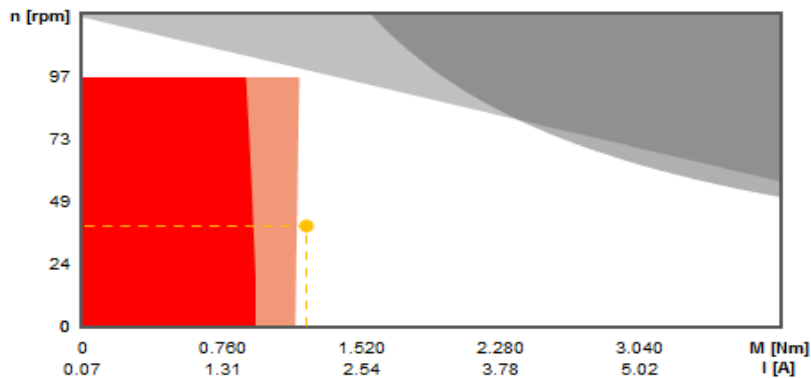
Labeling

Labeling	Your own text
Your text	12 v 103 - 1

Gearhead GPX22HP 103:1

Gearhead type	High Power
Reduction	103:1
Number of stages	3
Centering depth	2.1

Operating range



Motor - DCX22S GB KL 12V



Values at nominal voltage

Nominal voltage	12 V
No load speed	12400 rpm
No load current	71.7 mA
Nominal speed	10700 rpm
Nominal torque (max. continuous torque)	14.6 mNm
Nominal current (max. continuous current)	1.65 A
Stall torque	108 mNm
Stall current	11.8 A
Max. efficiency	85.2 %

Characteristics

Max. output power	22.7 W
Terminal resistance	1.02 Ohm
Terminal inductance	0.0576 mH
Torque constant	9.18 mNm/A
Speed constant	1040 rpm/V
Speed/torque gradient	116 rpm/mNm
Mechanical time constant	6.12 ms
Rotor inertia	5.05 gcm ²

Thermal data

Thermal resistance housing-ambient	16 K/W
Thermal resistance winding-housing	7 K/W
Thermal time constant of the winding	18.1 s
Thermal time constant of the motor	528 s
Ambient temperature	-40..100 °C
Max. winding temperature	125 °C

Mechanical data

Max. permissible speed	18000 rpm
Min. axial play	0 mm
Max. axial play	0.1 mm
Radial backlash	0.02
Max. axial load (dynamic)	2.5 N
Max. force for press fits (static)	30 N
Max. radial load 5 mm from flange	16 N

Further specifications

Number of pole pairs	1
Number of commutator segments	9
Weight	58.7 g
Number of autoclave cycles	0
Typical noise level	41 dBA

Information about motor data: http://www.maxonmotor.com/medias/CMS_Downloads/DIVERSES/12_137_EN.pdf

Planetary gearhead - GPX22HP 103:1



Gearhead data

Reduction	103:1
Absolute reduction	371250/3610
Max. transmittable power (continuous)	15 W
Max. transmittable power (intermittent)	20 W
Number of stages	3
Max. continuous torque	3.3 Nm
Max. intermittent torque	3.8 Nm
Direction of rotation, drive to output	=
Max. efficiency	65 %
Weight	90 g
Average backlash no-load	1.2 degree
Mass inertia	1.191 gcm ²
Gearhead length	38.2 mm

Technical data

Output shaft bearing	Ball bearings
Gearhead type	GPX
Max. radial play	0.1 mm
mm from flange	10 mm
Min. axial play	0 mm
Max. axial play	0.2 mm
Max. permissible radial load	150 N
mm from flange	10 mm
Max. axial load (dynamic)	80 N
Max. force for press fits	120 N
Max. continuous input speed	10000 rpm
Max. intermittent input speed	12500 rpm
Min. recommended temperature range	-40..100 °C
Number of autoclave cycles	0

Information about gearhead data: http://www.maxonmotor.com/medias/CMS_Downloads/DIVERSES/12_203_EN.pdf