

Your configuration

Part number*: B716F79596E0

Consists of:

Motor - DCX35L GB KL 18V
Planetary gearhead - GPX42 21:1

maxon motor

driven by precision

maxon motor worldwide

http://www.maxonmotor.com/maxon/view/content/contact_page

E-Mail: e-shop@maxonmotor.com

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Interactive 3D model



Your configuration can be viewed here:

<http://www.maxonmotor.com/maxon/view/configurator/?ConfigID=B716F79596E0>

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

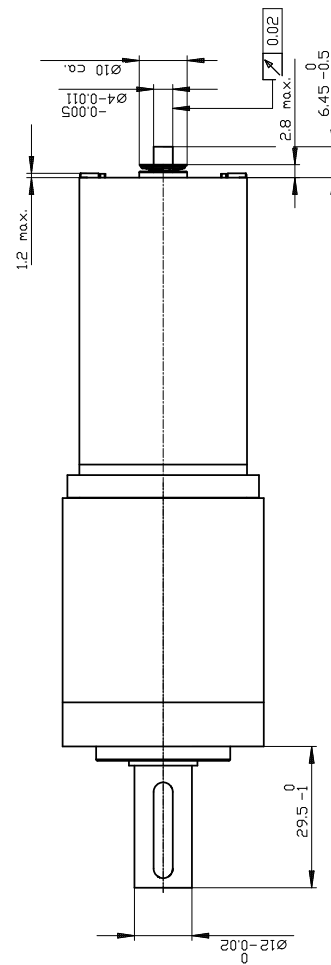
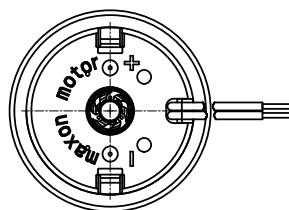
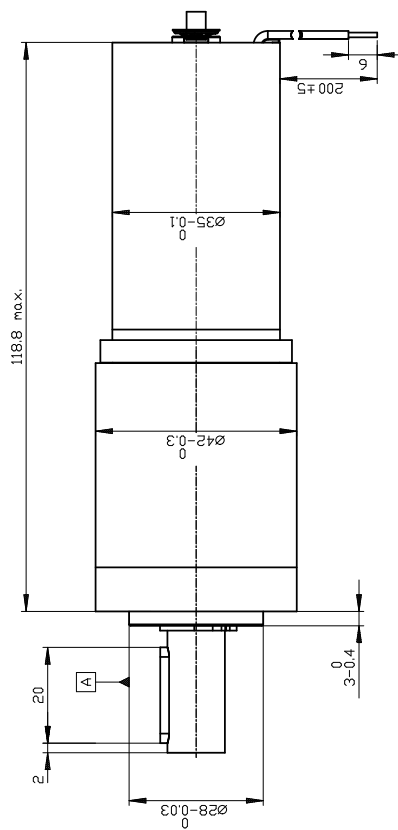
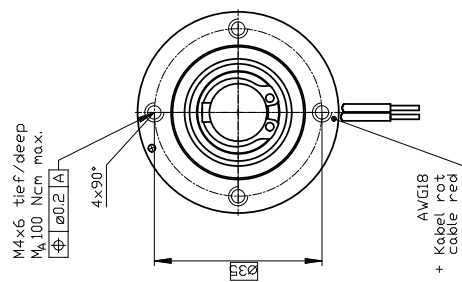
Attachments / CAD files

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.

B716F79596E0.stp (STP AP 214)

Motor - DCX35L GB KL 18V
Planetary gearhead - GPX42 21:1

Drawings are not to scale!



Kabel nicht dargestellt
no cable visualisation

Summary of your selected configuration

Motor - DCX35L GB KL 18V

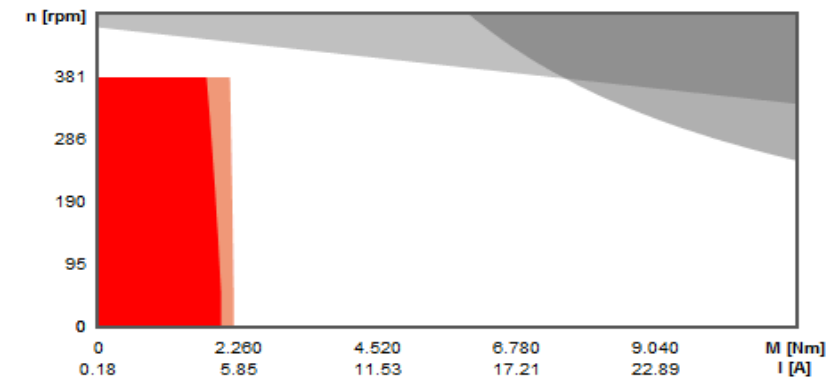
Planetary gearhead - GPX42 21:1






Total weight of the drive: 740 g

Functions		
Gearhead type	Ceramic version	*
Reduction	21 : 1	*
Number of stages	2	*
Commutation	Graphite brushes	
Supply voltage	Nominal voltage 18 V	
Motor bearings	Preloaded ball bearing	
Form and Fit		
Gear shaft	with key	
Shaft length L1	29.5 mm	
Key length L2	20 mm	
Gear flange	Standard flange	
Amount of threads	4	
Thread diameter	M4	
Pitch circle diameter TK	35 mm	
Flange, rear	No flange	
Shaft, rear	straight	
Shaft length L1	6.45 mm	
Electrical connection, motor	Cable	*
Connector type, motor	No connector	
Cable length L1 for motor	200 mm	
Cable type	AWG18	
Connection orientation (motor)	0 degree	
Add-ons		
Labeling	Standard labeling	

(*) These values have been changed through the configuration.

Drive disposition



	Continuous operation range		Out of voltage range
	Short-term operating range		Selected operating point
	Continuous operation range at reduced thermal resistance Rth2 50%		

Values of the drive at max. available voltage

Max. motor voltage	24 V
Max. load speed	457 min ⁻¹
Continuous torque	2041.2 mNm
Nominal current (max. continuous current)	5.32 A

Your operating point - The required data for the load

Required voltage	0 V
Max. load speed	0 min ⁻¹
Effective load torque (rms)	0 mNm
Effective load current (rms)	0.18 A

Motor - DCX35L GB KL 18V



Values at nominal voltage

Nominal voltage	18 V
No load speed	7200 rpm
No load current	177 mA
Nominal speed	6640 rpm
Nominal torque (max. continuous torque)	120 mNm
Nominal current (max. continuous current)	5.32 A
Stall torque	1980 mNm
Starting current	84.8 A
Max. efficiency	87.8 %

Characteristics

Max. output power	115 W
Terminal resistance	0.212 Ohm
Terminal inductance	0.0774 mH
Torque constant	23.4 mNm/A
Speed constant	408 rpm/V
Speed/torque gradient	3.7 rpm/mNm
Mechanical time constant	3.97 ms
Rotor inertia	102 gcm ²

Thermal data

Thermal resistance housing to ambient	6.98 K / W
Thermal resistance winding to housing	2.1 K / W
Thermal time constant of the winding	45.6 s
Thermal time constant of the motor	1030 s
Ambient temperature	-40..100 °C
Max. permissible winding temperature	155 °C

Mechanical data

Max. permissible speed	12300 rpm
Min. axial play	0 mm
Max. axial play	0.1 mm
Radial backlash	0.02 mm
Max. axial load (dynamic)	7 N
Max. force for press fits (static)	22.6 N
Max. radial load	65.3 N

Further specifications

Number of pole pairs	1
Number of collector segments	11
Weight	380 g
Number of sterilization cycles	0
Typical noise level	48 dBA

Information about motor data: http://www.maxonmotor.com/medias/CMS_Downloads/DIVERSES/12_049_EN.pdf

Planetary gearhead - GPX42 21:1

Gearhead data

Reduction	21:1
Absolute reduction	21/1
Max. continuous transferable output	240 W
Max. short-time transferable output	300 W
Number of stages	2
Max. continuous torque	7.5 Nm
Permissible intermittent torque	11.3 Nm
Direction of rotation, drive to drive	=
Max. efficiency	81 %
Weight	360 g
Average no-load backlash	0.8 degree
Moment inertia	5 gcm ²
Gearhead length	55.5 mm

Technical data

Output shaft bearing	Ball bearings
Gearhead type	GPX
Max. radial backlash	0.06 mm
mm from flange	12 mm
Max. axial play	0.3 mm
Max. permissible radial load	150 N
mm from flange	12 mm
Max. permissible force for press fits	300 N
Recommended motor speed	8000 rpm
Max. short-term input speed	10000 rpm
Min. recommended temperature range	-40..100 °C
Number of sterilization cycles	0

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

The following controllers are available for this drive:

Note: Please use this part number to order in the online catalog .



EPOS2 24/5
367676



EPOS2 50/5
347717



EPOS2 70/10
375711



ESCON 70/10
422969