

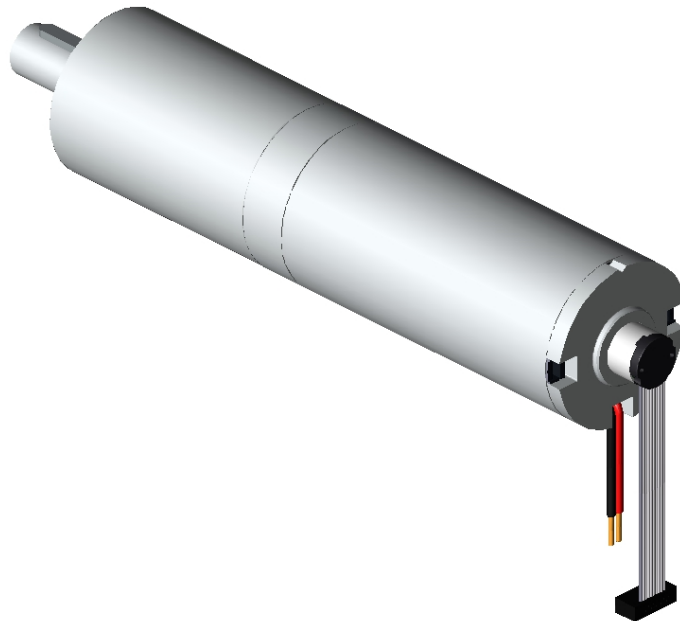
Configured drive

Motor - DCX32L GB KL 36V
Planetary gearhead - GPX32HP 62:1
Sensor - ENX10 EASY 1024IMP

Part number: B7A29CAAA688 Revision number 2

Orders are processed and shipped from Switzerland within 11 working days.

General Terms and Conditions: https://www.maxonmotor.ch/maxon/view/content/terms_and_conditions_page



To open the integrated CAD file, please save this document and open it in Acrobat Reader. The STEP file is available after a double-click on the pin icon.

B7A29CAAA688.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7A29CAAA688>

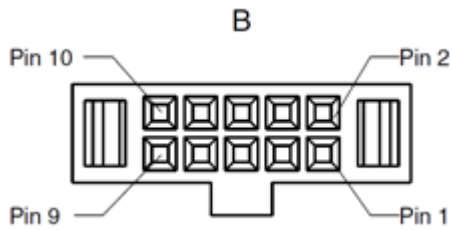
Drawing not to scale!



Axial play gerahead: 0...0.1mm

driven by precision





Connector type, encoder

1.27mm 10-pol

Pin 1	Do not connect
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Pin 2	VCC
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Pin 3	GND
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Pin 4	Do not connect
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Pin 5	Channel A \
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Pin 6	Channel A
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Pin 7	Channel B \
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Pin 8	Channel B
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Pin 9	Channel I \
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Pin 10	Channel I
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Summary of your selected configuration

Total weight of the drive: 606 g

DCX32L GB KL 36V

Product detail

Commutation	Graphite brushes
Nominal voltage	36 V
Motor bearings	Preloaded ball bearing

Electrical connection, motor

Electrical connection, motor	Cable
Cable length	200 mm

Labeling

Labeling	Your own text
Your text	HERO EXPLORER 1

GPX32HP 62:1

Product detail

Gearhead type	High Power
Reduction	62:1
Number of stages	3

ENX10 EASY 1024IMP

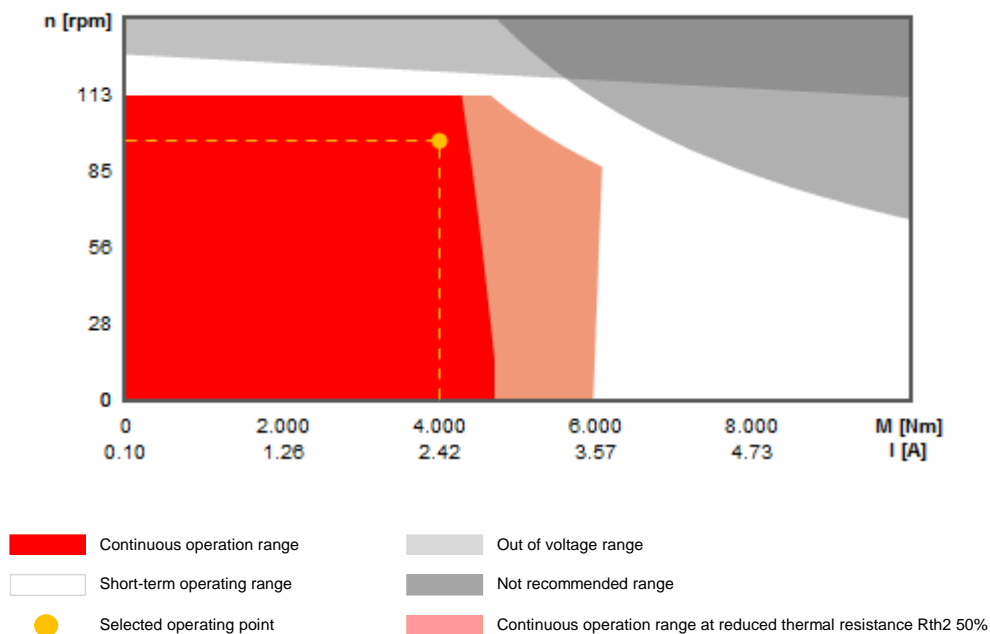
Product detail

Counts per turn	1024
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Legend for part designation

EB	Precious metal brushes	GB	Graphite brushes	CLL	Spark suppression	BL	Brushless
A	Hall sensors	B	Sensorless	KL	Ball bearings	SL	Sintered bearings
GPX	Planetary gearhead	ENX	Encoder	ENC	Encoder	IMP	Pulses
ST	Number of stages	HP	High Power	S/M/L	Short/medium/long	HS	High Speed
STE	Sterilizable	INT	Integrated	STD	Standard	SP	Speed
ABS	Absolute	LN	Reduced noise level	A	Standard	LZ	Reduced backlash
C	Ceramic bearing			STEC	Sterilizable, Ceramic bearing		

Drive disposition



Combination details

Your entries

Available voltage	36 V
Speed	96 min ⁻¹
Torque	4 Nm

Values of the drive at available voltage

Available voltage	36 V
Max. speed at given load	113 min ⁻¹
Max. continuous torque	4.65 Nm
Max. continuous current	2.79 A

Required electrical data for your operating point

Speed	96 min ⁻¹
Torque	4 Nm
Required voltage	28.76 V
Required current	2.41 A

DCX32L GB KL 36V



Product specification

Values at nominal voltage

Nominal voltage	36 V
No load speed	7940 min ⁻¹
No load current	103mA
Nominal speed	7410 min ⁻¹
Nominal torque (max. continuous torque)	119 mNm
Nominal current (max. continuous current)	2.87 A
Stall torque	2020 mNm
Stall current	47.1 A
Max. efficiency	89.6 %

Characteristics

Max. output power continuous	112 W
Terminal resistance	0.764 Ω
Terminal inductance	0.254 mH
Torque constant	42.9 mNm A ⁻¹
Speed constant	223 min ⁻¹ V ⁻¹
Speed/torque gradient	3.96 min ⁻¹ mNm ⁻¹
Mechanical time constant	3.19ms
Rotor inertia	76.8 gcm ²

Thermal data

Thermal resistance housing-ambient	7.28 KW ⁻¹
Thermal resistance winding-housing	2.3 KW ⁻¹

Thermal time constant of the winding	44.5 s
Thermal time constant of the motor	837 s
Ambient temperature	-40...100 °C
Max. winding temperature	155 °C

Mechanical data

Max. permissible speed	11300 min ⁻¹
Axial play	0...0.1 mm
Preload	7 N
Radial backlash	0.02 mm
Max. axial load (dynamic)	7 N
Max. force for press fits (static)	22.6 N
Static, supported shaft	2510 N
Max. radial load 5 mm from flange	65.3 N
Measurement from the flange	5 mm

Further specifications

Number of pole pairs	1
Number of commutator segments	11
Motor weight	325.6 g
Motor length	71.9 mm
Typical noise level	47 dBA (min ⁻¹)

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

GPX32HP 62:1



Product specification

Gearhead data

Reduction	62:1
Absolute reduction	421875/6859
Number of stages	3
Max. continuous torque	8 Nm
Max. intermittent torque	10 Nm
Direction of rotation, drive to output	=
Max. efficiency	65 %
Average backlash no-load	0.9 °
Mass inertia	9.961 gmc ²
Max. transmittable power (continuous)	55 W
Max. short-time transferable output	70 W

Technical data

Output shaft bearing	Wälzlager
Max. radial play, 5 mm from flange	max. 0.1 mm
Axial play	0...0.1 mm
Max. permissible radial load, 10 mm from flange	250 N
Max. permissible axial load	110N
Max. permissible force for press fits	200 N
Max. continuous input speed	7000 min ⁻¹
Max. intermittent input speed	8750 min ⁻¹
Recommended temperature range	-40..100 °C

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

ENX10 EASY 1024IMP



Product specification

Sensor data

Counts per turn	1024
Number of channels	3
Line Driver	RS422
Max. electrical speed	90000 min ⁻¹
Max. mechanical speed	30000 min ⁻¹

Technical data

Supply voltage V _{cc}	5 V ±10 %
Output signal	INC
Output signal driver	Differential / EIA RS 422
Output current per channel	-20...20 mA
State length	20...160 °el
Signal rise time/Signal fall time	20/20 ns
Min. state duration	125 ns
Direction of rotation	A before B CW
Index position	A low & B low
Index synchronously to AB	Yes
Index pulse width	90 °el
Typical current draw at standstill	22 mA
Max. moment of inertia of code wheel	0.05 gcm ²
Operating temperature range	-40...100 C°
Number of autoclave cycles	0

Datasheet: http://www.maxonmotor.com/medias/CMS_Downloads/DIVERSES/ENXEASY_EN.pdf