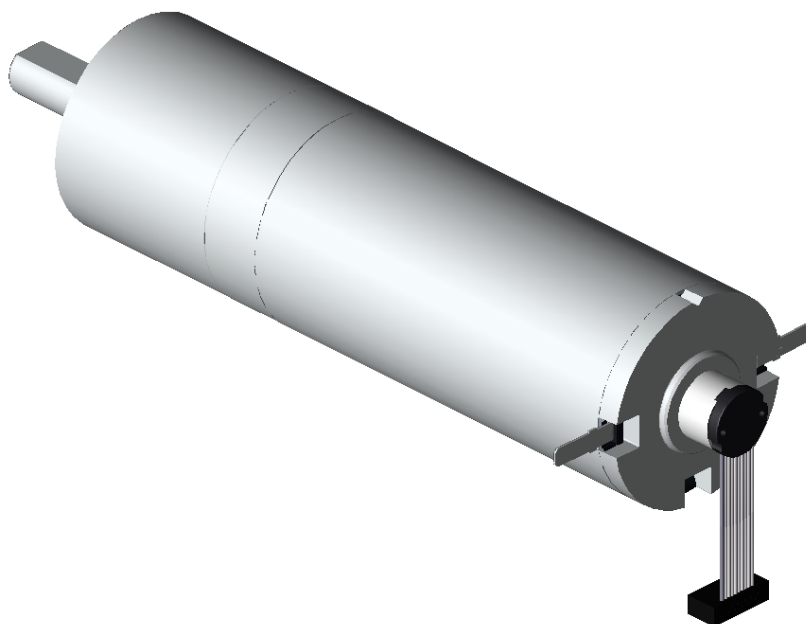


Configured drive

Motor - DCX32L GB KL 36V
Gearhead - GPX32 C 35:1
Sensor - ENX10 EASY 512IMP

Part number: B7D0C1B69AC5 Revision number 3

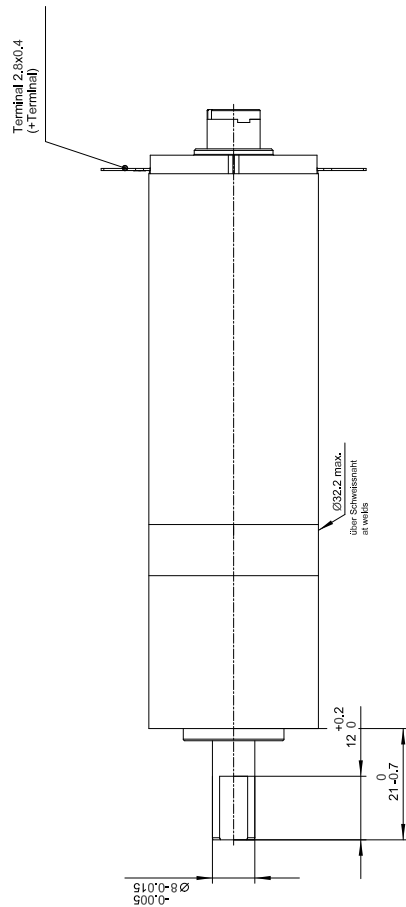
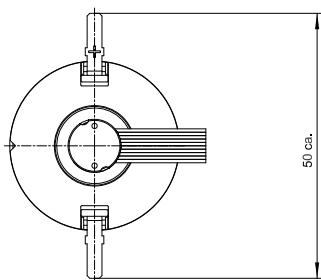
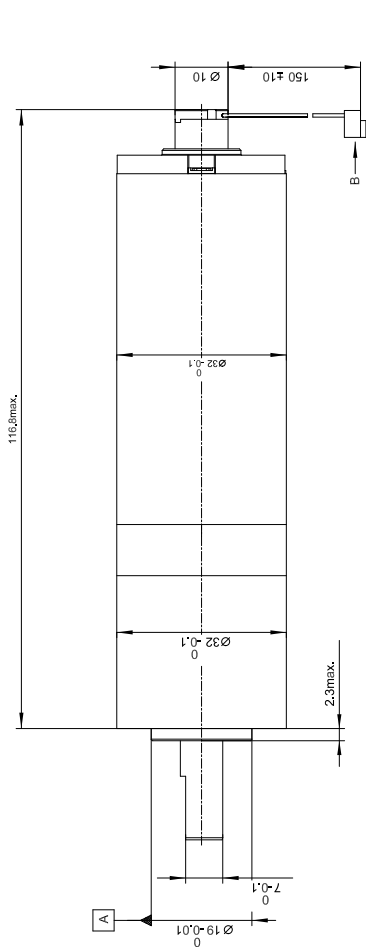
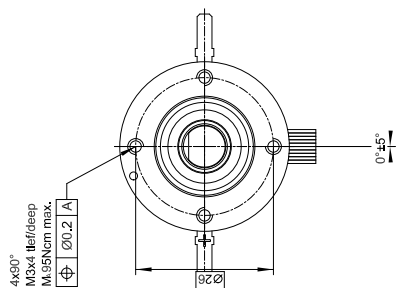
General Terms and Conditions https://www.maxongroup.ch/maxon/view/content/terms_and_conditions_page



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.

B7D0C1B69AC5.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7D0C1B69AC5>



Anschluss nicht dargestellt / terminal not shown

Unit of measure: mm



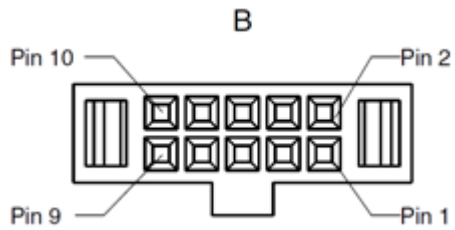
ISO 5456-1

ISO 1101

ISO 965-1

ISO 2768-m

ISO 8015



Connector type, encoder

1.27mm 10-pol

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

Summary of your selected configuration

Total weight of the drive: 508 g

DCX32L GB KL 36V

Product detail

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

GPX32 C 35:1

Product detail

Gearhead type	Ceramic version
Reduction	35:1
Number of stages	2

ENX10 EASY 512IMP

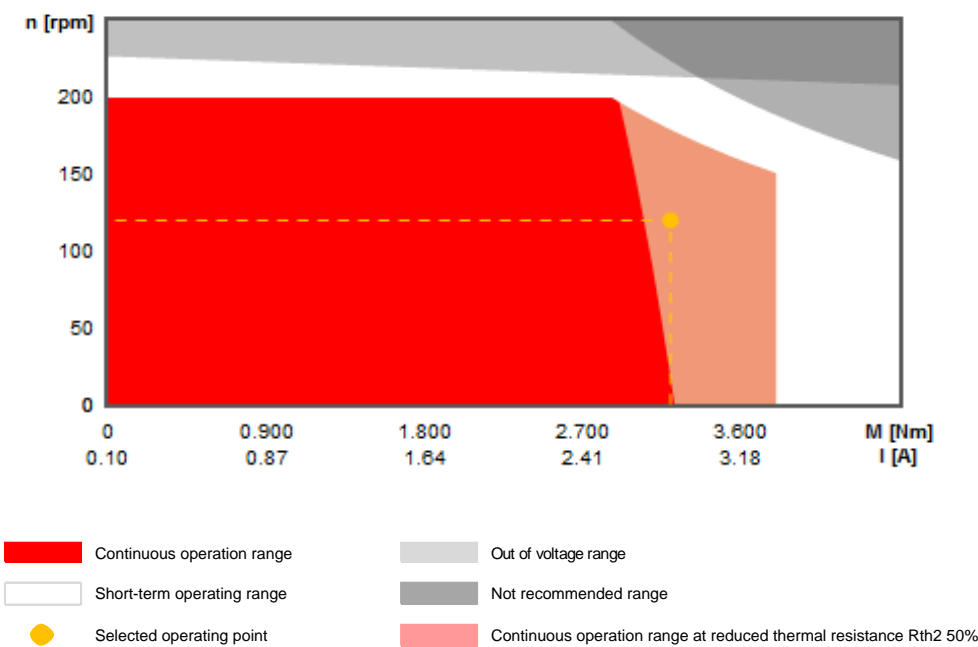
Product detail

Counts per turn	512
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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	integ.	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	120 min ⁻¹
Torque	3.2 Nm

Values of the drive at available voltage

Available voltage	36 V
Max. speed at given load	179 min ⁻¹
Max. continuous torque	3.20 Nm
Max. continuous current	2.83 A

Required electrical data for your operating point

Speed	120 min ⁻¹
Torque	3.2 Nm
Required voltage	21.26 V
Required current	2.83 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	323.1 g
Motor length	71.9 mm
Typical noise level	47 dBA (min ¹)

Information about motor data https://www.maxongroup.com/medias/CMS_Downloads/DIVERSES/12_049_EN.pdf

GPX32 C 35:1



Product specification

Gearhead data

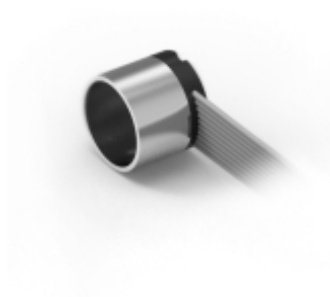
Reduction	35:1
Absolute reduction	4554/130
Number of stages	2
Max. continuous torque	3.80 Nm
Max. intermittent torque	4.5 Nm
Direction of rotation, drive to output	=
Max. efficiency	78 %
Average backlash no-load	0.7 °
Mass inertia	7.921 gcm ²
Max. transmittable power (continuous)	60 W
Max. short-time transferable output	75 W

Technical data

Output shaft bearing	KL
Max. radial play, 5 mm from flange	max. 0.14 mm
Axial play	0...0.1 mm
Max. permissible radial load, 5 mm from flange	180 N
Max. permissible axial load	110 N
Max. permissible force for press fits	120 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: https://www.maxongroup.com/medias/CMS_Downloads/DIVERSES/12_203_EN.pdf

ENX10 EASY 512IMP



Product specification

Sensor data

Counts per turn	512
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	45...135 °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