

Configured drive

Motor - DCX32L GB KL 60V
Sensor - ENX10 EASY 128IMP

Part number: B7D009025415 Revision number 2

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

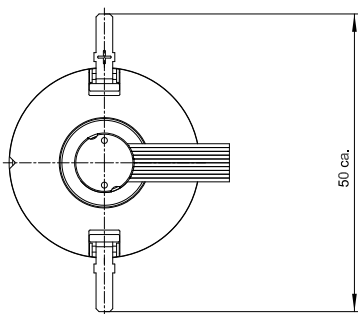
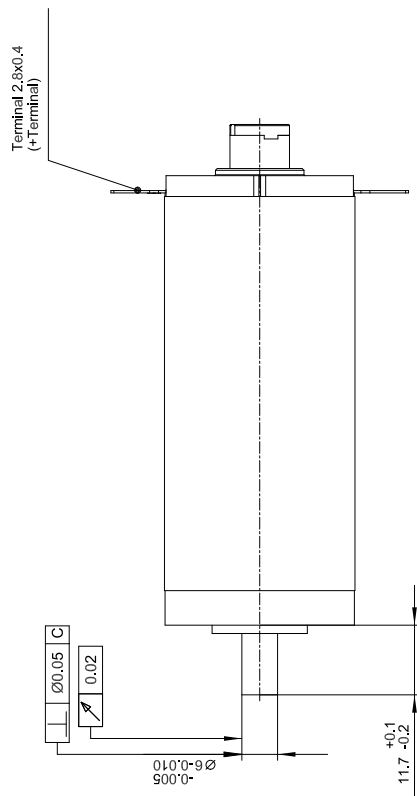
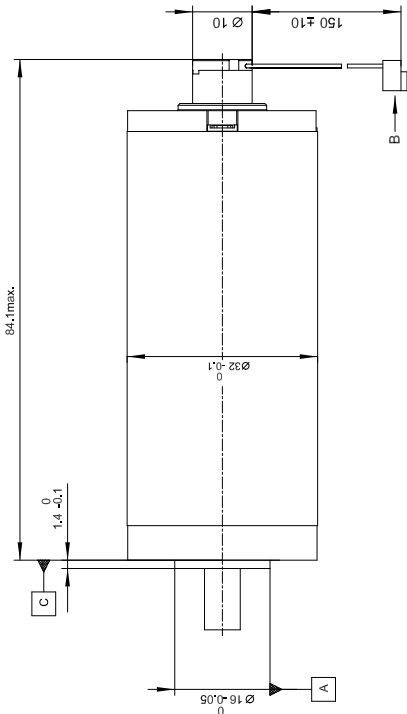
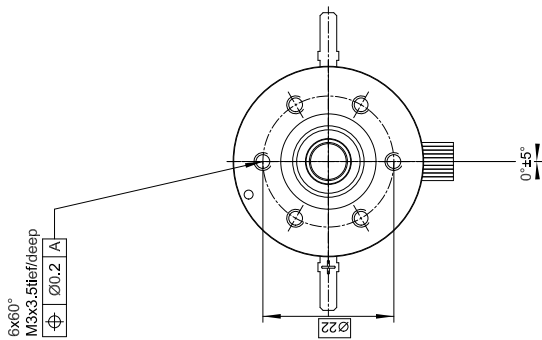
General Terms and Conditions: https://www.maxongroup.ch/maxon/view/content/terms_and_conditions_page



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.

B7D009025415.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7D009025415>



Anschluss nicht dargestellt / terminal not shown

Unit of measure: mm



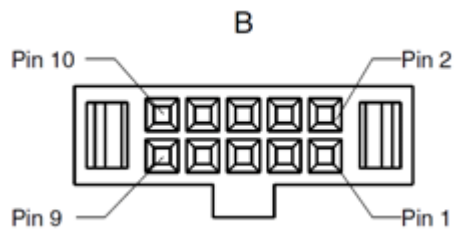
ISO 5456-1

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: 343 g

DCX32L GB KL 60V

Product detail

Commutation	Graphite brushes
Nominal voltage	60 V
Motor bearings	Preloaded ball bearing

ENX10 EASY 128IMP

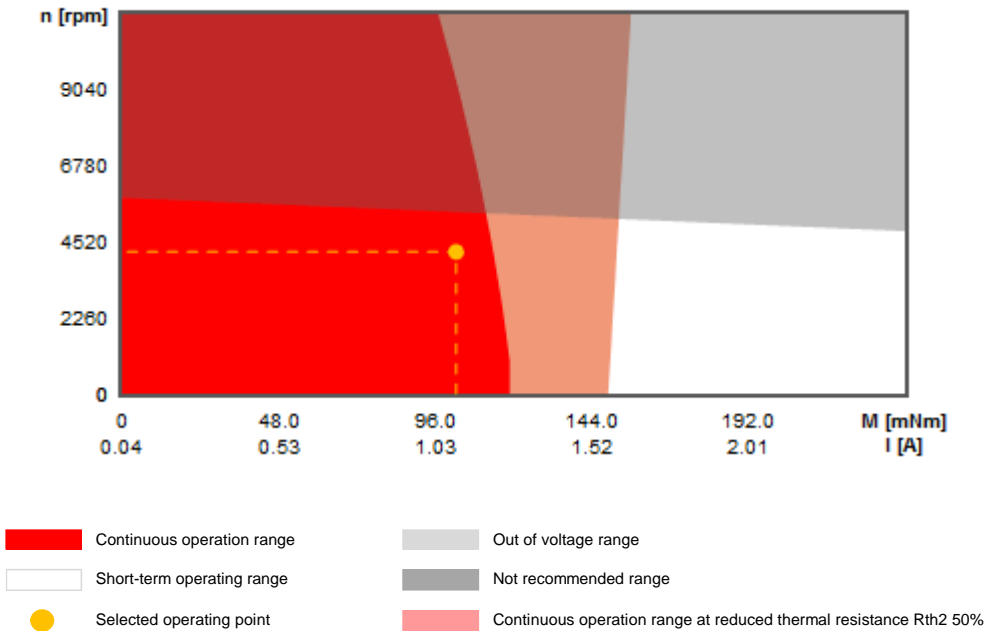
Product detail

Counts per turn	128
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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	60 V
Speed	4232 min ⁻¹
Torque	102.4 mNm

Values of the drive at available voltage

Available voltage	60 V
Max. speed at given load	5400 min ⁻¹
Max. continuous torque	128.00 mNm
Max. continuous current	1.35 A

Required electrical data for your operating point

Speed	4232 min ⁻¹
Torque	102.4 mNm
Required voltage	47.90 V
Required current	1.09 A

DCX32L GB KL 60V



Product specification

Values at nominal voltage

Nominal voltage	60 V
No load speed	5840 min ⁻¹
No load current	41.6mA
Nominal speed	5290 min ⁻¹
Nominal torque (max. continuous torque)	128 mNm
Nominal current (max. continuous current)	1.35 A
Stall torque	1420 mNm
Stall current	14.5 A
Max. efficiency	89.1 %

Characteristics

Max. output power continuous	115 W
Terminal resistance	4.12 Ω
Terminal inductance	1.31 mH
Torque constant	97.5 mNm A ⁻¹
Speed constant	97.9 min ⁻¹ V ⁻¹
Speed/torque gradient	4.14 min ⁻¹ mNm ⁻¹
Mechanical time constant	3.11ms
Rotor inertia	71.7 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	41.5 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

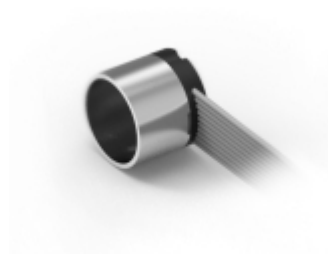
Static, supported shaft	2510 N
Max. radial load 5 mm from flange	65.3 N
Measurement from the flange	5 mm

Further specifications

Number of pole pairs	1
Number of commutator segments	11
Motor weight	342.7 g
Motor length	75.5 mm
Typical noise level	47 dBA (min ⁻¹)

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

ENX10 EASY 128IMP



Product specification

Sensor data

Counts per turn	128
Number of channels	3
Line Driver	RS422
Max. electrical speed	90000 min ⁻¹
Max. mechanical speed	30000 min ⁻¹

Technical data

Supply voltage Vcc	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