

Configured drive

Motor - DCX14L GB SL 24V
Sensor - ENX10 EASY 128IMP

Part number: B7D006019EE4 Revision number 2

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

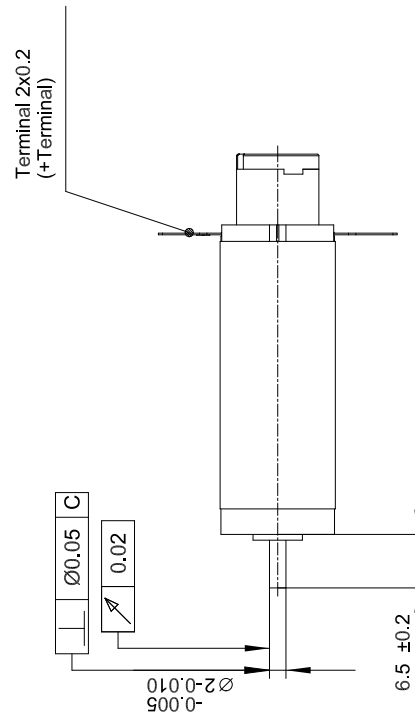
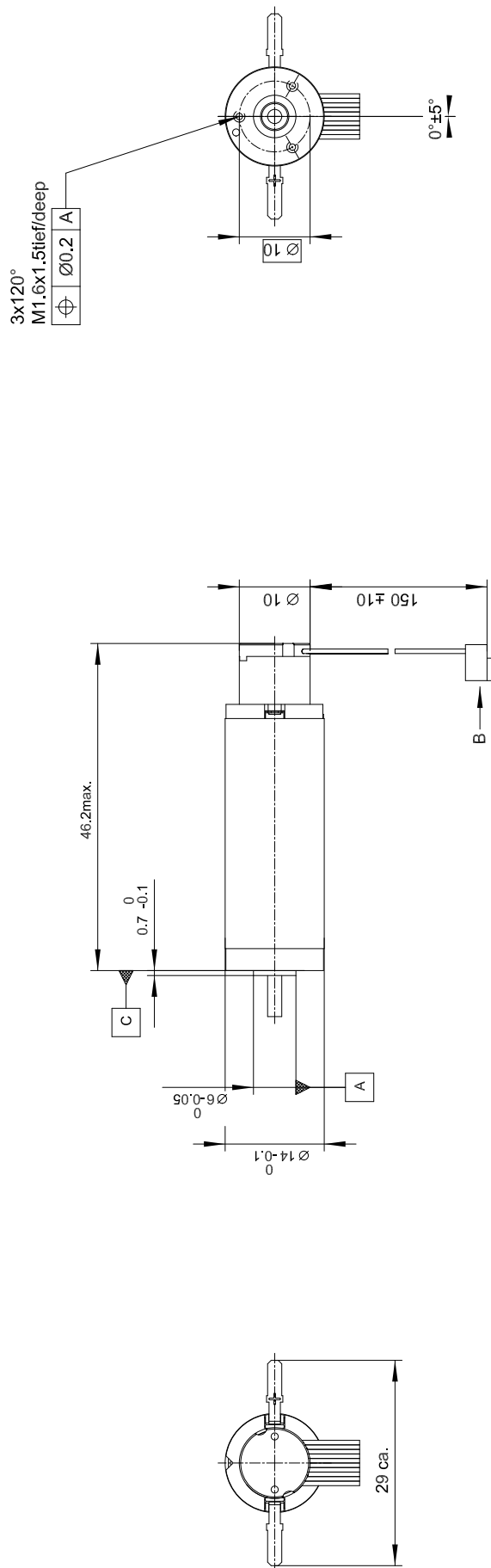
General Terms and Conditions: https://www.maxongroup.ch/maxon/view/content/terms_and_conditions_page



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.

B7D006019EE4.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7D006019EE4>



Anschluss nicht dargestellt/ terminal not shown

Unit of measure: mm



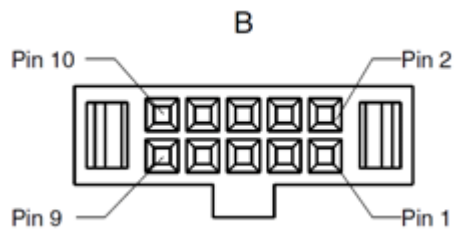
ISO 5456-1

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: 28 g

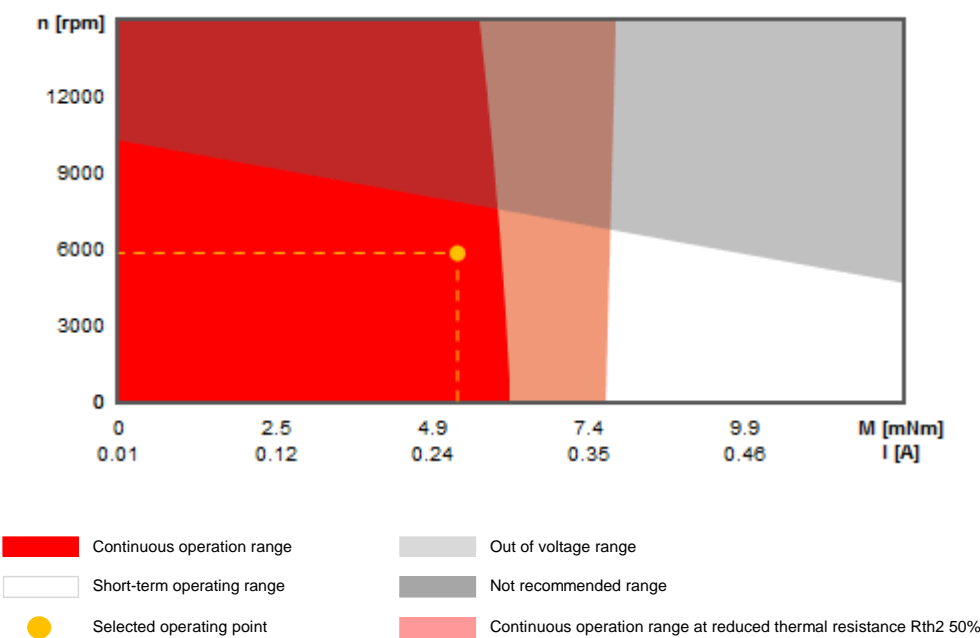
DCX14L GB SL 24V		
Product detail		
Commutation		Graphite brushes
Nominal voltage		24 V
Motor bearings		Sintered sleeve bearings

ENX10 EASY 128IMP		
Product detail		
Counts per turn		128

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	24 V
Speed	5840 min ⁻¹
Torque	5.33 mNm

Values of the drive at available voltage

Available voltage	24 V
Max. speed at given load	7899 min ⁻¹
Max. continuous torque	6.66 mNm
Max. continuous current	0.31 A

Required electrical data for your operating point

Speed	5840 min ⁻¹
Torque	5.33 mNm
Required voltage	19.17 V
Required current	0.25 A

DCX14L GB SL 24V



Product specification

Values at nominal voltage

Nominal voltage	24 V
No load speed	10300 min ⁻¹
No load current	11.6mA
Nominal speed	7300 min ⁻¹
Nominal torque (max. continuous torque)	6.66 mNm
Nominal current (max. continuous current)	0.314 A
Stall torque	22.9 mNm
Stall current	1.05 A
Max. efficiency	80.3 %

Characteristics

Max. output power continuous	8.92 W
Terminal resistance	22.9 Ω
Terminal inductance	0.908 mH
Torque constant	21.9 mNm A ⁻¹
Speed constant	436 min ⁻¹ V ⁻¹
Speed/torque gradient	456 min ⁻¹ mNm ⁻¹
Mechanical time constant	4.17ms
Rotor inertia	0.872 gcm ²

Thermal data

Thermal resistance housing-ambient	22.2 KW ⁻¹
Thermal resistance winding-housing	8.63 KW ⁻¹
Thermal time constant of the winding	9.71 s
Thermal time constant of the motor	226 s
Ambient temperature	-30...100 °C
Max. winding temperature	125 °C

Mechanical data

Max. permissible speed	15000 min ⁻¹
Axial play	0...0.2 mm
Preload	0 N
Radial backlash	0.015 mm
Max. axial load (dynamic)	0.1 N
Max. force for press fits (static)	60 N

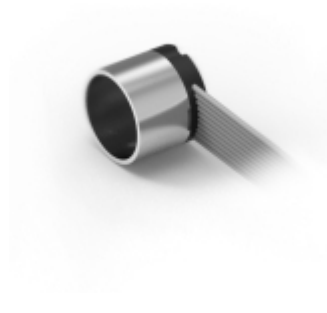
Static, supported shaft	300 N
Max. radial load 5 mm from flange	2 N
Measurement from the flange	5 mm

Further specifications

Number of pole pairs	1
Number of commutator segments	7
Motor weight	27.7 g
Motor length	37.6 mm
Typical noise level	38 dBA (6000 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