

## Configured drive

Motor - DCX22L EB KL 24V

**Part number: B7CF59A40688** Revision number 1

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

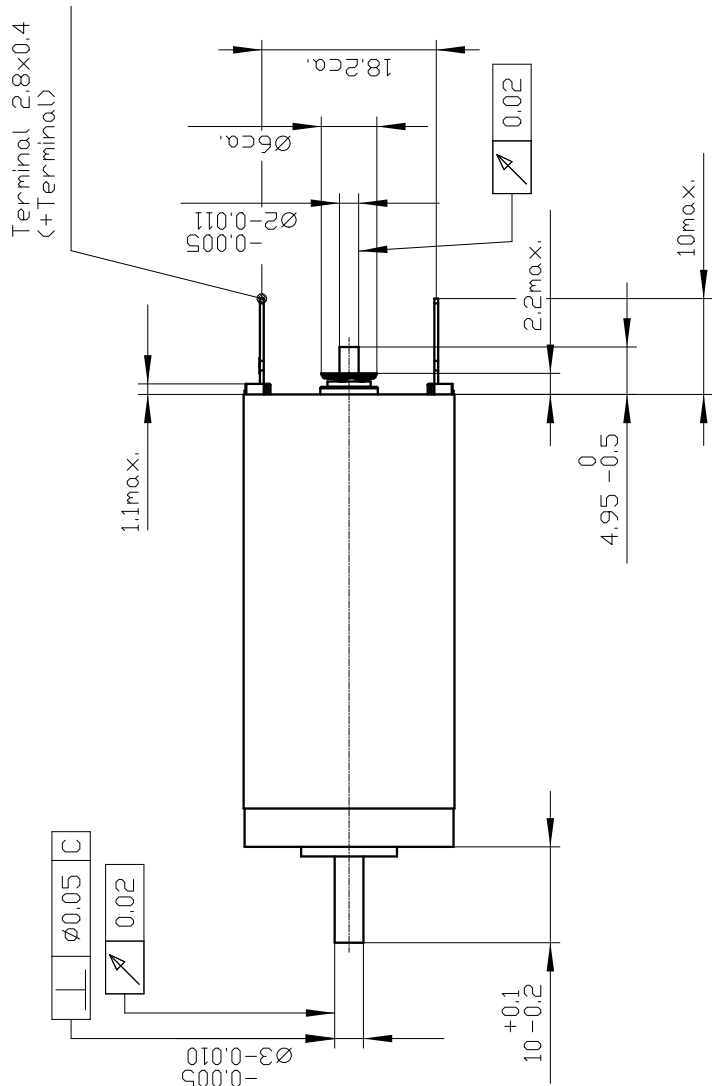
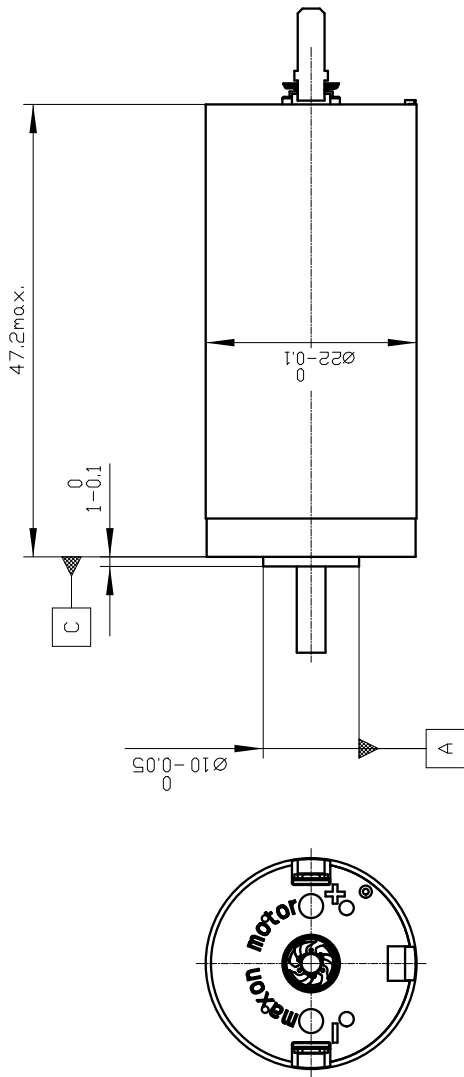
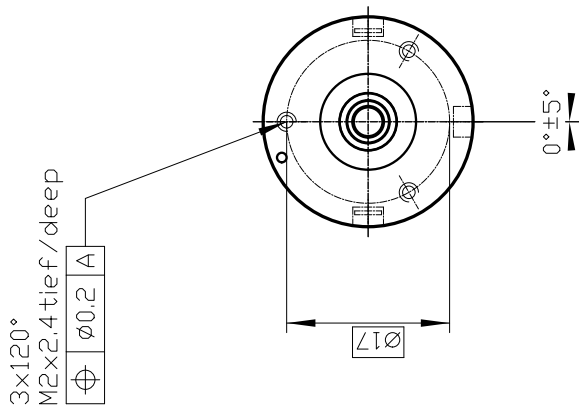
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To open the integrated CAD file, please save this document and open it in Acrobat Reader. The STEP file is available after a double-click on the pin icon.

B7CF59A40688.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7CF59A40688>



Unit of measure: mm



ISO 5456-1

ISO 1101

ISO 965-1

ISO 2768-m

ISO 8015

## Summary of your selected configuration

Total weight of the drive: 95 g

**DCX22L EB KL 24V**

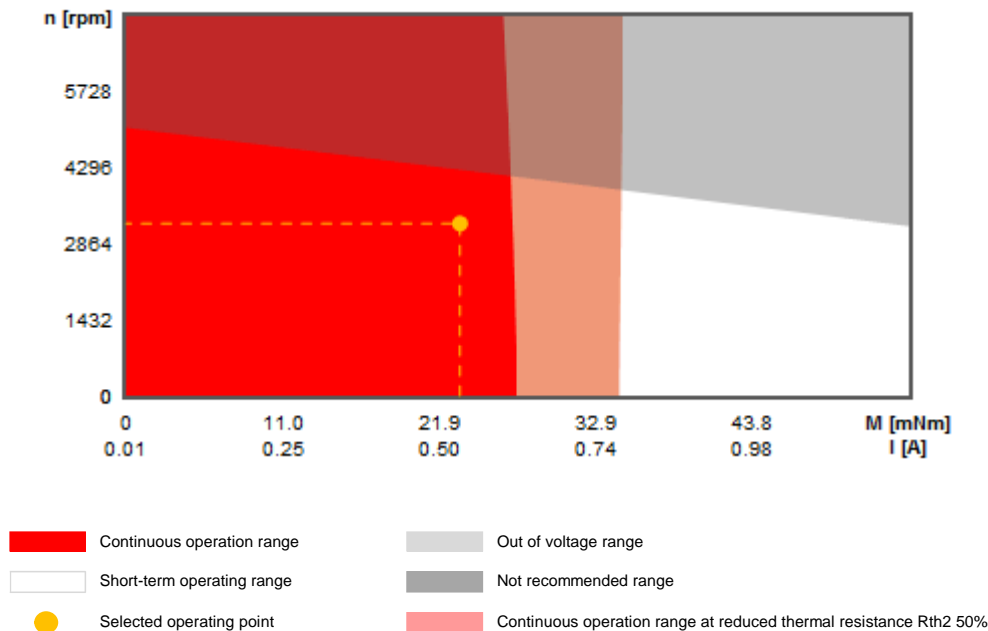
### Product detail

Commutation	Precious metal brushes
Nominal voltage	24 V
Motor bearings	Preloaded ball bearing
Spark suppression (CLL)	without CLL

## 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	3256 min <sup>-1</sup>
Torque	23.36 mNm

#### Values of the drive at available voltage

Available voltage	24 V
Max. speed at given load	4268 min <sup>-1</sup>
Max. continuous torque	29.20 mNm
Max. continuous current	0.66 A

#### Required electrical data for your operating point

Speed	3256 min <sup>-1</sup>
Torque	23.36 mNm
Required voltage	19.26 V
Required current	0.53 A

## DCX22L EB KL 24V



### Product specification

#### Values at nominal voltage

Nominal voltage	24 V
No load speed	5060 min <sup>-1</sup>
No load current	10.2mA
Nominal speed	4070 min <sup>-1</sup>
Nominal torque (max. continuous torque)	29.2 mNm
Nominal current (max. continuous current)	0.655 A
Stall torque	150 mNm
Stall current	3.31 A
Max. efficiency	89.3 %

#### Characteristics

Max. output power continuous	19.8 W
Terminal resistance	7.25 Ω
Terminal inductance	0.000746 mH
Torque constant	45.2 mNm A <sup>-1</sup>
Speed constant	211 min <sup>-1</sup> V <sup>-1</sup>
Speed/torque gradient	33.9 min <sup>-1</sup> mNm <sup>-1</sup>
Mechanical time constant	3.14ms
Rotor inertia	8.85 gcm <sup>2</sup>

#### Thermal data

Thermal resistance housing-ambient	13.6 KW <sup>-1</sup>
Thermal resistance winding-housing	4.57 KW <sup>-1</sup>
Thermal time constant of the winding	21 s
Thermal time constant of the motor	646 s
Ambient temperature	-40...85 °C
Max. winding temperature	100 °C

#### Mechanical data

Max. permissible speed	7160 min <sup>-1</sup>
Axial play	0...0.1 mm
Preload	2.5 N
Radial backlash	0.02 mm
Max. axial load (dynamic)	2.5 N
Max. force for press fits (static)	30 N

Static, supported shaft	440 N
Max. radial load 5 mm from flange	16 N
Measurement from the flange	5 mm

## Further specifications

Number of pole pairs	1
Number of commutator segments	9
Motor weight	95 g
Motor length	47.2 mm
Typical noise level	52 dBA (6000 min <sup>-1</sup> )

Information about motor data: [https://www.maxongroup.com/medias/CMS\\_Downloads/DIVERSES/12\\_049\\_EN.pdf](https://www.maxongroup.com/medias/CMS_Downloads/DIVERSES/12_049_EN.pdf)