

## Configured drive

Motor - DCX22S EB KL 18V

**Part number: B7CF5AF34C42** Revision number 1

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

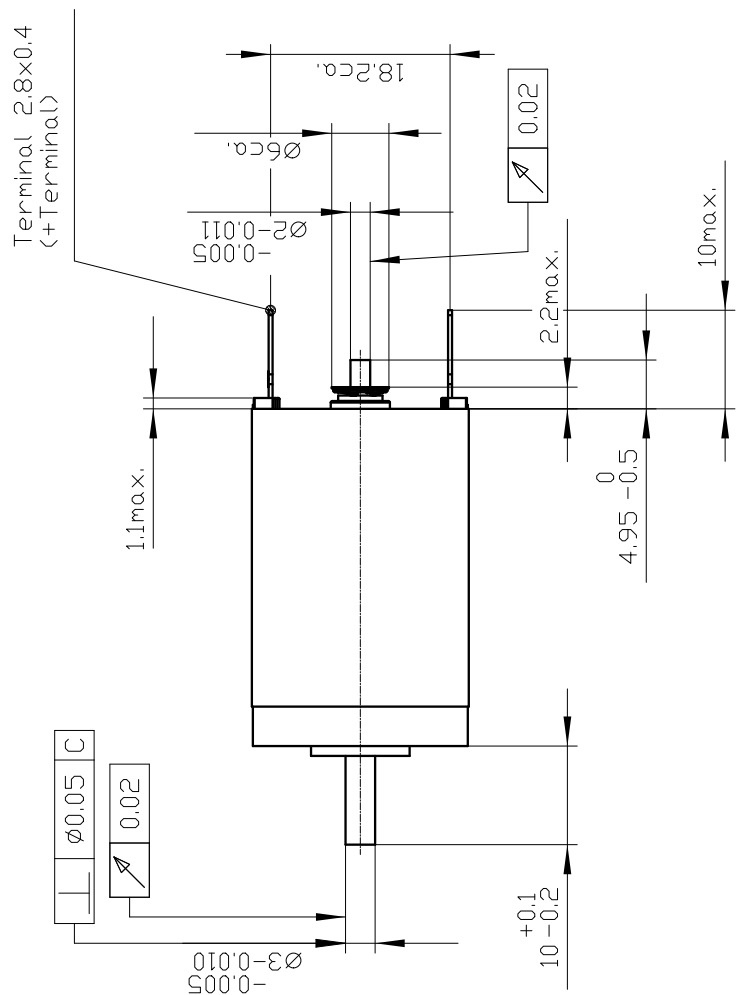
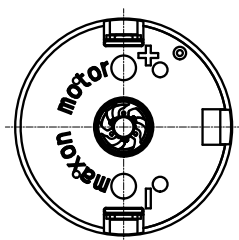
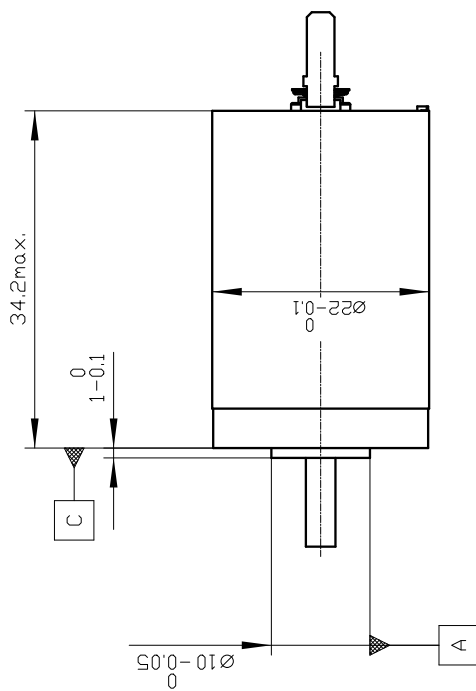
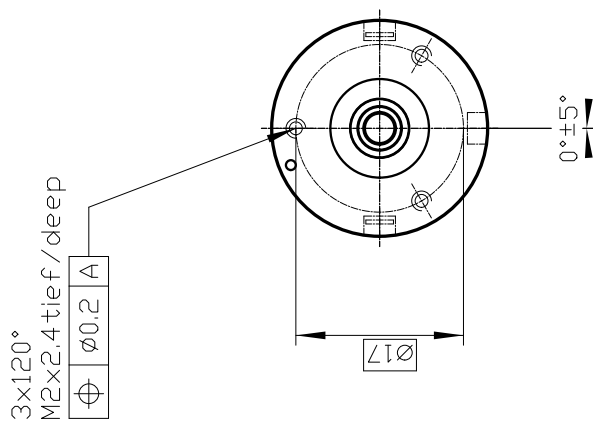
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To open the integrated CAD file, please save this document and open it in Acrobat Reader. The STEP file is available after a double-click on the pin icon.

B7CF5AF34C42.stp (STP AP 214)

Open configuration: <https://www.maxongroup.com/maxon/view/configurator/?ConfigID=B7CF5AF34C42>



Unit of measure: mm



ISO 5456-1

ISO 1101

ISO 965-1

ISO 2768-m

ISO 8015

Summary of your selected configuration

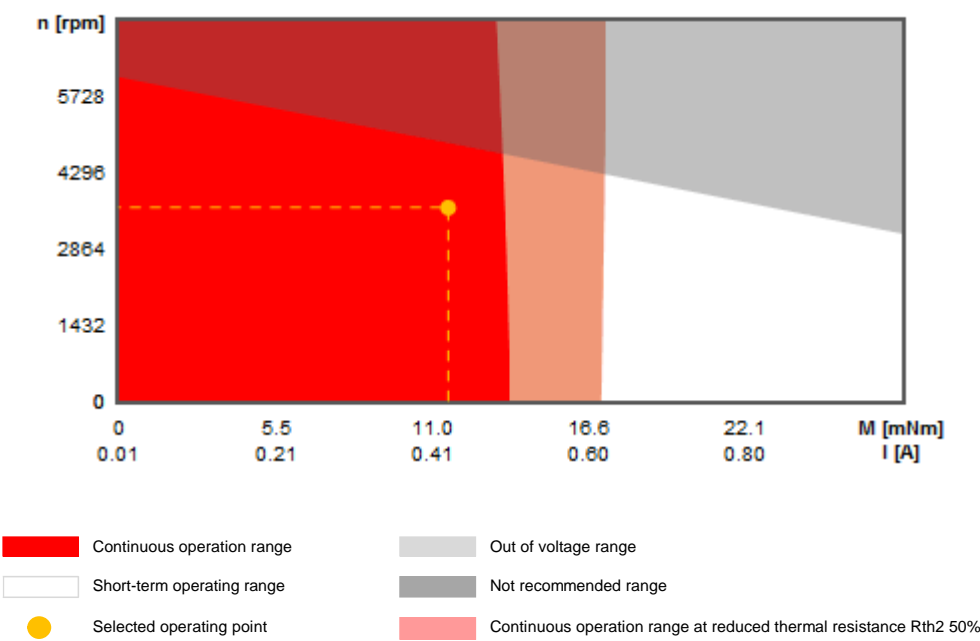
Total weight of the drive: 66 g

DCX22S EB KL 18V		
Product detail		
Commutation		Precious metal brushes
Nominal voltage		18 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	18 V
Speed	3648 min <sup>-1</sup>
Torque	11.6 mNm

Values of the drive at available voltage

Available voltage	18 V
Max. speed at given load	4870 min <sup>-1</sup>
Max. continuous torque	14.50 mNm
Max. continuous current	0.53 A

Required electrical data for your operating point

Speed	3648 min <sup>-1</sup>
Torque	11.6 mNm
Required voltage	14.40 V
Required current	0.43 A

## DCX22S EB KL 18V



### Product specification

#### Values at nominal voltage

Nominal voltage	18 V
No load speed	6110 min <sup>-1</sup>
No load current	12.8mA
Nominal speed	4560 min <sup>-1</sup>
Nominal torque (max. continuous torque)	14.5 mNm
Nominal current (max. continuous current)	0.531 A
Stall torque	57.5 mNm
Stall current	2.06 A
Max. efficiency	85.1 %

#### Characteristics

Max. output power continuous	9.97 W
Terminal resistance	8.75 Ω
Terminal inductance	0.000535 mH
Torque constant	28 mNm A <sup>-1</sup>
Speed constant	342 min <sup>-1</sup> V <sup>-1</sup>
Speed/torque gradient	107 min <sup>-1</sup> mNm <sup>-1</sup>
Mechanical time constant	6.09ms
Rotor inertia	5.44 gcm <sup>2</sup>

#### Thermal data

Thermal resistance housing-ambient	16 KW <sup>-1</sup>
Thermal resistance winding-housing	7 KW <sup>-1</sup>
Thermal time constant of the winding	19.6 s
Thermal time constant of the motor	528 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	66 g
Motor length	34.2 mm
Typical noise level	48 dBA ( 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)