

Configured drive

Motor - DCX35L GB KL 36V
Planetary gearhead - GPX37 A 26:1

Part number: B78AAFAEDB17 Revision number 1

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

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



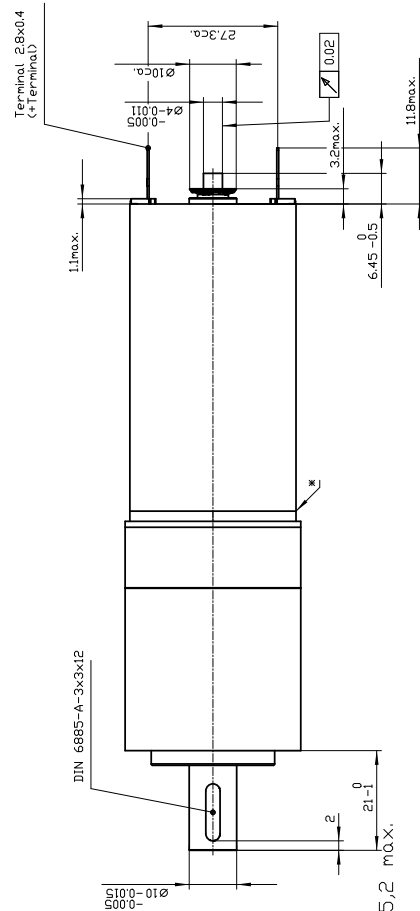
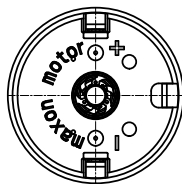
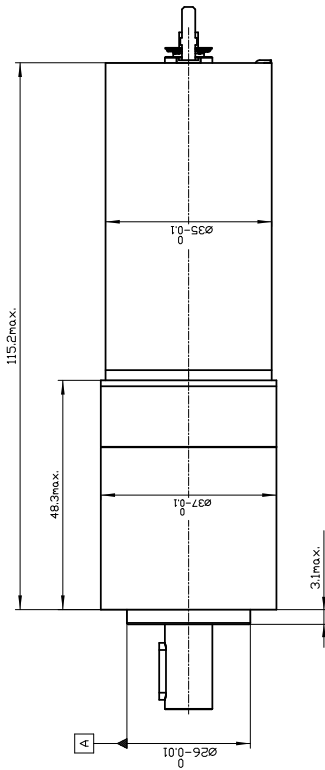
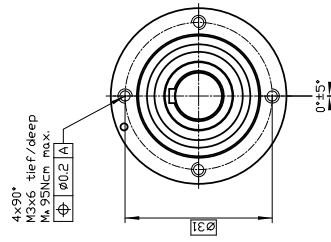
To open the integrated CAD file, please save this document and open it in Acrobat Reader. The STEP file is available after a double-click on the pin icon.

B78AAFAEDB17.stp (STP AP 214)

Open configuration: <http://www.maxonmotor.com/maxon/view/configurator/?ConfigID=B78AAFAEDB17>



Drawing not to scale!



- Axialspiel Motor: 0...0.1
- Axial play motor: 0...0.1
- Axialspiel Getriebe: 0...0.3
- Axial play gearhead: 0...0.3
- * Durchmesser über Schweissnaht 35,2 max.
- * Diameter at welds 35,2 max.

Summary of your selected configuration

Total weight of the drive: 673 g

DCX35L GB KL 36V

Power

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

GPX37 A 26:1

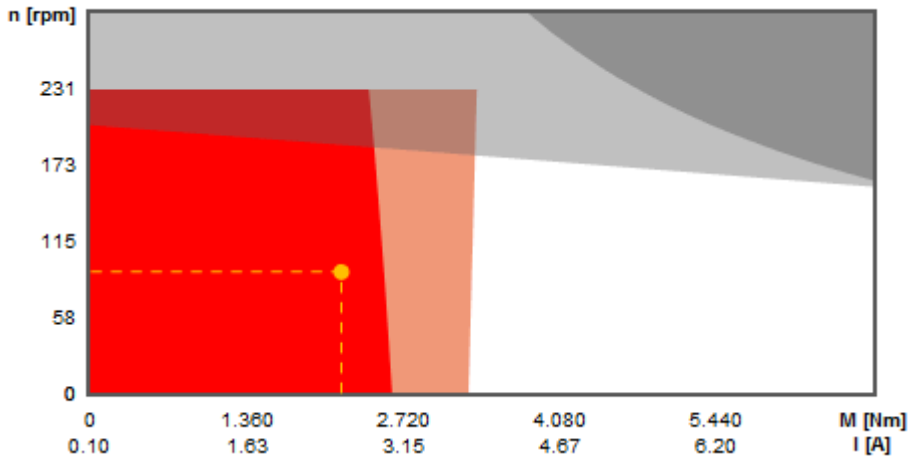
Power

Gearhead type	Standard version
Reduction	26:1
Number of stages	2

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	Integrated	STD	Standard	SP	Speed
ABS	Absolute	LN	Reduced noise level	A	Standard	LZ	Reduced backlash
C	Ceramic bearing			STEC	Sterilizable, Ceramic bearing		

Drive disposition



- Continuous operation range
- Out of voltage range
- Short-term operating range
- Not recommended range
- Selected operating point
- Continuous operation range at reduced thermal resistance R_{th2} 50%

Combination details

Your entries

Available voltage	24 V
Speed	92 min ⁻¹
Torque	2.18 Nm

Values of the drive at available voltage

Available voltage	24 V
Max. speed at given load	187 min ⁻¹
Max. continuous torque	2.66 Nm
Max. continuous current	3.07 A

Required electrical data for your operating point

Speed	92 min ⁻¹
Torque	2.180 Nm
Required voltage	12.75 V
Required current	2.53 A

DCX35L GB KL 36V



Product specification

Values at nominal voltage

Nominal voltage	36 V
No load speed	7940 min ⁻¹
No load current	101mA
Nominal speed	7410 min ⁻¹
Nominal torque (max. continuous torque)	128 mNm
Nominal current (max. continuous current)	3.07 A
Stall torque	2160 mNm
Stall current	50.3 A
Max. efficiency	90 %

Characteristics

Max. output power continuous	125 W
Terminal resistance	0.716 Ω
Terminal inductance	0.26 mH
Torque constant	42.9 mNm A ⁻¹
Speed constant	223 min ⁻¹ V ⁻¹
Speed/torque gradient	3.72 min ⁻¹ mNm ⁻¹
Mechanical time constant	3.84ms
Rotor inertia	98.7 gcm ²

Thermal data

Thermal resistance housing-ambient	6.98 KW ⁻¹
Thermal resistance winding-housing	2.1 KW ⁻¹
Thermal time constant of the winding	43.9 s
Thermal time constant of the motor	1030 s
Ambient temperature	-40...100 °C
Max. winding temperature	155 °C

Mechanical data

Max. permissible speed	12300 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	362.8 g
Motor length	66.9 mm
Typical noise level	48 dBA

Information about motor data: http://www.maxonmotor.com/medias/CMS_Downloads/DIVERSES/12_049_EN.pdf

GPX37 A 26:1



Product specification

Gearhead data

Reduction	26:1
Absolute reduction	4950/190
Number of stages	2
Max. continuous torque	5.4 Nm
Max. intermittent torque	6.8 Nm
Direction of rotation, drive to output	=
Max. efficiency	80 %
Average backlash no-load	0.6 °
Mass inertia	11.573 gmc ²
Max. transmittable power (continuous)	90 W
Max. short-time transferable output	115 W

Technical data

Output shaft bearing	KL
Max. radial play, 10 mm from flange	max. 0.1 mm
Axial play	0...0.3 mm
Max. permissible radial load, 10 mm from flange	250 N
Max. permissible axial load	240N
Max. permissible force for press fits	200 N
Max. continuous input speed	6000 min ⁻¹
Max. intermittent input speed	7500 min ⁻¹
Recommended temperature range	-40..100 °C

Information about gearhead data: http://www.maxonmotor.com/medias/CMS_Downloads/DIVERSES/12_203_EN.pdf