

alkitronic® X E-SERIES



EB-S

Battery driven
torque multiplier



reddot winner 2023



DESIGN
AWARD
2023

The new EB – Extreme Flexibility

Applications

- **alkitronic® EB:** Battery-driven torque multiplier from 110 Nm to 6,000 Nm / 90 ft.lbs to 4,425 ft.lbs.
- **Extremely mobile and always ready for use:**
Innovative product design for comfortable working – independent of external power supply.

Advantages

- **High quality materials:** Robust aluminium profile housing for compact and safe mounting of electric motor and primary gear unit. Excellent heat dissipation over large surfaces and airflow cooling system.
- **Maximum flexibility:** Thanks to the application-specific, modular software packages e.g.:
 - bolting according to the torque/rotation angle method,
 - can also be retrofitted later if the bolting application changes.
 - *alkitronic® Smart Service* – Documentation of the bolted joints.
- **Ergonomic design:** Ultra grippy housing for your safety and a secure bolting procedure.
- **OLED-display:** Anti-glare and high contrast – for perfect reading under all weather conditions.
- **High quality bolting:** The brushless synchronous motor with excellent efficiency and the smart processor-controlled automatic shutdown ensures amazing increased productivity and **low running costs**.
- **Low noise emissions, no noise protection necessary.**
- **Unique 1-finger trigger:** Unbeatable efficiency through fast, simple change of direction of rotation.
- **Repeat shut-off accuracy $\pm 3\%$** for the same bolting application.

alkitronic® specials

- **Simple navigation:** Intuitive interface drastically reduces operating errors and misadjustments.
- **Health and safety first:** Due to a new technology patented by *alkitronic®* the reaction torques are decoupled. This leads to an extreme reduction of radial forces on the wrist to 1 Nm and thus actively contributes to the occupational health and safety of the worker.
- **Outstanding battery concept:**
Powerful and durable battery for precise, consistent bolting quality – worldwide shipping.



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Bolting programs

The software suite 1 is pre-installed in the basic equipment. For user-specific applications, the manufacturer can activate optional modular software:

Software suite 1: Torque controlled bolting (standard)

Software suite 2: Torque/angle procedure for high-quality bolting connections

Software suite 2

Premium: Torque/angle procedure with adjustable min./max. torque limitation

Software suite 3: Bolting with **preset rotations** and **torque limit**

Software suite 5: Bluetooth transfer via *alkitronic® APP*.

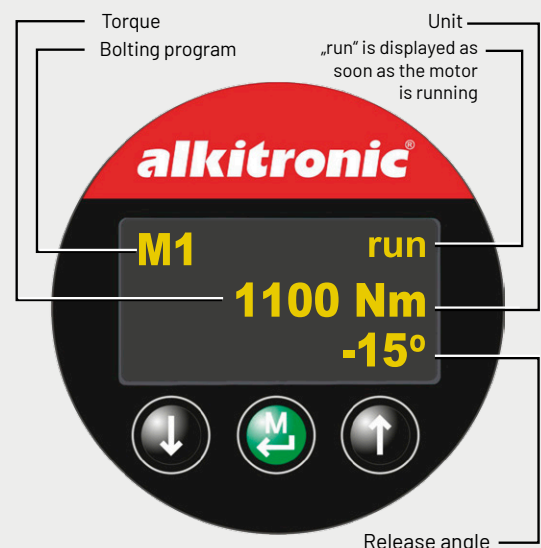
Documentation of the bolted joints (target-actual status, recording for each joint)

Specifications

All *alkitronic® EB* torque multipliers with CE-certification.

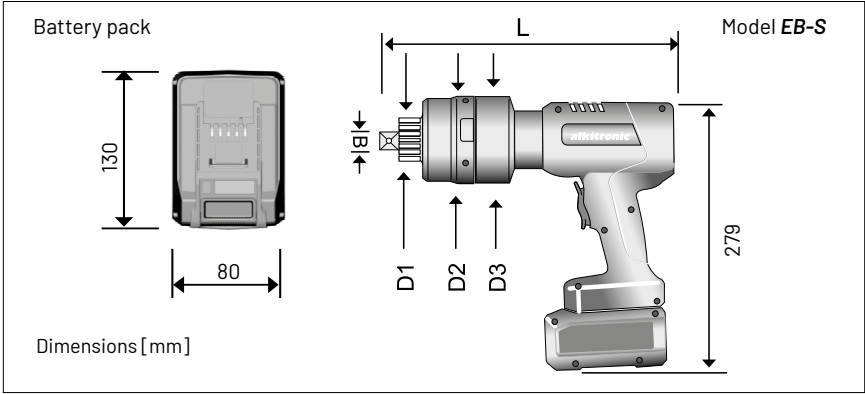
Caution! The Li-Ion battery is preset to 4 Ah (72 Wh) so that it can be shipped or transported in accordance with special regulation 188.

Operating panel



alkitronic® EB-S battery driven torque multiplier

Technical Data



Models EB-S			EB-S 80	EB-S 150	EB-S 180	EB-S 250	EB-S 350	EB-S 480	EB-S 600
Torque ranges (approx.)*		Nm	110-850	150-1400	250-1800	350-2500	480-3500	650-4800	800-6000
		ft.lbs	90-625	110-1035	190-1330	260-1845	360-2580	480-3540	590-4425
Square drive	B		3/4"	3/4"	1"	1"	1"	1 1/2"	1 1/2"
Diameter (approx.)	D ₁	mm	41	41	54	54	54	72	72
Diameter (approx.)	D ₂	mm	88	88	88	88	88	98	109
Diameter (approx.)	D ₃	mm	88	88	88	88	88	88	88
Length (approx.)	L	mm	330	330	375	382	382	400	407
Weight without DMA, Battery (appr.)		kg	5.3	5.3	6.7	7.3	7.3	9.3	10.5

*) When loosening bolts, a higher torque (up to 50 %) may be necessary (release torque). We will be pleased to help you with your choice.



Display views

Software suite 1 (mode 1) and software suite 2 (mode 2)

Mode 1 / M1 (Standard)

M1

1100 Nm

-15°

Bolting via torque.
Automatic release according to pre-set angle degrees.

Mode 2 / M2 (Option)

M2

300 Nm

150°, -15°

Torque/angle procedure for high-quality bolting connections.
Display example of pre-torque, angle and release angle.

During the bolting process, the current torque value is shown in the display. Reaching the set value is indicated by an "OK". If the selected value cannot be achieved, the bolting operation is evaluated as "nOK".

Scheme bolting programs Mode 1 und Mode 2

Torque controlled bolting mode 1

Final torque

Starting torque

Torque/angle procedure mode 2

Starting angle *

Final torque

Pre-torque is reached

* **Information on rotational angle setting for torque/angle method.**

- The angle of rotation is specified by the design for the bolting connection.
- The angle of rotation can be determined individually and easily with **alkitronic® HSD**. We will gladly provide you with detailed product information.

YOUR PLUS FOR MORE PERFORMANCE

Increased quality

Premium production
Highest quality materials
Long product life cycles
Experience in bolting technology since 1984
Made in Germany – international patents

Increased precision

Precise, customer-specific torques
High repeatability
Reliability in permanent operation
Documentation of tightening results
Automatic shut-off

Increased productivity

Quicker tightening without reworking
No environmentally caused failures (IP54, ATEX)
High work safety
Easy to use: clear, simple instructions
Low maintenance and cost efficient

Better service

Technical advice on site
Training offers
Manufacturer's calibration and certification
Lifecycle support
Spare part and repair service

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EXTRACT FROM OUR PRODUCT RANGE



alkitronic XE-SERIES

THE ELECTRICS



alkitronic XP-SERIES

THE PNEUMATICS



alkitronic XH-SERIES

THE HYDRAULICS



alkitronic XM-SERIES

THE MANUALS

N-Tools

Torque Multipliers for
Mining Trucks



Applications

Pneumatic and electric torque multipliers for continuous rotation by tightening or loosening hard-to-reach, heavy-duty bolted connections, and deep-bed rims of heavy vehicles (mining industry). Torques from 100 Nm up to 3,500 Nm, dependent on type.

Advantages

- Economic, safe operation. **No weather-related costly downtime.**
- Comfortable to operate.** The motor unit can be rotated 360 degrees. One handed operation with CW/CCW.
- Permanently higher joint quality (compared to impact and hydraulic wrenches) by continuous rotation of the square drive.
- Heavy duty, rugged housing made of cast aluminum. **EA2-N** motor housing made of special polymer: break-proof, and resistant to corrosion.

EFCip-N, Models with protection class IP 54:

- Low running costs.** Maintenance-free, brushless, synchronous motor.
- Easy connection** to all international power grids, **no adjustments** necessary.

EA2-N, Li-Ion battery driven 2-speed models with release function:

- Low weight**, ergonomically designed, low noise emissions.
- No noise protection** necessary.

CLD-N, pneumatic driven Models:

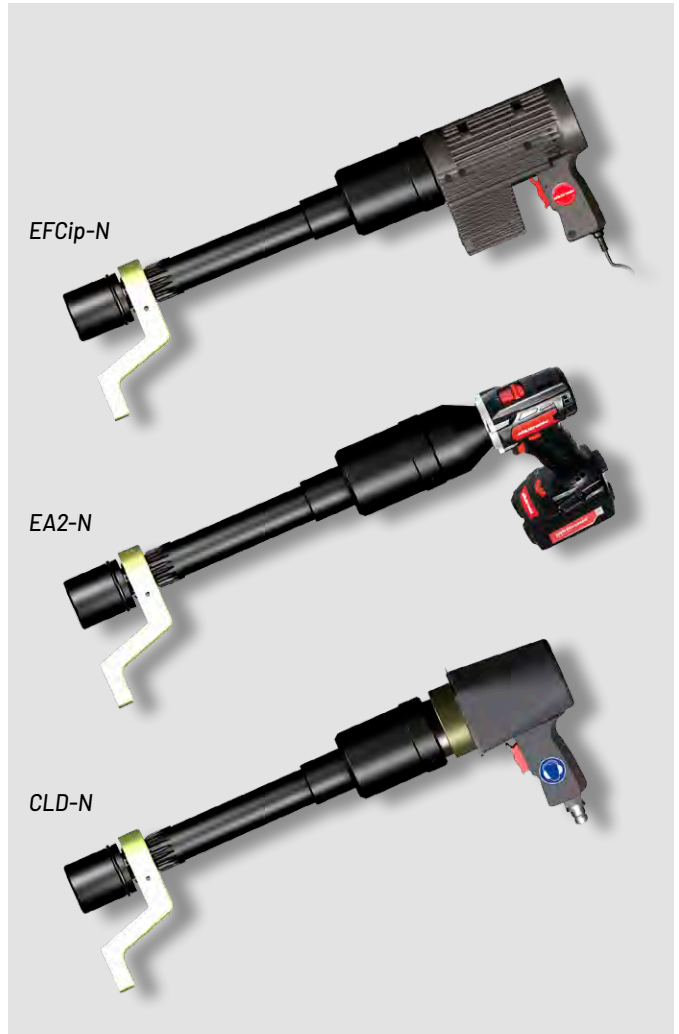
- Ideal for use in explosion-proof working environment.
- World proven reliable pneumatic drive motor.

alkitronic® specials

EFCip-N: Precise shut-off torque and constant torque accuracy at 100-253V / 45-66 Hz, even when operating on mobile units.

EA2-N with two battery packs ensure up to 360 screw joints in a row.

Pneumatic driven models: **ATEX** approval on request.



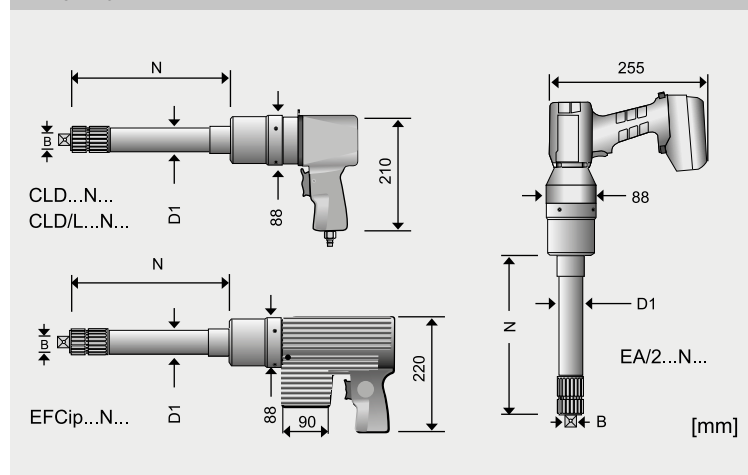
Technical Data

Drive		electric					electric (battery)					pneumatic **				
Model N-Tool (-N)		EFCip30	EFCip40	EFCip50	EFCip60	EFCip65	EA2/80	EA2/100	EA2/150	EA2/200	EA2/280	CLD/L5	CLD/L6	CLD155	CLD225	CLD280
Torque range *	Nm	100-940	150-1450	190-1850	250-2350	290-2900	190-850	130-1100	150-1400	250-2200	300-2800	365-1080	495-1450	600-1700	900-2700	1200-3500
Square drive	B	3/4"	3/4"	1"	1"	1"	3/4"	3/4"	3/4"	1"	1"	3/4"	3/4"	1"	1"	1"
Diameter (approx.) D ₁	mm	46	46	56	56	56	46	46	46	56	56	46	46	56	56	56
Length extension N..	inch	N 12	N 12	N10 N12	N10 N12	N10 N12	N 12	N 12	N 12	N10 N12	N10 N12	N 12	N 12	N10 N12	N10 N12	N10 N12
(e.g. EFCip30 N12)				N15 N18	N15 N18	N15 N18				N15 N18	N15 N18			N15 N18	N15 N18	N15 N18
Idle speed 1 st Gear/2 nd Gear rpm		30	15	14	11	8	7/24	6/20	4/13	2/6.5	1.7/6	16	12	7	5	4

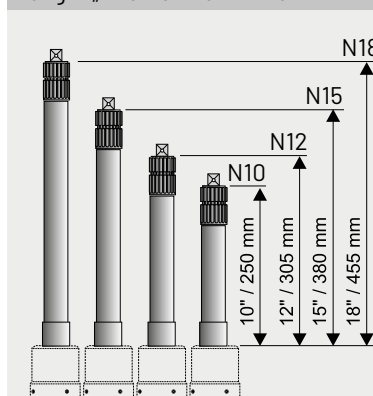
*) When loosening bolts, a higher torque (up to 20 %) may be necessary (release torque). We will gladly advise you in detail.

**) Prerequisites for best work with the indicated torques are an operating pressure of 2-7 bar at a volume flow of approx. 10-15 l/s. The torque accuracy depends on the stability of the supply system.

Dimensions



Length „N“ extension in inch/mm



Examples of product identification:
EA2/200 N10, CLD 155 N12, EFCip 50 N15,
EFCip 50 N18

alkitronic®
HOME OF TORQUE POWER

alkitronic® products
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alkitronic® X E-SERIES

EAF

Battery driven
torque multiplier



ready for use, everywhere

alkitronic® EAF

Applications

- **alkitronic® EAF:** Battery driven 2-speed torque multiplier from 130 Nm to 6,000 Nm / 95 ft.lbs to 4,430 ft.lbs.
- **Short fastening cycles:** Fast gear for run down and power gear for highest torques and precision.
- **Mobile and always ready for use:** Compact design for convenient working in limited spaces or without power supply.
- **Efficient operation:** Fast and easy gear-changing, great torque range - you can choose from 22 torque values.

Advantages

- **Integrated fully-automatic release function:** Caused by high torsional force, it is often impossible repositioning the multiplier on the next bolt joint. The automatic release function enables a fast, secure "run free" of the reaction absorber **DMA** and also relieves stresses within the multiplier.
- **Low running costs:** The low-wear, synchronous motor is maintenance free.
- **Health-preserving:** Lowweight, ergonomically designed, low noise emissions. No noise protection necessary.
- **High performance:** Two lithium-ion battery packs ensure up to 360 screw joints in a row. Each battery features an LED charge level indicator.
- **Exact shut-off torque** even at low battery levels.

alkitronic® Specials

- **Very low susceptibility to damage and failure:** Motor housing made of special polymer: Break-proof, impact-proof and resistant to corrosion.
- **Intelligent energy management and faster workflow:** Electronics protects battery cells from overcharging and depth discharge. Cooled battery packs during recharging. This reduces charging times and enhances maximum performance and durability.
- **High-performance gears,** produced in a chip-free high-precision process.

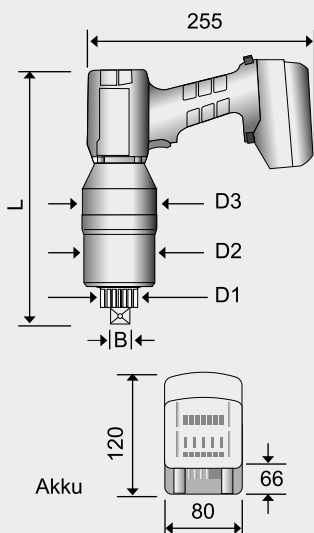


Technical Data

Type		EAF2 / 80	EAF2 / 150	EAF2 / 200	EAF2 / 280	EAF2 / 300	EAF2 / 400	EAF2 / 600
Torque range (approx.) *	Nm	130-850	220-1400	260-2200	300-2800	320-3200	380-4100	500-6000
	ft.lbs	95-625	160-1035	190-1625	220-2065	235-2360	280-3025	370-4430
Square drive	B	3/4"	3/4"	1"	1"	1"	1 1/2"	1 1/2"
Diameter (approx.)	D ₁ mm	41	41	54	54	72	72	72
Diameter (approx.)	D ₂ mm	85	85	85	85	93	93	109
Diameter (approx.)	D ₃ mm	88	88	88	88	97	97	109
Length (approx.)	L mm	295	295	320	350	370	370	380
Weight without DMA (approx.) **	kg	5,6	5,6	6,4	7,5	7,5	9,2	9,0
Idle speed 1 st gear	rpm	8,0	4,0	3,0	1,8	1,5	1,5	0,8
Idle speed 2 nd gear	rpm	26,0	14,0	10,0	6,5	6,0	5,4	3,0

*) When loosening bolts, a higher torque (up to 20 %) may be necessary (release torque). We will be pleased to help you with your choice. **) Torque reaction arm

Measurements



Scope of Delivery



2 lithium-ion battery packs 18 V, 5.2 Ah, battery charger, tool case.



Repeat shut-off accuracy $\pm 3\%$ (same bolting connection).
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