

**alkitronic® X E-SERIES**



**EC**

Electric Torque Multiplier

# world's No. 1 choice

## Applications

- **alkitronic® EC-S / EC-A** electric torque multipliers from 75 to 6,530 Nm (55 to 4,815 ft.lbs).
- **Consistent torque accuracy** on all international power supplies 100 - 253 V / 45 - 66 Hz.
- **Precise shut-off** with on-site voltage-controlled portable generators.
- Models **alkitronic® EC-A** angled tools, low height for difficult access applications.

## Advantages

- **Safe interruption-free work** in any weather (moisture, rain) - thanks to protection class IP54.
- **Low running costs:** Low-wear, maintenance-free, brushless synchronous motor.
- **Permanent higher joint quality** by continuous rotation of the square drive.
- **Simple 1-finger trigger** operation for forward and reverse.
- **OLED-Display** anti-glare and high contrast - for perfect reading under all weather conditions.
- **Menu-guided intuitive operation**, with control and warning signals.
- **Ergonomic and comfortable operation:** The 360 degree rotating handle prevents reaction forces being transferred to the operator.

## alkitronic® specials

- **High-quality bolting**, according to torque/angle procedure.
- Highly innovative generation of electric torque multipliers with new sensorless control motor technology. Lower power consumption increases the service life of the electronic components.
- **Repeat shut-off accuracy  $\pm 2\%$**  for the same bolting application.
- **Precise reproduction of preselected torque** through intelligent, processor-controlled motor with automatic shut-off.
- **Longerservice life:** Low heat generation - thus highest reliability and almost no downtime.
- **Robust and long lasting:** Motor housing of cast aluminum.



## Specifications

### Bolting programs:

For user-specific applications, the manufacturer can activate optional modular software (**alkitronic® EC-S / EC-A** from serial number 712700).

|                                  |  |
|----------------------------------|--|
| <b>Software suite 1:</b>         | Torque controlled bolting (pre-installed)  |
| <b>Software suite 2:</b>         | Torque/angle procedure for high-quality bolting connections  |
| <b>Software suite 2 Premium:</b> | Torque/angle procedure with adjustable max. torque limit   |
| <b>Software suite 3:</b>         | Bolting with preset rotations and torque limit   |
| <b>Software suite 4:</b>         | Bolting parameters according to individual customer requirements   |
| <b>Software suite 5:</b>         | Bluetooth transmission via <b>alkitronic® APP</b><br>Documentation of the bolted joints (target-actual status, recording for each joint) |

**Remote control of single or multiple torque multiplier can be manual or fully automated.**

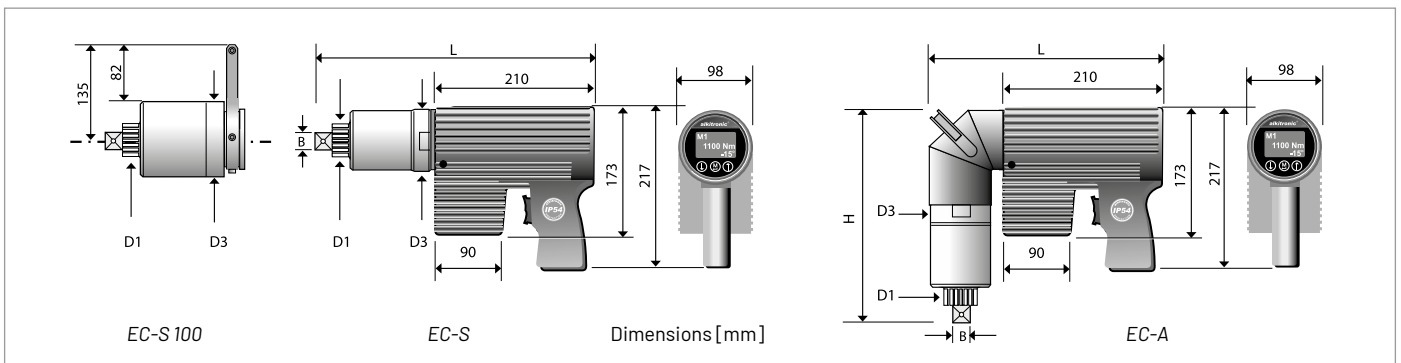
**Special solution:** Preset torque increment according to customer's requirement (10 Nm / 10 ft.lbs min). All **alkitronic®** torque multipliers with CE-certification.

### Electrical data:

Universal AC input 100 V - 253 V, frequency 45 Hz - 66 Hz, power max. 1100 W, protection category I, protection class IP 54 (standard).



## Technical Data



### Models EC-S

| Type                         |                   | EC-S 10 | EC-S 20 | EC-S 30 | EC-S 35  | EC-S 40  | EC-S 50  | EC-S 60  | EC-S 65  | EC-S 70    | EC-S 80  | EC-S 90  | EC-S 100 |
|------------------------------|-------------------|---------|---------|---------|----------|----------|----------|----------|----------|------------|----------|----------|----------|
| Torque range (approx.)*      | Nm                | 75-420  | 80-680  | 100-940 | 150-1300 | 150-1590 | 190-1870 | 250-2340 | 290-2930 | 350-3470   | 440-4400 | 500-5300 | 650-6530 |
|                              | ft.lbs            | 55-305  | 60-500  | 75-690  | 110-960  | 110-1170 | 140-1380 | 185-1725 | 215-2160 | 260-2560   | 325-3245 | 370-3910 | 480-4815 |
| Square drive                 | B                 | 3/4"    | 3/4"    | 3/4"    | 3/4"     | 1"       | 1"       | 1"       | 1"       | 1 / 1 1/2" | 1 1/2"   | 1 1/2"   | 1 1/2"   |
| Diameter (approx.)           | D <sub>1</sub> mm | 41      | 41      | 41      | 41       | 54       | 54       | 54       | 54       | 72         | 72       | 72       | 72       |
| Diameter (approx.)           | D <sub>3</sub> mm | 88      | 88      | 88      | 88       | 88       | 88       | 88       | 88       | 98         | 98       | 109      | 109      |
| Length (approx.)             | L mm              | 330     | 330     | 330     | 352      | 382      | 382      | 388      | 388      | 406        | 406      | 405      | 430      |
| Weight without DMA (approx.) | kg                | 9       | 9       | 9       | 9        | 10       | 10       | 11       | 11       | 13         | 13       | 14.5     | 15.5     |
| Idle speed                   | rpm               | 70      | 40      | 30      | 22       | 15       | 14       | 11       | 8        | 7          | 5        | 4        | 3        |

### Models EC-A

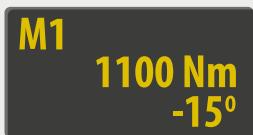
| Type                         |                   | EC-A 50  | EC-A 60  | EC-A 65  | EC-A 70    | EC-A 80  | EC-A 90  | EC-A 100 |
|------------------------------|-------------------|----------|----------|----------|------------|----------|----------|----------|
| Torque range (approx.)*      | Nm                | 190-1870 | 250-2340 | 290-2930 | 350-3470   | 440-4400 | 500-5300 | 650-6530 |
|                              | ft.lbs            | 140-1340 | 185-1725 | 215-2135 | 260-2540   | 325-3205 | 370-3730 | 480-4800 |
| Square drive                 | B                 | 1"       | 1"       | 1"       | 1 / 1 1/2" | 1 1/2"   | 1 1/2"   | 1 1/2"   |
| Diameter (approx.)           | D <sub>1</sub> mm | 54       | 54       | 54       | 72         | 72       | 72       | 72       |
| Diameter (approx.)           | D <sub>3</sub> mm | 88       | 88       | 88       | 98         | 98       | 109      | 109      |
| Length (approx.)             | L mm              | 310      | 310      | 310      | 318        | 318      | 326      | 315      |
| Height (approx.)             | H mm              | 300      | 305      | 305      | 315        | 315      | 345      | 350      |
| Weight without DMA (approx.) | kg                | 14       | 14       | 14       | 16         | 16       | 17       | 18       |
| Idle speed                   | rpm               | 14       | 11       | 8        | 7          | 5        | 4        | 3        |

\*) 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

### Display views

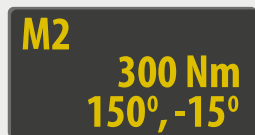
Software suite 1 (mode 1) and software suite 2 (mode 2)

Mode 1 / M1 (Standard)



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

Mode 2 / M2 (Option)

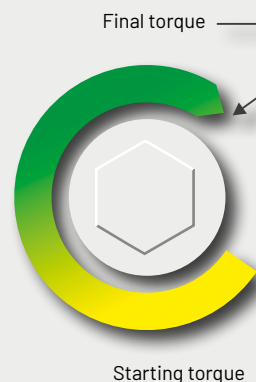


Torque/angle procedure for high-quality bolting connections. Display example of pre-torque, angle and loosening angle.

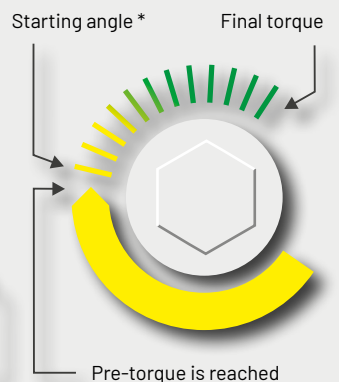
During the bolting process, the current torque value is shown in the display. Reaching the set value is indicated by an "OK". If the selected value cannot be achieved, the bolting operation is evaluated as "nOK".

### Scheme bolting programs

Torque controlled bolting mode 1



Torque/angle procedure mode 2



#### \* Information on rotational angle setting for torque/angle method:

- The angle of rotation is specified specifically 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.