BATTERY BOOSTER

# BB25, SBB25
# BB30 Compact
# BB30, SBB30
# BB50, SBB50
# BB60, SBB60

Operating Instructions

ECTIVE

## Table of Contents

Overview . . . . . 1
Important Safety Advice . . . . . 2
List of Models . . . . . 3
Installation . . . . . 4
Recommended Cable Cross-Sections, Cable Lengths, Fuse Capacities . . 6
Connections: Sensor Inputs and Terminals . . . . . 8
Battery Type Switches . . . . . 9
Battery Charging Parameters . . . . . 11
LED Indicators . . . . . 12
Operating Instructions . . . . . 13
Charging Process . . . . . 15
Protective Features . . . . . 15
Technical Specifications . . . . . 17
Operation via the connECTIVE App . . . . . 20
Service / Complaints . . . . . 22
Disposal . . . . . 23

## Overview

Congratulations and thank you for purchasing an ECTIVE Battery Booster!

This powerful charge converter allows for the on-board battery to be fully charged while driving. With it, one 12 or 24 V battery may be used to charge another 12 or 24 V battery („B2B“). It is particularly useful in RVs, campers, boats etc.

ECTIVE SBB models also feature an integrated MPPT solar charge controller which allows you to charge a battery with a solar panel.

With precise charging characteristics, it automatically increases and decreases the voltage to the required levels in order to optimally charge the battery.

Furthermore, the Battery Booster completely compensates for line losses and significant voltage fluctuations of the alternator, which frequently occur in vehicles. Supplied 12 or 24 V consumers are also protected from overvoltage and voltage fluctuations.

⚠ Please read this manual before use.

ECTIVE stands for power supply solutions at an unbeatable price-performance ratio.

Visit our website to explore more of our brand and products!

ECTIVE.DE

## Important Safety Advice

⚠ To prevent injury and to avoid damage to electrical equipment, please follow the following safety advice before operating the device.

Use the ECTIVE Battery Booster only...

- with lead-acid, AGM, Gel or $LiFePO_4$ batteries of the specified nominal voltage.
- with the specified cable cross-sections for inputs and outputs.
- with fuses of the specified strength near the battery to protect the wiring between the batteries and DC-DC converter connections.
- in a well-ventilated room, protected from rain, moisture, condensation, dust and aggressive battery gases.

Never use the ECTIVE Battery Booster in places where there is a risk of gas or dust explosions!

Keep batteries cool ($LiFePO_4$ batteries preferably above 0°C). Choose an appropriate location for installation.

Store batteries fully charged and recharge them periodically.

Recharge completely discharged batteries immediately.

When using a $LiFePO_4$ battery, make sure it features a BMS and safety circuit. Avoid completely discharging a battery.

## List of Models

The family of ECTIVE BB battery boosters comprises various models for different voltages of the supply and start batteries:

- 12 V to 12 V
- 12 V to 24 V
- 24 V to 24 V
- 24 V to 12 V

⚠ Please check the label on your device before use and only operate the battery booster with batteries of the correct voltages!

| | Eingang (V) zu Ausgang (V) | DC-DC Ladestrom | Solar-Ladestrom | Max. Solar-strom |
|---|---|---|---|---|
| **BB30** | 12 V → 12 V | 12 V \| 30 A | - | - |
| **BB60** | 12 V → 12 V | 12 V \| 60 A | - | - |
| **SBB30** | 12 V → 12 V | 12 V \| 30 A | 12 V \| 20 A | 250 Wp |
| **SBB60** | 12 V → 12 V | 12 V \| 60 A | 12 V \| 30 A | 430 Wp |
| **BB25** | 12 V → 24 V | 24 V \| 25 A | - | - |
| **BB50** | 24 V → 24 V | 24 V \| 50 A | - | - |
| **BB60** | 24 V → 12 V | 12 V \| 60 A | - | - |
| **SBB25** | 12 V → 24 V | 24 V \| 25 A | 12 V \| 30 A | 820 Wp |
| **SBB50** | 24 V → 24 V | 24 V \| 50 A | 24 V \| 30 A | 820 Wp |
| **SBB60** | 24 V → 12 V | 12 V \| 60 A | 24 V \| 50 A | 685 Wp |
| **BB30 Compact*** | 12 V → 12 V | 12 V \| 30 A | - | - |

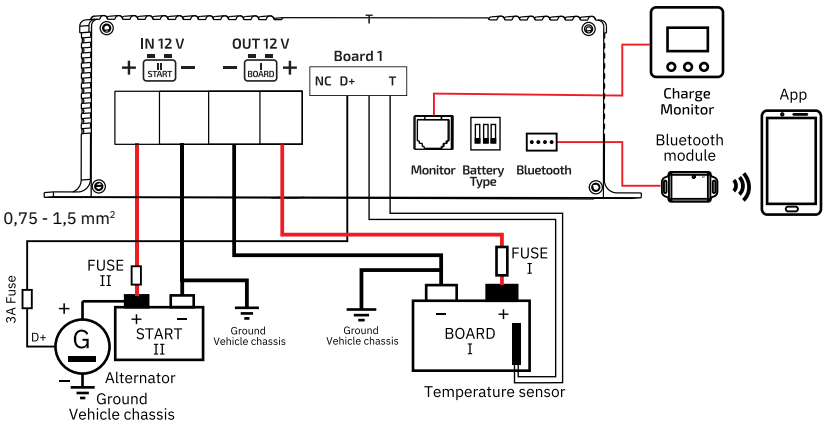
*Note: The ECTIVE battery booster with a charging current of 30A is also available in the ist in der „Compact“ variant which is smaller and offers a slightly reduced scope of functions. Please check the label on your device to find out if your device is the standard or compact version and observe the differing technical specifications and connection plan.

## Installation

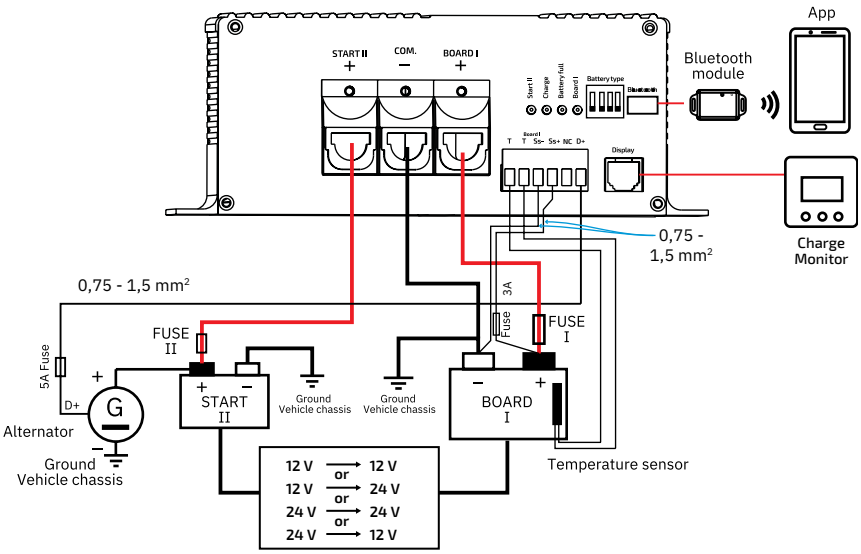
- Install the Battery Booster near the board supply battery I (for short charging cables) on a clean, even and hard mounting surface. Make sure the device is protected from water, humidity, corrosion and aggressive battery gases. The unit can be installed in any position.
- During operation, the device‘s fan will cool the Battery Booster. For efficient cooling, make sure that there is at least 10cm of clear space in front of the vent.
- Choose the appropriate cable specifications, length and fuse specifications for installation.
- Caution! A reverse connection of the battery will cause serious damage to the equipment!
- When using a Temperature Sensor, make sure that it is not affected by any external sources of heat.

Please note the following diagrams to ensure the correct connections for your device.

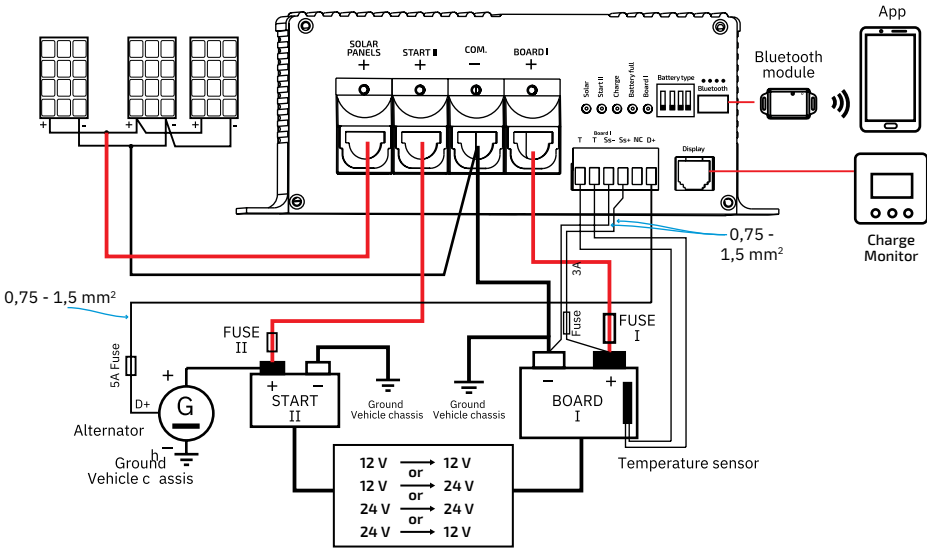
### ECTIVE BB30 COMPACT



## ECTIVE BB25, BB30, BB50, BB60




## ECTIVE SBB25, SBB30, SBB50, SBB60



# Recommended Cable Cross-Sections, Cable Lengths and Fuse Capacities

## BB25, BB30

| | 2.5mm² | 4mm² | 6mm² | 10mm² |
|---|---|---|---|---|
| **Cable length "+Start II"** | - | - | up to 5m | up to 8m |
| **Cable length with insulated construction "-Batt"** | - | - | up to 5m | up to 8m |
| **"Fuse II" cable protection** | - | - | 50A | 50A |
| **Cable length "-Com" to "Board I"** | - | 0.5 to 1.5m | 1.0 to 2.5m | 2.0 to 4.0m |
| **Cable length "+ Board I"** | - | 0.5 to 1.5m | 1.0 to 2.5m | 2.0 to 4.0m |
| **"Fuse I" cable protection** | - | 40A | 40A | 40A |

## BB50, BB60

| | 4mm² | 6mm² | 10mm² | 16mm² | 25mm² |
|---|---|---|---|---|---|
| **Cable length "+Start II"** | - | - | - | up to 7m | up to 10m |
| **Cable length with insulated construction "-Batt"** | - | - | - | up to 7m | up to 10m |
| **"Fuse II" cable protection** | - | - | - | 100A | 100A |
| **Cable length "-Com" to "Board I"** | - | - | 0.5 to 2.0m | 1.5 to 3.0m | 2.5 to 5.0m |
| **Cable length "+ Board I"** | - | - | 0.5 to 2.0m | 1.5 to 3.0m | 2.5 to 5.0m |
| **"Fuse I" cable protection** | - | - | 80A | 80A | 80A |

## SBB25, SBB30

| | 2.5mm² | 4mm² | 6mm² | 10mm² |
|---|---|---|---|---|
| **Cable length "+Start II"** | - | - | up to 5m | up to 8m |
| **Cable length with insulated construction "-Batt"** | - | - | up to 5m | up to 8m |
| **"Fuse II" cable protection** | - | - | 50A | 50A |
| **Cable length "-Com" to "Board I"** | - | 0.5 to 1.5m | 1.0 to 2.5m | 2.0 to 4.0m |
| **Cable length "+ Board I"** | - | 0.5 to 1.5m | 1.0 to 2.5m | 2.0 to 4.0m |
| **"Fuse I" cable protection** | - | 40A | 40A | 40A |
| **Cable lengths solar panels** | up to 4.5m | up to 6m | up to 10m | up to 16m |

## SBB50, SBB60

| | 4mm² | 6mm² | 10mm² | 16mm² | 25mm² |
|---|---|---|---|---|---|
| **Cable length "+Start II"** | - | - | - | up to 7m | up to 10m |
| **Cable length with insulated construction "-Batt"** | - | - | - | up to 7m | up to 10m |
| **"Fuse II" cable protection** | - | - | - | 100A | 100A |
| **Cable length "-Com" to "Board I"** | - | - | 0.5 to 2.0m | 1.5 to 3.0m | 2.5 to 5.0m |
| **Cable length "+ Board I"** | - | - | 0.5 to 2.0m | 1.5 to 3.0m | 2.5 to 5.0m |
| **"Fuse I" cable protection** | - | - | 80A | 80A | 80A |
| **Cable lengths solar panels** | up to 4m | up to 6m | up to 10m | up to 16m | - |

## Connections: Sensor Inputs and Terminals

Plug-in Terminal Strip: In case of limited space, the strip can be withdrawn and reattached at any time for easy cable connections.

**T T** Measuring input for the temperature sensor of the supply battery „Board I“. Connect a temperature sensor to the terminals „T T“ (any polarity). Make sure to follow any instructions relating to your temperature sensor.

**Ss- and Ss+** A cable sensor allows for more a accurate measuring of the battery voltage. This helps the Battery Booster to compensate the voltage loss on the charging cable. If no voltage sensor is connected, or the connection is interrupted, the default measurement program will be used. If multiple batteries are used in parallel, connect SS- to the negative pole of the first battery, and SS + to the positive pole of the second or last battery.

**D+** Control input of the dynamo for the charging converter (B2B-Booster) operation ON / OFF: Connect the terminal „D+“ directly to the existing signal in the vehicle. The „D+“signal is preferably to be used for

the „active dynamo“. If the D+ signal does not exist in the vehicle, the signal „Ignition ON“ can be used for unit control. Attention:

When the motor is not running, the starter battery might be discharged!

**Battery Temperature Sensor** Connecting an external temperature sensor to the „TT“ port, allows for a real-time measurement of the main battery‘s temperature. Ensure that this measurement is not distorted by any other heat sources, such as motor heat, exhaust, heater, etc. If no temperature sensor is connected or the connection is interrupted, the Battery Booster assumes a default temperature of 25°C.

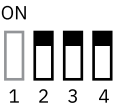
**NC** No function.

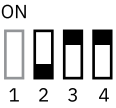
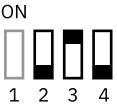
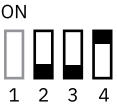
## Battery Type Switches

Use the DIP switches 2, 3 and 4 on the ECTIVE Battery Booster to select the correct battery type for „Board I“.

⚠ Set the correct battery type before use. Never change the battery type while the device is operating.

### Battery Type

| | | | |
|---|---|---|---|
|  |  |  |  |
| **Gel**<br>Boost voltage:<br>14.3 / 28.6 V | **Sealed**<br>Boost voltage:<br>14.4 / 28.8 V | **Flooded/AGM**<br>Boost voltage:<br>14.7 / 29.4 V | **$LiFePO_4$**<br>Boost voltage:<br>14.4 / 28.8 V |

| | | | |
|---|---|---|---|
|  |  |  |  |
| **Lithium-Ion (NCM)**<br>Boost voltage:<br>12.6 / 25.2 V | **$LiFePO_4$**<br>Boost voltage:<br>13.9 / 27.8 V | **$LiFePO_4$**<br>Boost voltage:<br>14.2 / 28.4 V | **$LiFePO_4$**<br>Boost voltage:<br>14.6 / 29.2 V |

### Charging Lithium Batteries below 0°C

DIP switch 1 allows you choose whetherLithium Batteries are to be charged at temperatures below 0°C. Note: an external temperature sensor must be connected!

|  |  |
|---|---|
| **No charging below 0°C**<br><br>Temperature < 0°C:<br>Stop charging<br><br>Temperature > 3°C:<br>Resume charging | **Charging permitted below 0°C**<br><br>Temperature - 20°C to 0°C:<br>Reduce charging current<br><br>Temperature > 3°C:<br>Resume normal charging |

⚠ Caution: When using a Lithium Battery, make sure it has a BMS!

### ECTIVE BB 30 COMPACT

Please observe the specific DIP switches for the „Compact“ variant of the battery booster BB30.

|  |  |  |  |  |
|---|---|---|---|---|
| **Gel** | **Lead Acid** | **AGM** | **$LiFePO_4$** | **Lithium-Ion (NCM)** |

## Battery Charging Parameters

| | Gel | Sealed | Flooded/ AGM | LiFePO4 | Lithium-Ion (NCM) |
|---|---|---|---|---|---|
| **Equalized charge** | - | 14.6V | 14.8V | - | - |
| **Boost charge** | 14.3V | 14.4V | 14.7V | 14.4 / 13.9V*<br>14.2 / 14.6V* | 12.6V |
| **Float charge** | 13.8V | 13.5V | 13.5V | 13.8V | 12.5V |
| **HVD** | 15.5V | 15.5V | 15.5V | 15.5V | 13.5V |
| **LVD** | 11V | 11V | 11V | 11V | 9.3V |
| **Constant voltage charging time** | 2h | 2h | 2h | 2h | 2h |

*The data is determined according to the battery type.

Above values valid for 12V batteries. If the main battery is 24V, all parameters need to be to be multiplied by 2.

## LED Indicators

| | Color | Meaning |
|---|---|---|
| **Board I** | Red | Slow flashing (1× in 5 seconds):<br>Main battery voltage is normal<br>Fast flashing (1× per second):<br>Main battery over-voltage<br>ON: Main battery Low-voltage |
| **Battery full** | Green | OFF: no charging<br>Slow flashing (1× per 5 seconds): Boost charging<br>Fast flashing (1× per second): Constant voltage charging<br>ON: Battery full |
| **Charge** | Yellow<br>(BB30 Compact: Green) | OFF: no charging<br>Short flashing (1× per 2 seconds): Lithium Battery not charging because temperature is below 0°C<br>Fast flashing (1× per second): Controller overheating<br>Slow flashing (4 seconds on, 1 second off): Reduced charging current because temperature >50°C or <-20°C<br>ON: charging (B2B or solar charging) |
| **Start II** | Green<br>(BB30 Compact: Yellow) | OFF: No D+ signal, no charging<br>Flashing (1time/5 second): Start battery voltage < 11V (During B2B charging, when the voltage of the starting battery is < 10.8V, the charging will stop. Once the voltage is, 12.5V charging resumes.<br>Fast flashing (1× per second): Start battery voltage > 16V<br>ON: Start battery voltage normal (11V to 16V)<br>For 24V batteries, multiply the parameter values by 2! |
| **Solar**<br>**(only SSB models)** | Green | OFF: B2B charging<br>Slow flashing: PV voltage too Low (lower than the main battery)<br>Fast flashing (1× per 2 seconds): PV overvoltage (> 50V)<br>ON: PV voltage normal |

## Operating Instructions

### B2B Mode (Battery to Battery)

In B2B Mode the alternator and starter battery charge the main battery.

When the ignition of the Vehicle is ON, the generator starts to work and has a D + signal output to the Battery Booster. The starting battery will start to charge the main battery. When the vehicle stops, and the generator stops working as well, the D + signal is interrupted. The B2B charging stops.

If the start battery voltage is below 10.8V, in order to prevent the start battery voltage from being too low and affecting the normal start of the vehicle, B2B charging stops. When the start battery voltage rises to 12.5V, B2B charging starts automatically.

During B2B-charging, the solar charging stops automatically.

In case B2B mode is not working, please check if...

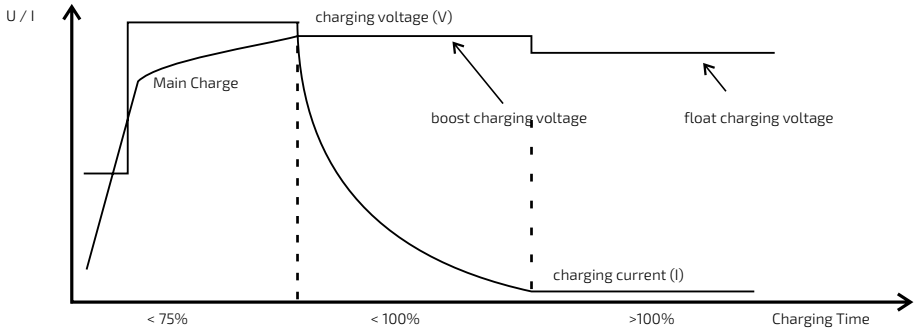
- the D + signal is normal (D + signal voltage must be > 8V)
- the starter battery voltage is > 10.5V. If the battery voltage is low, increase the generator speed to charge the starter battery.

### MPPT Solar Charging Mode (SBB Models)

ECTIVE SBB Battery Boosters feature an integrated MPPT solar charging controller with a higher efficiency than conventional solar controllers.

When the vehicle stops running and there is no D + signal, the solar charging will automatically begin if there is sufficient sunlight.

If the supply battery (Board I) is fully charged or in the state of float charging, the excess solar energy is also charged into the starter battery (Start II: max. charging current 5 A). This function ensures that the vehicle can be started even after long periods of standing.




In case MPPT solar charging is not working, please check if....

- the D + signal is less than 8V. Solar charging only runs when B2B charging is not running.
- the positive and negative poles of the solar panel are correct. The open circuit voltage of the solar panel must be < 50V. The battery voltage must be < 15.5V.
- the solar panel charging current does not reach the specification value
- the main battery is almost fully charged.
- the connection diameter of the solar panel is too small. This may affect the charging current.
- the solar panel gets sufficient sunlight.

## Charging Process

### Boost Charge

Charges according to the maximum current until the battery voltage reaches the constant voltage charging voltage.

### Constant Voltage Charge

When the battery voltage has risen to the appropriate level, the current begins to fall and the constant voltage charge mode is begun. The constant voltage charging time is 2h. When the battery voltage is above 12.6V, the constant voltage charging is endend and the floating charge is directly charged

### Float Charge

After the constant voltage charge is completed, the float charge begins and maintans the battery charge without overchargig.

## Protective Features

### Main Battery Over-Voltage

If battery voltage is above the HVD: charging is interrupted.

If battery voltage is greater than boost charge voltage +0.2V for 10 continuous seconds, charging is interrupted.

A buzzer alarm will sound for one minute (— — —).

### Main Battery Low-Voltage Protection

If the battery voltage is below LVD, a buzzer alarm will sound for one minute (-- -- --).

### Starter Battery Low-Voltage Protection

B2B charge is interrupted if the starter battery‘s voltage is below:

**12 V battery**: < 10.8 V
**24 V battery**: < 21.6 V

B2B charge current is reduced if the battery‘s voltage is:

**12 V battery**: 12.3 V - 10.8 V
**24 V battery**: 24.6 V - 21.6 V

### B2B Charge Over-Power Protection

Max. current 60A, max. power: 780W

### Reverse Protection

Main battery: Blown fuse
Start battery: Blown fuse
PV reverse: no effect

### Overheating Protection

If the temperature is above 85°C, charging is interrupted. It is resumed when the temperature drops to 60°C.

If the temperature is above 75°C, the B2B charging current is reduced. When the temperature drops to 65°C, B2B mode resumes charging normally. A buzzer alarm will sound for one minute (-- — -- —).

### PV Over-Power Protection

Solar panel limit: Max power.

### PV Over-Voltage Protection

If PV voltage is greater than 50V, PV charge is interrupted.
A buzzer alarm will sound for one minute (--- ---).

### System Voltage Error

12 V battery: > 16 V
24 V battery: > 32 V
A buzzer alarm will sound for one minute (--- --- ---).

## Technical Specifications

| | BB30, SBB30 | BB60, SBB60 |
|---|---|---|
| **Main Battery "Board I"** | | |
| Lead-Acid, Gel, AGM nominal voltage | 12 V | |
| LiFePO4 nominal voltage | 12,8 V | |
| Lithium-Ion (NCM) nominal voltage | 11,1 V | |
| Recommended capacity | 45 to 280 Ah | 90 to 560 Ah |
| **Vehicle Starter Battery "Start II"** | | |
| Vehicle Starter Battery Nominal Voltage | 12 V | |
| Min. Battery Capacity, recommended | 60 Ah | 100 Ah |
| **B2B Charging operation** | | |
| Input voltage range "Start II" ,"D+" controlled | 10,5 to 16 V | |
| Maximum charging power | 390 W | 780 W |
| "Board" max. charge current | 30 A | 60 A |
| Activation Control Input "D+" | 8 to 16 V | |
| **MPPT Solar Charge Controller (nur SBB)** | | |
| Max. PV-Leistung (P max.) | 250 W | 430 W |
| Max. PV-Strom | 15 A | 26 A |
| Max. Leerlaufspannung (Voc) | 50 V | |
| "Bord I" max. Ladestrom | 20 A | 30 A |
| "Bord I" Ladestrom für "Start II" | 0 to 5 A | |
| Stand-by current | 24 mA | |
| Main battery overvoltage protection | 15,5 V | |
| Weight | 1,24 kg \| 1,33 kg | 1,53 kg \| 1,62 kg |
| Dimensions (L × W × H) in mm | 194 × 190 × 70 | 215 × 190 × 70 |
| Operating temperature | -20 to 50 °C | |
| ECE-R10 Conformity | E24 10R06/01*3837*00 | |

| | BB30 Compact | BB60, SBB60 (24 V) |
|---|---|---|
| **Main Battery "Board I"** | | |
| Lead-Acid, Gel, AGM nominal voltage | 12 V | |
| LiFePO4 nominal voltage | 12,8 V | |
| Lithium-Ion (NCM) nominal voltage | 11,1 V | |
| Recommended capacity | 45 to 280 Ah | 90 to 560 Ah |
| **Vehicle Starter Battery "Start II"** | | |
| Vehicle Starter Battery Nominal Voltage | 12 V | 24 V |
| Min. Battery Capacity, recommended | 60 Ah | 100 Ah |
| **B2B Charging operation** | | |
| Input voltage range "Start II" ,"D+" controlled | 8 to 16 V | 21 to 32 V |
| Maximum charging power | 390 W | 780 W |
| "Board" max. charge current | 30 A | 60 A |
| Activation Control Input "D+" | 8 to 16 V | 21 to 32 V |
| **MPPT Solar Charge Controller** | | |
| Max. PV power(P max.) | - | 685 W |
| Max. PV current | - | 40 A |
| Max. Open Circuit Voltage (Voc) | - | 50 V |
| "Bord I" max. charge current | - | 50 A |
| "Bord I" charging current for "Start II" | - | 0 to 5 A |
| Stand-by current | 12 mA | 24 mA |
| Main battery overvoltage protection | 15,5 V | |
| Weight | 0,46 kg | 1,6 kg \| 1,7 kg |
| Dimensions (L × W × H) in mm | 147 × 118 × 41 | 215 × 190 × 70 |
| Operating temperature | -20 to 50 °C | |
| ECE-R10 Conformity | E24 10R06/01*3837*00 | |

| | BB25, SBB25 (24 V) | BB50, SBB50 (24 V) |
|---|---|---|
| **Main Battery "Board I"** | | |
| Lead-Acid, Gel, AGM nominal voltage | 24 V | |
| LiFePO4 nominal voltage | 25,6 V | |
| Lithium-Ion (NCM) nominal voltage | 22,2 V | |
| Recommended capacity | 45 to 280 Ah | 90 to 560 Ah |
| **Vehicle Starter Battery "Start II"** | | |
| Vehicle Starter Battery Nominal Voltage | 12 V | 24 V |
| Min. Battery Capacity, recommended | 60 Ah | 100 Ah |
| **B2B Charging operation** | | |
| Input voltage range "Start II" ,"D+" controlled | 10,5 to 16 V | 21 to 32 V |
| Maximum charging power | 650 W | 1300 W |
| "Board" max. charge current | 25 A | 50 A |
| Activation Control Input "D+" | 8 to 16 V | 16 to 32 V |
| **MPPT Solar Charge Controller** | | |
| Max. PV power(P max.) | 820 W | 820 W |
| Max. PV current | 24 A | |
| Max. Open Circuit Voltage (Voc) | 50 V | |
| "Bord I" max. charge current | 30 A | |
| "Bord I" charging current for "Start II" | 0 to 5 A | |
| Stand-by current | 24 mA | |
| Main battery overvoltage protection | 31 V | 31 V |
| Weight | 1,6 kg \| 1,7 kg | 1,6 kg \| 1,7 kg |
| Dimensions (L × W × H) in mm | 215 × 190 × 70 | 215 × 190 × 70 |
| Operating temperature | -20 to 50 °C | |
| ECE-R10 Conformity | E24 10R06/01*3837*00 | |

## Operation via the connECTIVE App

In combination with the **ECTIVE BT 1** Bluetooth dongle (sold separately) and the **connECTIVE app**, you can conveniently monitor and control your charging booster from your smartphone or tablet.



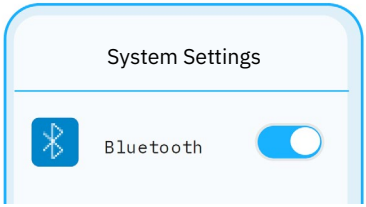

ECTIVE battery booster



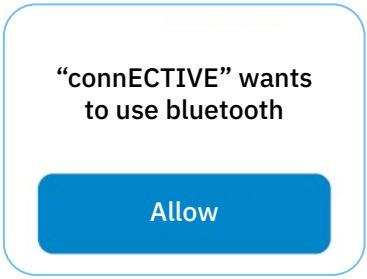
ECTIVE BT 1




connECTIVE App




Activate the Bluetooth function on your device.



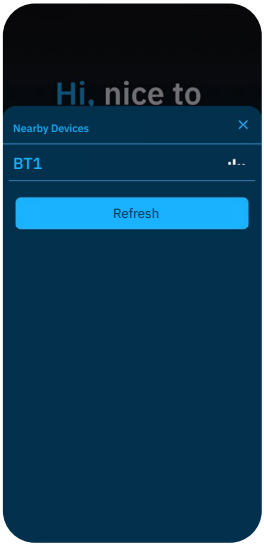

Allow the connECTIVE app to use the Bluetooth function.

To do this, connect the **BT 1** to the socket labelled „Bluetooth“ on your charge booster and download the **connECTIVE app** to your smartphone or tablet.

Ensure that the **Bluetooth function** is enabled in the system settings of your device.

Open the **connECTIVE app** and, when prompted, **allow** the app to use the Bluetooth function.

**Tap the plus sign** on the app‘s home screen to bring up the list of „**Nearby Devices**“. The battery booster should be listed here. When connecting for the first time, the device may appear as „BT1“ or the name may consist of a combination of letters and numbers. This name can be




Select the battery booster or Bluetooth dongle from the list of available devices. You can then monitor the status of your device from the app.

changed after a successful connection. If you cannot find a suitable device or the list is empty, **please check the distance** and that the **charge controller is active**. Tap on the device to establish the connection.

The **quick info tile** for your charge booster will now appear on the app's home page. The most important information, such as status, voltage and power, is displayed there. Tap on the tile to access the **product dashboard**, where you will find more detailed information about operation.

Once the app and charge booster are **paired**, they connect automatically as soon as the devices are within range and active.

We update the **connECTIVE app** regularly. Please ensure that the relevant updates to the app are carried out on your device to ensure smooth operation.
Further information on the **connECTIVE app** and detailed instructions can be found at www.ective.de/app.

Download on the App Store

GET IT ON Google Play

## Service / Complaints

If you have any questions about your device after purchase or during operation, we are happy to help you. To speed up the process, please provide information by email in advance, whenever possible with an explanation of the issue and photos.

To contact us and for product returns, please use the following service address:

**batterium GmbH**
Robert-Bosch-Straße 1, 71691 Freiberg am Neckar
T: +49 7141 / 560 90 40 | F: +49 7141 / 560 90 49
info@ective.de ective.de

Tip: When contacting us directly, please have your customer or invoice number and the article number ready.

In case you would like to return a product to us, please follow these guideline to ensure a quick and secure handling of the issue:

1. If possible use the original packaging as shipping carton.

2. If you no longer have the original packaging, please use suitable (UN-certified) packaging to ensure adequate protection against transport damage.

3. If the goods are not shipped in the original packaging or a UN-certified packaging, the goods are considered damaged and will therefore need to be billed when the item is returned.

Please enclose the following with the return shipment:

- Copy of the invoice
- (Service Form)
- Reason for return
- An exact and detailed error description

## Disposal

Please recycle or dispose of the packaging material for this product.

The German Electronic Equipment Act (ElektroG) regulates how to place electronic devices on the market, how to recycle and dispose of them.

**Please note**

In case of decommissioning of the device, please contact the nearest recycling centre or point of sale in order to get information about the disposal regulations.

ECTIVE.DE

ECTIVE stands for power supply solutions at an unbeatable price-performance ratio.

Visit our website to explore more of our brand and products!

© batterium GmbH, Edition 5, 02/2026

batterium GmbH
Robert-Bosch-Str. 1
71691 Freiberg am Neckar
Germany







E24 10R06/01*3837*00

ECTIVE

a brand of

batterium GmbH
Robert-Bosch-Straße 1
71691 Freiberg am Neckar
Germany

Tel.: +49 7141 1410870

ECTIVE.DE