

# The LiFePO<sub>4</sub> Battle Born Battery

The pinnacle of quality and safety at an unbeatable price point.

Please Read Before Installation

## Model BB5012

50 Amp Hours

### Deep Cycle Efficiency and Performance

This 12 volt 50 amp hour deep cycle LiFePO<sub>4</sub> battery offers double the power in the same physical space as a lead acid. The stable chemical composition and built-in battery management system in our batteries provides you with safe and reliable power.

These low-maintenance batteries are a fifth of the weight of a comparable lead acid. Our batteries are capable of being discharged to 100% of their rated capacity every time. They can be charged 5 times faster than lead acid, so you can get out there and stay out there longer!

Our batteries are built to last 10 to 15 years and are backed by an industry leading 10-year warranty, making battery anxiety a thing of the past.



### Specifications

- 50 Amp Hour, 12 Volt Battery
- LiFePO<sub>4</sub> Chemistry
- 3000-5000 Cycles
- Dimensions (L x W x H): 7.09" x 7.33" x 8.95"  
\*See QR Code below
- 17.6 lbs.
- Operating Temp Range: -4°F (-20°C) to 135°F (57.2°C)
- Water Resistant and Sealed (Batteries should not be submerged)
- Designed and Assembled in the USA
- Built-in BMS (Battery Management System)

### Charging Parameters

- Absorption Voltage: 14.2V to 14.6V
- Float Voltage: 13.4V to 13.8V
- Equalization Voltage: 14.4V (if Applicable)
- Absorption Time: 30 minutes per 100Ah battery bank
- No Temperature Compensation

### Built-in Battery Management System

Our BMS keeps you and your battery safe and ensures your battery will last for many years.

- 60 Amps Continuous
- 100 Amps Surge for 30 Seconds
- ½ Second Surge for Loads Over 200 Amps
- High/Low Voltage Protection
- Short Circuit Protection
- High/Low Temperature Protection
- Cold Charging Protection
- Automatic Cell Balancing at Top of Charge

\*Please Note: This built-in protection will reset after 5 seconds in most fault conditions. Disconnecting the battery from loads will also reset the BMS.



Get out there, stay out there.™



\*QR Code

Questions? Call 855-292-2831 or email us at [info@battlebornbatteries.com](mailto:info@battlebornbatteries.com)

# The LiFePO<sub>4</sub> Battle Born Battery

The pinnacle of quality and safety at an unbeatable price point.

Please Read Before Installation

## BB5012 FAQs

### Can LiFePO<sub>4</sub> batteries be mounted in any position?

You can mount our batteries in any position. Our batteries use a non-liquid based chemistry and do not emit any fumes or gases. When mounting, make sure to properly secure and protect your terminals.

### How can I check my battery's voltage?

If you do not have a battery monitor, you can purchase a multimeter to monitor the voltage of your batteries. Please reference the voltage vs. capacity table on the right.

### How do I properly store my LiFePO<sub>4</sub> batteries?

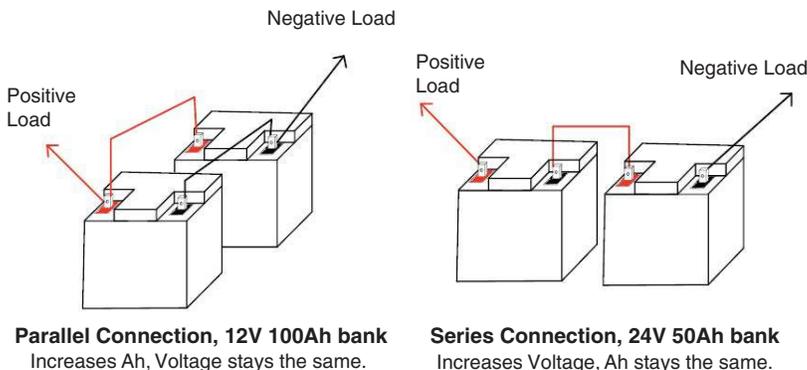
We recommend bringing the Battle Born Batteries to a 100% state of charge. Then, disconnect the battery from any loads by removing the negative cable from one battery. On average, the batteries lose approximately 2-3% capacity per month. This is subject to increasing if placed in extreme environmental conditions while in storage.

### What is the maximum amperage I can charge my batteries?

Our batteries allow a charge of 50 amps per 100-amp hour battery bank. For more than one battery, you can simply take the entire amp hours of the bank and cut it in half (e.g. a total of 200-amp hours can be charged at 100 amps).

### Is it necessary to charge my batteries out of the box?

Yes, if you are connecting your batteries in series you will need to charge your batteries out of the box. If you are connecting in parallel then you do not need to. See the diagram below.



### For more FAQs, scan the QR code!

To use the QR code, open the QR reader or camera on your smart phone. Hold your device over the QR code so that the code is clearly visible within the device's screen. Your phone will automatically scan the code and pull in the corresponding weblink.

## Voltage vs Capacity

For a single battery at 0A

14.4V	100%	Charging
13.6V	100%	Resting
13.4V	99%	Remaining Capacity
13.3V	90%	
13.2V	70%	
13.1V	40%	
13.0V	30%	
12.9V	20%	
12.8V	17%	
12.5V	14%	
12.0V	9%	
10.0V	0%	

## Quick Installation Tips:

- Torque specifications - 9 to 11ft-lb.  
**Do NOT** finger tighten
- Our batteries do not require ventilation since they do not emit fumes or gases, so you can put them in an enclosed areas.
- Our batteries can be mounted in any orientation that is suitable for you.
- **Do NOT** reverse the polarity of the battery, as this will damage both the battery and the device connected.
- The batteries come equipped with a 3/8" hole on the terminal to fit either a 3/8" or a 5/16" bolt.  
*Please see the manual for additional installation instructions.*

## Warranty

Every Battle Born Battery is backed by an industry leading 10-year warranty. Your batteries are assembled in Reno, NV, making it easier and quicker in the event of a warranty issue!

Warranty is non-transferable.

Visit [battlebornbatteries.com](http://battlebornbatteries.com) for additional warranty information.

Get out there, stay out there.™

Questions? Call 855-292-2831 or email us at [info@battlebornbatteries.com](mailto:info@battlebornbatteries.com)

