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

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

**Model BBGC3** 

# 270 Amp Hour Deep Cycle Efficiency and Performance

This 12V deep cycle 270 Ah battery weighs roughly 80 lbs. Utilizing the same stable LiFePO4 chemical composition and built-in battery management system (BMS) technology as our other products, the BBGC3 is one of the most unique deep cycle batteries on the market.

The BBGC3 offers a form factor that no other battery on the market has. With unlimited mounting possibilities and 270 Ah of power this battery is ideal for any application and maximizing your system's space and power. This battery is capable of being discharged to a 100% depth of discharge and charges 5 times faster than lead-acid. The BBGC3 allows for greater flexibility in what you can power and how you install it, providing energy independence that other batteries cannot.

Built to last 10 to 15 years and backed by an industry leading 10-year warranty, at Battle Born Batteries we're making battery anxiety a thing of the past.

Please Read Before Installation









### **Specifications**

- 270 Amp Hour, 12 Volt Battery
- LiFePO4 Chemistry
- 3000-5000 Cycles
- Dimensions (L x W x H): 22.83" x 7.09" x 13.15" \*See QR Code below
- 80.8 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:
   60 to 90 minutes
   per 270Ah 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.

- 300 Amps Continuous
- 500 Amps Surge for 30 Seconds
- ½ Second Surge for Loads Over 500 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.







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# BBGC3 FAQs

#### Can LiFePO4 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. The BBGC3 is unique in its form factor and can be placed anywhere in your build!

#### 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.

#### How do I properly store my LiFePO4 batteries?

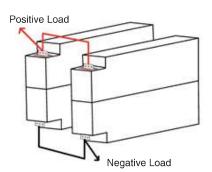
We recommend bringing the Battle Born Batteries to a 100% state of charge. Then, disconnect the battery from any loads by removing the negative cable from one battery. On average, the batteries lose approximately 2-3% capacity per month. This power lose is subject to increase if placed in extreme environmental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

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

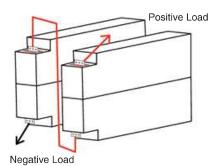
Our batteries allow a charge of 135 amps per 270-amp hour battery bank. For more than one battery, you can simply take the entire amp hours of the bank and cut it in half (e.g., a total of 540-amp hours can be charged at 270 amps).

#### 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.



Parallel Connection, 12V 540Ah bank Increases Ah, Voltage stays the same.



Series Connection, 24V 270Ah bank Increases Voltage, Ah stays the same.



#### 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

I Of a single battery at UA			
	14.4V	100%	Charging
vollage revel	13.6V	100%	Resting
	13.4V	99%	
	13.3V	90%	
	13.2V	70%	ity
	13.1V	40%	Remaining Capacity
	13.0V	30%	ng C
	12.9V	20%	naini
	12.8V	17%	Ren
	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 area.
- Our batteries can be mounted in any orientation that is suitable for you.
- <u>Do NOT</u> 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 for additional warranty information.



