



# 100 Amp Hour 12 Volt LiFePO<sub>4</sub> Deep Cycle Battery

Model: BB10012

## Features

- UL-Listed Cylindrical Cells
- Safe & Non-Toxic LiFePO<sub>4</sub> Chemistry
- Optional Smart Battery Communication Technology
- Optional Integrated Heating (Model: BB10012H)

## Performance & Versatility

- Series and/or Parallel Connection
- Wire in Series up to 48V
- No Limit When Wiring in Parallel
- Mount in Any Orientation
- 100% Depth of Discharge
- 3,000-5,000 Deep Discharge Cycles



Certified and Tested To Industry Safety Standards



## Internal BMS

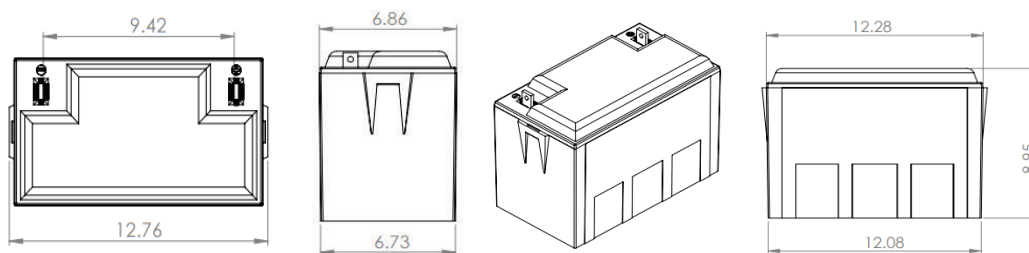
Proprietary battery management system (BMS) ensures user safety and product protection.

- High/Low Voltage Protection
- Short Circuit Protection
- High/Low Temperature Protection
- Cold Charging Protection (Low-Temp Cutoff)
- Automatic Cell Balancing at Top of Charge

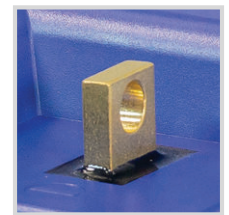
100 Amps Continuous | 200 Amps Surge for 30 Seconds | 1/2 Second Surge for Loads over 500 Amps

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

## Drawing Specifications



## Flag Terminals



## Contact Information:

📍 12915 Old Virginia Rd, Reno,  
Nevada, 89521

☎ 855-292-2831  
✉ info@battlebornbatteries.com

POWERED BY  
**dragonfly**<sup>®</sup>  
ENERGY

## INTEGRATED HEATING

### Optional Integrated Heating Technology

All Smart LiFePO<sub>4</sub> Batteries are available in models with optional Integrated Heating technology, which warms the battery pack's internal cells in cold temperatures.

- Allows for Cold Weather Charging
- Low Continuous Power Draw When Enabled
- Integrated Heating Technology Activated at Internal Temperature of ~35°F (\*When Heat Function is Enabled)
- Operating Temperature Range of -4°F to 135°F



### Optional Dragonfly Intelligence® Smart Communication Technology

Dragonfly Intelligence® is the proprietary communication technology inside Battle Born Smart LiFePO<sub>4</sub> Batteries.

- Robust Wireless Mesh Network & Bluetooth® Connectivity
- Quick Setup & Easy Configuration via the Battle Born® Mobile App
- Compatible with RV-C, NMEA 2000 & More (Some Protocols are Coming Soon)
- Remote Monitoring of Individual Batteries or Entire Smart Power System
- Error Detection & Warning Notifications
- Historical Reporting of SOC, Voltage, Performance, System Health & More



# BB10012 Technical Specifications

## Electrical Specifications

Voltage	12V
Capacity	100Ah
Operating Temperature	-4°F to 135°F (-20°C to 57.2°C)
Efficiency	99%
Self Discharge	2-3% per Month
Maximum Series Voltage	48V
Cycle	3K-5K
Built-in BMS	Internal
Resistance	7 mΩ
Usable Depth of Discharge	100%

## Discharging Specifications

Max Discharge Current	100A
Peak Discharge Current	200A for 30 Seconds
Surge for Loads Over 500A	.5 Seconds
Recommended Low Voltage Disconnect	10.5V
BMS Discharge Voltage Cut-Off	10V
Reconnect Voltage	10V
Short Circuit Protection	Yes

## Recognized Specifications

Battery Cell Certifications	UL 1642
Battery Pack Certifications	UN38.3 UL/CSA-62133-2 UL-2054 IP65 - ANSI/IEC 60529-2020, CSA 60529:16 (R2021) Class 1, Division 2, Group A, B, C & D UL 121201:2019, CSA C22.2 No.213-17
Shipping Class	UN3480, Class 9

## Temperature Specifications

Discharge Temperature	-4°F to 135°F (-20°C to 57.2°C)
Charge Temperature	25°F to 135°F
Storage Temperature	-10°F to 140°F (-23°C to 60°C)
BMS High Temperature Cut-Off	>135°F
BMS Reconnect Temperature	<135°F

\*Note: The storage temperature range is -10°F to 140°F (-23°C to 60°C). We recommend bringing the batteries to a 100% charge and then disconnecting them completely for storage. After six months in storage, your batteries will remain 75 to 80% charged.

Storing batteries in subzero weather (-15°F or more) has the potential to crack the ABS plastic and more importantly could cause a faster loss of capacity, in some cases drastically more than the typical 2 to 4% per month loss.

## Charging Specifications

Recommended Charge Current	.5c
Max Charge Current	50A
Absorption Voltage	14.2V to 14.6V
Float Voltage	13.4V to 13.8V
Equalization Voltage (if applicable)	14.4V
Absorption Time	30 Minutes per 100Ah Battery Bank
BMS Charge Current Cut-Off	.5C Recommended
Recharge/Rebulk Voltage	13.3V
BMS Cell Balancing Voltage Range	14.2V to 14.6V
High BMS Voltage Protection	14.7VDC
Temperature Compensation	No/Disable

## Mechanical Specifications

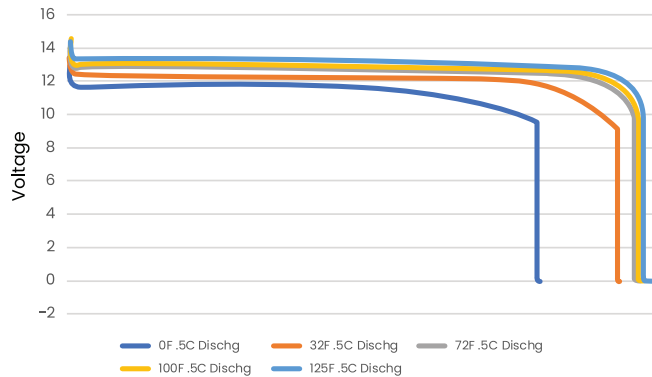
Dimensions	12.76"L X 6.86"W X 8.95"H
Weight	31 lbs.
Terminal Type	.25" Brass
Terminal Hole	3/8" Hole and 3/8" or 5/16" Hardware is Suggested
Terminal Torque	9 to 11 Ft-lb.
Case Material	ABS Fire Rated
Cell Type	Cylindrical
Cell Chemistry	LiFePO <sub>4</sub> (Lithium Iron-Phosphate)
Sealed and Water Resistant Case	Non-Submersible

## Integrated Heating Specifications (Model BB10012H Only)

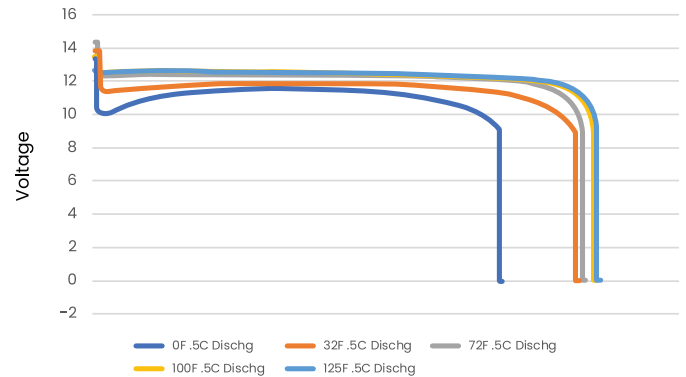
Heat	Integrated Heating Technology
Heat Enable Terminal	Female M4 Thread
Continuous Power Draw (When Enabled)	28W

## Performed Operation Data

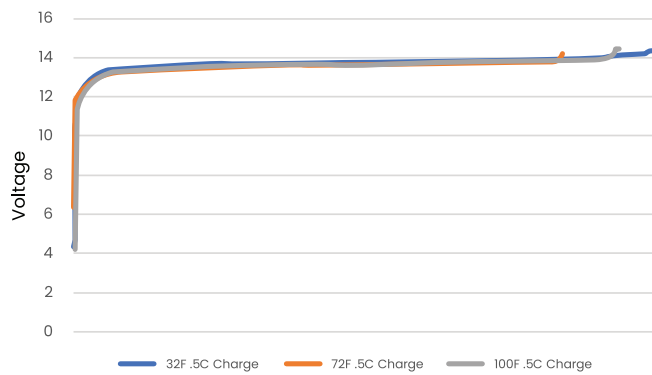
.5C Discharge with Temperature Variations



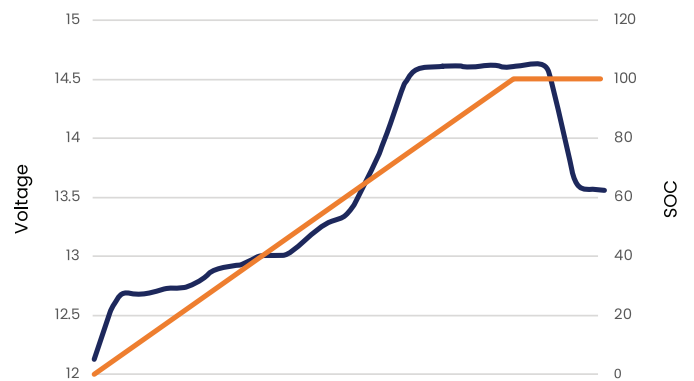
1C Discharge Voltage with Temperature Variations



.5C State of Charge with Temperature Variations



Standard Charge Curve with 3 Stage Charger



## Performed Operation Data for Heated Batteries

BB10012H Integrated Heating Draw Expected in a 24Hr Period

