



270 Amp Hour 12 Volt LiFePO4 Deep Cycle Battery

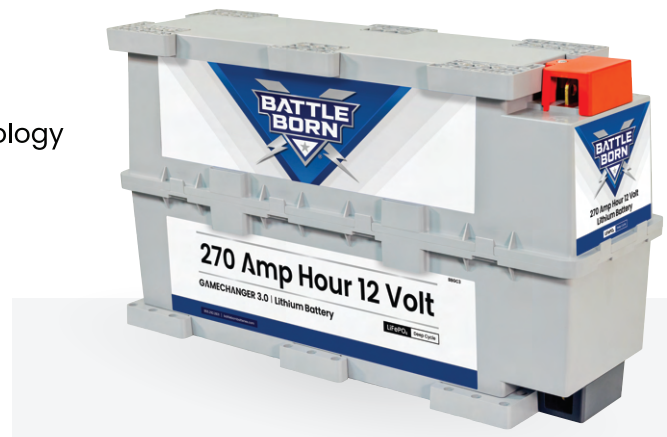
Model: BBGC3

Features

- UL-Listed Cylindrical Cells
- Safe & Non-Toxic LiFePO4 Chemistry
- Optional Smart Battery Communication Technology
- Optional Integrated Heating (Model: BBGC3H)

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

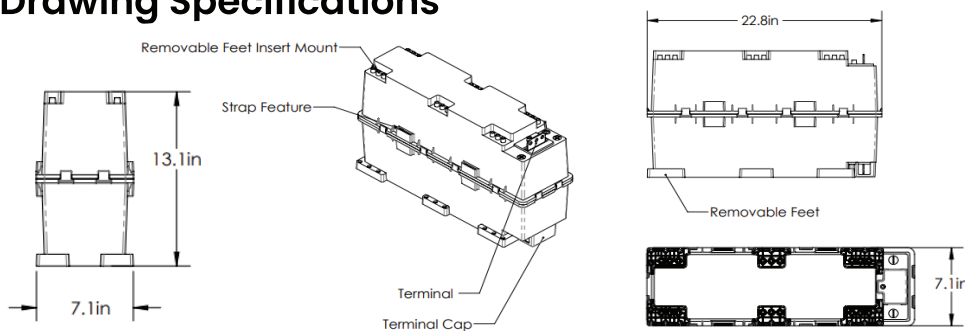
Proprietary battery management system (BMS) ensures user safety and product protection.

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

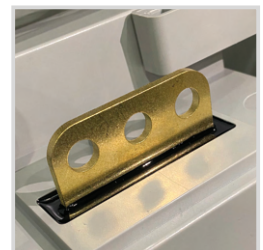
300 Amps Continuous | 500 Amps Surge for 30 Seconds | 1/2 Second Surge for Loads over 500 Amps

*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

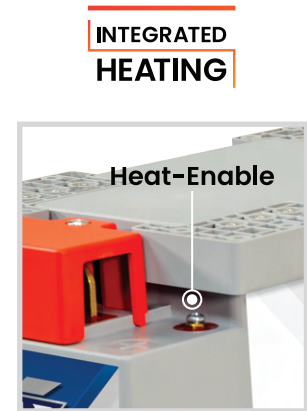
☎ 855-292-2831
✉ info@battlebornbatteries.com

POWERED BY
dragonfly[®]
ENERGY

Optional Integrated Heating Technology

All Smart LiFePO₄ 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 LiFePO₄ 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



BBGC3 Technical Specifications

Electrical Specifications

| | |
|---------------------------|---------------------------------|
| Voltage | 12V |
| Capacity | 270Ah |
| 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 | 5 mΩ |
| Usable Depth of Discharge | 100% |

Discharging Specifications

| | |
|------------------------------------|---------------------|
| Max Discharge Current | 300A |
| Peak Discharge Current | 500A 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 | 135A |
| Absorption Voltage | 14.2V to 14.6V |
| Float Voltage | 13.4V to 13.8V |
| Equalization Voltage (if applicable) | 14.4V |
| Absorption Time | 100 Minutes per 270Ah 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

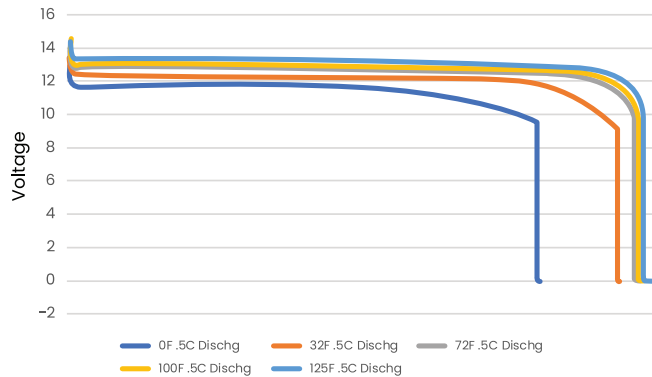
| | |
|---------------------------------|---|
| Dimensions | 22.83"L X 7.09"W X 13.15"H |
| Weight | 80.8 lbs. |
| Terminal Type | .25" Brass |
| Terminal Hole | 3/8" Hole and 3/8" or 5/16" Hardware is Suggested |
| Terminal Torque | 9 to 11 Ft-lb. |
| Case Material | ABS Fire Rated |
| Cell Type | Cylindrical |
| Cell Chemistry | LiFePO4 (Lithium Iron-Phosphate) |
| Sealed and Water Resistant Case | Non-Submersible |

Integrated Heating Specifications (Model BBGC3H Only)

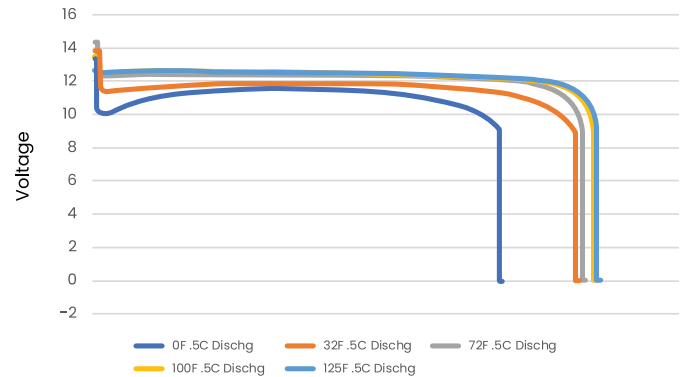
| | |
|--------------------------------------|-------------------------------|
| Heat | Integrated Heating Technology |
| Heat Enable Terminal | Female M4 Thread |
| Continuous Power Draw (When Enabled) | 28W |

Performed Operation Data

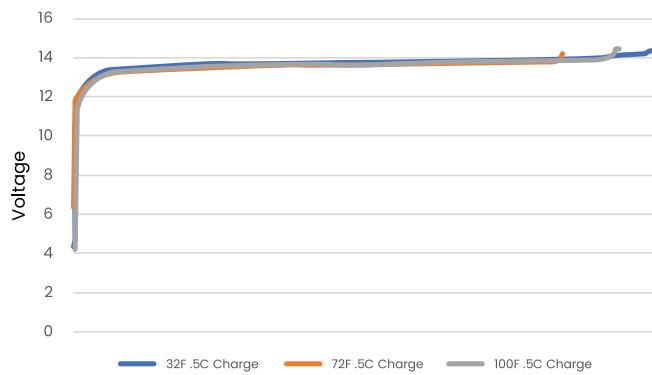
.5C Discharge with Temperature Variations



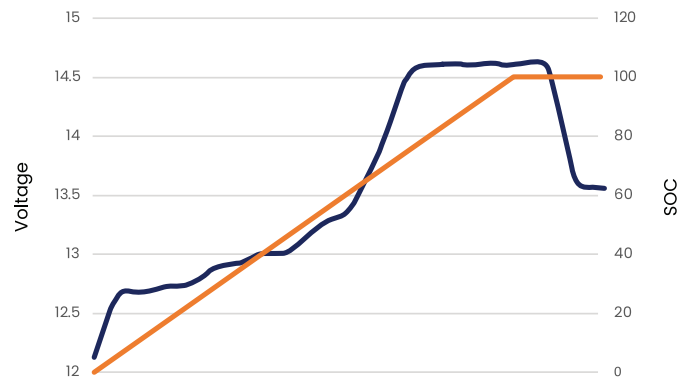
1C Discharge Voltage with Temperature Variations



.5C State of Charge with Temperature Variations

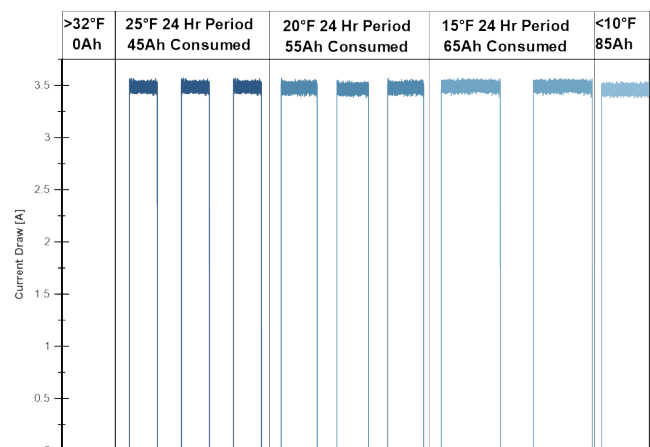
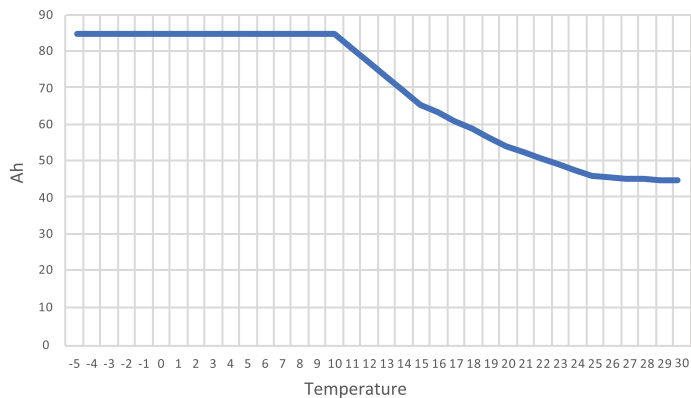


Standard Charge Curve with 3 Stage Charger



Performed Operation Data for Heated Batteries

BBGC3H Integrated Heater Draw Expected in a 24Hr Period



| | ON | OFF | Total Cycle Time | Ah One Cycle | Ah Expected (24 Hr Period) |
|-----|------|------|------------------|--------------|----------------------------|
| 15F | 8.27 | 2.46 | 10.73 | 29.13 | 65.15 |
| 20F | 5.06 | 2.91 | 7.97 | 17.84 | 53.69 |
| 25F | 3.92 | 3.42 | 7.34 | 13.8 | 45.12 |