



Model BB1250

50AH 12V
LiFePO₄ Deep Cycle Battery
Data sheet

Electrical Specification

| | |
|------------------------|------------------------------------|
| Voltage | 12V |
| Capacity | 50AH |
| 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 |
| Cycles | 3K-5K |
| Built-in BMS | Internal |
| Resistance | 16 mΩ |
| Usable DoD | 100% |

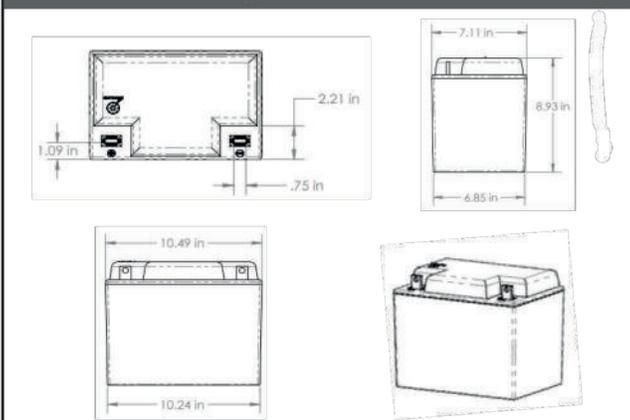
Discharging Specification

| | |
|-------------------------------|---------------------|
| Max Discharge Current | 60A |
| Peak Discharge Current | 100A for 30 Seconds |
| Surge for Loads over 500A | .5 Seconds |
| Recommended LVD | 10.5V |
| BMS Discharge Voltage Cut-Off | 10V |
| Reconnect Voltage | 10V |
| Short Circuit Protection | Yes |

Recognized Specification

| | |
|----------------|-----------------|
| Certifications | Pending |
| Shipping Class | UN3480, Class 9 |

Drawing Specification



Charging Specification

| | |
|--------------------------------------|--|
| Recommended Charge Current | .5c |
| Max Charge Current | 25A |
| Absorption Voltage | 14.2V-14.6V |
| Float Voltage | 13.4V-13.8V |
| Equalization Voltage (if applicable) | 14.4V |
| Absorption Time | 15 Minutes per 50AH battery bank |
| BMS Charge Current Cut-Off | .5C Recommended |
| Recharge/Rebulk Voltage | 13.3V |
| BMS Cell Balancing Voltage Range | 14.2V-14.6V |
| High BMS Voltage Protection | 14.7VDC |
| Temperature Compensation | No/Disable |

Mechanical Specification

| | |
|---------------------------------|---|
| Dimensions | 10.49"L X 7.11"W X 8.93"H |
| Weight | 22 lbs. |
| Terminal Type | .25" Brass |
| Terminal Hole | 3/8" hole and 3/8" or 5/16" hardware is suggested |
| Terminal Torque | 9-11 Ft-lb. |
| Case Material | ABS Fire Rated |
| Cell Type - Electrolyte | LiFePO ₄ |
| Sealed and Water Resistant Case | Non-Submersible |

Temperature Specification

| | |
|------------------------------|------------------------------------|
| Discharge Temperature | -4°F to 135°F (-20°C to 57.2°C) |
| Charge Temperature | 25°F - 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 |

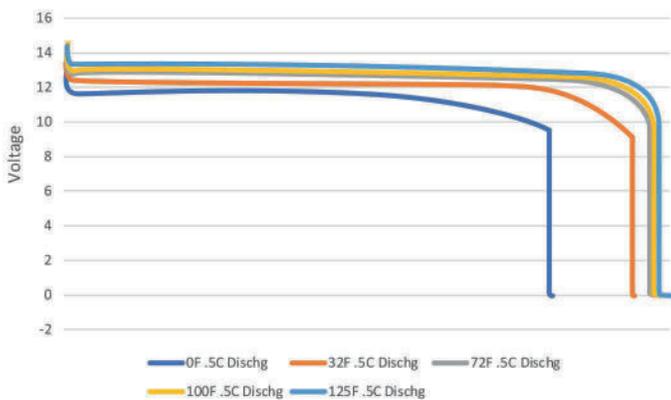


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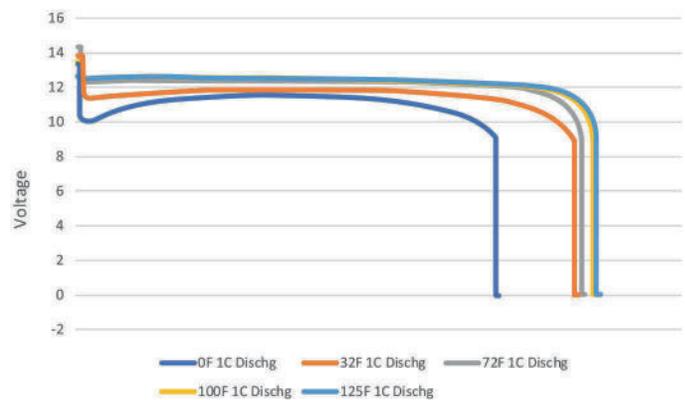
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Performed Operation Data

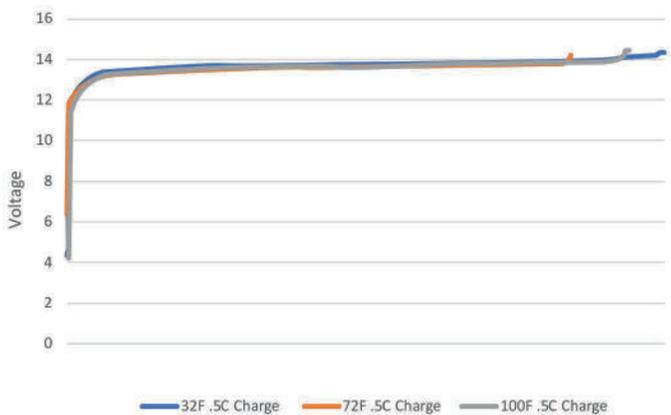
.5C Discharge with Temperature Variations



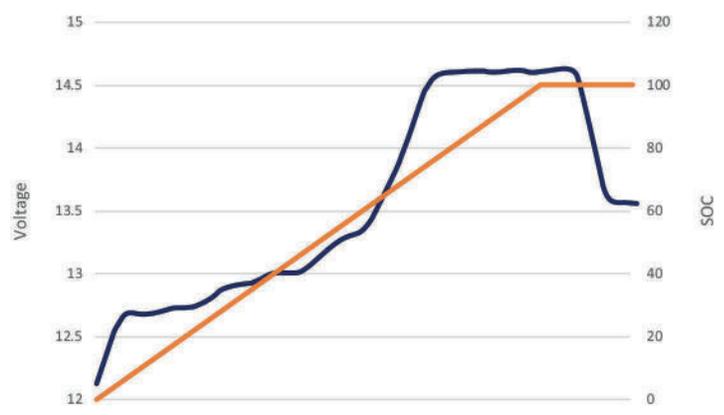
1C Discharge Voltage with Temperature Variations



.5C State of Charge with Temperature Variations



Standard Charge Curve with 3 Stage Charger



*Note: The storage temperature range is -10°F to 140°F (-23°C to 60°C). We recommend bringing the Battle Born Batteries to a 100% charge and then disconnecting them completely for storage. After six months in storage, your batteries will remain 75 – 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 – 4% per month loss.