75 Amp Hour 12 Volt LiFePO4 Deep Cycle Battery

Model: BB1275

Features

- UL-Listed Cylindrical Cells
- Safe & Non-Toxic LiFePO4 Chemistry
- Optional Integrated Heating (Model: BB1275H)

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

Intertek

UL-62133 Class 1, Div 2 CE

*Class 1, Division 2 Listing is Not Applicable for Heated Version

Internal BMS

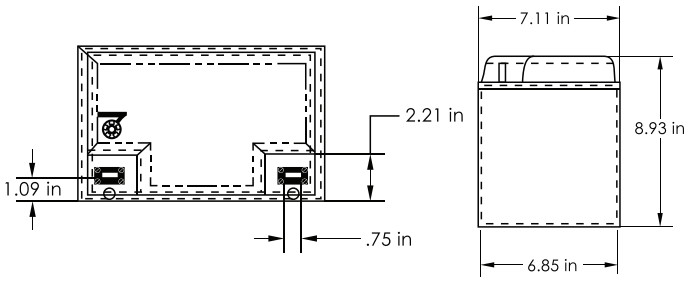
Proprietary battery management system (BMS) ensures user safety and product protection.

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

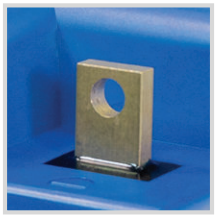
100 Amps Continuous | 200 Amps Surge for 30 Seconds | 1/2 Second Surge for Loads over 200 Amps

*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



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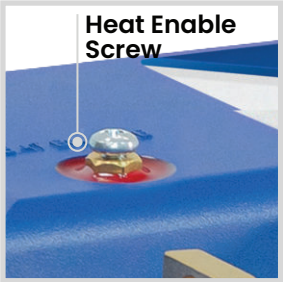
POWERED BY dragonfly® ENERGY

Optional Integrated Heating Technology

INTEGRATED HEATING

All Smart $LiFePO_4$ 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



BB1275 Technical Specifications

Electrical Specifications

Voltage	12V
Capacity	75Ah
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	10 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	UL/CSA-62133-2 Class 1, Division 2, Group A, B, C & D UL 121201:2019, CSA C22.2 No.213-17
Shipping Class	UN3480, Class 9

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	110.49"L X 7.11"W X 8.93"H
Weight	27 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	$LiFePO_4$ (Lithium Iron-Phosphate)
Sealed and Water Resistant Case	Non-Submersible

Integrated Heating Specifications (Model BB1275H Only)

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

Temperature Specifications

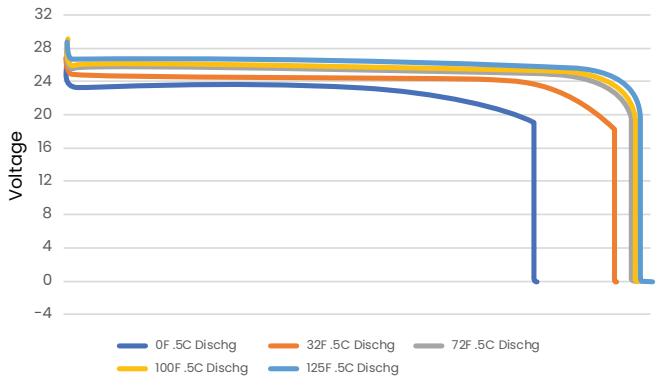
Discharge Temperature	-4°F to 135°F (-20°C to 57.2°C)
Charge Temperature	25°F to 135°F
Storage Temperature	-10°F to 140°F (-23°C to 60°C)
BMS High Temperature Cut-Off	>135°F
BMS Reconnect Temperature	<135°F

*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.

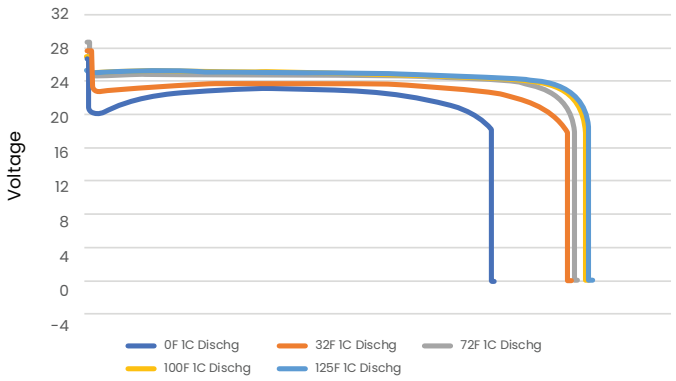
Storing batteries in subzero weather (-15°F or more) has the potential to crack the ABS plastic and more importantly could cause a faster loss of capacity, in some cases drastically more than the typical 2 to 4% per month loss.

Performed Operation Data

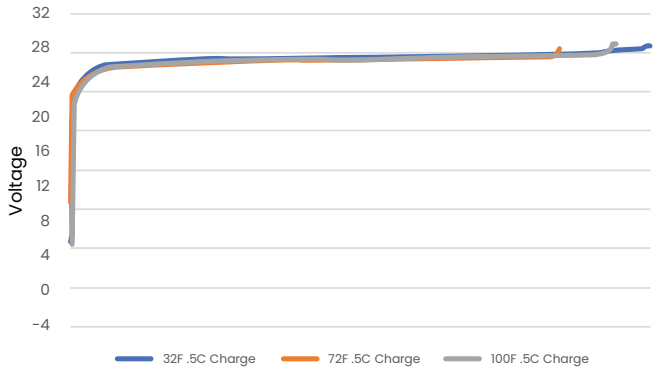
.5C Discharge with Temperature Variations



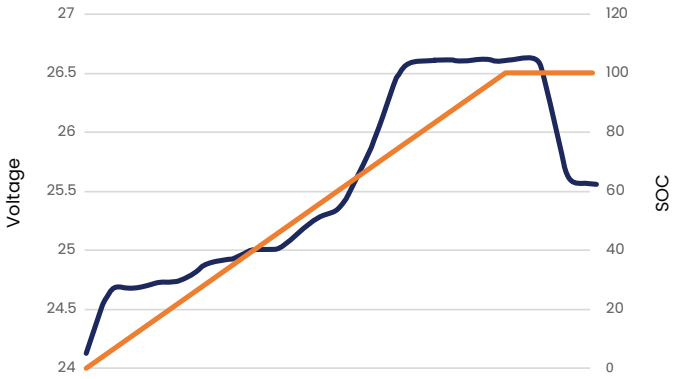
1C Discharge Voltage with Temperature Variations



.5C State of Charge with Temperature Variations

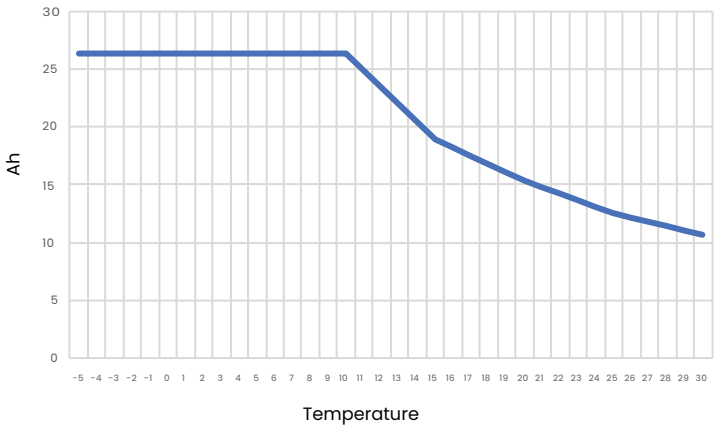


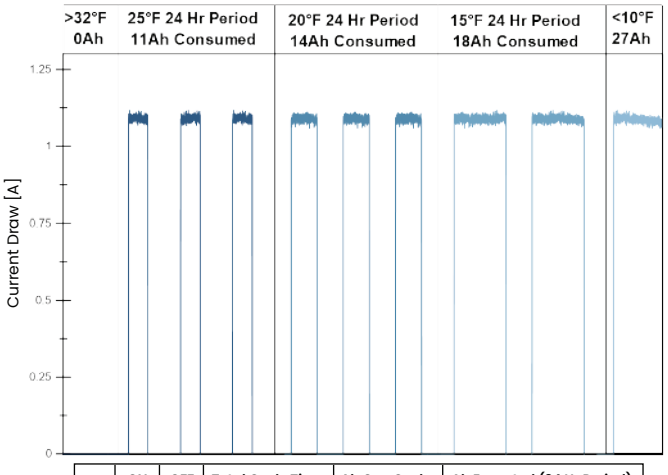
Standard Charge Curve with 3 Stage Charger



Performed Operation Data for Heated Batteries

BB1275H Integrated Heating Draw Expected in a 24Hr Period





	ON	OFF	Total Cycle Time	Ah One Cycle	Ah Expected (24 Hr Period)
15F	7.97	3.77	11.73	8.81	18.02
20F	4.66	4.21	8.86	5.15	5.15
25F	3.76	5.27	9.33	4.16	10.71