



# Model BB8DH

270AH 12V

LiFePO<sub>4</sub> Deep Cycle Battery

## Data sheet

### Electrical Specification

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
Cycles	3K-5K
Built-in BMS	Internal
Resistance	5 mΩ
Usable DoD	100%

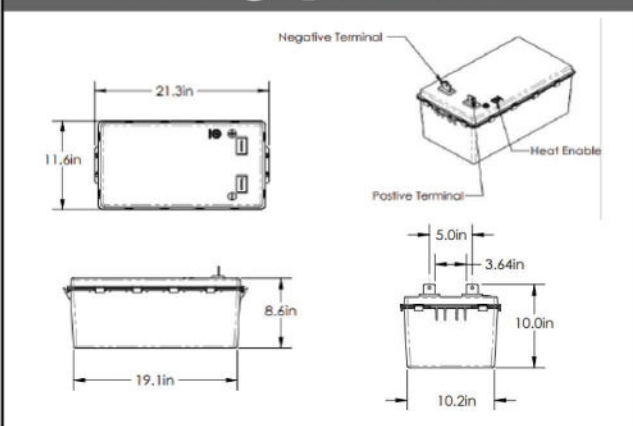
### Discharging Specification

Max Discharge Current	300A
Peak Discharge Current	500A 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	UN38.3   UL/CSA-62133-2   UL-2054 IP65 - ANSI/IEC 60529-2020, CSA 60529:16 (R2021)
Shipping Class	UN3480, Class 9

### Drawing Specification



### Charging Specification

Recommended Charge Current	.5c
Max Charge Current	135A
Absorption Voltage	14.2V-14.6V
Float Voltage	13.2V-13.8V
Equalization Voltage (if applicable)	14.4V
Absorption Time	60-90 Minutes per 270AH 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

### Mechanical Specification

Dimensions	21.29"L X 1.59"W X 10.01"H
Weight	81.4 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 <sub>4</sub>
Sealed and Water Resistant Case	Non-Submersible
Heat enable Terminal	Female M4 Thread

### 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

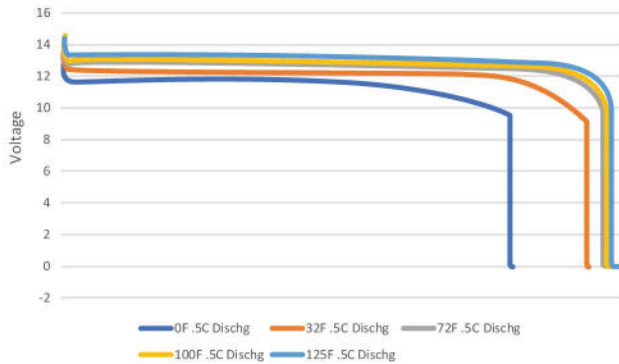


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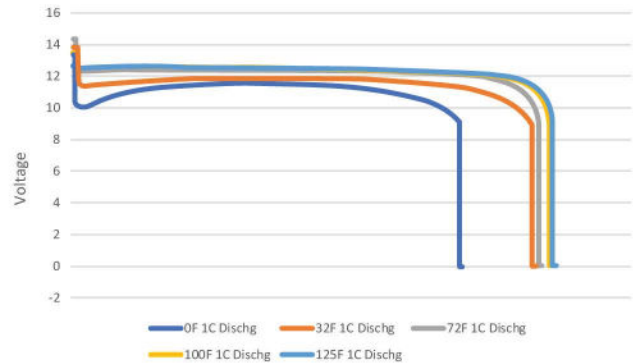
270AH 12V  
LiFePO<sub>4</sub> Deep Cycle Battery  
Data sheet

## Performed Operation Data

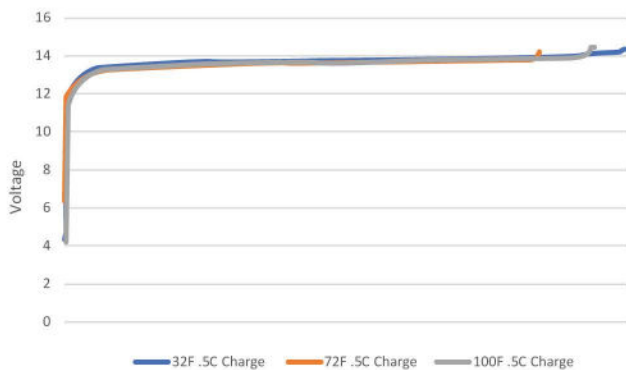
**.5C Discharge with Temperature Variations**



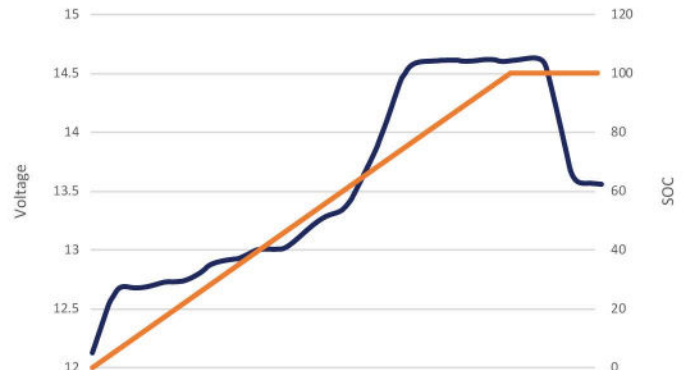
**1C Discharge Voltage with Temperature Variations**



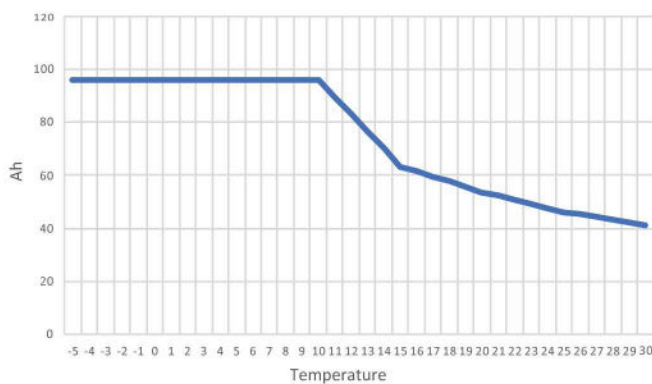
**.5C State of Charge with Temperature Variations**



**Standard Charge Curve with 3 Stage Charger**



**8DH Heater Draw Expected in a 24Hr Period**



	>32°F 0Ah	25°F 24 Hr Period 46Ah Consumed	20°F 24 Hr Period 54Ah Consumed	15°F 24 Hr Period 65Ah Consumed	<10°F 96Ah
ON					
OFF					
Total Cycle Time		11.33	30.39		
Ah One Cycle					
Ah Expected (24 Hr Period)		64.35	53.73	46.17	
15F	7.6	3.73	11.33	30.39	64.35
20F	5.66	4.45	10.11	22.63	53.73
25F	4.55	4.91	9.46	18.2	46.17

\*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.