



# Rack Mounted Battery 48V 50AH

## Technology

### Lithium Iron Phosphate (LiFePO4)

Nominal Voltage	51.2V
Rated Capacity	50AH
Charge Method	CC/CV
Charge Voltage	58.4V
Bulk/Absorption Voltage	58.4V
BMS Balancing Voltage	Any cell voltage $\geq 3.45V$ Max Voltage difference between cells $> 30mV$ In Charging
Equalize Voltage	Not applicable
Float Voltage *	Not applicable
Temperature Compensation	No/Disable
Charge Cut-off Voltage	58.4V
Discharge Cut-off Voltage	40V
Recommended Charge Current	25A
Recommended Discharge Current	25A
Maximum Continuous Charge Current	50A
Maximum Continuous Discharge Current	50A
Peak Current	120A/2s
WiFi	Yes
Bluetooth	Yes
Communication	CAN/RS485/RS232
Self Heating	No
Protection Rating	IP30
BMS Protection	<ul style="list-style-type: none"> <li>• Over and Low voltage</li> <li>• Charge and Discharge Over current</li> <li>• Short circuit</li> <li>• High and Low temperature</li> </ul>
Internal Resistance	$\leq 30m\Omega$
BMS Leakage Current	$\leq 10mA$
Charge Temperature Range	32°F (0°C) to 131°F (55°C)
Discharge Temperature Range	-4°F (-20°C) to 131°F (55°C)
Storage Temperature 1 week	-4°F (-20°C) to 149°F (65°C)
Storage Temperature 1 month	-4°F (-20°C) to 113°F (40°C)
Storage Temperature 1 year	-4°F (-20°C) to 77°F (25°C)
Humidity Operating:	5% to 90% RH
Humidity Storage:	35% to 85% RH
<b>Certifications: MSDS; UN38.3; CE; PSE</b>	
Cycle Life	6000 cycles

## FEATURES:

- BMS Protection**  
 Overcharge/Over-discharge Protection, Charge/Discharge Over-current Protection, Short-Circuit Protection, Battery Voltage Self-Balancing, High and Low Discharge Cut-off.
- Long Lifespan**  
 Can be cycled up to 6000 times, with a lifespan of up to 20 years.
- Multi-Brand Compatibility**  
 Compatible with multiple inverter protocols from various brands, supports CAN/RS485 for seamless communication with popular solar inverters.
- More secure and efficient**  
 Each battery has two pairs terminals for positive and negative poles, allow more connections to improve the conductive efficiency and safety.
- Smart Monitoring**  
 Easily monitor your battery's status through the mobile app, which supports both Bluetooth and WiFi connections. Stay informed on your battery's health and performance in real-time.
- Space-Saving Design**  
 Easily integrates into standard 3U racks for efficient space use. Its manageable 62 lb weight allows for single-person installation.
- Capacity Expansion**  
 Up to 32 units can be connected in parallel, expandable to 81.92kWh.

Max Connected  
IN Parallel  
**32 Units**

Max Connected  
IN Series  
**1 Units**

# Unit Dimensions



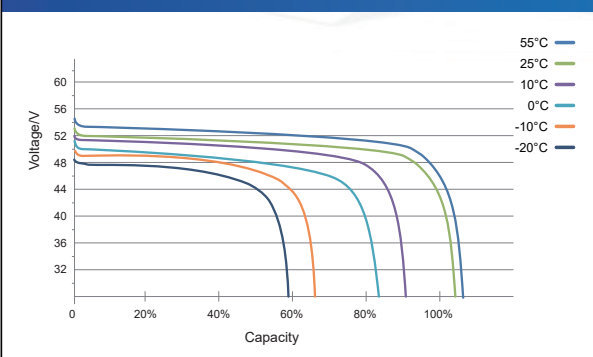
## Mechanical

Length	19.02in / 483mm
Width	18.31in / 465mm
Height	5.24in / 133mm
Weight	61.95lbs / 28.1kg
Terminals	M8 insert

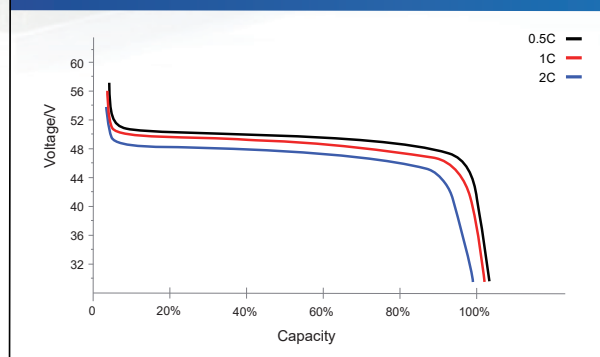
## Materials

Case and Cover	METAL
Color	GRAY

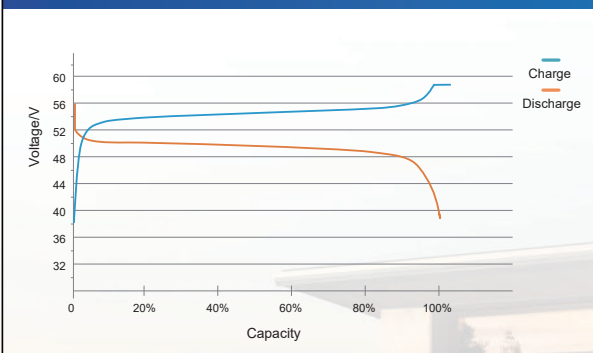
Discharge Characteristics At Various Temperatures



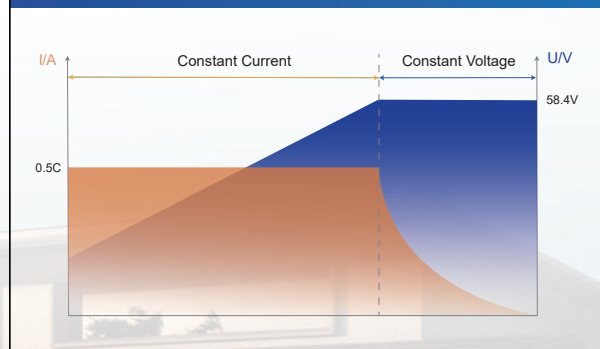
Discharge Characteristics At Various Rates



Charge & Discharge Voltage Characteristics



LiFePO4 Battery Charging Logic @0.5C



## PLEASE NOTE

- ★ Lithium batteries ship under Class 9 Dangerous Goods PI 965 Section IA. Please contact your carrier company to determine their requirements for shipping. MSDS Sheets are available upon request.
- ★ Float charging is not applicable to lithium iron phosphate batteries, long-term float charging will accelerate battery aging or damage. If you have to set the float voltage for MPPT/PWM charge controller in solar system, we suggest to set it to (12V Battery)13.2V-13.6V, (24V Battery)26.4V-27.2V, (36V Battery)39.6V-40.8V, (48V Battery)52.8V-54.4V.