



# LFP 12.8V100 HBT

Rechargeable Lithium Iron Phosphate Battery



LiFePO<sub>4</sub>

## PRODUCT FEATURES



• **Super Safe** Lithium Iron Phosphate Chemistry.



• **High Performance and Durability:** Offers significantly longer cycle life compared to traditional lead-acid batteries, ensuring reliable performance in a wide temperature range from -20°C to 60°C.



• **Faster Charging and Lower Self-Discharge:** Outperforms lead-acid batteries in both areas.



• **Compact and Lightweight:** High energy density in a small, lightweight design, ideal for space and weight-sensitive applications.



• **Long Lifespan:** Over 15 years of stable, maintenance free performance.



• **Unique Built-In BMS:** Monitors and controls battery parameters, providing protection against over-charging, over-discharging, over-current, and short circuits.



• **Bluetooth Connectivity:** Displays the battery's state of charge (SOC) and operating status.



• **Heat Film:** Ensures reliable performance in low-temperature environments.

## FUNCTIONAL SPECIFICATIONS

Cell Chemistry : . . . . .	LiFePO <sub>4</sub>
Cell Type : . . . . .	Prismatic
Nominal Voltage : . . . . .	12.8V
Nominal Capacity : . . . . .	100Ah
Stored Energy : . . . . .	1280Wh
Internal Resistance : . . . . .	≤15mΩ
Self-Discharge per Month : . . . . .	<2%
Cycle life @ 80% DOD : . . . . .	3500Cycles*
Series Connection : . . . . .	4 Units
Parallel Connection : . . . . .	4 Units
Combination Mode : . . . . .	4S1P(3.2V, 100Ah)
Communication Interface : . . . . .	Bluetooth

## MECHANICAL SPECIFICATIONS

Dimensions (L*W*H/TH) : . . . . .	260*170*212/213 mm
Weight : . . . . .	10±0.2Kg
Terminal Type : . . . . .	M8
Case Material : . . . . .	ABS
Ingress Protection Marking : . . . . .	IP65

## CHARGE SPECIFICATIONS

Recommended Charge Voltage : . . . . .	≤14.6V
Recommended Charge Current : . . . . .	≤25A(0.25C)**
Max. Charge Current : . . . . .	≤ 100A
Over Voltage Protection : . . . . .	15±0.2V
Reconnect Voltage : . . . . .	14.2V
Primary Charge Current Protection : . . . . .	130A±5A/10±5S

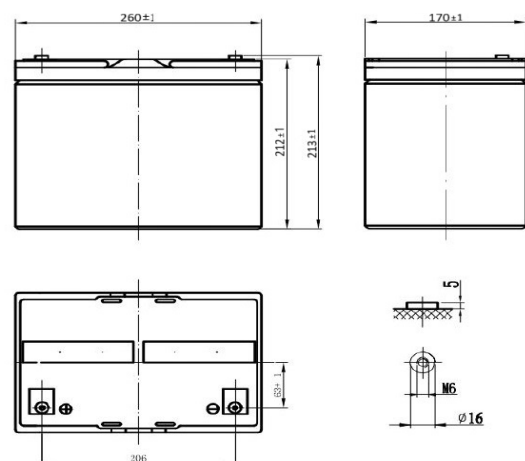
## DISCHARGE SPECIFICATIONS

Recommend Discharge Current : . . . . .	≤50A(0.5C)**
Max. Discharge Current : . . . . .	≤ 100A/320A,2S
Max. Discharge Voltage : . . . . .	≥10.4V
Low Voltage Protection : . . . . .	8.8±0.4V
Reconnect Voltage : . . . . .	10.4±0.4V
Primary Discharging Current Protection : . . . . .	130A±5A/10±3S
Short Circuit Protection : . . . . .	1550±300A/<500 μs

## ENVIRONMENTAL SPECIFICATIONS

Charge Temperature : . . . . .	-20~45°C
Discharge Temperature : . . . . .	-20~60°C
Storage Temperature : . . . . .	-10~40°C
Optimal Operation Humidity : . . . . .	5~95% RH/Non-condense

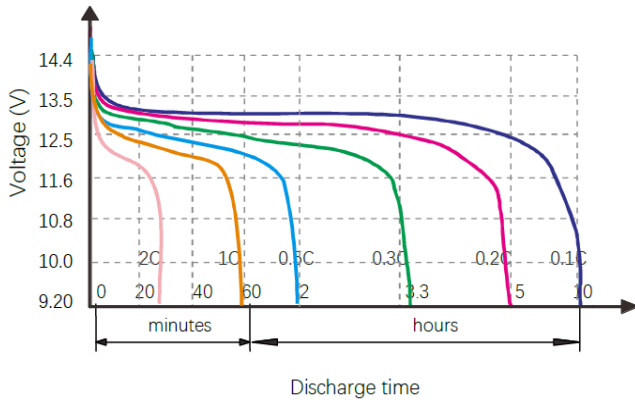
## OUTLINE DIMENSION



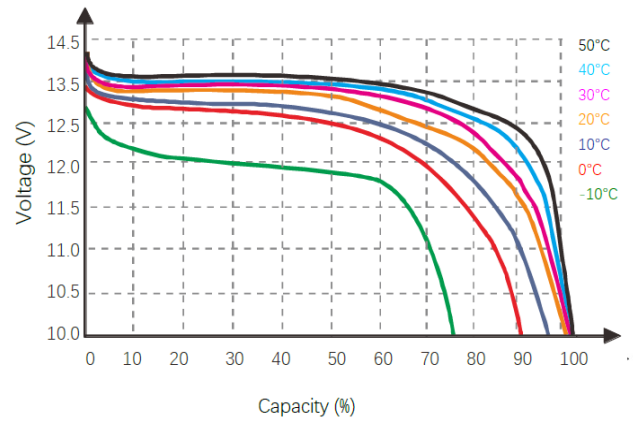
\*Refer to warranty terms for cycle life performance conditions

\*\* C=Capacity

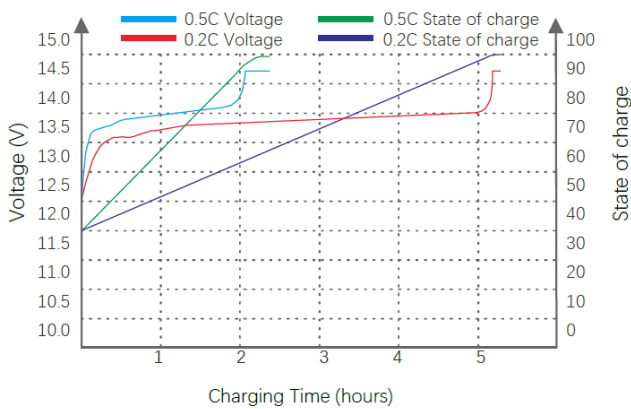
### Discharge Performance (25°C)



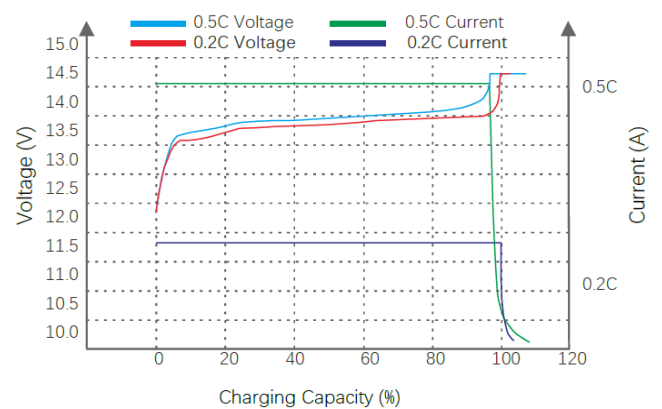
### Temperature Impact on Discharge Performance (0.5C)



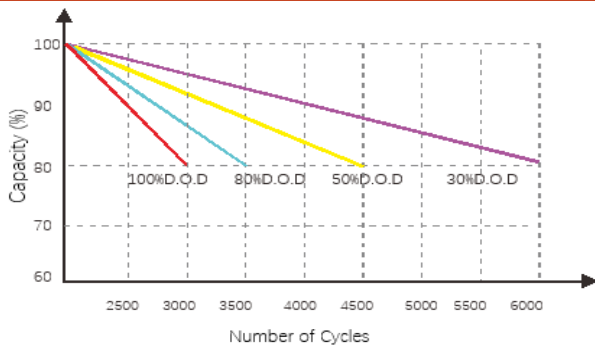
### State of Charge Curve (25°C)



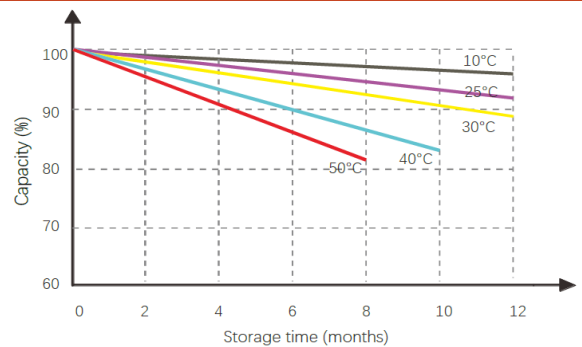
### Charge Characteristics (25°C)



### Cycle life in relation to Depth of Discharge (0.2C)(25°C)



### Self-Discharge Characteristics



## APPLICATIONS



- Renewable Energy Storage
- Recreational Vehicles (RVs)
- Small Electric Vehicles (EVs)
- Backup Power Systems
- Portable Power Packs
- Emergency Lighting and Equipment
- Marine Applications
- Remote Monitoring and Telemetry

## CERTIFICATIONS

- UN38.3
- CE
- IEC62619
- IEC 62368
- IEC 62620
- RoHS

## SHIPPING CLASSIFICATION

- UN 3480
- Class 9