



# LIFE 150-48SHC

Rechargeable Lithium Iron Phosphate Battery



## 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.



• **Smart Design:** Anti-theft protection and support constant voltage (57V) discharge for remote power supply, reduced line loss, no need for thick wires, and 100% discharge capability.



• **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 & Bidirectional DCDC:** Monitors and controls battery parameters, protecting against over-charging, over-discharging, over-current, and short circuits, supporting mixed battery use.



• **CANBus communication:** Offers real time monitoring, diagnostics, and seamless communication with other system components.

## FUNCTIONAL SPECIFICATIONS

Cell Chemistry : . . . . .	LiFePO <sub>4</sub>
Cell Type : . . . . .	Prismatic
Nominal Voltage : . . . . .	48V
Nominal Capacity : . . . . .	150Ah
Stored Energy : . . . . .	7200Wh
Internal Resistance : . . . . .	≤40 mΩ
Self-Discharge per Month : . . . . .	<5%
Cycle life @ 80% DoD: . . . . .	6000 Cycles*
Series Connection : . . . . .	Single Use
Parallel Connection : . . . . .	≤32 Units
Combination Mode : . . . . .	15S1P
Communication Interface : . . . . .	CANBus/ RS485

## MECHANICAL SPECIFICATIONS

Dimensions (L*W*H) : . . . . .	442*540*133.5mm
Weight : . . . . .	57.5±0.5Kg
Terminal Type : . . . . .	M6
Case Material : . . . . .	Steel
Ingress Protection Marking : . . . . .	IP20

## CHARGE SPECIFICATIONS

Operation Charge Voltage: . . . . .	≤60V
Recommended Charge Voltage : . . . . .	≤54V
Recommended Charge Current : . . . . .	≤50A(0.5C)**
Max. Charge Current : . . . . .	≤100A
Over Voltage Protection(Battery Pack) : . . . . .	56±0.5V
Over Voltage Protection(DC-DC Mode) : . . . . .	60±0.5V
Reconnect Voltage : . . . . .	50.25±0.5V
Primary Charge Current Protection : . . . . .	125±3A

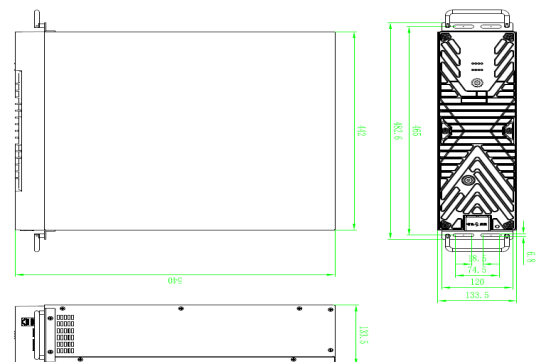
## DISCHARGE SPECIFICATIONS (Battery Pack)

Recommend Discharge Current : . . . . .	≤50A(0.33C)**
Max. Discharge Current : . . . . .	≤100A
Max. Discharge Voltage : . . . . .	≥41.5V
Low Voltage Protection : . . . . .	40.5±0.5V
Reconnect Voltage : . . . . .	45±0.5V
Primary Discharging Current Protection : . . . . .	125±3A/15s
Short Circuit Protection : . . . . .	200A/170-200μs

## ENVIRONMENTAL SPECIFICATIONS

Charge Temperature : . . . . .	0~60°C
Discharge Temperature : . . . . .	-20~60°C
Storage Temperature : . . . . .	-10~45°C
Optimal Operation Humidity : . . . . .	5~95%RH/Non-Condense

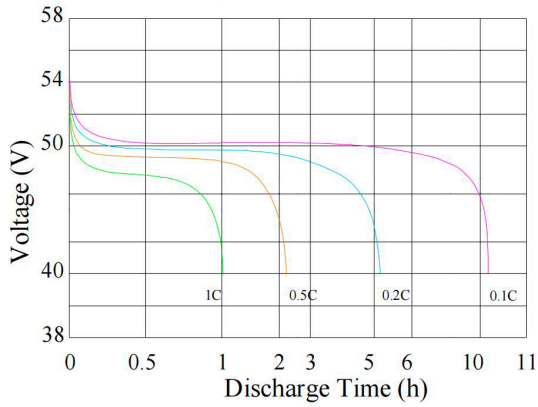
## OUTLINE DIMENSION



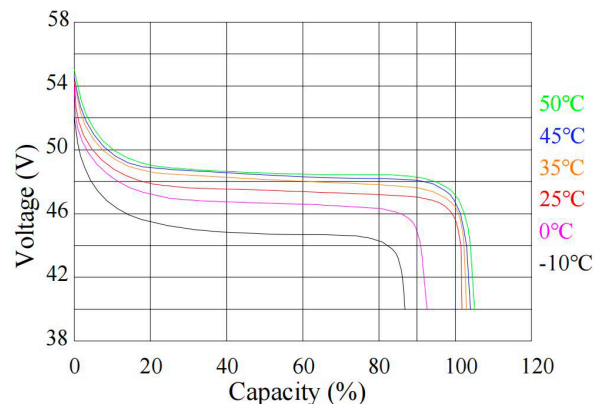
\*Refer to warranty terms for cycle life performance conditions

\*\* C=Capacity

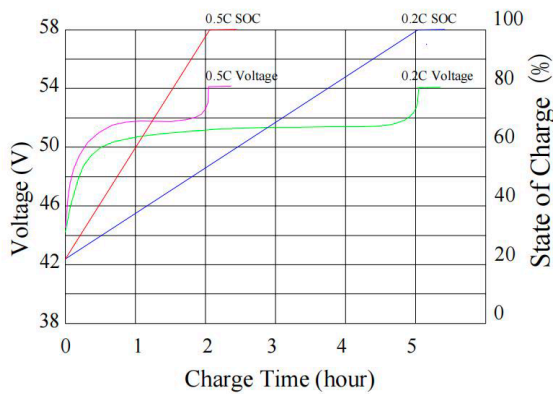
## Discharge Performance



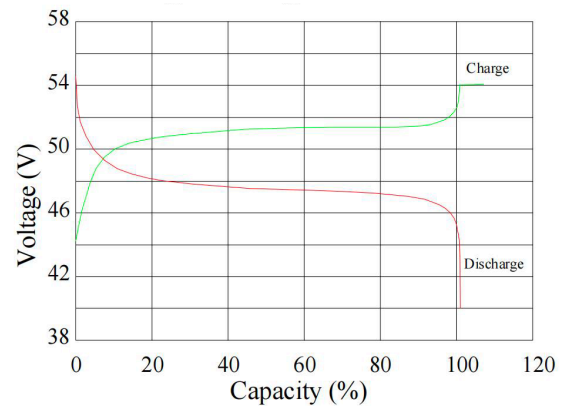
## Temperature effect on Discharging



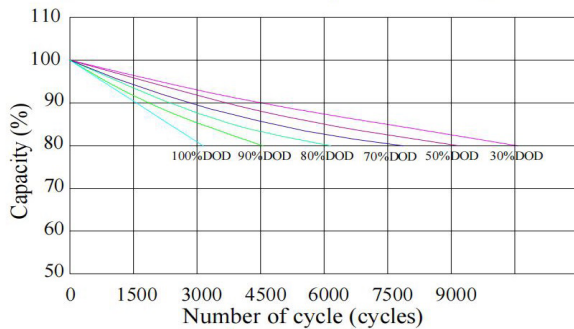
## State of Charge (25°C)



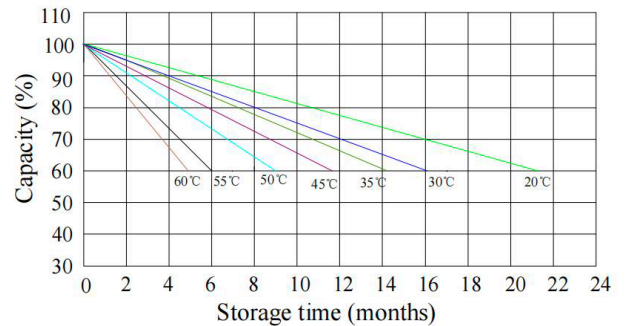
## Discharge and Charge Performance



## Cycle life in relation to Depth of Discharge



## Self-Discharge Characteristics



## APPLICATIONS



- Telecom and Data Centers
- Energy Storage Systems
- Uninterruptible Power Supply (UPS)
- Remote Power Supply
- Industrial Applications

## CERTIFICATIONS

- UN38.3

## SHIPPING CLASSIFICATION

- UN 3480
- Class 9