



# LIFE 20-48

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.



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



• **Long Lifespan:** Delivers extended stable, maintenance-free performance.



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



• **Advanced 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 :	20Ah
Stored Energy :	960Wh
Internal Resistance :	≤80 mΩ
Self Discharge per Month :	<5%
Cycle life @ 80% DoD :	.4000 Cycles*
Series Connection :	.Single Use
Parallel Connection :	.≤16 Units
Combination Mode :	.15S1P(3.2V, 20Ah)
Communication Interface :	.RS485

## MECHANICAL SPECIFICATIONS

Dimensions (L *W * H) :	442*234*88 mm
Weight :	10.5±0.3Kg
Terminal Type :	.M6
Case Material :	.Steel
Ingress Protection Marking :	.IP20

## CHARGE SPECIFICATIONS

Recommended Charge Voltage :	≤54V
Recommended Charge Current :	≤10A(0.5C)**
Max. Charge Current :	≤ 20A
Over Voltage Protection :	.57±0.5V
Reconnect Voltage :	.54V
Primary Charge Current Protection :	.20A

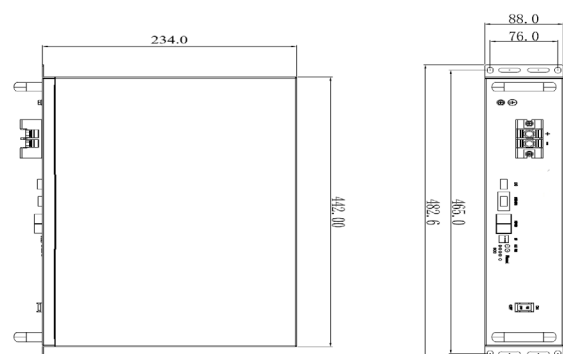
## DISCHARGE SPECIFICATIONS

Recommend Discharge Current :	≤ 10A(0.5C)**
Max. Discharge Current :	≤ 20A
Max. Discharge Voltage :	≥43.2V
Low Voltage Protection :	.42V
Reconnect Voltage :	.46.5V
Primary Discharging Current Protection :	.20~40A/30s
Short Circuit Protection :	.100A/1ms

## ENVIRONMENTAL SPECIFICATIONS

Charge Temperature :	.0~55°C
Discharge Temperature :	-.20~55°C
Storage Temperature :	.0~50°C
Optimal Operation Humidity :	.5~95%RH/Non-Condense

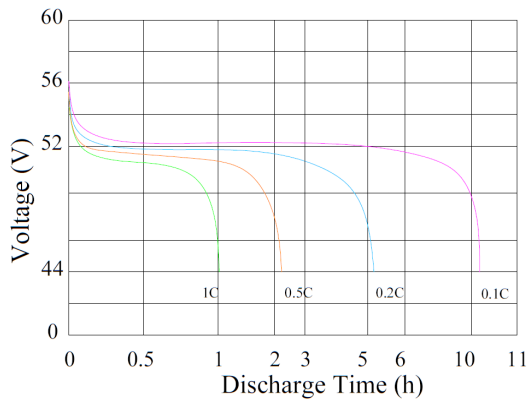
## OUTLINE DIMENSION



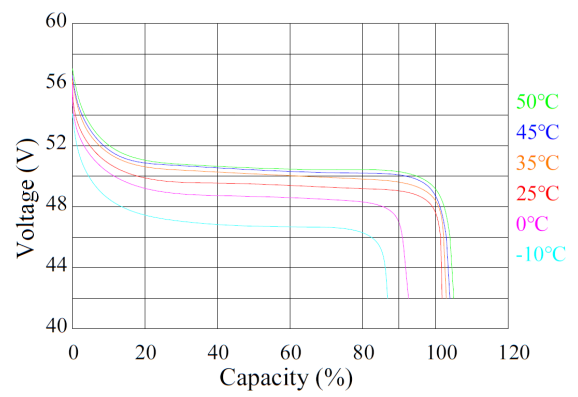
\*Refer to warranty terms for cycle life performance conditions

\*\* C=Capacity

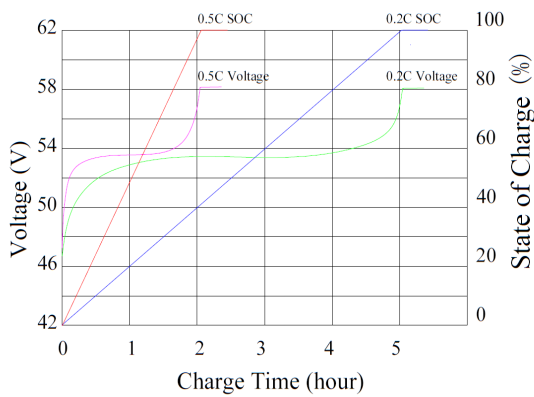
## Discharge Performance



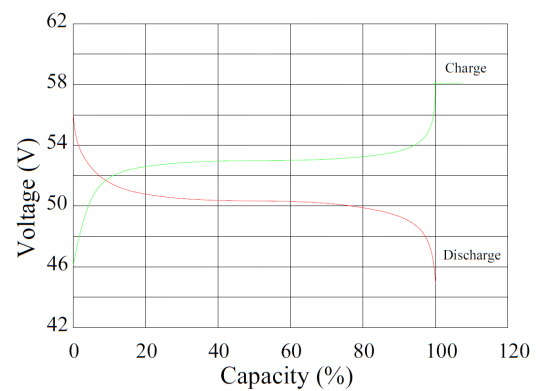
## Temperature effect on Discharging



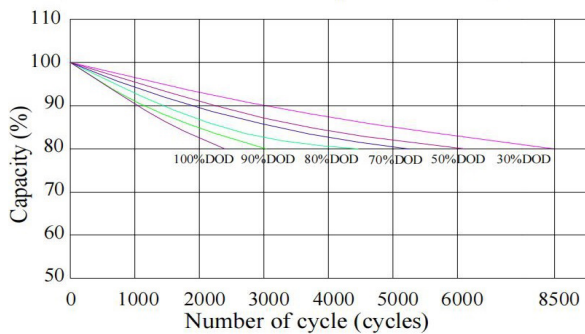
## State of Charge (25°C)



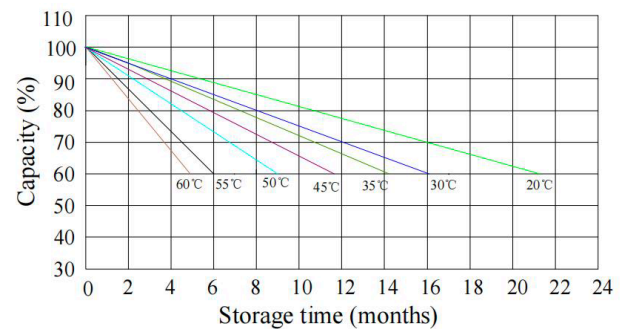
## Discharge and Charge Performance



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



## 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