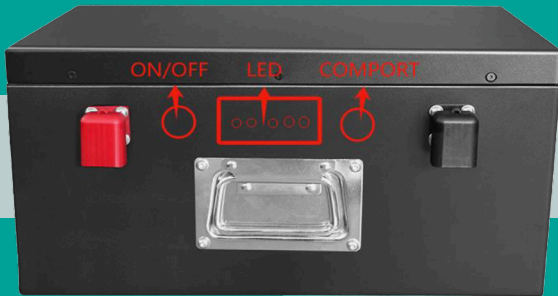




# LIFE 50-48SO

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, supporting mixed battery use.



• **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 : . . . . .	51.2V
Nominal Capacity : . . . . .	50Ah
Stored Energy : . . . . .	2560Wh
Internal resistance : . . . . .	≤100 mΩ
Self Discharge per Month : . . . . .	<3%
Cycle life @ 100%DoD : . . . . .	2000 Cycles*
Series Connection : . . . . .	Single Use
Parallel Connection : . . . . .	≤12 Units
Combination Mode : . . . . .	16S1P(3.2V, 50Ah)
Communication Interface : . . . . .	CANBus/ RS485

## MECHANICAL SPECIFICATIONS

Dimensions (L *W * H) : . . . . .	360*240*215 mm
Weight : . . . . .	15±0.5 Kg
Terminal Type : . . . . .	M6
Case Material : . . . . .	Metal
Ingress Protection Marking : . . . . .	IP54

## CHARGE SPECIFICATIONS

Recommended Charge Voltage : . . . . .	≤57.6V
Recommended Charge Current : . . . . .	≤10A(0.2C)**
Max. Charge Current : . . . . .	≤ 35A
Over Voltage Protection : . . . . .	58.4±0.4V
Reconnect Voltage : . . . . .	55.2±0.8V
Primary Charge Current Protection : . . . . .	50A

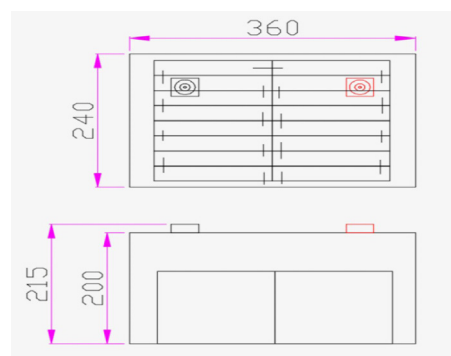
## DISCHARGE SPECIFICATIONS

Recommend Discharge Current : . . . . .	≤ 10A(0.2C)**
Max. Discharge Current : . . . . .	≤ 50A
Max. Discharge Voltage : . . . . .	≥32V
Low Voltage Protection : . . . . .	32±0.5V
Reconnect Voltage : . . . . .	35.2±0.8V
Primary Discharging Current Protection : . . . . .	105±12A/32±6ms
Short Circuit Protection : . . . . .	200-600μs

## ENVIRONMENTAL SPECIFICATIONS

Charge Temperature : . . . . .	0~45°C
Discharge Temperature : . . . . .	-20~60°C
Storage Temperature : . . . . .	Less than 6 year: -20~35°C
	. . . . . Less than 3 months : -20~45°C
Optimal Operation Humidity : . . . . .	60±25%RH/Non-Condense

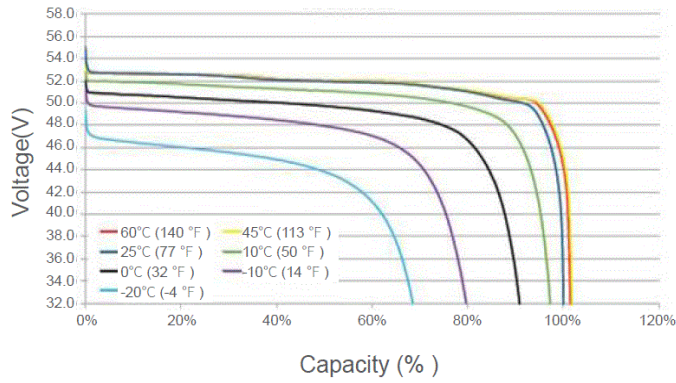
## OUTLINE DIMENSION



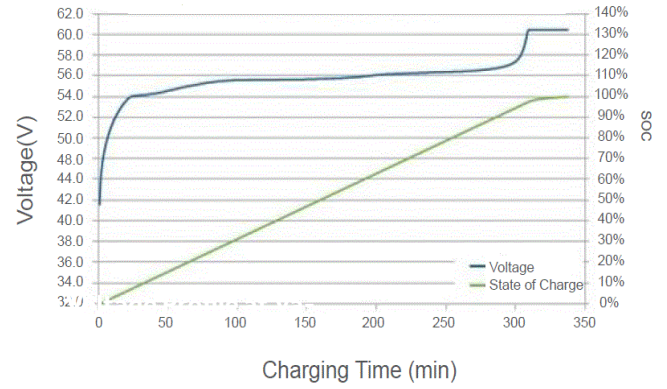
\*Refer to warranty terms for cycle life performance conditions

\*\* C=Capacity

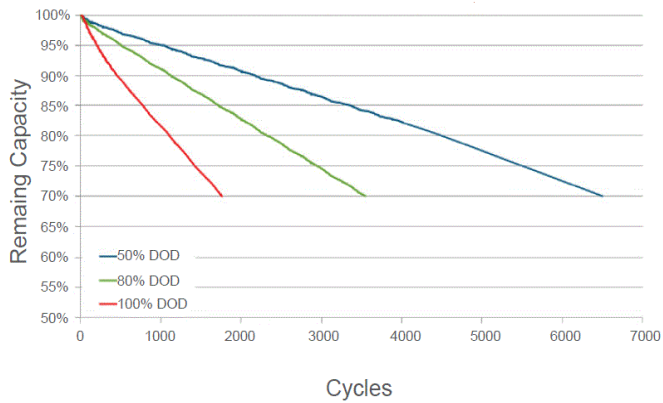
## Discharge Performance at Various Temperatures Discharge 1C



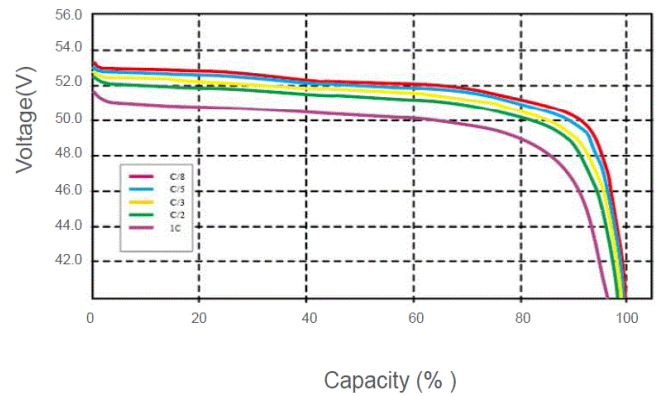
## Charge Performance Charge 0.2C @ 25°C



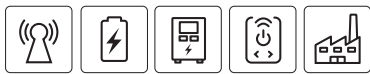
## Cycle Life vs. Dept of Discharge (DOD) Discharge 0.5C/Charge 0.5C @ 25°C



## Discharge Voltage Profile at Various Rate @ 25°C



## APPLICATIONS



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

## CERTIFICATIONS

- UN38.3
- CE

## SHIPPING CLASSIFICATION

- UN 3480
- Class 9