



# 5GPL5048

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.



• **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 : . . . . .	51.2V
Nominal Capacity : . . . . .	40Ah
Stored Energy : . . . . .	2048Wh
Internal Resistance : . . . . .	≤35 mΩ
Self Discharge per Month : . . . . .	<3%
Cycle life @ 80% DoD : . . . . .	2000 Cycles*
Series Connection : . . . . .	Single Use
Parallel Connection : . . . . .	16
Combination Mode : . . . . .	16S1P(3.2V, 40Ah)
Communication Interface : . . . . .	RS485/ RS232

## MECHANICAL SPECIFICATIONS

Dimensions (W * D * H) : . . . . .	110*369*260 mm
Weight : . . . . .	19Kg
Terminal Type : . . . . .	M6
Case Material : . . . . .	Steel
Ingress Protection Marking : . . . . .	IP20

## CHARGE SPECIFICATIONS

Recommended Charge Voltage : . . . . .	≤56V
Recommended Charge Current : . . . . .	≤20A(0.5C)**
Max. Charge Current : . . . . .	≤ 40A
Over Voltage Protection : . . . . .	59.2±0.5V
Reconnect Voltage : . . . . .	56±0.5V
Primary Charge Current Protection : . . . . .	55A

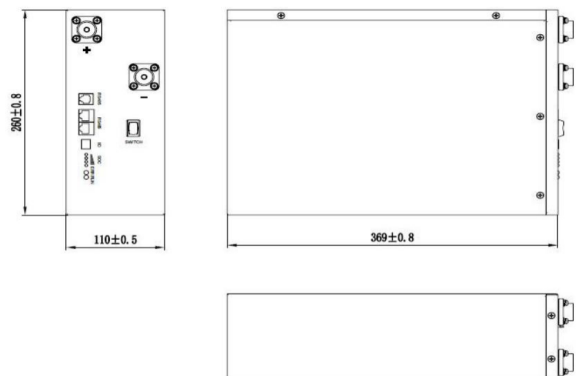
## DISCHARGE SPECIFICATIONS

Recommend Discharge Current : . . . . .	≤ 20A(0.5C)**
Max. Discharge Current : . . . . .	≤ 40A
Max. Discharge Voltage : . . . . .	≥46.4V
Low Voltage Protection : . . . . .	44.8V
Reconnect Voltage : . . . . .	46±0.5V
Primary Discharging Current Protection : . . . . .	55A
Short Circuit Protection : . . . . .	140A/200ms

## ENVIRONMENTAL SPECIFICATIONS

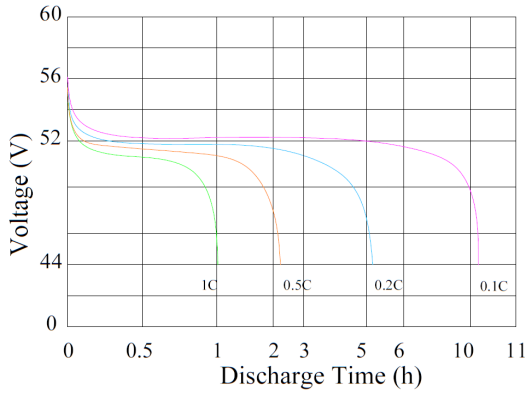
Charge Temperature : . . . . .	0~55°C
Discharge Temperature : . . . . .	-20~65°C
Storage Temperature : . . . . .	-20~45°C
Optimal Operation Humidity : . . . . .	5~95%RH/Non-Condense

## OUTLINE DIMENSION

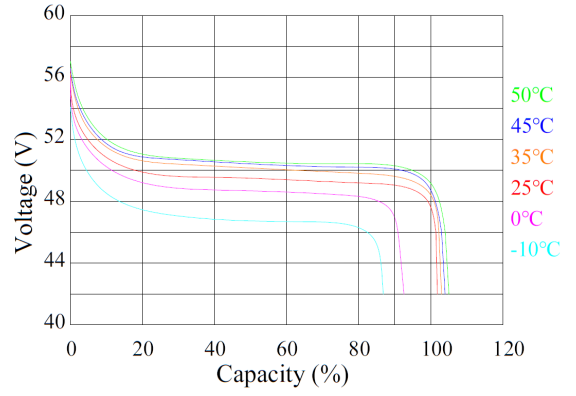


\*Refer to warranty terms for cycle life performance conditions  
 \*\* C=Capacity

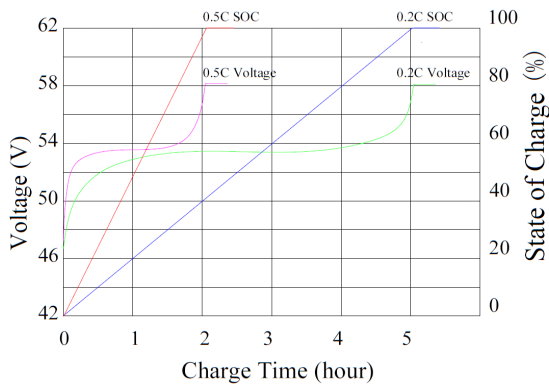
## Discharge Performance



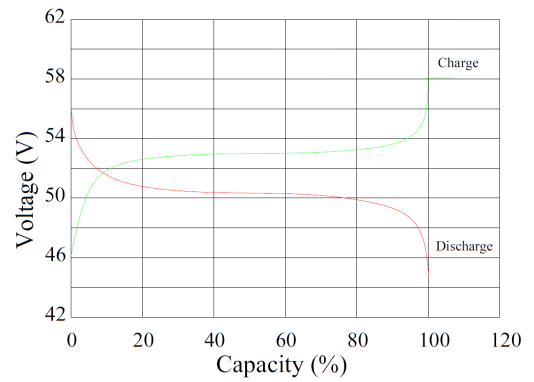
## Temperature effect on Discharging



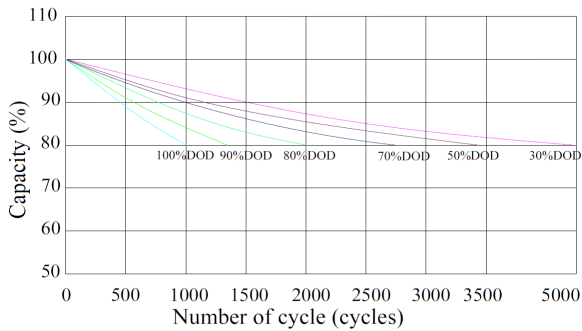
## State of Charge (25°C)



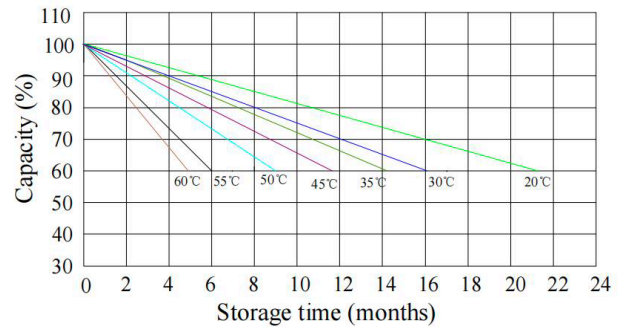
## Discharge and Charge Performance



## Cycle life in relation to Depth of Discharge



## Self-Discharge Characteristics



## APPLICATIONS



- Telecom and Data Centers
- Energy Storage Systems
- Remote Power Supply
- Industrial Applications

## CERTIFICATIONS

- UN38.3
- IEC 62619
- EMC-IEC 61000

## SHIPPING CLASSIFICATION

- UN 3480
- Class 9