



LIFE 48-12

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.

FUNCTIONAL SPECIFICATIONS

Cell Chemistry :	LiFePO ₄
Cell Type :	Cylindrical
Nominal Voltage :	48V
Nominal Capacity :	12Ah
Stored Energy :	576Wh
Internal Resistance :	≤200 mΩ
Self Discharge per Month :	<3%
Cycle life @ 80% DoD :	>2000 Cycles*
Series Connection :	Single Use
Parallel Connection :	Single Use
Combination Mode :	15S3P(3.2V, 4Ah)
Communication Interface :	NA

MECHANICAL SPECIFICATIONS

Dimensions (L *W * H) :	177*94*273 mm
Weight :	±0.2 Kg
Terminal Type :	PC5/2-STCL1-7,62
Case Material :	Metal
Ingress Protection Marking :	IP33

CHARGE SPECIFICATIONS

Recommended Charge Voltage :	≤54V
Recommended Charge Current :	≤6A
Max. Charge Current :	≤ 17A
Over Voltage Protection :	56.25±0.5V
Reconnect Voltage :	53.25±0.5V
Primary Charge Current Protection :	.50A/300ms

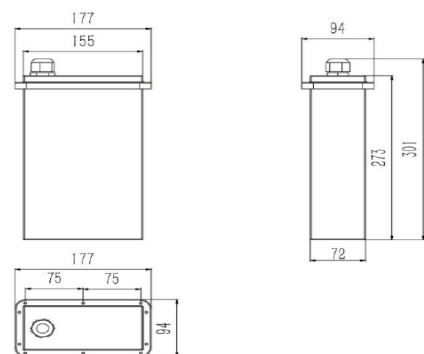
DISCHARGE SPECIFICATIONS

Recommend Discharge Current :	≤ 6A
Max. Discharge Current :	≤ 12A
Max. Discharge Voltage :	≥40.5V
Low Voltage Protection :	33V
Reconnect Voltage :	40.5V
Primary Discharging Current Protection :	30A
Short Circuit Protection :	227A/1.2ms

ENVIRONMENTAL SPECIFICATIONS

Charge Temperature :	0~50°C
Discharge Temperature :	-20~65°C
Storage Temperature :	-10~40°C
Optimal Operation Humidity :	5~95%RH/Non-Condense

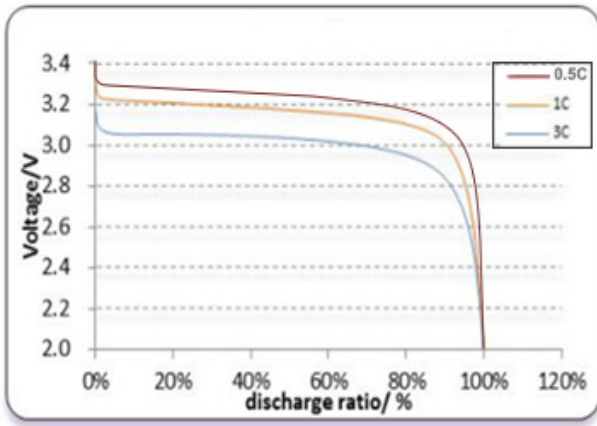
OUTLINE DIMENSION



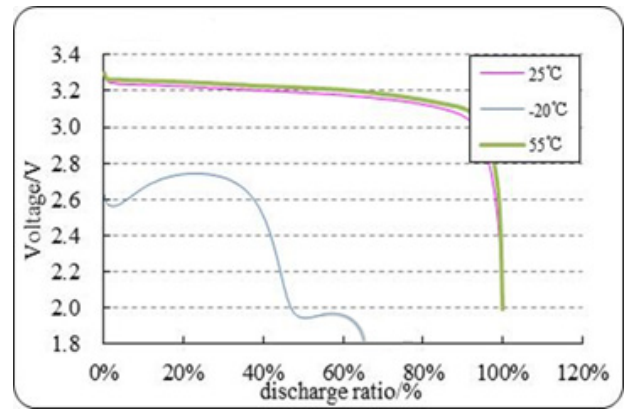
*Refer to warranty terms for cycle life performance conditions

** C=Capacity

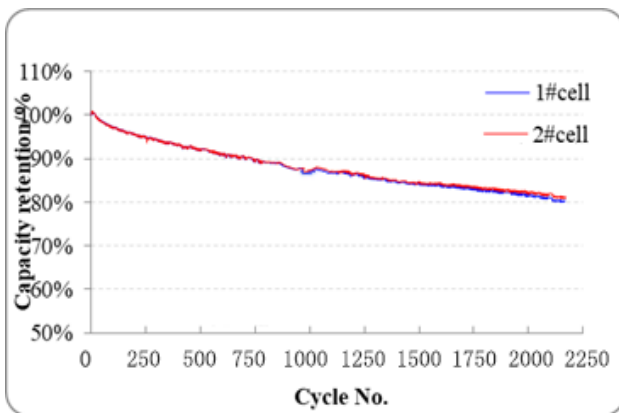
Discharge Performance (Cell)



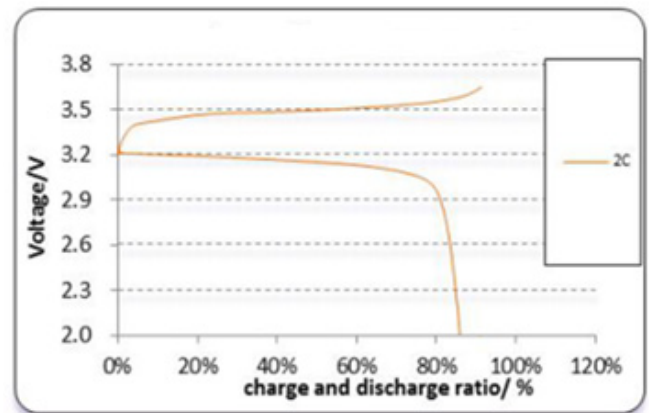
Temperature effect on Discharging



Cycle life in relation to Depth of Discharge (Cell)



Discharge and Charge Performance



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