



MPL 24-25

Rechargeable Lithium Iron Phosphate Battery



LiFePO₄

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.



- **Faster Charging and Lower Self-Discharge:** Outperforms lead-acid batteries in both areas.



- **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:** Monitors and controls battery parameters, providing protection against over-charging, over-discharging, over-current, and short circuits.



- **Bluetooth Connectivity:** Displays the battery's state of charge (SOC) and operating status.

FUNCTIONAL SPECIFICATIONS

Cell Chemistry :	LiFePO ₄
Cell Type :	Prismatic
Nominal Voltage :	25.6V
Nominal Capacity :	25Ah
Stored Energy :	640 Wh
Internal Resistance :	≤50 mΩ
Self Discharge per Month :	<3%
Cycle life @ 100% DOD :	≥2000 Cycles*
Series Connection :	Single Use
Parallel Connection :	≤4 Units
Combination Mode :	8S1P(3.2V, 25Ah)
Communication Interface :	NA

MECHANICAL SPECIFICATIONS

Dimensions (L *W * H) :	196*173.5*165.5 mm
Weight :	≤15 Kg
Terminal Type :	M6
Case Material :	ABS
Ingress Protection Marking :	IP54

CHARGE SPECIFICATIONS

Recommended Charge Voltage :	≤29.2V
Recommended Charge Current :	≤ 12.5A(0.5C)**
Max. Charge Current :	30A
Over Voltage Protection :	30±0.24V
Reconnect Voltage :	28.8±0.24V
Primary Charge Current Protection :	40±5A/30s

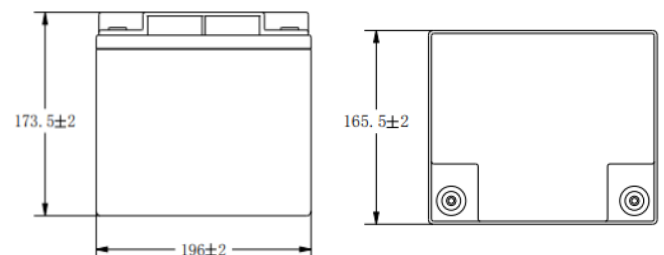
DISCHARGE SPECIFICATIONS

Recommend Discharge Current :	≤ 12.5A(0.5C)**
Max. Discharge Current :	30A
Max. Discharge Voltage :	≥20V
Low Voltage Protection :	20±0.4V
Reconnect Voltage :	22.4±0.4V
Primary Discharging Current Protection :	40±5A/30s
Short Circuit Protection :	320A/300 μs

ENVIRONMENTAL SPECIFICATIONS

Charge Temperature :	0~45°C
Discharge Temperature :	-20~60°C
Storage Temperature :	15~35°C
	Less than 3 months :-10~45°C
Optimal Operation Humidity :	5~75%RH/Non-Condense

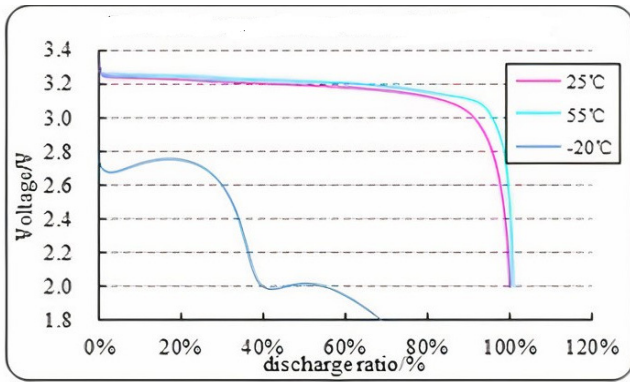
OUTLINE DIMENSION



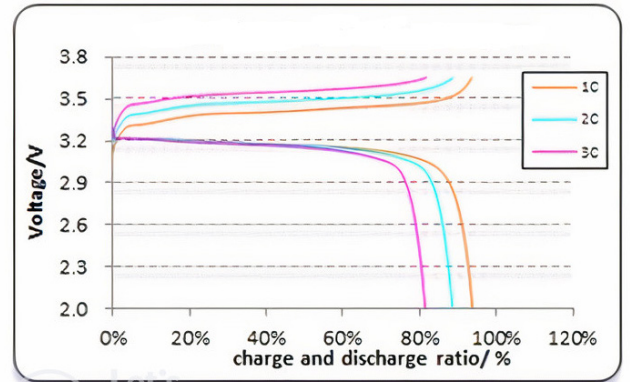
*Refer to warranty terms for cycle life performance conditions

** C=Capacity

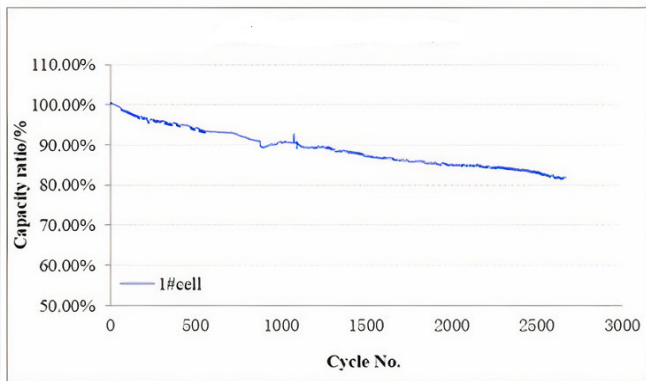
Discharge Performance at Various Temperatures (Cell)



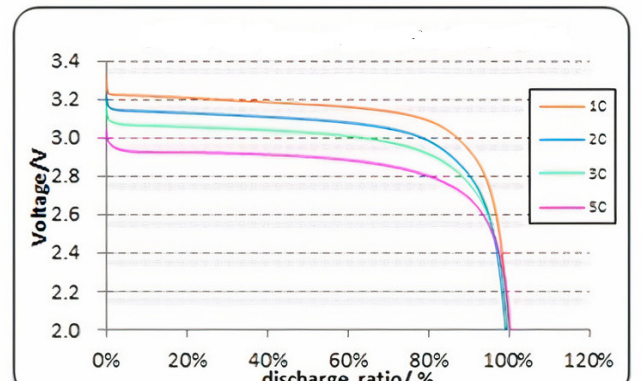
Charge Performance (Cell)



Cycle Life (Cell)



Discharge Voltage Profile at Various Rate (Cell)



APPLICATIONS



- Renewable Energy Storage
- Recreational Vehicles (RVs)
- Small Electric Vehicles (EVs)
- Backup Power Systems
- Portable Power Packs
- Emergency Lighting and Equipment
- Marine Applications
- Medical Devices
- Remote Monitoring and Telemetry

CERTIFICATIONS

- UN38.3

SHIPPING CLASSIFICATION

- UN 3480
- Class 9