

Lithium Iron Phosphate (LiFePO4) Battery

HL12-55 (12.8V55AH/5HR)



Features of LiFePO4 Battery

Longer cycle life: Up to 2000 times longer cycle life and five times longer float/calendar life than lead acid battery, minimize replacement cost and reduce total cost.

Lighter Weight: About 40% of the weight of a comparable lead acid battery.

Higher Power: Delivers twice power of lead acid battery, even high discharge rate, while maintaining high energy capacity

Wider Temperature Range: -20°C~60°C

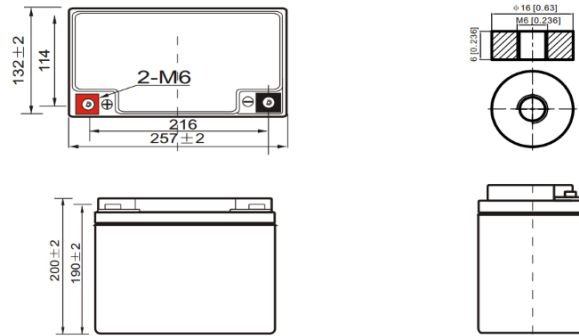
Super Safety: Lithium Iron Phosphate Chemistry eliminates the risk of explosion or combustion due to high impact, over charging or short circuit situation.

Increased Flexibility: Modular design enables deployment of up to four batteries in series and up to four batteries in parallel.

Application:

- * Electric vehicles, electric mobility
- * Solar/wind energy storage system
- * UPS, backup Power
- * Telecommunication
- * Medical equipment
- * Lighting

Physical Dimension

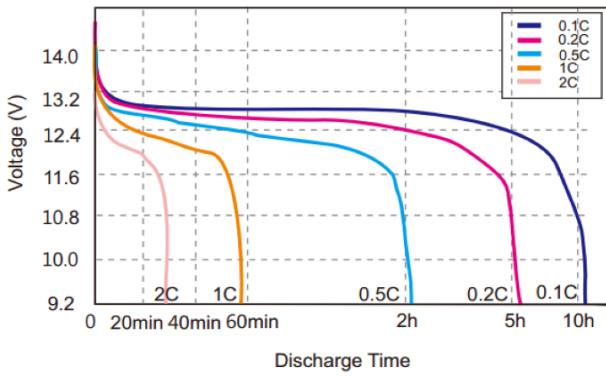


Specification:

| | | |
|-----------------------------------|----------------------------|--|
| Electrical Characteristics | Nominal Voltage | 12.8V |
| | Nominal Capacity | 50AH |
| | Energy | 704Wh |
| | Internal Resistance | 《30mΩ |
| | Cycle life | >2000 cycles at 0.2C 100% DOD at 25°C |
| | Months Self Discharge | <3% |
| | Efficiency of Charge | 100% at 0.5C |
| | Efficiency of discharge | 96~99% at 1C |
| Charge | Charge volt | 14.6+/-0.2V |
| | Charge Mode | CC at 0.2C to 14.6V, then at CV14.6V to charge current less than 0.02C |
| | Standard Charge Current | 11A |
| | Quick. Charge current | 27.5A |
| | Charge cut off voltage | 15.6V+/-0.2V |
| Discharge | Standard discharge current | 11A |
| | Quick discharge current | 27.5A |
| | Max. Continuous Current | 70A |
| | Max. Pulse Current | 110A (<3s) |
| | Discharge Cut-off Voltage | 8V |
| Environment | Charge Temperature | 0°C to 45°C (32F to 113F) at 60±25% Relative Humidity |
| | Discharge Temperature | - 20°C to 60°C (-4F to 140F) at 60±25% Relative Humidity |
| | Storage Temperature | 0°C to 40°C (32F to 104F) 60±25% Relative Humidity |
| | Water Dust Resistance | IP56 |
| Mechanical | Cell material | LiFePO4 |
| | Plastic Case | ABS |
| | Dimensions (in./mm) | 229*138*214mm (9.02"*5.43"*8.43") |
| | Weight (lbs./kg.) | 8.32 KGS (18.34 lbs) |
| | Terminal | M6 |

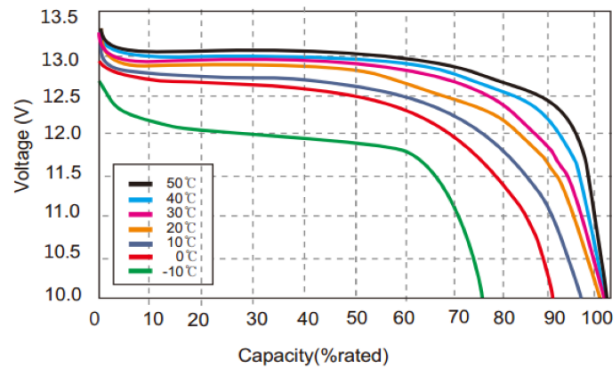
Discharge Curve at different rate at 25°C

Different Rate Discharge Curve @25°C



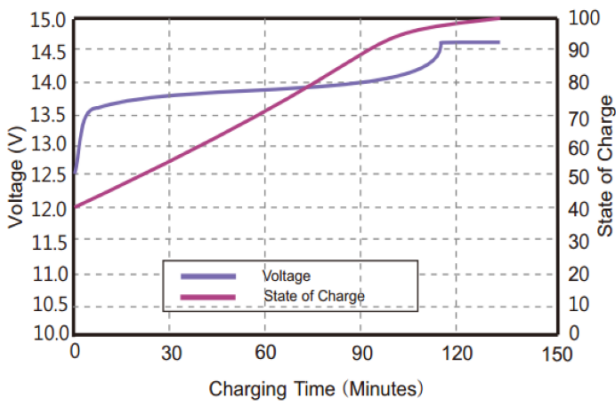
Discharge Curve at different temperature at 0.5C rate

Different Temperature Discharge Curve @0.5C



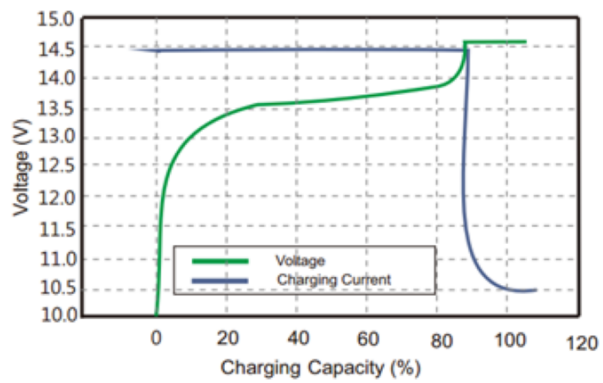
Discharge Curve at different rate at 25°C

State of Charge Curve @0.5C 25°C



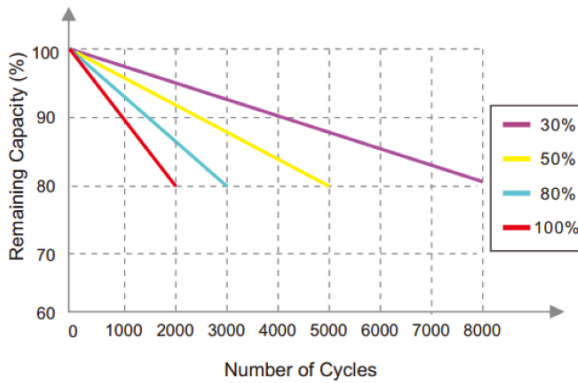
Discharge Curve at different rate at 25°C

Charging Characteristics @0.5C 25°C



Cycle Life Curve in Different DOD Discharge at 1C

Different DOD Discharge Cycle Life Curve @1C



Different Temperature Self Discharge Curve

Different Temperature Self Discharge Curve

