

Lithium Iron Phosphate (LiFePO4) Battery

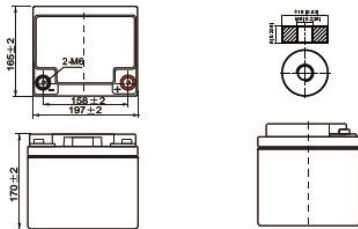
12.8-40 (12.8V, 40AH)

Features of LiFePO4 Battery

- **Longer Cycle Life:** Offers up to 20 times longer cycle life and five times longer float/calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.
- **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.
- **Superior Safety:** Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation.
- **Increased Flexibility:** Modular design enables deployment of up to four batteries in series and up to ten batteries in parallel.



Physical Dimension



Application

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

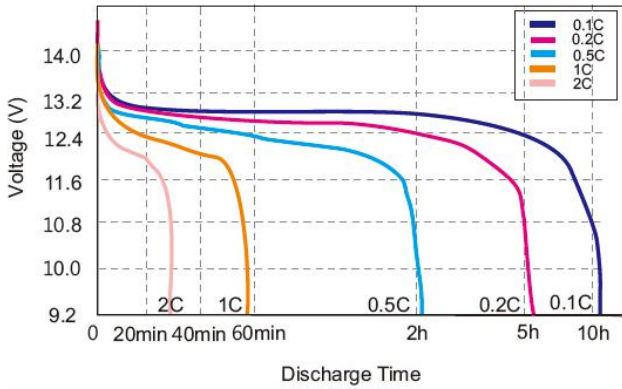
Specification

| | | |
|----------------------------|---------------------------|--|
| Electrical Characteristics | Nominal Voltage | 12.8V |
| | Nominal Capacity | 40Ah |
| | Energy | 512Wh |
| | Internal Resistance | ≤30mΩ |
| | Cycle Life | >2000 cycles @1C 100%DOD |
| | Months Self Discharge | <3% |
| | Efficiency of Charge | 100% @0.5C |
| | Efficiency of Discharge | 96~99% @1C |
| Standard Charge | Charge Voltage | 14.6±0.2V |
| | Charge Mode | 0.2C to 14.6V, then 14.6V, charge current to 0.02C (CC/CV) |
| | Charger Current | 20A |
| | Max. Charge Current | 40A |
| | Charge Cut-off Voltage | 15.6V±0.2V |
| Standard Discharge | Continuous Current | 70A |
| | Max. Pulse Current | 80A(<3s) |
| | Discharge Cut-off Voltage | 8V |
| Environmental | Charge Temperature | 0 °C to 45 °C (32F to 113F) @60±25% Relative Humidity |
| | Discharge Temperature | -20 °C to 60 °C (-4F to 140F) @60±25% Relative Humidity |
| | Storage Temperature | 0 °C to 40 °C (32F to 104F) @60±25% Relative Humidity |
| | Water Dust Resistance | IP56 |
| Mechanical | Cell & Method | 26650 4S13P |
| | Plastic Case | ABS |
| | Dimensions (in./mm.) | 197*165*170mm (7.76**6.50**6.69") |
| | Weight (lbs./kg.) | 5.75kg (12.677lbs) |
| | Terminal | M6 |
| | Protocol (optional) | SMBus/RS485/RS232 |
| | SOC (optional) | LED |



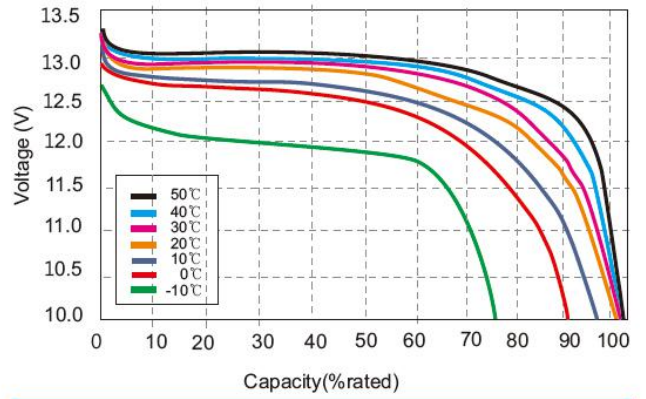
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



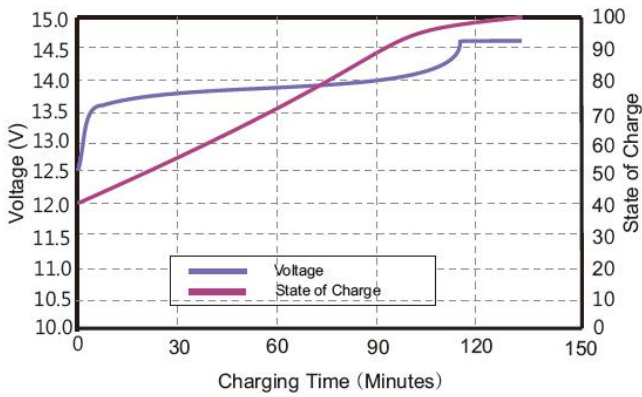
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



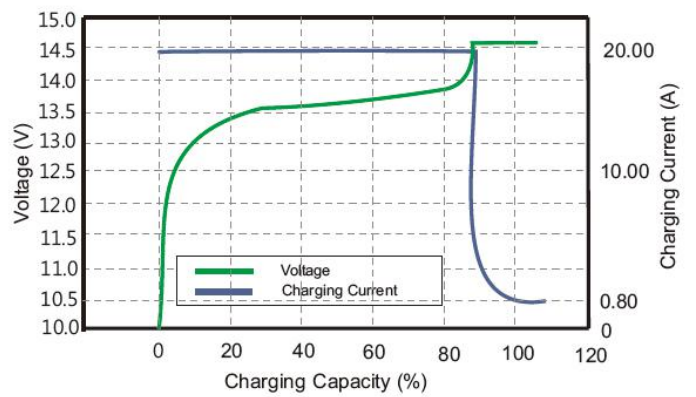
State of Charge Curve

State of Charge Curve @0.5C 25°C



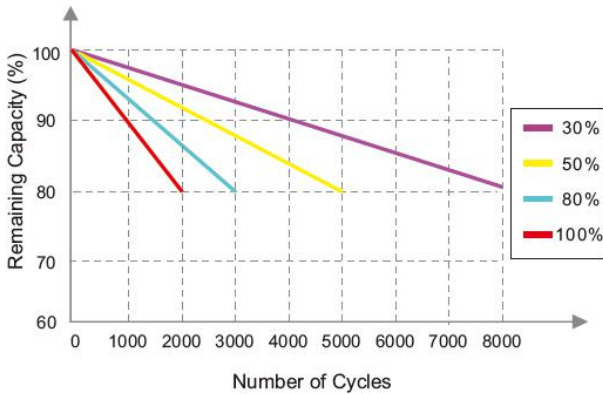
Charging Characteristics

Charging Characteristics @0.5C 25°C



Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve

