



Lithium Iron Phosphate ECO ESS Battery

LFP51.2-50(51.2V50AH)

Features of ECO ESS Battery

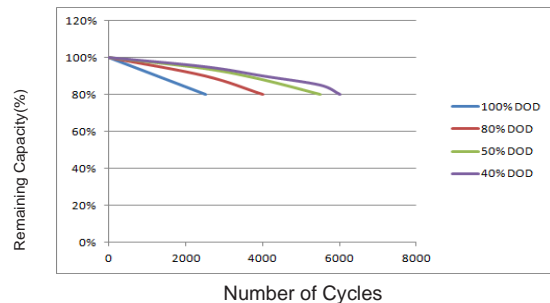
- **Longer Cycle Life:** Offers up to 20 times longer cycle life and five times longer float/calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement 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.



Application

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

Cycle Life Curve



Specification

| | | |
|-----------------------------------|---------------------------|---------------------------------------------------------|
| Electrical Characteristics | Nominal Voltage | 51.2V |
| | Nominal Capacity | 50Ah (C ₅ , 25°C) |
| | Energy | 2560Wh |
| | Internal Resistance | ≤200mΩ |
| | Cycle Life | >5000 cycles @0.2C 80%DOD |
| | Months Self Discharge | <3% |
| | Efficiency of Charge | 100% @0.2C |
| | Efficiency of Discharge | 96~99% @1C |
| Standard Charge | Charge Voltage | 54.8±0.2V |
| | Charge Mode | 0.2C to 58.4V, then 58.4, charge current 0.02C(CC/CV) |
| | Charger Current | 10A |
| | Max. Charge Current | 25A |
| | Charge Cut-off Voltage | 59.2V±0.2V |
| Standard Discharge | Continuous Current | 50A |
| | Max. Pulse Current | 150A (<15s) |
| | Discharge Cut-off Voltage | 40V |
| 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 | |
| Mechanical | Cell & Method | 3.2V50AH-16S1P |
| | Plastic Case | 2U standard case |
| | Dimensions (in./mm.) | 482*410*89 mm |
| | Weight (lbs./kg.) | 21.5Kg (Approx.) |
| | Terminal | 50A through terminal |
| | Protocol (optional) | RS485/CAN |
| | BMS | 16S50A |

