



48V LiFePO₄ Battery PJ48A100-NP

Features of LiFePO₄

- **Longer Cycle Life:** Offers up to 10 times longer cycle life and 5 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 battery.
- **Higher Power:** Delivers twice power of lead acid battery, even high discharge rate, while maintain high energy capacity.
- **Wider Temperature Range:** -20°C~70°C
- **Superior Safety:** Lithium iron phosphate chemistry eliminates the risk of explosion or combustion due to high impact, over charging or short circuit situation.
- **No Memory Effect:** Support unstable partial state of charge (UPSOC) (charge/discharge) utilization.

Product Photo



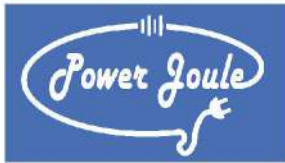
LiFePO₄ Battery

Functions of BMS

- Over charge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection function
- Short circuit detection function
- Balance function

Application

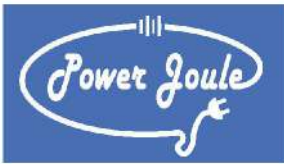
- Solar
- Wind energy storage systems
- Mining
- UPS
- Back-up Power
- Telecommunication
- Medical equipment
- Lighting
- Industrial Systems



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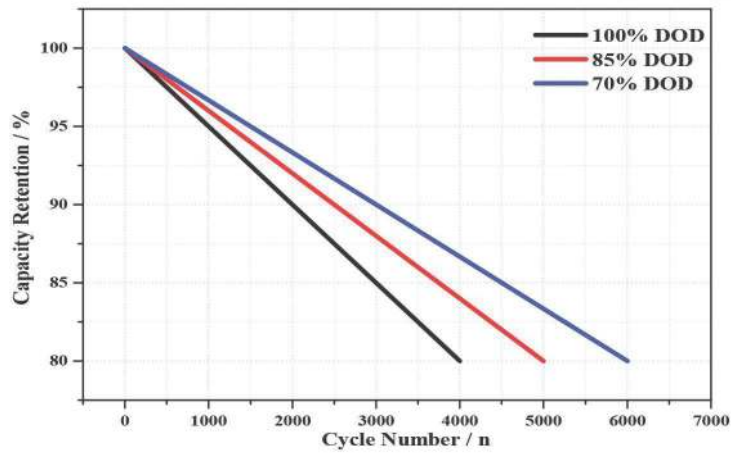
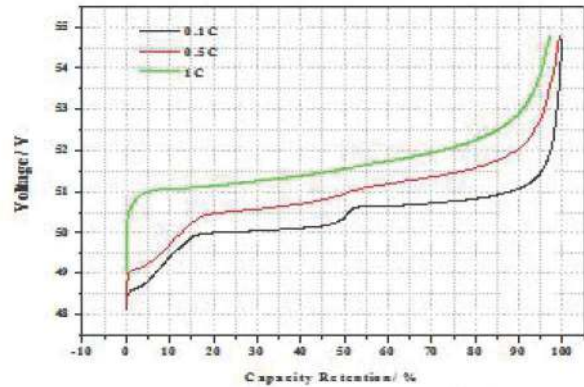
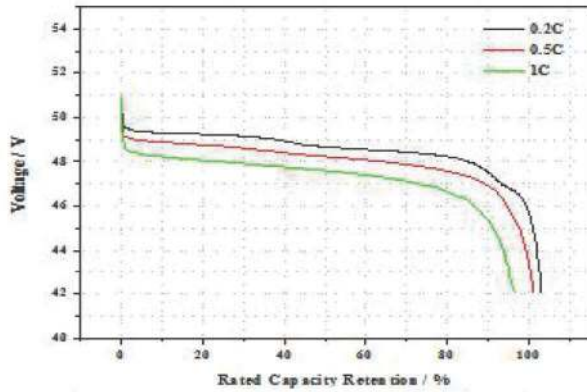
Specifications

| | Model | LiFePO ₄ Battery |
|----------------------------|-------------------------------------|---|
| Electrical Characteristics | Nominal Voltage | 48V |
| | Nominal Capacity | 100Ah |
| | Energy | 4800Wh |
| | Internal Resistance | ≤100mΩ (without BMS) |
| | Cycle Life | ≥5000 cycles @80% DOD, 25°C |
| | Design Life | ≥20 years @25°C |
| | Self-Discharge (90 days) | ≤5%, @25°C |
| | Efficiency of Charge | ≥98% |
| | Efficiency of Discharge | ≥100% @ 0.2C ≥96% @ 0.5C |
| Charge | Charge Voltage | 54.0V±0.1V |
| | Charge Mode | 0.2C to 54.0V, then 54.0V charge current to 0.02C (CC/CV) |
| | Max. Charge Current | 100A |
| | Charge Cut-off Voltage | 56.25V±0.2V |
| Discharge | Max. Continuous Discharge Current | 100A |
| | Discharge Cut-off Voltage | 42V±0.2V |
| Environmental | Charge Temperature Range | 0°C~60°C |
| | Discharge Temperature Range | -20°C~60°C |
| | Optimum Operation Temperature | 5°C~45°C |
| | Storage Temperature | -20°C~55°C ≤85% relative Humidity |
| | Water Dust Resistance | IP20 |
| Mechanical | Plastic Case | Iron (Insulation painting) |
| | Dimensions (including the handles) | 442*410*178mm |
| | Max Weight | Approx. 46.5kg |
| | Minimum Gravimetric Specific energy | 87Wh/kg |
| Other | Protocol | RS485 (2 Nos) / RS232 |
| | SOC Light | 4 * LED |
| | LCD Screen | Optional |

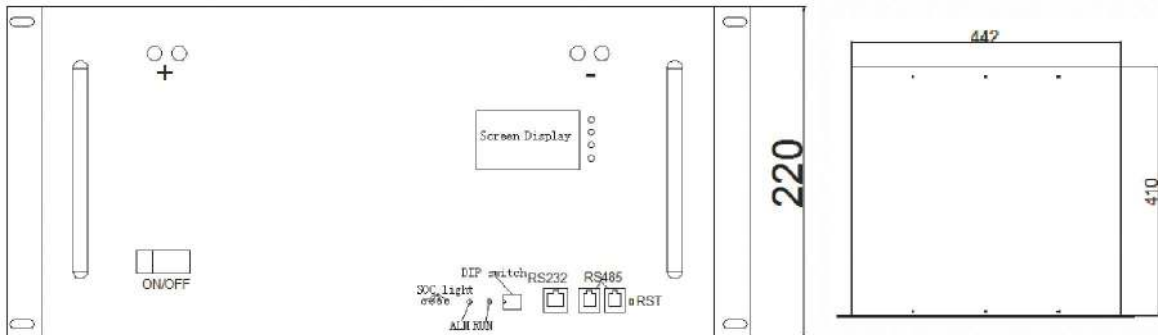


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Battery Performance



Battery Dimension



Power Joule batteries available from Conical Technologies
082 570 0382 sales@conical.co.za
www.conical.co.za