

# LITHIUM IRON PHOSPHATE BATTERY

**FEATURES** Lithium Iron Phosphate (LiFePO<sub>4</sub>): the Safest Lithium Technology.  
Integrated Battery Management System(BMS).  
Bluetooth/RS485/RS232/SMBus/CANBus (Optional).  
SOC LED/LCD Indicator(Optional).

**PERFORMANCE** Long Cycle Life > 2000cycles @ 100% DOD.  
High Density, High Discharge Current, High Temperature Range.  
Low Weight, Free Maintenance.  
Fast Charging.  
Environment Friendly.



HD12.8-200(12.8V200Ah)

## BATTERY DATA SHEET

### Electrical Parameters

|                                 |                            |
|---------------------------------|----------------------------|
| Nominal Voltage                 | 12.8V                      |
| Rated Capacity                  | 200Ah                      |
| Energy                          | 2560Wh                     |
| Resistance                      | ≤ 15mΩ                     |
| Efficiency                      | 99%                        |
| Cycle Life                      | >2000cycles @0.2C,100% DOD |
| Self Discharge                  | 2% per Month               |
| Max. Modules in Series/Parallel | 4S/20P                     |

### Discharge Parameters

|                               |            |
|-------------------------------|------------|
| Continuous Discharge Current  | 150A       |
| Pulse Discharge Current       | 450A(5 ms) |
| Recommended Volt. Disconnect  | 10V        |
| BMS Discharge Cut-off Voltage | 8.8V       |
| Reconnect Voltage             | 10.8V      |
| Short Circuit Protection      | 200~600 us |

### Compliance Certificate

|                         |                         |
|-------------------------|-------------------------|
| Certifications          | UL1642(cell)            |
|                         | CE                      |
|                         | IEC62133 & CB           |
|                         | KC                      |
|                         | BIS                     |
| Shipping Classification | UN3480, Class 9, UN38.3 |

### Mechanical Parameters

|                       |                                      |
|-----------------------|--------------------------------------|
| Dimension(L x W x H)  | 522x 240x 224 mm                     |
|                       | 20.6 x 9.4x 8.8"                     |
| Weight                | 29.6kg(65.26lbs)                     |
| Terminal Type         | M8                                   |
| Battery Housing       | ABS, UL-94 V-0                       |
| Housing Protection    | IP56                                 |
| Cell Type-Chemistry   | LiFePO <sub>4</sub> Cylindrical Cell |
| SOC Display(Optional) | LED/LCD Indicator                    |

### Charge Parameters

|                            |            |
|----------------------------|------------|
| Charge Method              | CC-CV      |
| Charge Voltage             | 14.4~14.8V |
| Recommended Float Voltage  | 13.8V      |
| Recommended Charge Current | 100A       |
| Maximum Charge Current     | 150A       |
| BMS Charge Cut-off Voltage | 15.6V      |

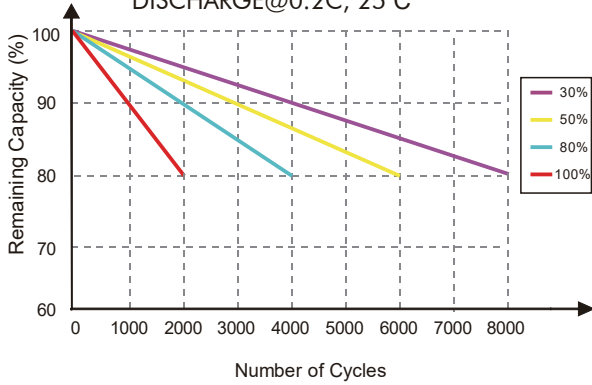
### Temperature Parameters

|                              |                            |
|------------------------------|----------------------------|
| Discharge Temperature        | -30 to 60°C (-22 to 140°F) |
| Charge Temperature           | 0 to 45°C (32 to 113°F)    |
| Storage Temperature          | -40 to 60°C(-40 to 140°F)  |
| BMS High Temperature Cut-off | 80°C(176°F)                |

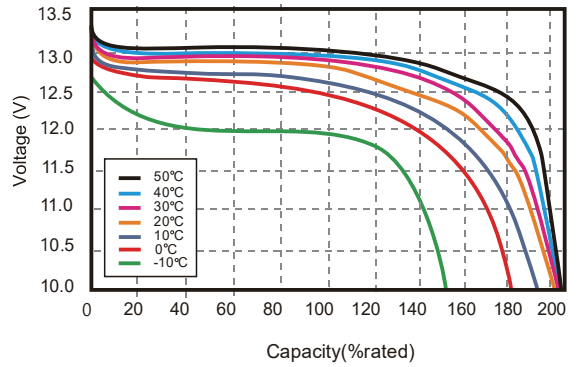


**Performance Charateristics**

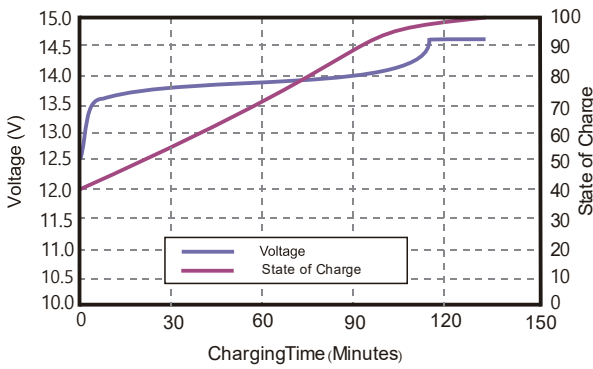
**CYCLE LIFE vs.DEPTH OF DISCHARGE(DOD)**  
DISCHARGE@0.2C, 25°C



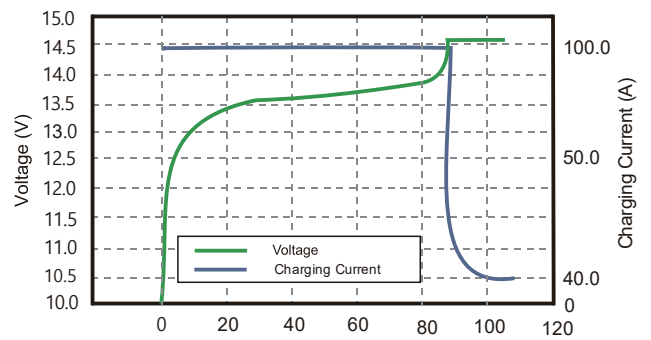
**DISCHARGE CAPACITY at VARIOUS TEMPERATURES**  
DISCHARGE @0.2C, 25°C



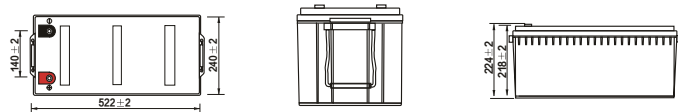
**STATE OF CHARGE CURVE @0.2C, 25 C°**



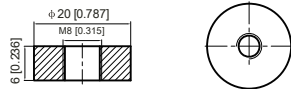
**CHARGING CHARACTERISTICS @0.2C, 25 C°**



**Battery Dimension**



**M8 - 1.0x 8mm**  
Threaded Hole



**Battery Recycle**



**Battery Applications**

- + Data Center UPS
- + Telecom Backup Power
- + Military Power Supply
- + Solar Energy Storage System
- + Solar Street LED Lightings
- + Autonomously Guided Vehicles (AGVs)
- + Industrial Robotics & Handling Equipment
- + Aerial Work Platform
- + Floor Cleaning Machines
- + Power Tools, Lawn Mower
- + Electric Bike & Motorcycles
- + Electric Mobilities( E-scooters, Wheelchair)
- + Golf Trolley & Golf Carts
- + Medical Devices
- + Electric Ships
- + Passenger Vehicles

**NOTE:** Do Not Mix With Sealed Lead Acid Batteries When Recycling.  
See Lulukabaraka User's Manual for Proper Operation.  
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