# 12.8V 9.0Ah

# RB9-12/30

LiFePO4 Lithium Battery

## LIVEN LVIF Series-LiFePO4

High performance, completely maintenance-free, low self-discharge.
Floating & standby use: up to 10 years @25ºC.
100% precise quality testing, stable quality and high reliable performance.
Uniform output voltage in all the discharge curve.
Provide full nominal capacity, even at high currents.
Energy density: up to 130Wh/kg.
Capacity density: up to 145Ah/kg.
Suitable for standby power and energy storage power use.
Long storage time.
Cycle use: Up to 2000 cycles at 100% DOD.

## Applications:

- Telecommunications
- Uninterruptible Power Supply (UPS)
- DC power supply
- Electric Power System (EPS)
- Emergency backup PS
- Wheelchairs and Scooters
- Golf trolleys and Golf cart
- Railway and Marine systems
- Electric tools
- Medical equipments

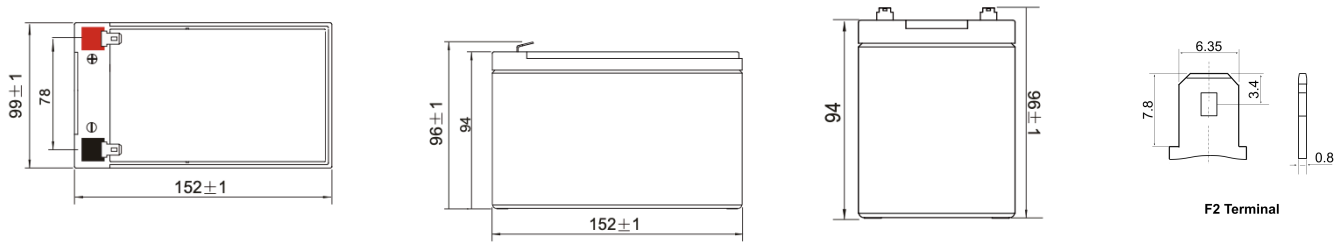
## Dimensions:

| | |
|---|---|
| Length | 152±1mm (5.98in) |
| Width | 99±1mm (3.89in) |
| Height | 94±1mm (3.70in) |
| Total Height | 96±1mm (3.78in) |

## Specifications:

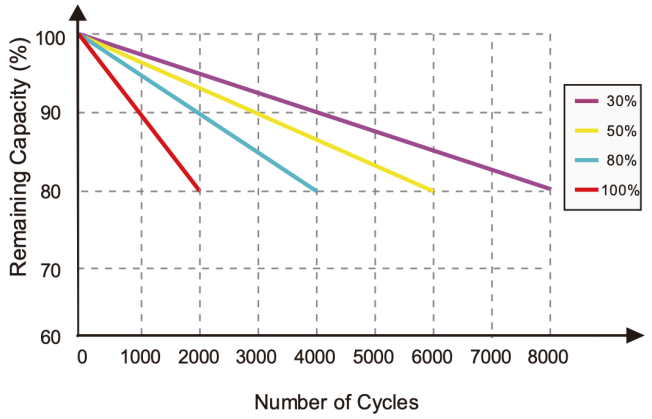
| | |
|---|---|
| **Nominal Voltage** | 12.8V |
| **Nominal Capacity** | 9.0Ah @0.2C @25°C |
| **Weight** | Approx. 1.45Kg ±0.1kg (3.20lbs) |
| **Energy** | 115.2W/h |
| **Internal Resistance** | ≤ 30mΩ |
| **Efficiency** | 99 % |
| **Terminal** | F2 |
| **Discharge** | |
| **Continuous Current** | 30A |
| **Pulse Current** | 40A @5s |
| **Recommended Volt. Disconnect** | 10V |
| **BMS Cut-Off Voltage** | 8V |
| **Reconnect Voltage** | 9.2V |
| **Short Circuit Protection** | 200~600 μs |
| **Charge** | |
| **Charge Voltage** | 14.4~14.8V |
| **Recommended Float Voltage** | 13.8V |
| **Recommended Charge Current** | 4.5A |
| **Maximum Charge Current** | 9A |
| **BMS Charge Cut-off Voltage** | 15.6V |
| **Charge Method** | CC/CV, use special LFP Charger |
| **Max. Modules in Series/Parallel** | 4S/20P |
| **Operation Temperature Range** [1] | Discharge: -30°C~60°C<br>Charge: 0°C~45°C |
| **Storage Temperature Range** | -40°C~60°C |
| **BMS High Temperature Cut-off** | 80ºC |
| **Humidity Range** [1] | Charge/Discharge: RH= 85% [2]<br>Storage: RH= 50% [2] |
| **BP Protection - BMS Features** [3] | OVP, UVP, SC, TEMP, BF |
| **Cycle Life** | >2000cycles @1C,100% DOD |
| **Self Discharge** | 2% per Month |
| **Battery Housing** | ABS, UL-94 V-0 |
| **Housing Protection** | IP56 |
| **Shipping Classification** | UN3480, Class 9,UN38.3 |
| **Optional** | Bluetooth/RS485/RS232/SMBus/CANBus/<br>SOC LED/LCD Indicator |

## Technical Drawings:

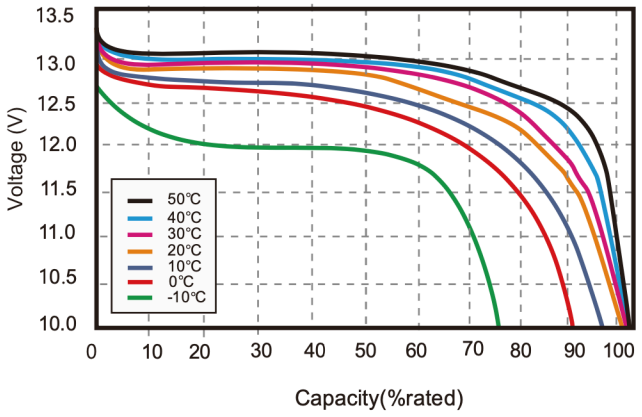



(1) *When the environment temperature is higher than 45ºC, please pay attention to ventilation and heat rejection.*
(2) *When humidity is higher than 85%, pay attention to protect, easily oxidized components note sealed.*
(3) *OVP=Over charge protection; UVP=Over discharge protection; SC=Short-circuit; TEMP=Temp. levels protection; BF=Balanced Function*

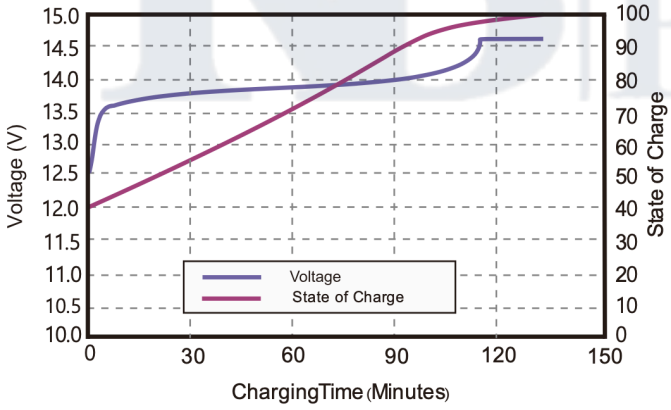
Cycle Life vs. Depth of Discharge (DOD)
Discharge @0.5C, 25ºC



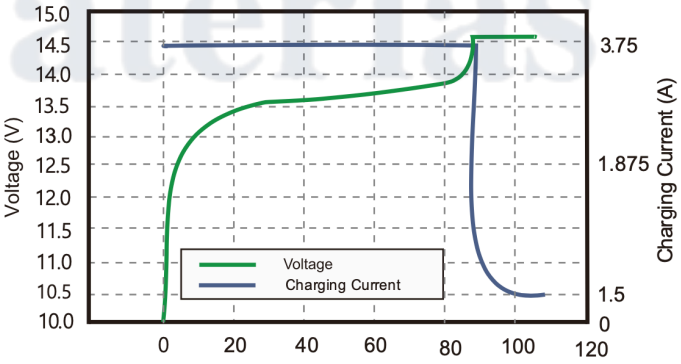

Discharge Capacity at Various Temperatures
Discharge @0.5C




State of Charge Curve @0.5C, 25ºC




Charging Characteristics @0.5C, 25ºC



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