



# LDP 12-12 (12.8V 12Ah)

lithium iron phosphate (LiFePO4) battery

**Your best power choice  
for energy storage system!**



VT Batteries LiFePO4 solutions are more advanced, highly efficient and has many advantages over the traditional Lead Acid technology.

Here introducing popular LDP 12-12 battery of VT Batteries which is high demanding among different industry users for its most advanced features.

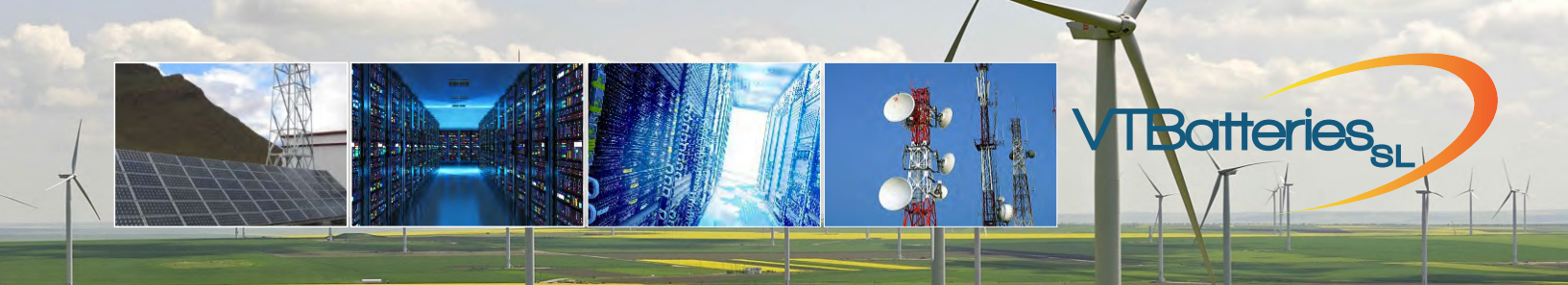
## Application

- Wheel chair, sweeper, electric vehicle, robot
- Solar/wind energy storage system
- UPS Backup power
- Telecommunication
- Medical equipment
- Solar Street light

## Advantage summary

- Direct Lead Acid Battery (AGM/GEL) replacement for 12AH.
- Faster charge, 1 hour of charging can provide up to 90% charge (Optional)
- High energy density and conversion efficiency
- Environmental Friendly, without any heavy metals
- High cycle times and longer service life of >3000 cycles @100% DOD
- Great high temperature performance
- Safety in use: Advanced intelligent BMS inside, No explosion, No fire.
- Ultra low self discharge rate <1.5%/month
- No maintenance required through out the lifetime.
- Great power saver
- Superior DOD (100%) over lead acid batteries.
- No acid splash and carbon mono-oxide emission so no need expensive battery maintenance room.





### ELECTRICAL SPECIFICATIONS

|                           |                  |
|---------------------------|------------------|
| Nominal Voltage           | 12.8 V           |
| Nominal Capacity          | 12 Ah            |
| Capacity @ 0.5C           | 120 min          |
| Energy                    | 153.6 Wh         |
| Resistance                | ≤70 mΩ           |
| Self Discharge            | <1.5% Per Month  |
| Maximum Modules In Series | Up to 4S (51.2V) |

### CHARGE SPECIFICATIONS

|                            |                                      |
|----------------------------|--------------------------------------|
| Recommended Charge Current | 2.4 A                                |
| Maximum Charge Current     | 6 A                                  |
| Recommended Charge Voltage | 14.2 V-14.6 V                        |
| BMS Charge Voltage Cut-Off | 15.2 V (3.8 ±0.025 VPC) (1.1 ±0.4 s) |
| Reconnect Voltage          | 14.4 V (3.6 ±0.05 VPC)               |
| Charging Method            | CC-CV                                |

### DISCHARGE SPECIFICATIONS

|                                      |                                |
|--------------------------------------|--------------------------------|
| Maximum Continuous Discharge Current | 12 A                           |
| Peak Discharge Current               | 30 A (<3s)                     |
| Recommended Low Voltage Disconnect   | 11 V (2.75 VPC)                |
| BMS Discharge Voltage Cut-Off        | 8 V (2.0 ±0.08 VPC) (20 ±6 ms) |
| Reconnect Voltage                    | 10 V (2.5 ±0.05 VPC)           |
| Short Circuit Protection             | 200-600 μs                     |

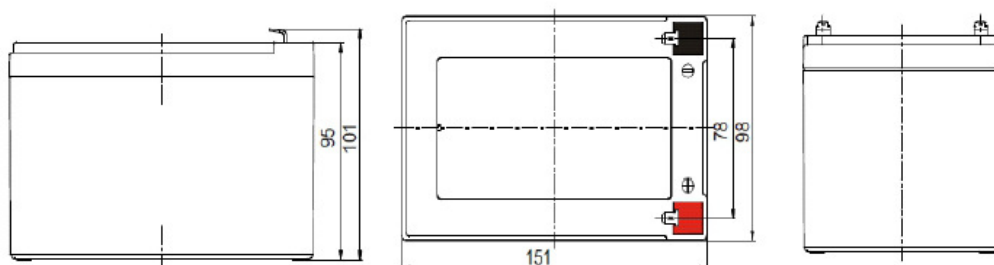
### TEMPERATURE SPECIFICATIONS

|                               |                                   |
|-------------------------------|-----------------------------------|
| Discharge Temperature         | - 4 °F to 140 °F (-20°C to 60 °C) |
| Charge Temperature            | 32 °F to 140 °F (0 °C to 60 °C)   |
| Recommend Storage Temperature | 32°F to 104 °F (0°C to 40 °C)     |

### MECHANICAL SPECIFICATIONS

|                        |  |
|------------------------|--|
| Dimensions (L x W x H) | 5.9 x 3.9 x 4.0 "<br>151 x 98 x 101 mm |
| Weight                 | 1.6 Kg                                 |
| Terminal Type          | F2                                     |
| Case Material          | ABS                                    |
| Enclosure Protection   | IP55                                   |

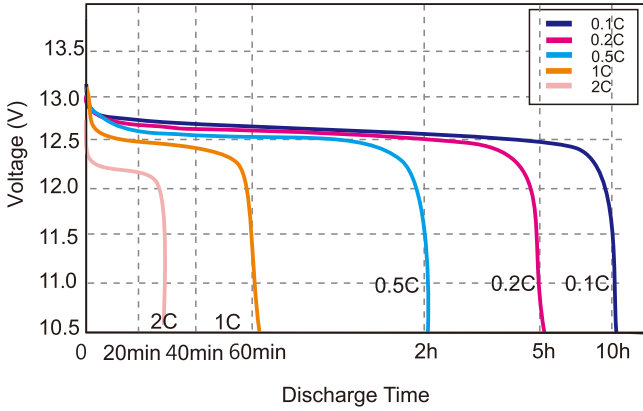
### DIMENSIONAL SPECIFICATIONS



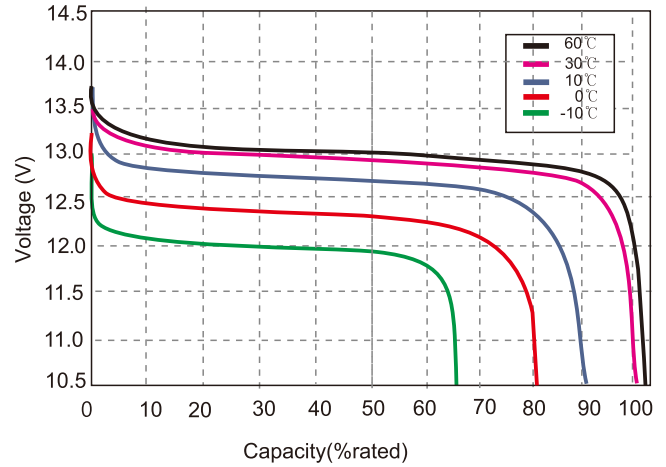


## Performance curve

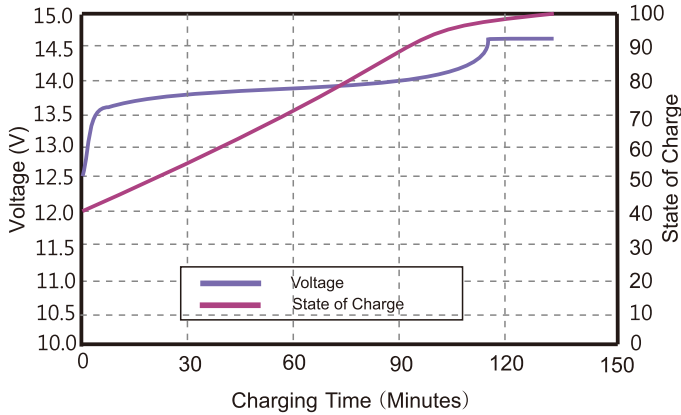
Different Rate Discharge Curve @25°C



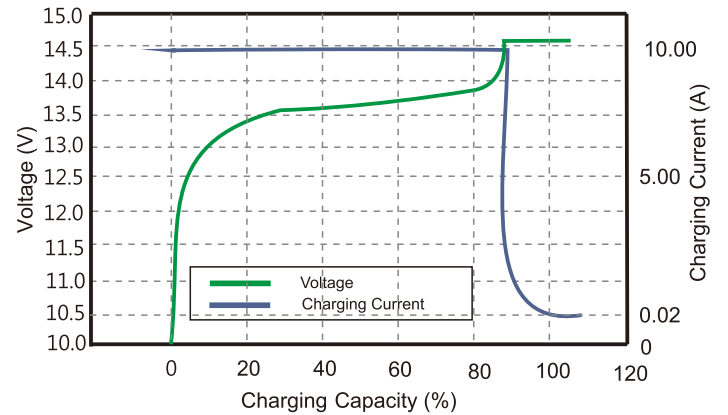
Different Temperature Discharge Curve @0.5C



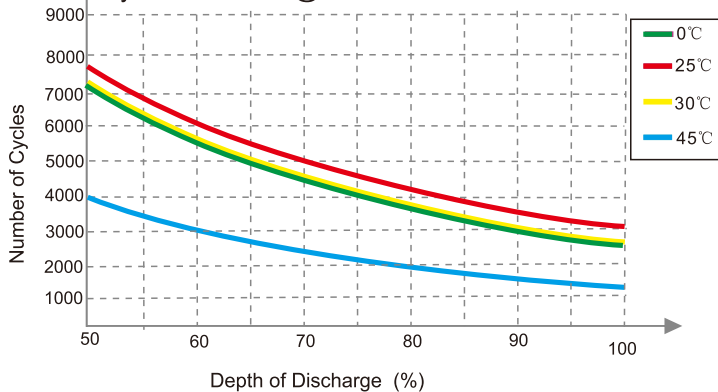
State of Charge Curve @0.5C 25°C



Charging Characteristics @0.5C 25°C



Different DOD Discharge and Different Temperature Cycle Life Curve @0.2C



Different Temperature Self Discharge Curve

