



# LDP 12-20 (12.8V 24Ah)

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 12-20 battery of VT Batteries which is high demanding among different industry users for its most advanced features.

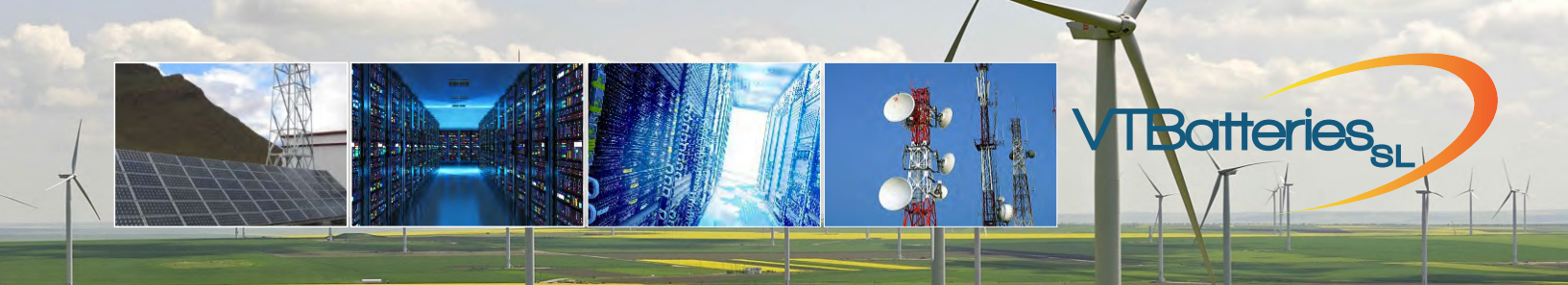
## Advantage summary

- Direct Lead Acid Battery (AGM/GEL) replacement for 24AH.
- 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.

## Application

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





### ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	24 Ah
Capacity @ 0.5C	120 min
Energy	307.2 Wh
Resistance	≤60 mΩ
Self Discharge	<1.5% Per Month
Maximum Modules In Series	Up to 4S (51.2V)

### CHARGE SPECIFICATIONS

Recommended Charge Current	4.8 A
Maximum Charge Current	12 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	20 A
Peak Discharge Current	60 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

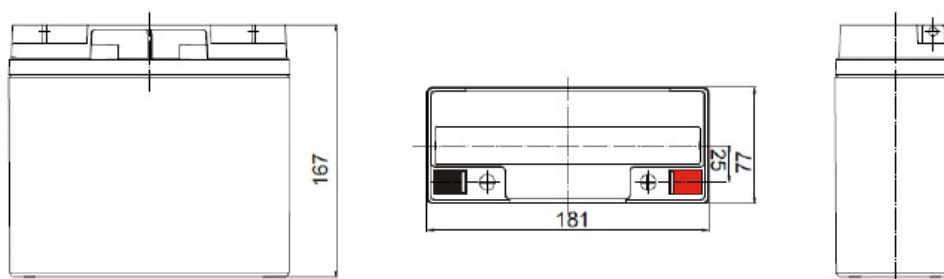
### TEMPERATURE SPECIFICATIONS

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)	7.1 x 3.0 x 6.6 " 181 x 77 x 167 mm
Weight	2.9 Kg
Terminal Type	M5
Case Material	ABS
Enclosure Protection	IP55

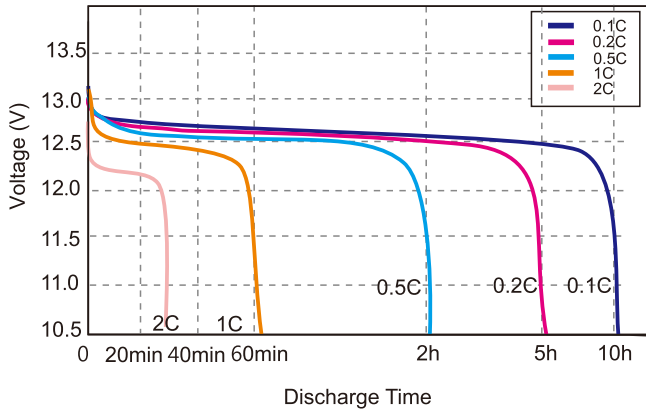
### DIMENSIONAL SPECIFICATIONS



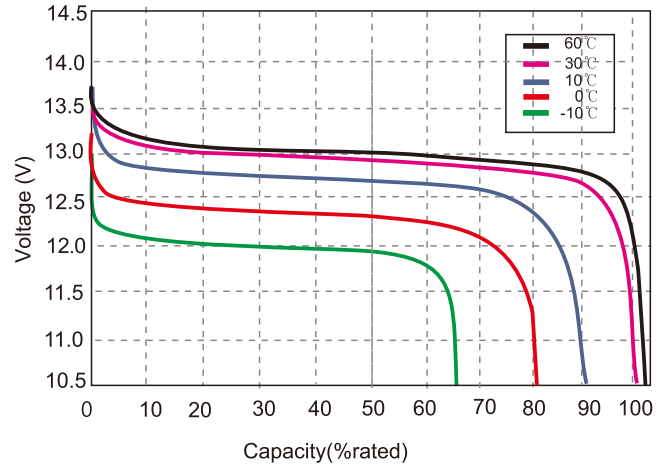


## Performance curve

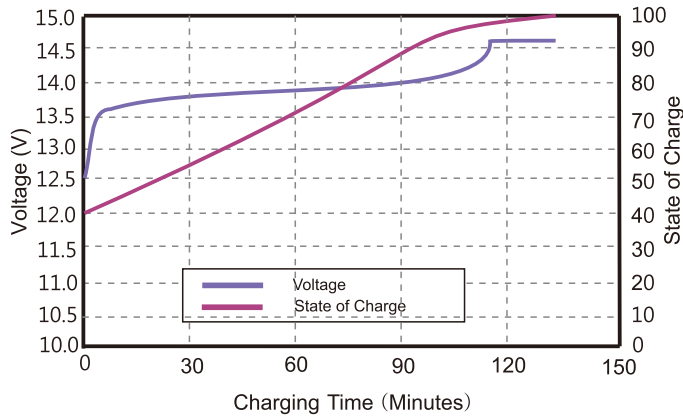
Different Rate Discharge Curve @25°C



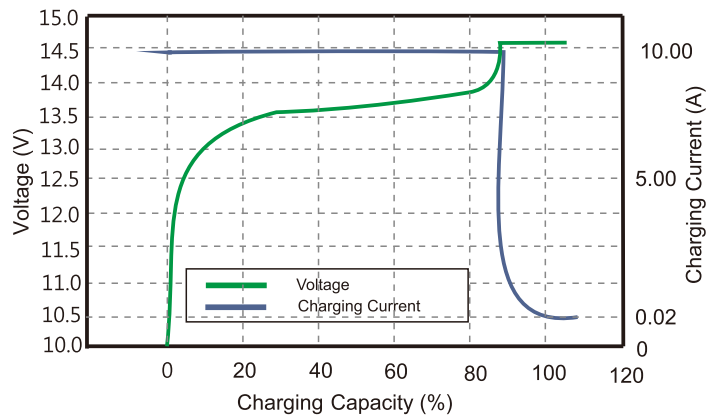
Different Temperature Discharge Curve @0.5C



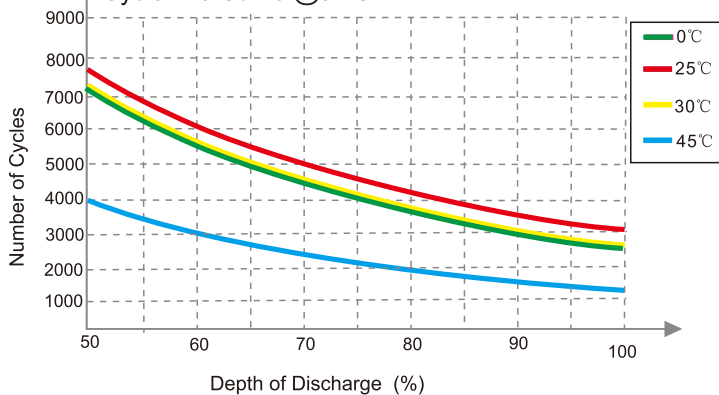
State of Charge Curve @0.5C 25°C



Charging Characteristics @0.5C 25°C



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



Different Temperature Self Discharge Curve

