

## General features & applications for MPLFP Series (LiFePO4 battery)

- \* Safe technology.  
Communication of monitored data via inside BMS.
- \* Lighter weight.  
About less 1/2 of the weight to equivalent lead acid battery.
- \* Environmental friendly.  
Neither contain any toxic heavy metals (for exmples lead , Cadmium),nor corrosive acids.
- \* Maintenance-free operation;lower self-discharge.

- \* Longer cycle life;Higher power.  
At normal condition,thousands of cycles @ 100% DOD.
- \* Excellent cycle performance and lower total cost of ownership.
- \* Wide operating temperature range (-20℃~55℃).
- \* LiFePO4 battery is customizable.
- \* Main applications:



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**MPLFP12.8-18** (12.8V18Ah)

### Battery Specifications

|                                        |              |                    |
|----------------------------------------|--------------|--------------------|
| Nominal Voltage                        |              | 12.8V              |
| Rated Capacity                         |              | 18Ah               |
| Rated Energy                           |              | 230Wh              |
| Dimensions                             | Total Height | 167mm (6.57inches) |
|                                        | Height       | 167mm (6.57inches) |
|                                        | Width        | 77mm (3.03inches)  |
|                                        | Length       | 181mm (7.13inches) |
| Weight Approx                          |              | 1.8Kg (3.97lbs)    |
| Terminal type / Torque                 |              | T13                |
| Outer case's material                  |              | ABS                |
| BMS build-in                           |              | Yes                |
| LCD Screen /Bluetooth/heating function |              | Optional           |
| Max in Parallel                        |              | 4 PCS              |
| Max in Series                          |              | 4 PCS              |

### Battery Characteristics

|                              |                                     |                         |
|------------------------------|-------------------------------------|-------------------------|
| Normal character (at 25°C)   | Operation voltage                   | 10.8V~14.4V             |
|                              | Monthly self-discharge              | <3%                     |
|                              | All Efficiency-round trip           | >98%                    |
| Operating Temperature Range  | Cycle life(80%.DOD)                 | 5000 cycles @0.2C       |
|                              | Charge                              | 0°C~55°C (32°F~131°F)   |
|                              | Discharge                           | -20°C~55°C (-4°F~131°F) |
| Standard Charge (at 25°C)    | Storage                             | -20°C~45°C (-4°F~113°F) |
|                              | Recommended Charge voltage          | 14.0V                   |
|                              | Max Charge voltage                  | 14.6V                   |
| Standard Discharge (at 25°C) | Recommended charge current          | 3.6A                    |
|                              | Max Charge current                  | 18A                     |
|                              | Max discharge current               | 18A                     |
|                              | Peak discharge current              | 36A/3S                  |
|                              | Recommend discharge cut-off voltage | 11.2V                   |
|                              | Max discharge cut-off voltage       | 10.8V                   |

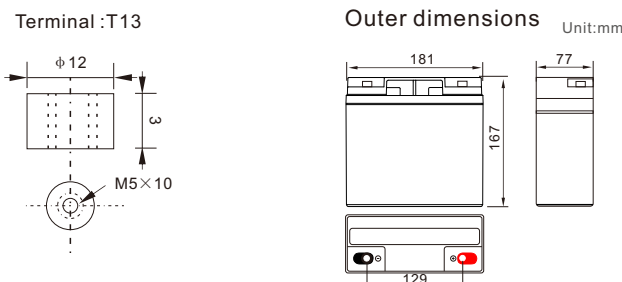
### Constant Current & Power discharge table (25°C)

| Discharging time           |   | 1h  | 2h  | 3h   | 4h   | 5h  | 10h | 20h  |
|----------------------------|---|-----|-----|------|------|-----|-----|------|
| Cut-off voltage<br>(10.8V) | A | 18  | 9   | 6    | 4.5  | 3.6 | 1.8 | 0.9  |
|                            | W | 230 | 115 | 76.8 | 57.6 | 46  | 23  | 11.5 |

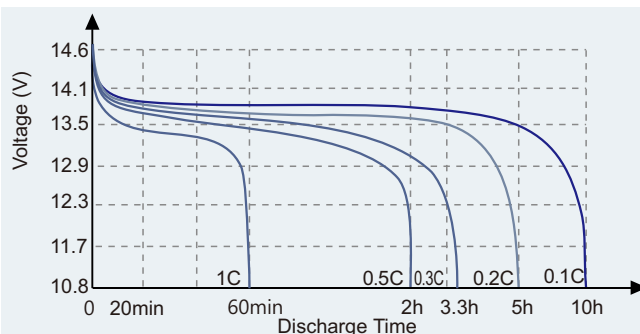
### Battery picture



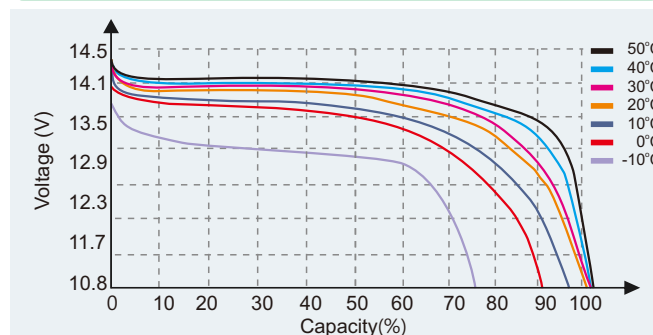
### Battery outer dimension and terminal



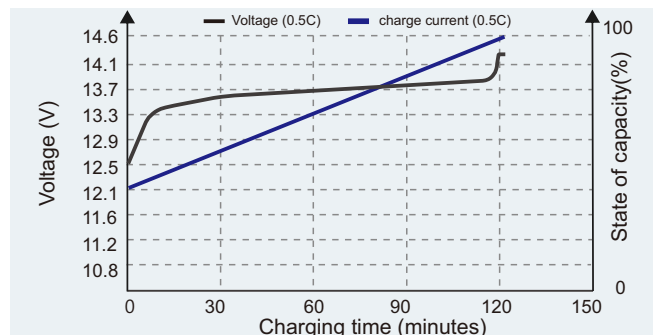
### Different Rate Discharge Curve(25°C)



### Different Temperature Discharge Curve (0.5C)



### Charging Characteristics(0.5C,25°C)



### Different DOD discharge cycle life curve(0.2C,25°C)

