

# Lithium Iron Phosphate (LiFePO<sub>4</sub>) Battery

MODEL: TN-LFP12.8V42AH

## GENERAL SPECIFICATIONS

### ELECTRICAL CHARACTERISTICS

|   |  |
|---|--|
| <b>Nominal Voltage</b>                            | 12.8V  |
| <b>Nominal Capacity</b>                           | 42Ah@0.2C  |
| <b>Energy</b>                                     | 537.6Wh  |
| <b>Internal Resistance</b>                        | 50≤mΩ  |
| <b>Cycle Life</b>                                 | >2000 Cycles @ 0.2C Charge/Discharge at 100%DOD, End of Life 70% Capacity. |
| <b>Self Discharge<br/>≤3.5% per month at 25°C</b> | ≤3.5% per month at 25°C  |

### STANDARD DISCHARGING

|                                    |          |
|------------------------------------|----------|
| <b>Discharging Current</b>         | 8.4A     |
| <b>Max. Continuous Current</b>     | 42A      |
| <b>Max Pulse Current</b>           | 60A(<3S) |
| <b>Discharging Cut-off Voltage</b> | 10.0V    |

### STANDARD CHARGING

|                              |  |
|------------------------------|--|
| <b>Charging Voltage</b>      | 14.6±0.2V  |
| <b>Charging Mode (CC/CV)</b> | At 0°~45°C temperature, charged to 14.6V at a constant current of 0.2C5A, and then, changed continuously with constant voltage of 14.6V until the current was not more than 0.02C5A. |
| <b>Charging Current</b>      | 8.4A   |
| <b>Max Charging</b>          | 21A  |

### MECHANICAL

|                            |                    |
|----------------------------|--------------------|
| <b>Cell &amp; Format</b>   | IFR32700 N60, 4S7P |
| <b>Casing</b>              | ABS                |
| <b>Dimension(L*W*H*TH)</b> | 197*165*170*170mm  |
| <b>Weight Approx.</b>      | 5.7Kg              |
| <b>Terminal</b>            | M6                 |

### ELECTRICAL CHARACTERISTICS

|                              |   |
|------------------------------|---|
| <b>Charge Temperature</b>    | 0°C to 45°C (32°F to 113°F) @60±25% Relative Humidity   |
| <b>Discharge Temperature</b> | -20°C to 60°C (-4°F to 140°F) @60±25% Relative Humidity |
| <b>Storage Temperature</b>   | 0°C to 45°C (32°F to 113°F) @60±25% Relative Humidity   |
| <b>Water Dust Resistance</b> | IP55  |



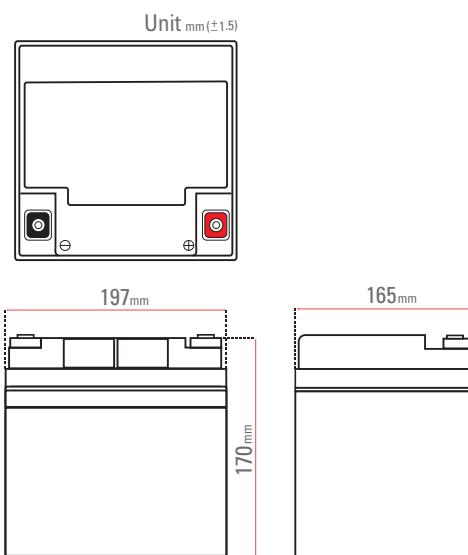
## FEATURES

- Using the technology of lithium iron phosphate cell, superior safety, thousands of cycles, 100%DOD, under normal conditions
- Built-in automatic protection for over-charge, over discharge, over current and over temperature
- Maintenance free
- Internal cell balancing
- Lighter weight: About 40% ~50% of the weight of a comparable lead acid battery.
- Can be charged using most standard lead-acid charges (set)
- Wider temperature range: -20°C~60°C

## APPLICATION

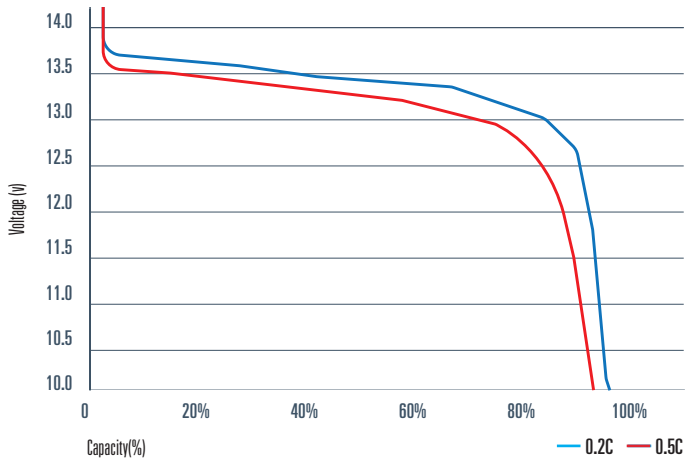
- Recreational Vehicles
- Marine
- Renewable Energy
- Medical / Mobility
- Electric Vehicles
- Golf Cart

## DIMENSIONAL SPECIFICATIONS

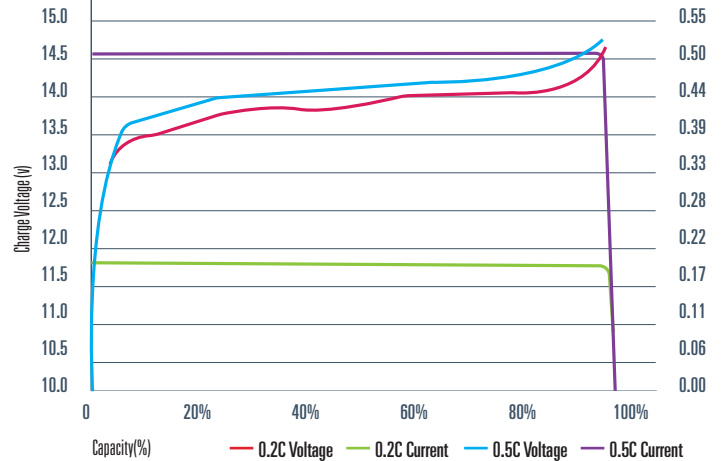


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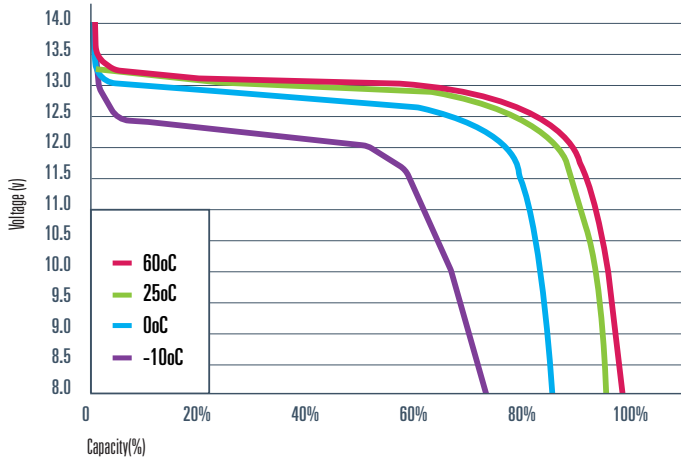
Different Rate Discharge Curve @ 25°C



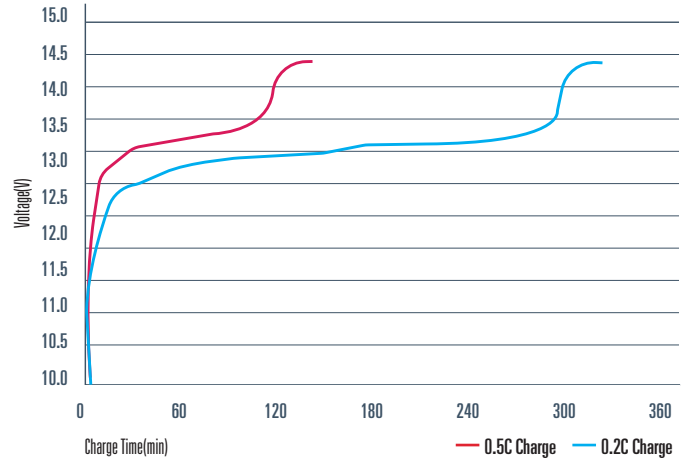
Charge Characteristics @0.2C&0.5C, 25°C



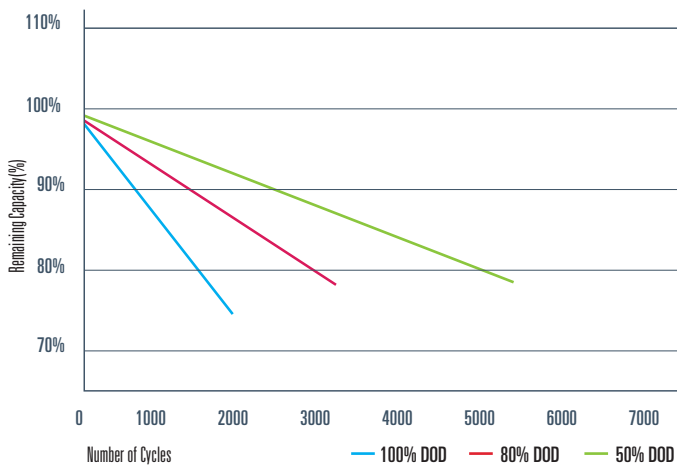
Different Temperature Discharge Curve @0.5C, 25°C



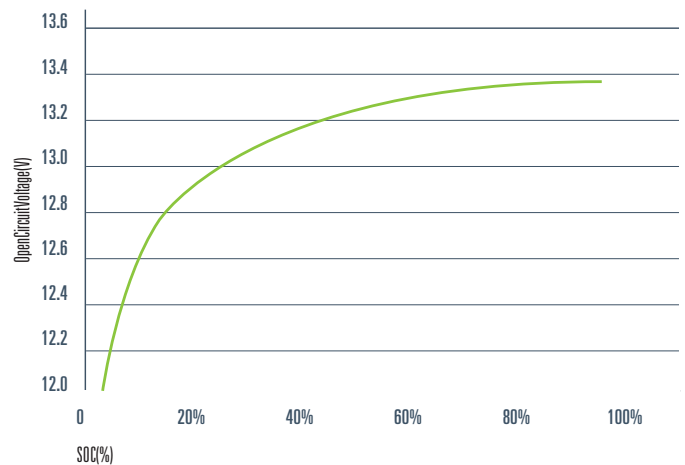
Charge Characteristics @0.2C&0.5C, 25°C



Different DOD Discharge Cycle Life Curve @0.5C, 25°C



Open circuit voltage VS SOC%



TN POWER Lithium is UN38.3 certified

