



GreatVolt Titan31B

12.8V 173Ah LiFePO4 Battery for RV & Van, Marine & Trolling Motor, Solar & Off-Grid.



IP67
Waterproof



Heating Function



Long
Life



Zero Maintenance



Ultra Safe



Light
Weight



With
Bluetooth



Full Temp Protections



Fast Charging



Pulg& Play

*100A continuous | 346A surge for 5 seconds | 500A surge for 2 seconds

*Note: This built-in protection will reset after five seconds in most fault conditions. Disconnecting the battery from loads will also reset the BMS.

TITAN31B TECHNICAL SPECIFICATIONS

Electrical Specifications

| | |
|-------------------------------|---------------------------------|
| Nominal Voltage | 12.8V |
| Nominal Capacity | 173Ah |
| Energy | 2214.4Wh |
| Self Discharge | 2~3% Per Month |
| Maximum Batteries in Series | 4 |
| Maximum Batteries in Parallel | 4 |
| Built-in BMS | Internal |
| Resistance | <20 mΩ |
| Cell Chemistry | LiFePO4(Lithium Iron-Phosphate) |

Charging Specifications

| | |
|-------------------------------|-----------------|
| Recommended Charge Current | 0.2C/34.6A |
| Max Charge Current | 100A |
| BMS Charge Current Protection | 173A |
| Recommended Charge Voltage | 14.6V |
| Reconnect Voltage | @ 13.2V |
| Balancing Voltage | @ 3.2V Per Cell |
| Charge Protection Voltage | 15V |

Discharging Specifications

| | |
|------------------------------------|--------------------|
| Max Discharge Current | 150A |
| Discharge Surge Current | 346A for 5 seconds |
| Surge for Loads Over | 500A for 2 seconds |
| Recommended Low Voltage Disconnect | 11.2V |
| BMS Discharge Cut-Off Voltage | 10V |
| Reconnect Voltage | 12V |
| Short Circuit Protection | Yes |

Temperature Specifications

| | |
|-----------------------|---|
| Discharge Temperature | -4°F to 149°F (-20°C to 65°C) |
| Charge Temperature | 32°F to 122°F (0°C to 50°C) |
| Storage Temperature | 32°F to 95°F (0°C to 35°C) |
| Reconnect Temperature | Discharge 131 °F (55°C) Charge 113 °F (45°C) |

Mechanical Specifications

| | |
|------------------|---------------------------|
| Dimensions | 12.95"L X 6.81"W X 9.33"H |
| Weight | 39.68 lbs. |
| Terminal Type | M8 |
| Terminal Torque | 619~974in-lbs (70~110N-m) |
| Case Material | Stainless Steel |
| Waterproof Level | IP67 |

Integrated Heating Specifications

| | |
|--------------------------------------|-------------------------------|
| Heat | Integrated Heating Technology |
| Heating ON | Auto ON- > 10A and < 0°C |
| Heating OFF | Auto OFF- > 5°C |
| Continuous Power Draw (When Enabled) | 100W |
| Required Minimax Charging Current | >10A |

Certifications

| | |
|----------------|---|
| Certifications | UL1973,UL9540A,IEC62619 for cells MSDS for shipping UN38.3 |
|----------------|---|

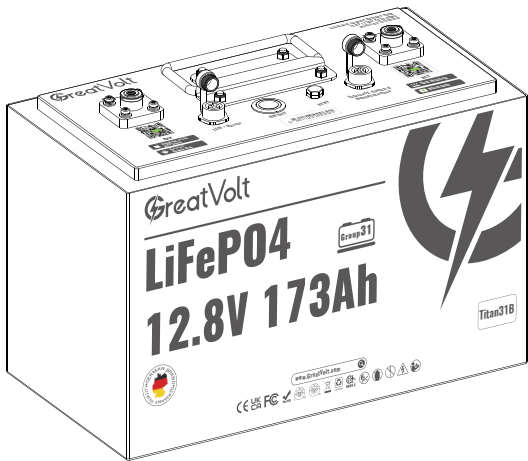
Communication Protocols

| | |
|-----------|---|
| CAN | ✓ |
| RS485 | ✓ |
| UART | ✓ |
| Bluetooth | ✓ |

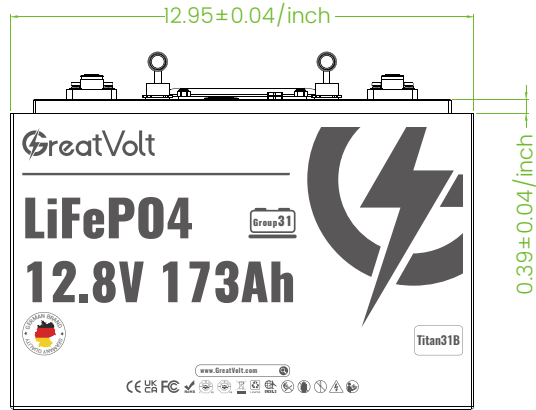
* Heating - Charging in Subzero Weather will Automatilly turn on heating function.

* Storage - Please keep the battery in the cool and dry environment: Within 1 month -5°C~35°C or Within 6 months 0°C~35°C, relative humidity ≤75%, please charge the battery pack (around 50% SOC) regularly (every 60~90 days) to keep its chemistry active and longer lifespan. Long shelf time without charging the battery, the battery may completely depleted or totally died. Please DO remove the battery from your device when battery NOT IN USE for long time.

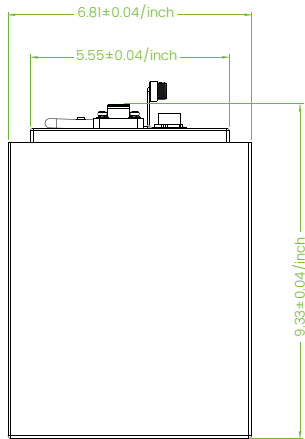
Mechanical Drawing



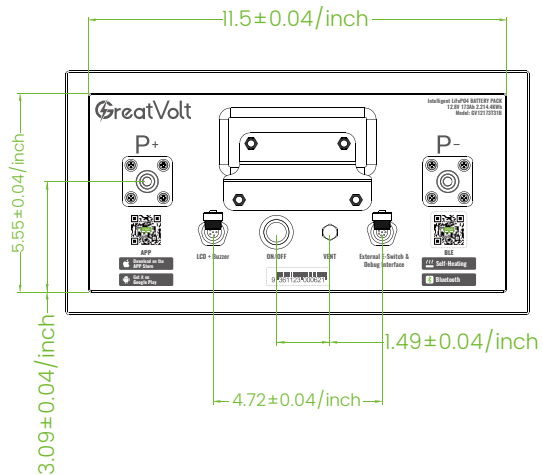
Perspective



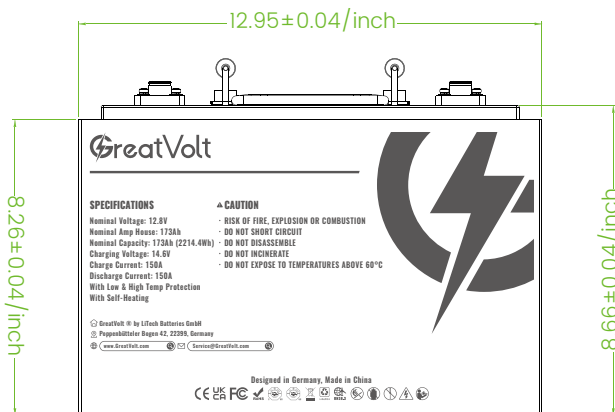
Front view



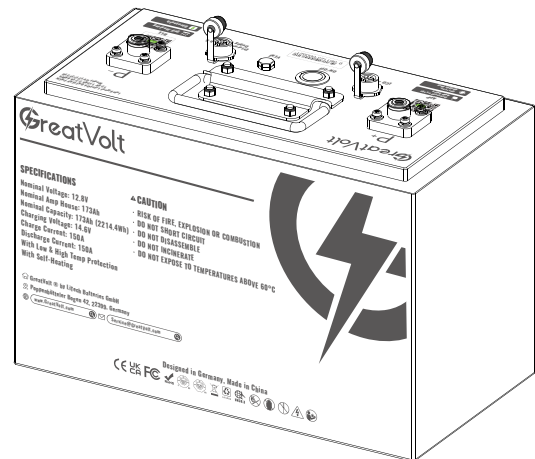
Side view



Top view



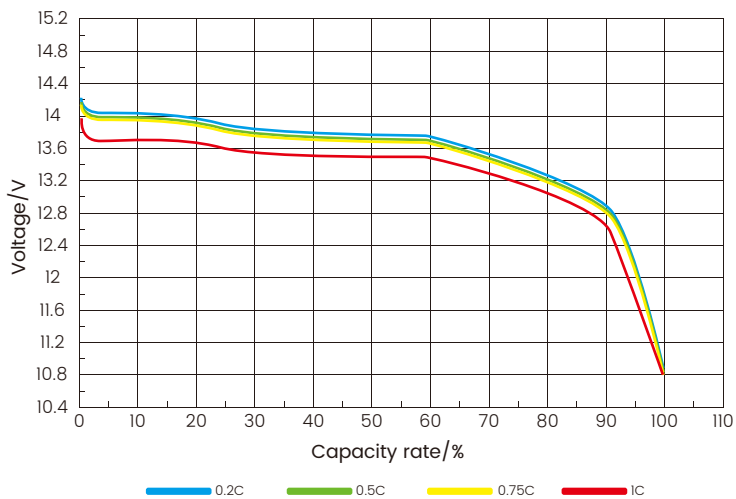
Rear view



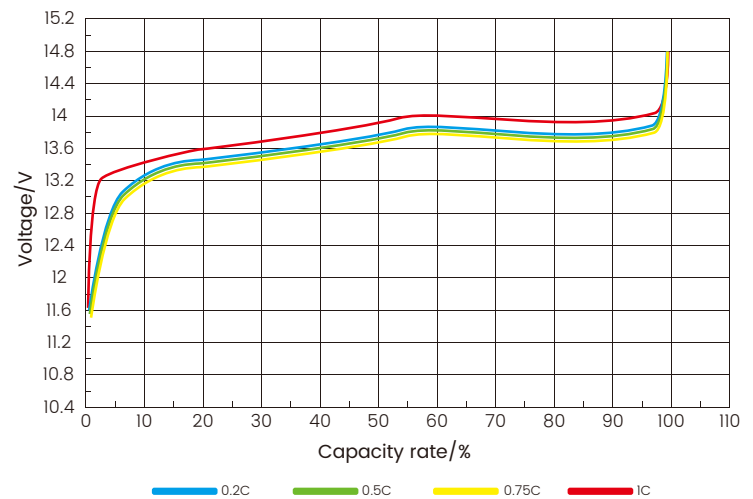
Perspective

RATE CHARGE-DISCHARGE CURVE

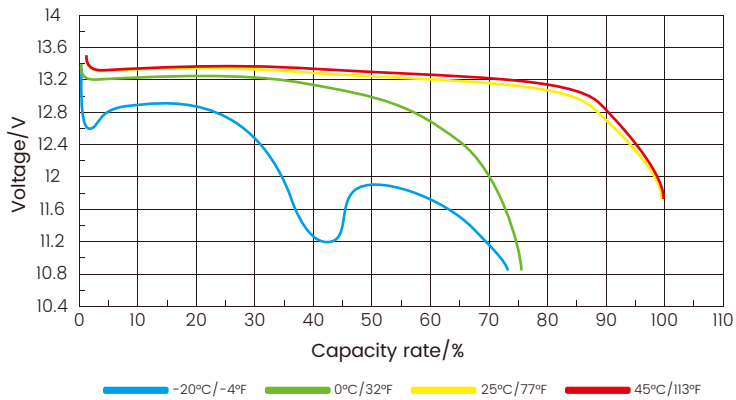
Discharge tests were performed at 25°C/77°F



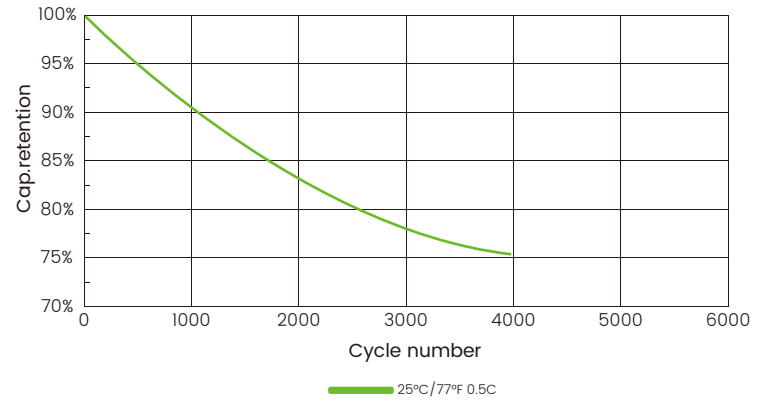
Charge tests were performed at 25°C/77°F



0.2C High and low temperature discharge



0.5C Cycle curve



PERFORMED OPERATION DATA FOR HEATED BATTERIES

Heating data at different temperatures (charging heating)

