



**BATTERY**

**SPECIFICATION**

**VLRV2560A**



## Overview

RV series battery products are designed with ABS shell, can be used 24/7, which has outstanding advantages such as waterproof, impact resistance, good insulation performance, easy installation and maintenance-free. Some products also have special functions such as Bluetooth and low-temperature heating, which can meet the application needs of RVs, solar street lights, small medical equipment, toys and some small energy storage application.



## Battery Module Features



### Simple

Easily installation and capacity expansion,  
Maintenance-free (15Y design life).



### Intelligent

Real-time monitoring & control, Passive balance,  
Bluetooth display, Low-temp heating.



### Safe

LFP cell & system safety design.



### Performance

High energy density, Excellent service life & Wide  
operation temperature range.

## Battery Module Specification

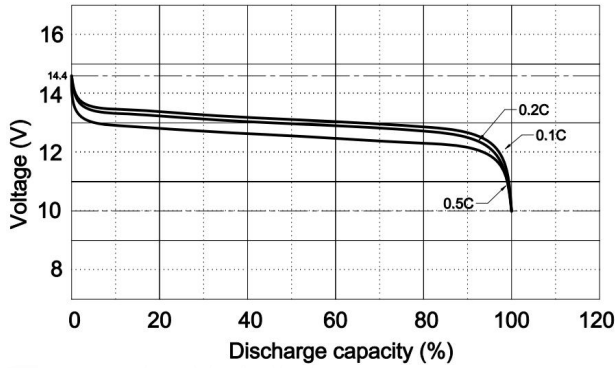
| Model                            | VLRV2560A                      |
|----------------------------------|--------------------------------|
| Basic Parameter                  |                                |
| Rated Voltage [V]                | 12.8                           |
| Rated Capacity [Ah]              | 200                            |
| Rated Energy [Wh]                | 2560                           |
| Operation Parameter              |                                |
| Voltage Range [V]                | 10.0~14.4                      |
| Cut-off Voltage [V]              | 10.0                           |
| Charge Voltage [V]               | Recommended: 14.0    Max: 14.4 |
| Recommended Charge Current [A]   | 60                             |
| Max Charge Current [A]           | 150                            |
| Max Discharge Current [A]        | 150                            |
| Internal Resistance [mΩ]         | 2.46                           |
| Physical Parameter               |                                |
| Dimension: W*D*H [mm]            | 460*220*212                    |
| Weight [kg]                      | 23.7±0.5                       |
| Display Method                   | Bluetooth/LED                  |
| Ingress Protection Level         | IP67                           |
| Environment Parameter            |                                |
| Humidity [%]                     | 5-95% RH                       |
| Charge Temperature Range [°C]    | -20 ~ 45 (<0°C, start heating) |
| Discharge Temperature Range [°C] | -20 ~ 55                       |
| Storage Temperature Range [°C]   | -20 ~ 45                       |
| Service Life                     |                                |
| Cycle Life                       | > 6000 (0.5C@ 25°C, 80% DOD)   |
| Design Life [Year]               | 15                             |
| Certification                    |                                |
| Transportation / Battery         | UN38.3, IEC 62619, UL1973      |

## BMS Parameters

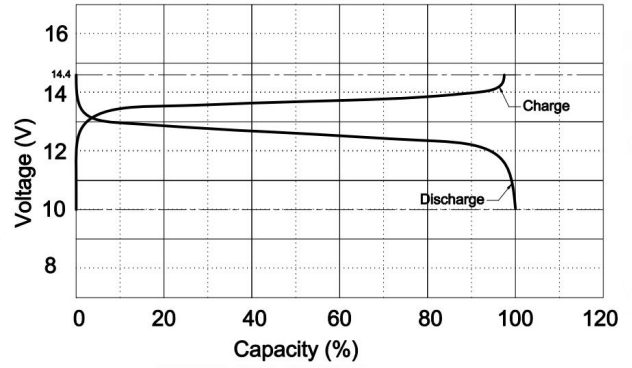
| Item                               | VLRV2560A             | Remark                                 |
|------------------------------------|-----------------------|--|
| <b>Charge</b>                      |                       |  |
| Cell Over-voltage protection [V]   | 3.8                   | Recovery @ 3.45V                       |
| Module Over-voltage protection [V] | 15.2                  | Recovery @ 13.8V                       |
| Over-current protection 1 [A]      | >160                  | Delay 2s                               |
| Over-temperature protection [°C]   | >70                   | Recovery @ <60                         |
| Under-temperature protection [°C]  | <-5                   | Recovery @ >0                          |
| <b>Discharge</b>                   |                       |  |
| Cell low-voltage protection [V]    | 2.3                   | Recovery @ 3.0V                        |
| Module low-voltage protection [V]  | 10.0                  | Recovery @ 12.0V                       |
| Over-discharging current 1 [A]     | >160                  | Delay 30s, Recovery in 60s             |
| Over-discharging current 2 [A]     | >500                  | Delay 1.28s, Recovery in 60s           |
| Short circuit [A]                  | >1000                 | 400us                                  |
| Over-temperature protection [°C]   | >75                   | Recovery@ <65                          |
| Under-temperature protection [°C]  | <-20                  | Recovery@ >-10                         |
| <b>Other Function</b>              |                       |  |
| PCB Temp protection [°C]           | >90                   | Recovery @ <70                         |
| Cell balance [mA]                  | 130mA                 | Passive balance                        |
| Temperature accuracy [%]           | 3%                    | Measuring range -30~150°C              |
| SOC accuracy [%]                   | 5%                    | Integral calculation                   |
| Power consumption                  | ≤ 300uA               | Sleep mode                             |
|                                    | ≤ 20mA                | Operating mode                         |
| Communication interfaces           | CAN, RS485, Bluetooth | Can be customized to match the devices |

## Battery Performance Curve

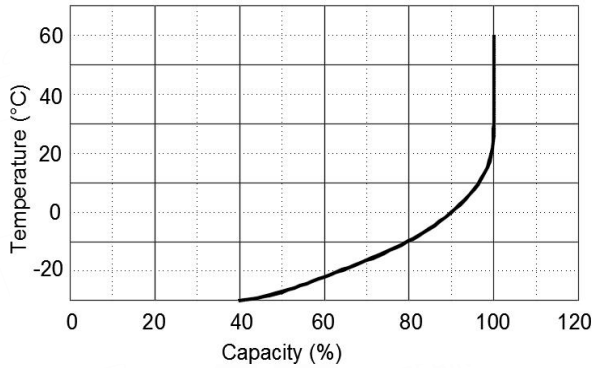
Discharge performance with different rate @ 25°C



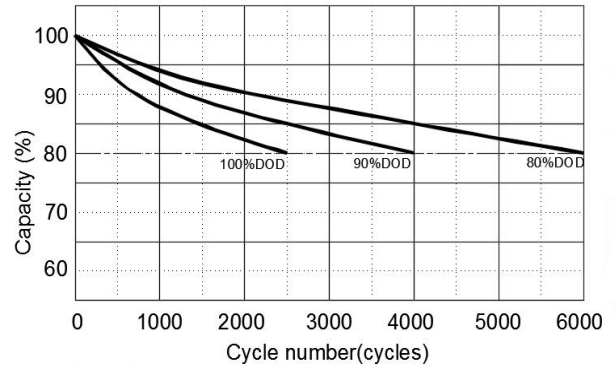
Charge & Discharge curve with 0.5C @ 25°C



Discharge capacity with different temperature @ 0.5C



Cycle life with DOD @ 0.5C, 25°C



Self-discharge @ different temperature

