VTL12-100-G31 (12V100Ah)
VTL SERIES LiFePO4 Battery

VTL Series Introduction

Long Life | Lithium Iron Phosphate | Deep Cycle

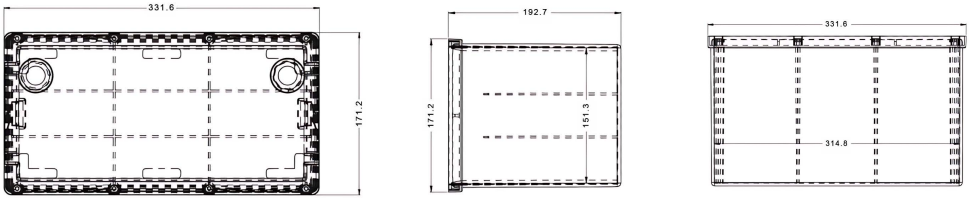
VTL Series Lithium Batteries are designed for high-demand applications, including RVs, marine, solar systems, electric golf carts, and other environments where reliable, high-performance power is essential. Lithium iron phosphate technology (LiFePO4) offers a safe and lightweight solution, providing higher efficiency and longer lifespan compared to traditional lead-based batteries. Our BMS allows for the highest performance range while protecting the battery with multiple safety features. The cells are supported with steel bracing inside the pack to ensure there are no negative effects from vibration. Connect to the Valiant One App to access real-time battery monitoring, performance insights, and everything you need to get the most out of your Valiant battery.

Applications

- RV
- Marine
- Solar/Wind Systems
- Electric Golf Cart
- Scissor Lifts

Dimensions & Weight

ISO 9001 | ISO 14001 | CE | IEC 62619 | Bluetooth



- Length: 330±1mm Width: 172±1mm Height:215±1mm Total Height: 220 ±1mm
- Weight: 11.8+0.1kgs

Technical Specifications

Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	100Ah
	Energy	1280Wh
	Terminal	M8
	Lab Tested Cycle Life	＞6000 cycles 80%DOD
	Estimated Real World Cycles	＞4500 cycles
	Months Self Discharge	＜3%
	Efficiency of Charge	100%@0. 2C
	Efficiency of Discharge	96~99%@0.5C
Standard Charge	Charge Voltage	14.6V±0. 2
	Recommended Charge Current	20A
	Max. Charge Current	100A
	Charge Cut-off Voltage	14.6V±0. 2
Standard Discharge	Continuous Current	50A
	Max continuous discharge current	100A
	Discharge Cut-off Voltage	10V
Environmental	Charge Temperature	0 ℃ to 45 ℃ (32F to 113F) @60±25% Relative Humidity
	Discharge Temperature	-20 ℃ to 60 ℃ (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	0 ℃ to 40 ℃ (32F to 104F) @60±25% Relative Humidity
	Water Dust Resistance	IP21
Mechanical	Cell & Method	Prismatic Cell, 4S1P
	Case	ABS
	Dimensions (in./mm.)	330*172*215mm/13*6.77*8.47Ins
	Weight (lbs./kg.)	Approx: 11.8kgs/26.01lbs
	Gravimetric specific energy	108.47WH/KG
	Bluetooth	YES
	LCD display	YES
	Heating function (optional)	NO

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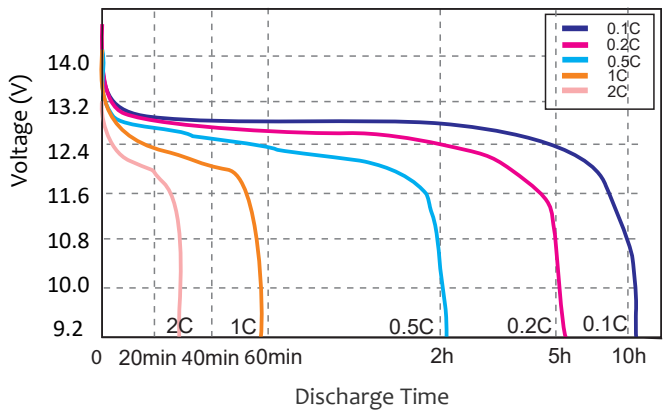
BMS Specifications

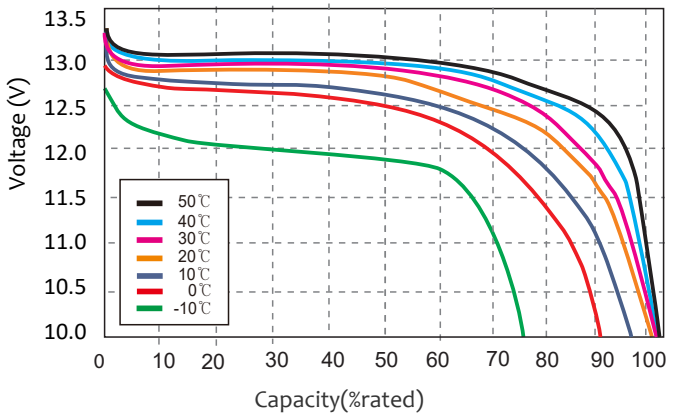
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Cell Voltage balance function
- Short detection function

Performance Characteristics (Data test from 4 Series Cell)

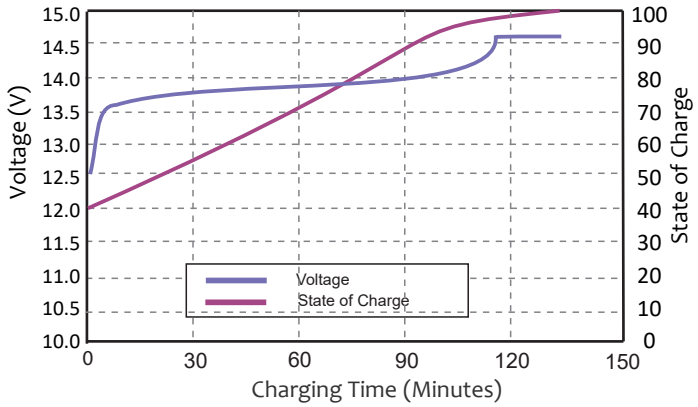
Different Rate Discharge Curve (25°C)



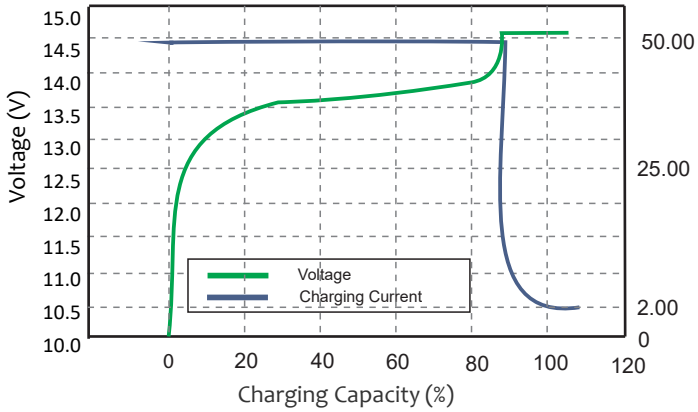
Different Temperature Discharge Curve At 0.5c



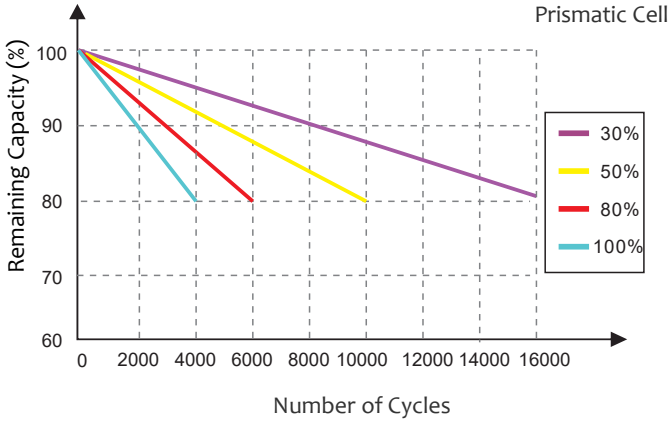
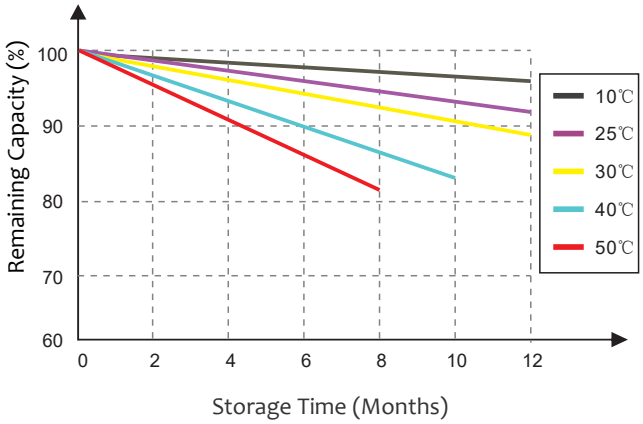
State Of Charge Curve At 0.5c (25°C)



Charging Characteristics At 0.5c (25°C)



Cycle Life Curve At 1c According DoD



Self Discharge Characteristics Curve