



Energy Storage

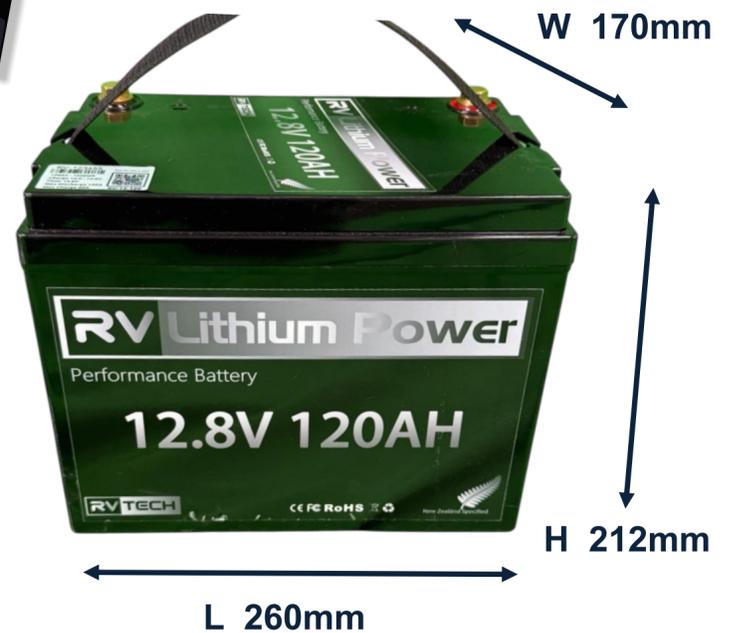
Lithium-Ion
BatteryIntelligent
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Storage

RV-12-120

Lithium Iron Phosphate Battery / LiFePO₄

FEATURES

- Built-in advanced BMS & active cell balancer.
- Automatic recovery from overcharge & overdischarge.
- Big capacity: 12.8V 120Ah 1536Wh.
- More than 3000 deep cycles. Nearly 4 times of lead acid batteries.
- 3 stage current, timing & temperature protection.
- Good performance in high or low temperatures.



BASIC INFO

Model	RV-12-120
Voltage	12.8VDC
Capacity	120Ah (1536Wh)
Dimensions	260*170*212mm
Weight	12kg
Chemical	Lithium Iron LiFePO ₄
Cell Type	Prismatic
Box Material	ABS121H
Terminal Type	M8 Brass
Waterproof Level	IP67
Operating Temperature	-20°C ~ 60°C
Certifications	CE, MSDS, UN38.3, UN3480, IEC62619, EMC, RCM, ISO9001, RoHS

ELECTRICAL SPEC

Nominal Voltage	12.8VDC
Nominal Capacity	120Ah
Capacity @ 30A	240min
Resistance	≤10mΩ @ 50% SoC

Active Cell Balancing	5Ah Nominal (8Ah Peak) Charge & Discharge
BMS Pulse Power	100A 1920W
BMS Reconnect	Automatic (18s)
Low Voltage Cut-Off	10.5V
High Voltage Protection	14.8V
Short Circuit Protection	250A (Delay: 5ns Recovery: 17s)
Max Series Voltage	51.2V
Max Continuous Current	120A
Max 30s Pulse	120A
Cycle life (100%DoD)	≥ 2000 Cycles
Cycle life (80%DoD)	≥ 3500 Cycles
Cycle life (50%DoD)	≥ 6000 Cycles
Cycle life (30%DoD)	≥ 8000 Cycles
Storage Conditions	-40°C ~ 85°C 5% ~ 75% RH

CHARGE SPEC

Recommended Charge Current	30A
Max Charge Current	60A (Delay: 5s)
Max Charge Voltage	14.6V
Min Charge Current	1A
Single Cell Overcharge Protection Voltage	3.65V (Delay: 1s Release: 3.55V)

DISCHARGE SPEC

Standard Discharge Current	100A (0.5C)
First Discharge Over Current	120A (Delay: 30s)
Second Discharge Over Current	150A (Delay: 12s)
Single Cell Overdischarge Protection Voltage	2.50V (Delay: 1s Release: 2.70V)

TEMPERATURE SPEC

Working Temperature	-20°C ~ 60°C
Charge High Temperature Protection	70°C (Release: 65°C)
Discharge High Temperature Protection	70°C (Release: 65°C)
Charge Low Temperature Protection	0°C (Release: 5°C)
Discharge Low Temperature Protection	-20°C (Release: -15°C)
MOSFET Heatsink Temperature	65°C

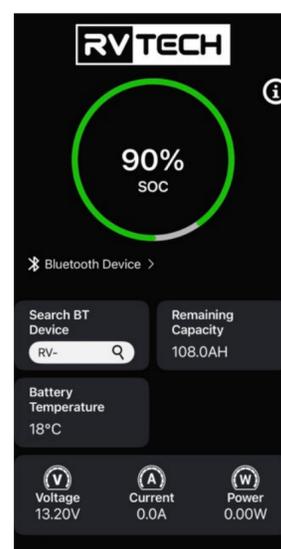
BMS SPEC

Categories	Items	Result
Charge	Max Charge Current	Continuous 60A (Protect 62A)
	Overcharge Protection Voltage	3.7V
	Overcharge Protection Delay	6s
	Overcharge Release Voltage	3.6V
	Overcharge Recovery Time	18s
Discharge	Max Continuous Discharge Current	120A
	Overdischarge Detection Delay (150A)	12s
	Overdischarge Detection Delay (190A)	8s
	Overdischarge Recovery Time	10s
	Low Voltage Protection (Discharge 1A)	2.16V
Short Circuit Protection	Short Circuit Detection Delay	5ns
	Short Circuit Recovery Time	17s
Temperature Control	MOSFET Temperature Control	70°C
	MOSFET Temperature Control Release	65°C
	MOSFET Heatsink Temperature	65°C (Discharge 100A 35min)

NOTE

- This battery CAN'T be used to start motor vehicles.
- Please pay attention to clean the positive and negative electrodes regularly to ensure good contact.
- For a longer life span of the battery, please make a full charge every 3 months.
- During use, pay attention to moisture-proof, waterproof and keep away from ignition sources.
- During use, please follow the parameters and conditions of use, otherwise the battery may be damaged.
- The parameters, functions and appearance in this specification are for reference only.
- Please refer to the actual product.

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