

RB100-LT : Low-Temperature 100Ah, 12V Lithium by RELiON



Price: CAD \$1,899.00

SKU: RB100-LT

Product Categories: [Batteries](#), [Lithium](#), [Multi-Use : 12V, >100Ah](#), [Shop](#)

Product Tags: [canada](#), [cold](#), [freezing](#), [heater](#), [lithium](#), [low temperature](#), [rb100-lt](#), [rb100-lt canada](#), [reliion battery canada](#), [reliion rb100](#), [reliion rb100-lt](#), [reliion rb100-lt canada](#), [warm](#)

Product Page:

<https://www.modernoutpost.com/product/rb100-lt-low-temperature-100ah-12v-lithium-by-reliion/>

Product Summary

The RB100-LT is a 12V 100Ah lithium battery and part of RELiON's Low-Temperature Series. This lithium iron phosphate battery is specially designed

for cold weather performance - crucial for Canadians. RELiON's LT Series batteries can safely charge at temperatures down to -20°C (-4°F) using a standard lithium charger. The system features proprietary technology which draws power from the charger itself, requiring no additional components.

Product Description

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The RB100-LT is a 12V 100Ah deep cycle lithium battery, and the perfect replacement for group 31 AGM, GEL or lead-acid Battery. Providing double the useable energy, and half the weight, it's a lightweight alternative to lead-acid and one of our most popular lithium batteries. Versatile, compact and more powerful than its lead-acid alternatives, It's the perfect combination of size and capacity to fit many applications including, RV, van conversions, marine, solar energy systems and more.

They also offer ultra-fast charging and discharging, high efficiency and longer cycle life - plus no maintenance! Unlike lead-acid batteries which sulphate under prolonged partial state-of-charge operation, RELiON lithium-iron-phosphate batteries operate fine in partial SOC situations.

Same Battery, Enhanced Technology

RELiON Low Temperature Series batteries look and operate exactly like other RELiON battery models, with the same power and performance. They have the same charge time at above-freezing temperatures. They also feature the same dimensions, configuration, and connectivity of its standard counterparts, making them drop-in replacements in applications that already use RELiON batteries. And they're ideal upgrades for those who are still using lead-acid batteries in

low-temperature environments.

The RB100-LT : A Good Idea For Low-Temperatures

At -30C, your lead-acid (ie Gel, AGM, or Flooded) batteries loose about 50% of their useable capacity. This means that a 100Ah/12V battery, which really only provided you with 50Ah of useable capacity, of which you should have been advised to only draw 50% of, will be reduced to a capacity in the 15Ah range. You paid for a 100Ah battery, but in cold weather (ie below freezing), you might only have 20-25Ah of useable capacity.

Use a lithium with warming system like the RELiON RB100-LT, and you will have 80Ah of useable capacity from the battery while still being nice to them for their long-term health. This is 3-4x as much energy as the lead-acids you were considering.

With Lithium Iron Phosphate You Get...

- + More useable energy.
- + More cycles (up to 10x as many as lead-acid).
- + Higher charge/discharge efficiency (over 90% round-trip).

Stop throwing your money away with lead-acid batteries that under-perform and only last 3-5 years!

Not all lithium batteries are created equal. All RELiON Batteries use the safest and most stable components, including a LiFePO4 cathode and a built-in Battery Management System (BMS). The BMS ensures a long lifetime, safe handling - and high-accuracy State of Charge (SOC) calculations.

RB100-LT Specifications In Brief

ELECTRICAL SPECIFICATIONS

Nominal Voltage : 12.8 V

Nominal Capacity : 100 Ah

Capacity @ 25A : 240 min

Energy : 1280 Wh

Resistance : $\leq 30 \text{ m}\Omega$ @ 50% SOC

Efficiency : 99%

Self Discharge : <3% per Month

Maximum Modules in Series : 1 (Single-Use)

MECHANICAL SPECIFICATIONS

Dimensions (L x W x H) : 13 x 6.8 x 8.4" (329 x 172 x 214 mm)

Weight : 27.9 lbs (12.64 kg)

Terminal Type : M8 x 1.25

Terminal Torque : 80 - 100 in-lbs (9 - 11 N-m)

Case Material : ABS

Enclosure Protection : IP66

Cell Type - Chemistry : Cylindrical - LiFePO4

DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current : 100 A

Peak Discharge Current : 200 A (7.5 s \pm 2.5 s)

BMS Discharge Current Cut-Off : 280 A \pm 50 A (32 \pm 10 ms)

CHARGE SPECIFICATIONS

Recommended Charge Current : 5 A - 50 A

Maximum Charge Current : 100 A

Recommended Charge Voltage : 14.2 V - 14.6 V

TEMPERATURE SPECIFICATIONS

Discharge Temperature : -4 to 140 °F (-20 to 60 °C)

Charge Temperature : -4 to 113 °F (-20 to 45 °C)

Storage Temperature : 23 to 95 °F (-5 to 35 °C)

HEATING ELEMENT SPECIFICATIONS

Heating Temperature Range : -4 to 41 °F (-20 to 5 °C)

Heating Time Approximately : 1 hr @ 10 A

COMPLIANCE SPECIFICATIONS

Certifications : UN38.3 (battery) & CE (battery)

UL1642 (cells) (File# MH64523)

IEC62133 (cells)

Shipping Classification : UN 3480, CLASS 9

[Download the Data Sheet](#)] [Download the User Guide](#)]

System Integration Note

The RB100-LT will work fine with standard AGM charging parameters. If your system has lithium settings, or is programmable, then use the RELiON recommended settings to get the most out of your battery.

If you are running an inverter from this battery, be sure to check the recommended maximum current draw, and parallel string as necessary to support the inverter's demand.

Product Attributes

- Dimensions: 1 × 1 × 1 cm
- Weight: 13 kg