

RB52-LT : Low-Temperature LFP Battery by RELiON



Price: CAD \$999.00

SKU: RB52-LT

Product Categories: [Batteries](#), [In The Field](#), [Lithium](#), [Multi-Use : 12V, 20-99Ahr](#), [On The Road](#), [Pop Picks For Vans & RVs](#), [Shop](#)

Product Tags: [12v](#), [52ah](#), [battery](#), [cold](#), [freezing](#), [lfp](#), [lifepo4](#), [lithium](#), [lithium battery](#), [low temperature](#), [rb52-lt](#), [reliion rb50-lt canada](#), [reliion rb52-lt](#), [reliion rb52-lt canada](#)

Product Page:

<https://www.modernoutpost.com/product/rb52-lt-low-temperature-lfp-battery-by-reliion/>

Product Summary

The RB52-LT is a low temperature LFP battery by RELiON designed to perform when other lithium batteries refuse. With its built-in cell warming system that draws

power only from the charging source, the RB52-LT can charge in sub-zero temperatures, providing unmatched versatility. The 640Wh practical capacity and compact size and weight make it an ideal choice for outdoor lighting systems, data monitoring, motorized vehicles, security systems, HAM radios, and more.

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RB52-LT : Ideal lithium battery for Canada!

Lithium chemistry is great at delivering charge to equipment & devices down to -20C, but ordinary lithium batteries will either stop accepting charge, or will severely restrict their charge acceptance rate, when the temperature gets down to 0C. So how do you charge, or solar charge a lithium battery below 0C? RELiON's LT series is the answer.

RELiON's LT Series batteries can safely charge at temperatures down to -20°C (-4°F) using a standard charger. The system features proprietary technology which draws power from the charger itself, uniformly heating the cells within the battery to 41°F (5°C), so that it can be charged at its full recommended current. LT batteries require no additional components such as heating blankets.

No additional equipment or charger settings are required. Simply plug the battery into your regular lithium charger and the internal heating and monitoring system takes care of the rest. Because it takes time to heat the cells, the charging process in below-freezing temperatures could take a little longer.

We recommend using an insulated enclosure to help the process.

The Low-Temperature Series battery has the same size and performance as other RELiON batteries but can safely charge when temperatures drop as low as -20°C

using a standard charger. The RB52-LT is a perfect choice for use in off-grid solar, remote monitoring, and in any application where charging in colder temperatures is necessary.

Compare the RB52-LT with Lead-Acid AGM... Group-31 : 12V, 50Ahr AGM

300Wh useable, 500-1000 cycle life, 70lbs, Enclosure minimum: 13 x 7 x 10"

RB52-LT : 12.8, 52Ahr LiFePO4

640Wh useable, 3,000-5,000 cycle life, 14lbs, enclosure minimum: 8 x 7 x 7"

Applications

- Backup Power - Marine - Recreational Vehicles - Solar - Camping

RB52-LT Specifications In Brief

ELECTRICAL SPECIFICATIONS

Nominal Voltage : 12.8 V

Nominal Capacity : 52 Ah

Capacity @ 25A : 120 min

Energy : 640

Efficiency : 99%

Self Discharge : <3% per Month

Maximum Modules in Series : 1 (Single-use)

MECHANICAL SPECIFICATIONS

Dimensions (L x W x H) 7.8 x 6.5 x 6.8" (197 x 166 x 173 mm)

Weight : 14.1 lbs (6.38 kg)

Terminal Type : M8 x 1.25 x 12mm

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 : 50 A

Peak Discharge Current : 100 A (7.5 s \pm 2.5 s)

BMS Discharge Current Cut-Off : 150 A \pm 20 A (10 \pm 5 ms)

CHARGE SPECIFICATIONS

Recommended Charge Current 2.5 A - 25 A

Maximum Charge Current 50 A

Charge Current 14 to 32 $^{\circ}$ F (-10 to 0 $^{\circ}$ C) \leq 0.1 C

Charge Current -4 to 14 $^{\circ}$ F (-20 to -10 $^{\circ}$ C) \leq 0.05 C

Recommended Charge Voltage 14.2 V - 14.6 V

TEMPERATURE SPECIFICATIONS

Discharge Temperature -4 to 140 $^{\circ}$ F (-20 to 60 $^{\circ}$ C)

Charge Temperature -4 to 113 $^{\circ}$ F (-20 to 45 $^{\circ}$ C)

Storage Temperature 23 to 95 $^{\circ}$ F (-5 to 35 $^{\circ}$ C)

HEATING ELEMENT SPECIFICATIONS

Heating Temperature Range -4 to 41 $^{\circ}$ F (-20 to 10 $^{\circ}$ C)

Heating Time 1 hr @ 4 A

COMPLIANCE SPECIFICATIONS

Certifications UN38.3 (battery)

CE (battery)

UL1642 (cells) (File# MH64523)

IEC62133 (cells)

Shipping Classification UN 3480, CLASS 9

[Download the Complete Data Sheet](#)

[Download the User Manual](#)

Product Attributes

- Dimensions: 1 \times ; 1 \times ; 1 cm
- Weight: 7 kg