

RELi<sup>3</sup>ON®

insight  
SERIES®



LiFePO4

## INTELLIGENT FEATURES

### Smart Parallel Connections

- Intelligent battery-to-battery balancing
- Self latching with touch safe chargers
- Easy battery swap installation
- Scale up to 10 batteries in parallel

### Heatsink Design

- Strategically located
- Unique passive cooling

### Dual M8 Terminals (Insert and Stud)

- Ample space for connections

### LED Indicator

- Provides State of Charge (SOC)

### Unique BMS Design

- Microcontroller-based design
- Smart low voltage recovery mode
- Solid State Switch for ultra-fast response times
- High-resolution internal measurements
- Non-volatile historical data
- CANbus communication
- Sleep mode capability

## MODEL

Part Number	12V120-1-GC2
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## FUNCTIONAL SPECIFICATIONS

Nominal Voltage	12.8V
Cell Chemistry	LiFePO4
Cell Type	Prismatic
Ampere-hour Capacity	120Ah
Watt-hour Capacity	1536Wh
Impedance (50% SOC, 1kHz)	<100mΩ
Cycles @ 80% DOD*	>3500
Parallel Capable	Yes (up to 10)
Series Capable	No

## MECHANICAL SPECIFICATIONS

BCI Size	GC2
Dimensions (LxWxH)	260 x 180 x 276 mm (10.2 x 7.1 x 10.9 in)
Weight	15.6 kg (34.4 lbs)
Case Material	ABS
Stud / Insert Terminal	M8 X 1.25 - 20
Ingress Protection Marking	IP67
Case Flame Rating	UL94 V-0

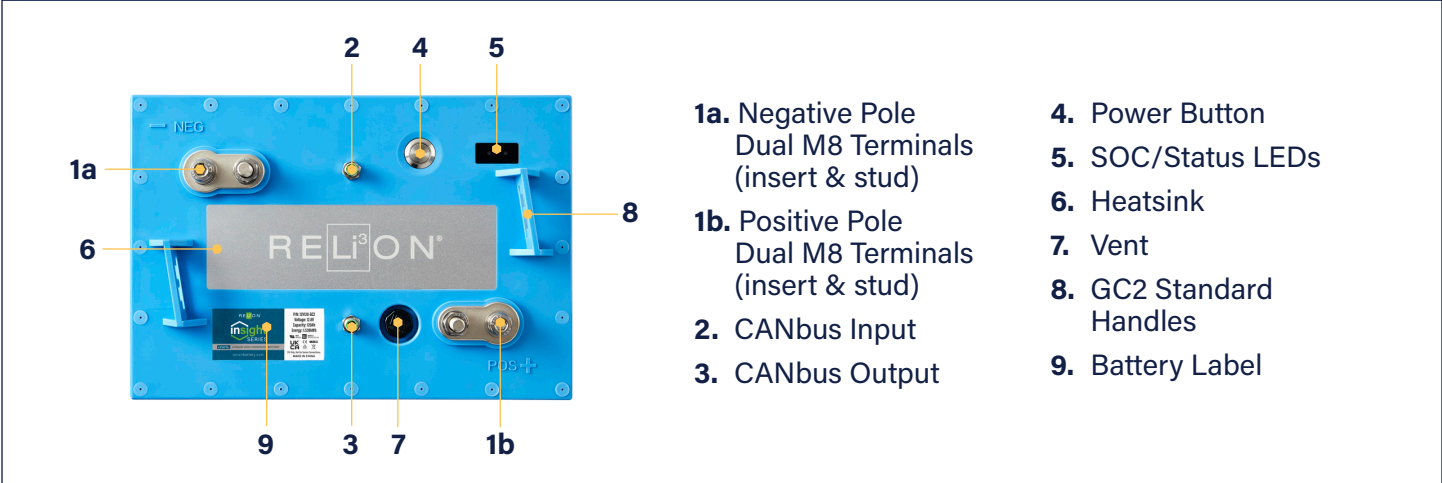
## DISCHARGE SPECIFICATIONS

Recommended Continuous Discharge Current	120A (1C)
Maximum Continuous Discharge Current	120A
Peak Over Current	120A<I <sub>batt</sub> <300A 10s 300A<I <sub>batt</sub> <360A 2s 360A<I <sub>batt</sub> <500A 1s I <sub>batt</sub> <500A 0.5s
Short-Circuit Protection	>500A
Short-Circuit Reset	Automatic
Discharge Cut Off Pulse Recovery Operation	Automatically above 2.9V/cell (11.6V)
Low Voltage Protection	2.8V/cell (11.2V) ~6 months @ 25°C (60°F)
Permanent Off Voltage	1.8V/cell (7.2V)

## CHARGE SPECIFICATIONS

Recommended Charge Current	60A (0.5C)
Continuous Charge Current	≤ 120A (1C)
Disconnect Charge Current	I <sub>batt</sub> >120A, 5s I <sub>batt</sub> >200A, 0.5s
Peak Charge Voltage	14.3V
Float Voltage	13.5V
Over-Voltage Protection	3.65V/cell 4s (14.6V)
Over-Voltage Reset	Automatically at 3.4V/cell (13.6V)

\* Refer to warranty terms for Cycle Life performance conditions.



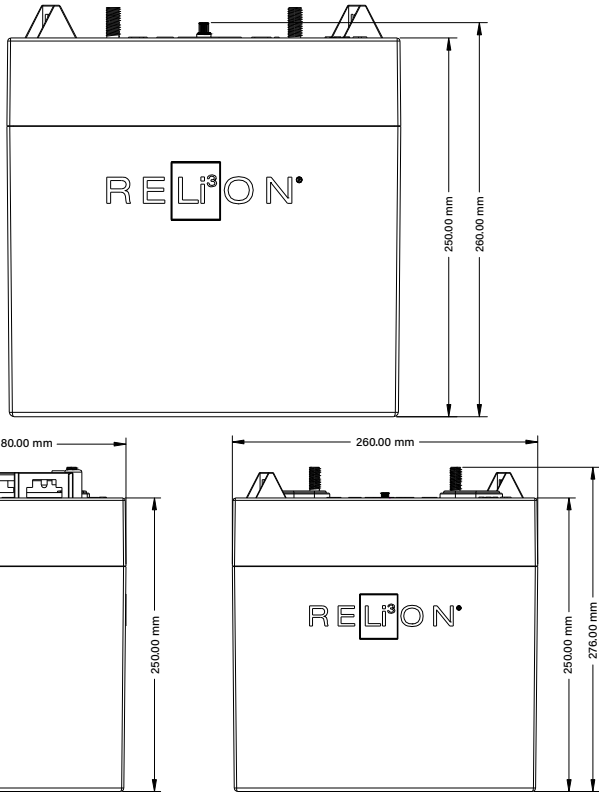
- 1a. Negative Pole Dual M8 Terminals (insert & stud)
- 1b. Positive Pole Dual M8 Terminals (insert & stud)
- 2. CANbus Input
- 3. CANbus Output
- 4. Power Button
- 5. SOC/Status LEDs
- 6. Heatsink
- 7. Vent
- 8. GC2 Standard Handles
- 9. Battery Label

ENVIRONMENTAL SPECIFICATIONS	
Charge Under Temperature	0°C (32°F) for 2s Self-reset function.
Charge Over Temperature	55°C (131°F) for 2s Self-reset function.
Discharge Under Temperature	-20°C (-4°F) for 2s Self-reset function.
Discharge Over Temperature	55°C (131°F) for 2s Self-reset function.
Operating Humidity Range	10% to 95% RH non-condensing
Optimal Storage Temperature	10°C to 35°C (50°F to 95°F)
Optimal Storage Humidity	15% to 90% RH

CERTIFICATIONS	
UL1973 (Battery Pack)	
CE (Battery Pack)	
IEC 62133-2 :2017 (Lithium Batteries)	

SHIPPING CLASSIFICATION
UN3480, Class 9

APPLICATIONS
Recreational Vehicles
Marine
Solar



COMPATIBLE ACCESSORIES
InSight 12V Fuel Gauge - BI-3140R-12
InSight Remote Power Switch - RS-GC2-03 / RS-GC2-06 / RS-GC2-10
CAN Termination Resistor Assembly - CAN-TR
More on our website <a href="http://www.relionbattery.com">www.relionbattery.com</a>