

RELi³ON®

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

Low Temperature Operation

- Can charge at operations down to -20°C (-4°F)

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-LT
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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

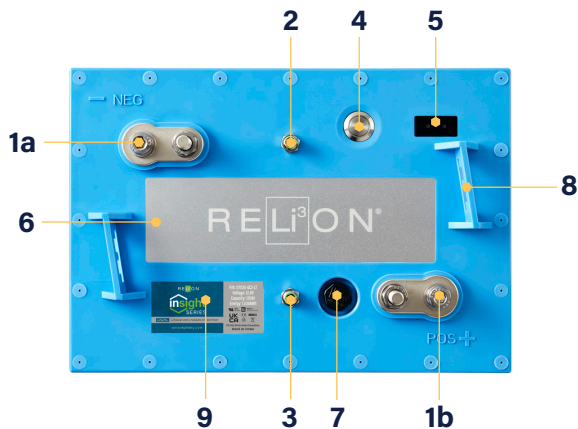
DISCHARGE SPECIFICATIONS

Recommended Continuous Discharge Current	60A (0.5C)
Maximum Continuous Discharge Current	120A
Peak Over Current	120A<I _{batt} <300A 10s 300A<I _{batt} <360A 2s 360A<I _{batt} <500A 1s <I _{batt} <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 _{batt} >120A, 5s I _{batt} >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 (14.6V)
Heating Rate	20°C/hr (35°F/hr)

* 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	-20°C (-4°F) for 2s. Self-heating function will be activated below 0°C (32°F). 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

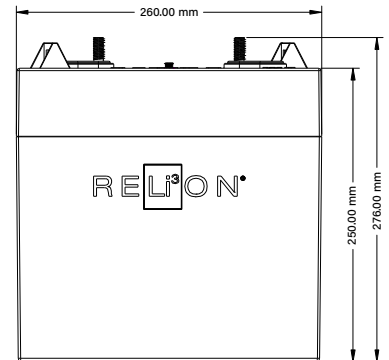
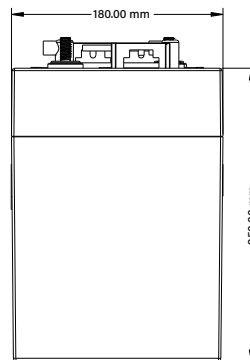
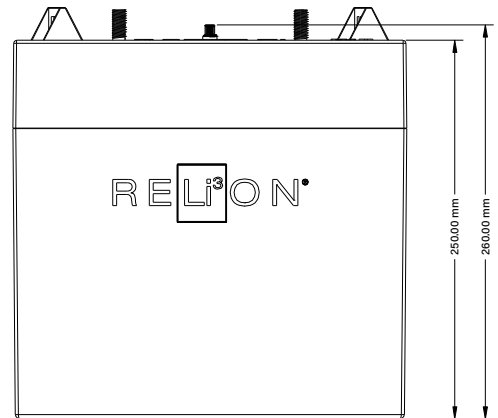
UL1973 (Battery Pack)
CE (Battery Pack)
IEC 62133-2 :2017 (Lithium Batteries)

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 www.relionbattery.com