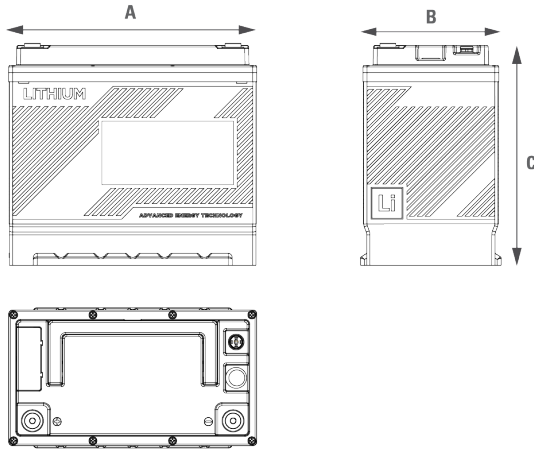


**LITHIUM BLUE Battery**

Discover®LITHIUM BLUE LiFePO<sub>4</sub> Premium Series batteries offer BMS controlled safety, long life, lightning fast charging performance and real-time Bluetooth access to battery State of Charge, voltage, current, temperature status. LITHIUM BLUE batteries reflect Discover's Design for Excellence philosophy, incorporating suitcase style carrying handles, terminal protection and field serviceable fuses. LITHIUM BLUE batteries are safe, easily to install and parallel for more capacity.



**MECHANICAL SPECIFICATIONS**

|                        |                     |       |
|------------------------|---------------------|-------|
| Industry Reference     | BCI: GC12 DIN:      |       |
| Length A (in/mm)       | 12.2                | 312   |
| Width B (in/mm)        | 7.0                 | 177   |
| Height C (in/mm)       | 10.9                | 276   |
| Total Height D (in/mm) | 10.9                | 276   |
| Weight (lbs/kgs)       | 44.10               | 20.00 |
| Terminal *             | M8                  |       |
| Cell(s)                | Prismatic 4S2P      |       |
| Case Material          |                     |       |
| IP Rating              | 67                  |       |
| Electrolyte            | LiFePO <sub>4</sub> |       |

NOTE 1: Dimensions have a ±2 mm (0.08 in) tolerance. Weights may vary.  
NOTE 2: Refer to terminal guide on website for torque values.

**ELECTRICAL SPECIFICATIONS**

|   |                                       |
|---|---------------------------------------|
| Open Circuit Voltage (V)                    | 12.8                                  |
| Charge Voltage (Bulk Vdc)                   | 13.8 - 14.2                           |
| Max Absorption Voltage (U1 Vdc)             | 13.8                                  |
| Float Voltage (U2 Vdc)                      | 13.6                                  |
| BMS Max. Voltage protection (Vdc)           | 14.6                                  |
| Suggested Low Voltage Cutoff (Vdc) *        | 12                                    |
| BMS Min. Voltage protection (Vdc)           | 10.0                                  |
| Max. Continuous Charge Current (I Max. Adc) | 150                                   |
| Min. Finishing Charge Current (I Min. Adc)  | 2%-3% C1 / Min. 200ma                 |
| Max Continuous Discharge Current (Adc)      | 150                                   |
| Max Peak Current (Adc)                      | 250                                   |
| Self-Discharge (25°C / 77°F)                | < 3% per month                        |
| Charge Temperature                          | Min: -18°C (-0°F)   Max: 55°C (131°F) |
| Discharge Temperature                       | Min: -20°C (-4°F)   Max: 60°C (140°F) |
| Storage Temperature                         | Min: -10°C (14°F)   Max: 30°C (86°F)  |

Electrical Specifications at 25°C.  
\* Do not exceed maximum voltage at the battery terminals.  
CAUTION: Extra considerations must be given to depths of discharge, operating voltages and currents when designing systems for use at maximum operating temperatures.

**PERFORMANCE SPECIFICATIONS**

|                        |      |                             |      |      |      |       |
|------------------------|------|-----------------------------|------|------|------|-------|
| Nominal Energy (kWh)   | 2.56 | <b>Minutes of Discharge</b> |      |      |      |       |
| Usable DoD             | 100% | @25A                        | @56A | @75A | @85A | @100A |
| Rated Wh Capacity (1C) | 2560 | 480                         | 214  | 160  | 141  | 120   |
| Rated Ah Capacity (1C) | 200  |                             |      |      |      |       |

**FEATURES**

**BLUETOOTH APP**

- State of Charge
- Voltage / Current
- Temperature ?F/?C

**BUILT-IN SELF HEATING**

**HIGH-CURRENT BMS**

- Field replaceable fuse protection

**BENEFITS**

**ENHANCED RUNTIME**

- Double the high-current runtime of lead-acid battery
- Up to 100% usable capacity
- Up to 100% Depth of Discharge

**EXTENDED SERVICE LIFE**

- 10x the life of lead-acid battery (BCI-06)
- Unlimited Partial State of Charge cycles
- Energy throughput warranty

**FAST CHARGING**

- Up to 5x faster than new lead-acid batteries
- Up to 10x faster than aged lead-acid batteries
- 2x faster than C/2 rated lithium batteries
- Opportunity charge at 1C rate anytime, regardless of SoC

**SURGE POWER**

- Surge power for inverter chargers
- Up to 3C peak power discharge rate
- Up to 1C continuous discharge rate

**HIGH-EFFICIENCY**

- Up to 50% more energy efficient than a lead-acid battery
- Up to 98% round-trip efficiency

**PARALLEL POWER**

- Easy to parallel more capacity
- Linear scaling of charge, discharge and peak capacity

**QUICK INSTALL**

- Fast installation. No special tools
- Drop-in lead-acid replacement

**RELIABLE AND SAFE**

- LiFePO<sub>4</sub> is safe
- Maintenance-free
- UL94 V0 flame retardant case and cover
- IP 67 rated

**CERTIFIED QUALITY**

Discover® manufacturing facilities are fully certified to ISO 9001/14001 and OSHA 18001 standards.

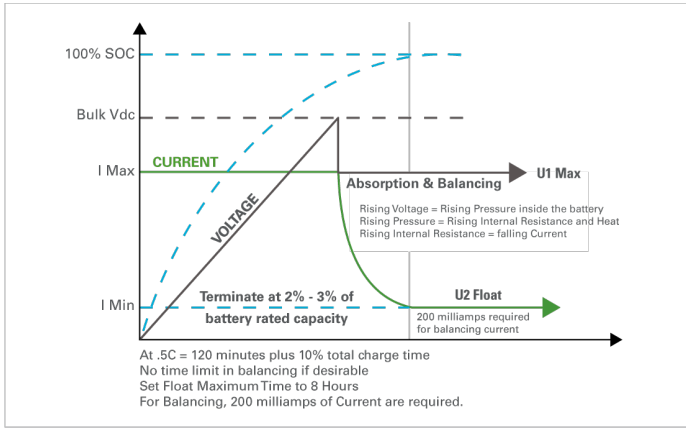
**CERTIFICATION STANDARDS**

- CE
- UN 38.3
- UL 2054

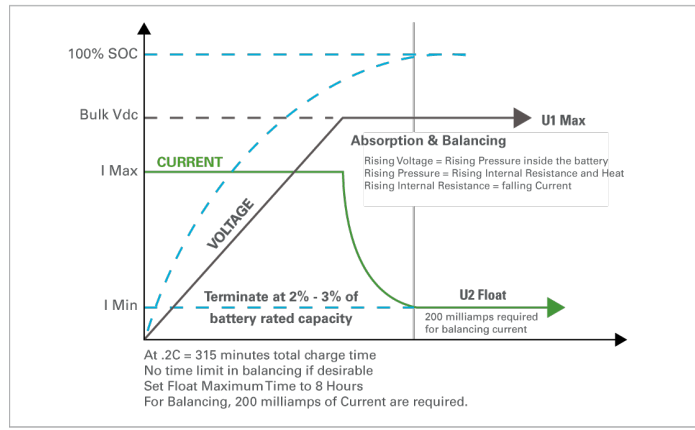
**SHIPPING CLASSIFICATION**

- UN 3480, Class 9 (Lithium batteries)

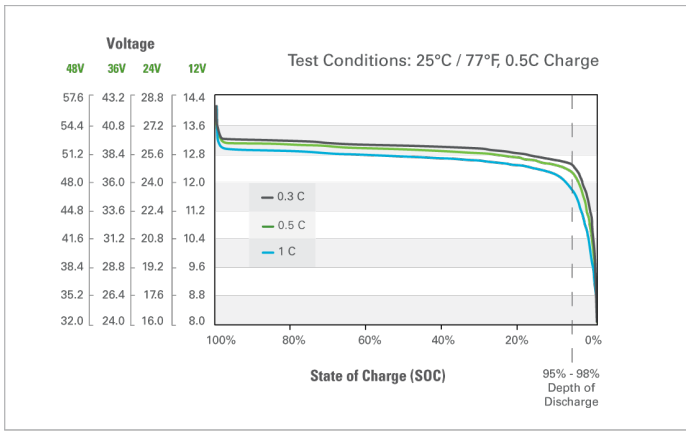
## Fast Charging at .5C (2HR) to 1C (1HR)



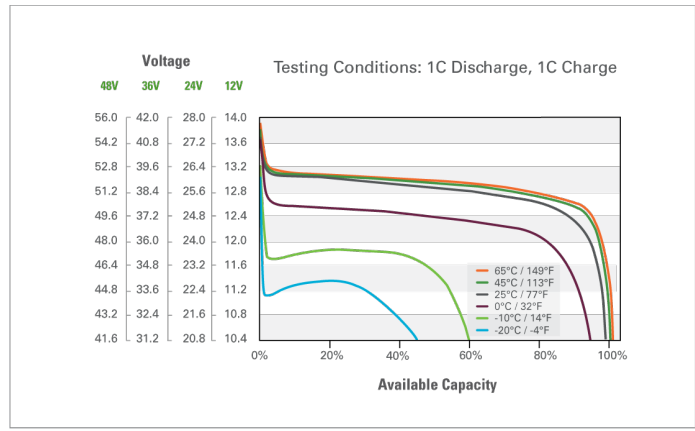
## Standard to Low Rate Charging at .2C (5HR) to .5C (2HR)



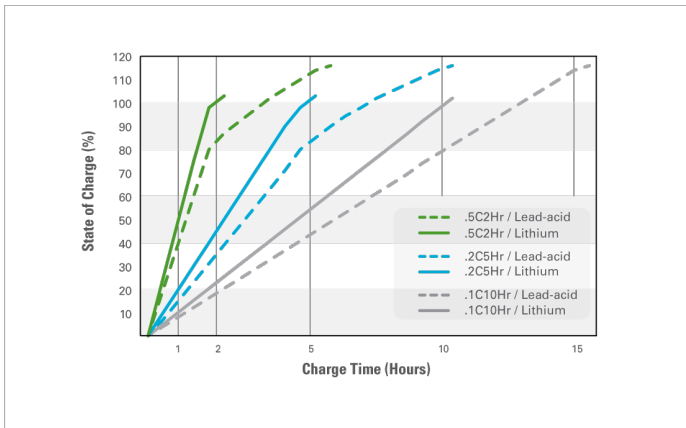
## Voltage in Relation to Rate of Discharge



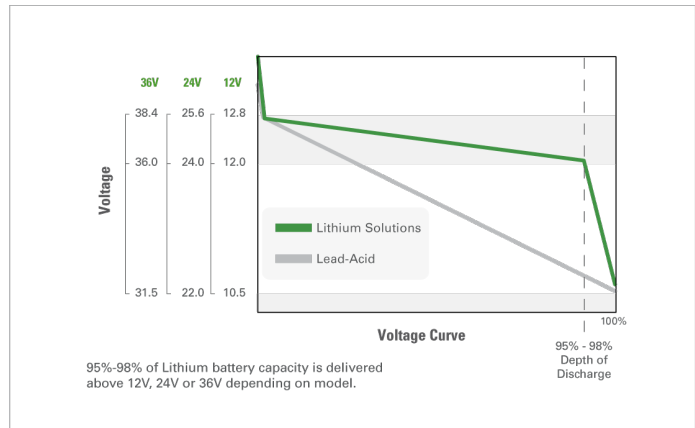
## Discharge Voltage and Capacity vs. Temperature



## Charge Performance (Lithium vs. Lead)



## Discharge Performance (Lithium vs. Lead)



**CAUTION:** Direct connection to DC motors without proper safety protection, motor controllers, and external motor voltage clamping systems (such as high power anti-parallel diodes or braking resistor systems) may result in damage to the internal pack protection system which may result in unsafe situations. Please consult Discover technical support before directly connecting any motorloads.

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