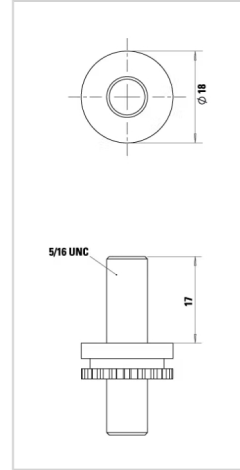
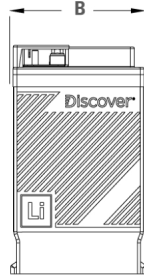
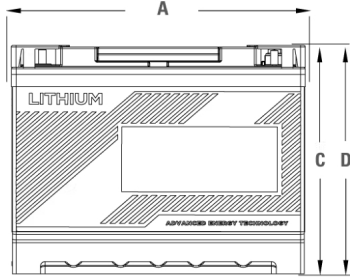


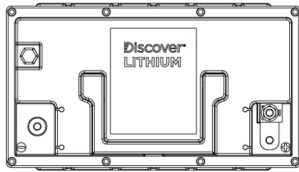


**LITHIUM BLUE Battery**

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.



TERMINAL



**MECHANICAL SPECIFICATIONS**

Industry Reference	BCI: GC12 DIN: Tall H7	
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)	44.1	20.0
Terminal*	ST 5/16	
Cell(s)	Prismatic 8S1P	
Case Material	UL94-V0 PBT/PC	
IP Rating	67	
Electrolyte	LiFePO <sub>4</sub>	

\*TERMINAL TORQUE: 8 to 10 Nm (5.9 to 7.4 ft-lb). DO NOT EXCEED 10 Nm (7.4 ft-lb)

**ELECTRICAL SPECIFICATIONS**

Open Circuit Voltage (V)	25.6
Charge Voltage (Bulk Vdc)	27.6 - 28.4
Max Absorption Voltage (U1 Vdc)	27.6
Float Voltage (U2 Vdc)	27.2
BMS Max. Voltage protection (Vdc)	29.2 (Approximately)
Suggested Low Voltage Cutoff (Vdc) *	24
BMS Min. Voltage protection (Vdc)	20.0 (Approximately)
Max. Continuous Charge Current (I Max. Adc)	100
Min. Finishing Charge Current (I Min. Adc)	2%-3% C1 / Min. 200ma
Max Continuous Discharge Current (Adc)	100
Max. Peak Current (Adc)	250 A RMS (2 sec)
Self Discharge (25°C / 77°F)	< 3% per month
Charge Temperature	Min: 0°C (32°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.

**CAUTION:** Extra considerations must be given to depths of discharge, operating voltages and currents when designing systems for use at maximum operating temperatures.

**CAUTION:** Do not exceed maximum voltage at the battery terminals (Bulk Vdc)

\*NOTE: 98% of battery capacity is delivered above 3Vpc (12V, 24V, 36V and 48V models)

**PERFORMANCE SPECIFICATIONS**

Nominal Energy (kWh)	2.56
Useable DoD	100%
Rated Wh Capacity (1C)	2560
Rated Ah Capacity (1C)	100

Minutes of Discharge				
@25A	@56A	@75A	@85A	@100A
240	107	80	70	60

**FEATURES**

**BLUETOOTH APP**

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

**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.

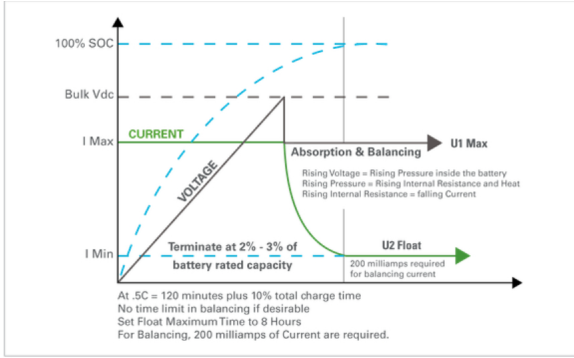
**CERTIFICATION STANDARDS**

- CE
- UN 38.3

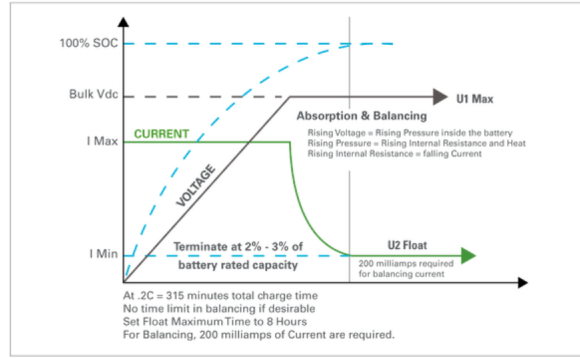
**SHIPPING CLASSIFICATION**

- UN 3480, Class 9 (Lithium batteries)

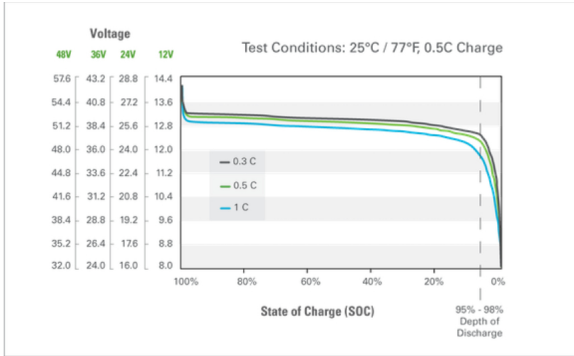
### Fast Charging at .5C (2HR) to 1C (1HR)



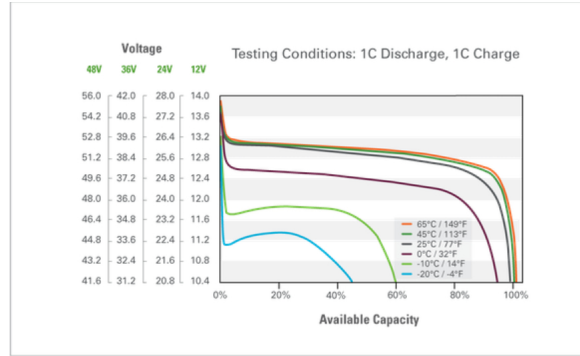
### Standard to Low Rate Charging at .2C (5HR) to .5C (2HR)



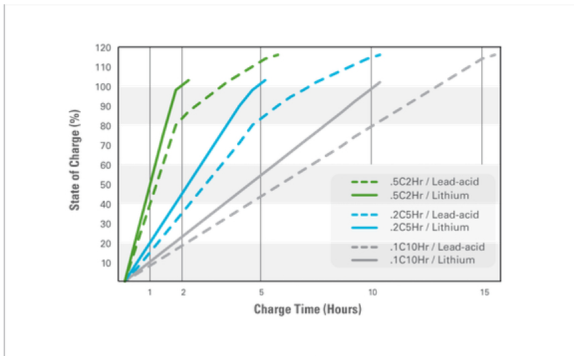
### Voltage in Relation to Rate of Discharge



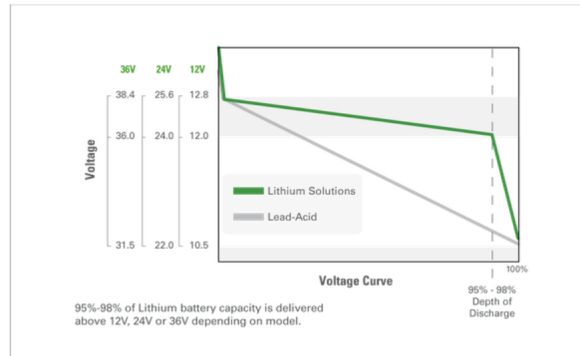
### Discharge Voltage and Capacity vs. Temperature



### Charge Performance (Lithium vs. Lead)



### Discharge Performance (Lithium vs. Lead)



## NOTES

**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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