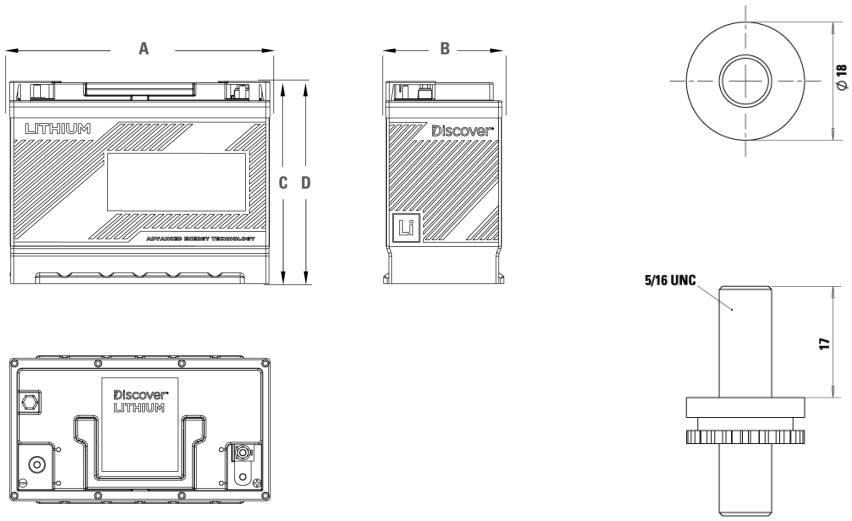
Discover®
Innovative Battery Solutions

DLB-GC12-12V

Printed: 15/07/2024

LITHIUM BLUE Battery

Discover®LITHIUM BLUE LiFePO$_4$ 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)	44.1	20.0
Terminal *	ST 5/16	
Cell(s)	Prismatic 4S2P	
Case Material	UL94-VO PBT/PC	
IP Rating	67	
Electrolyte	LiFePO4	

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 (Approximately)
Suggested Low Voltage Cutoff (Vdc) *	12
BMS Min. Voltage protection (Vdc)	10.0 (Approximately)
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 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.
* 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
Usable DoD	100%
Rated Wh Capacity (1C)	2560
Rated Ah Capacity (1C)	200

Minutes of Discharge				
@25A	@56A	@75A	@85A	@100A
480	214	160	141	120

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$_4$ 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.

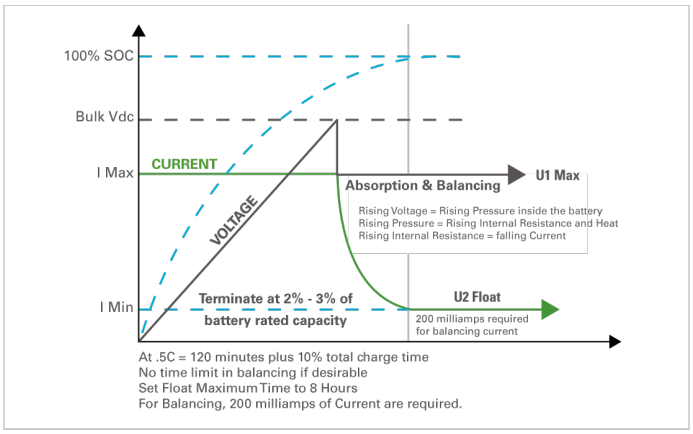
CERTIFICATION STANDARDS

- CE
- UN 38.3

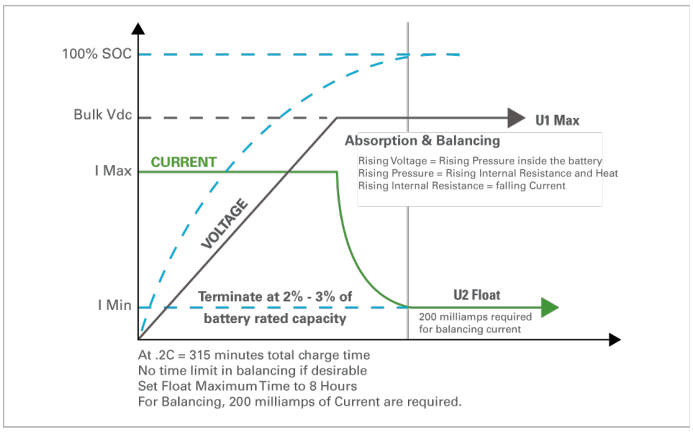
SHIPPING CLASSIFICATION

- UN 3480, Class 9 (Lithium batteries)

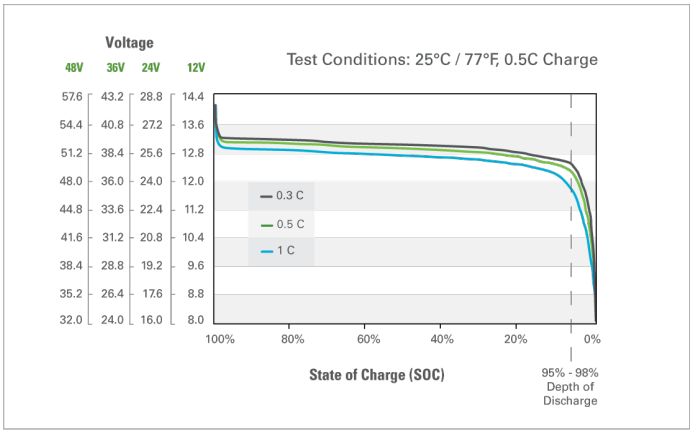
Fast Charging at .5C (2HR) to 1C (1HR)



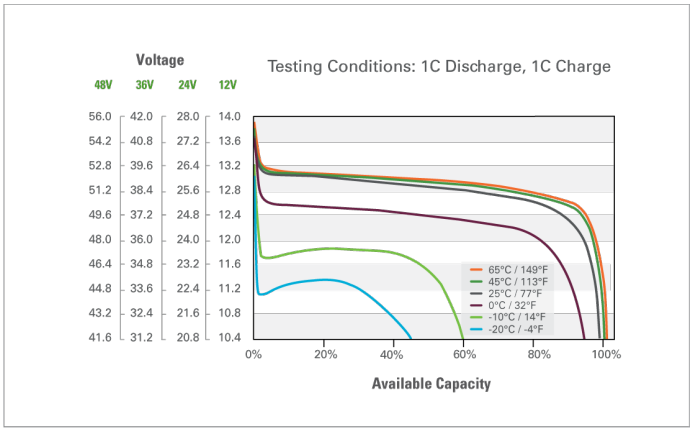
Standard to Low Rate Charging at .2C (5HR) to .5C (2HR)



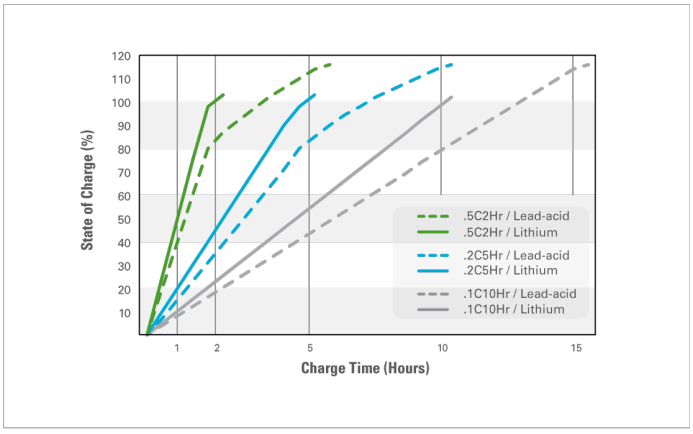
Voltage in Relation to Rate of Discharge



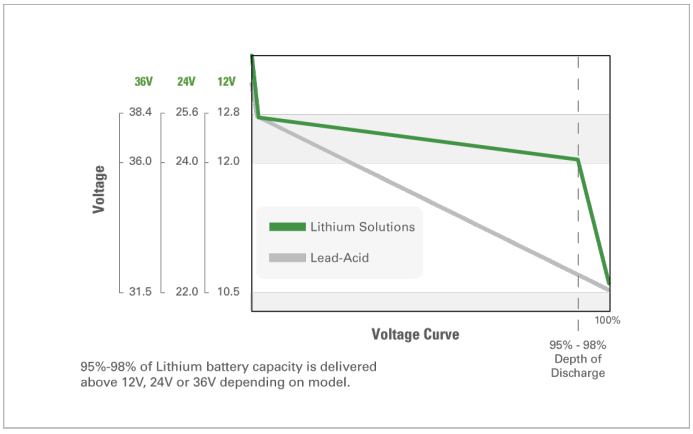
Discharge Voltage and Capacity vs. Temperature



Charge Performance (Lithium vs. Lead)



Discharge Performance (Lithium vs. Lead)



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.