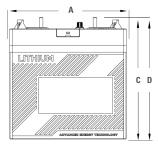
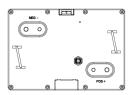




LITHIUM PROFESSIONAL Battery

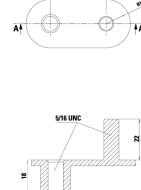
Discover® AES PROFESSIONAL LiFePO₄ battery models are purpose built to replace and fit the standard groupings of BCI 6V, 8V and 12V (GC) batteries. AES PROFESSIONAL batteries incorporate a proprietary high-current BMS that delivers superior peak power along with lightning fast 1C continuous charge and discharge rates, plus they feature COLD CHARGE functionality allowing for cold temperature charging to begin from -20°C / -4°F. Independently tested to the highest safety, performance and transportation standards, a single battery will do the work of many lead-acid batteries and unlike lead-acid batteries can be continuously operated in a Partial State of Charge (PSOC) without degrading performance.





Discover

в



SECTION AN

ELECTRICAL SPECIFICATIONS

Open Circuit Voltage (V)	51.2		
Charge Voltage (Bulk Vdc)	55.2 - 56.8		
Max Absorption Voltage (U1 Vdc)	55.2		
Float Voltage (U2 Vdc)	53.6		
BMS Max. Voltage protection (Vdc)	58.4 (Approximately)		
Suggested Low Voltage Cutoff (Vdc)	48.0		
BMS Min. Voltage protection (Vdc)	40.0 (Approximately)		
Max. Continuous Charge Current (I Max. Adc)	29		
Min. Finishing Charge Current (I Min. Adc)	2%-3% C1 / Min. 200ma		
Max Continuous Discharge Current (Adc)	58		
Max Peak Current (Adc)	90 A RMS (3 sec)		
Self-Discharge (25°C / 77°F)	< 3% per month		
Charge Temperature	Min: -20°C (-4°F) Max: 45°C (113°F)		
Discharge Temperature	Min: -20°C (-4°F) Max: 55°C (131°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.

FEATURES

LYNK PORT

- Connects battery string to LYNK Gateway
- Plug and Play Multi-battery BMS communication
 J1939 Protocol
- Remote ON / OFF Capable

HIGH-PERFORMANCE BMS

- Up to 3C peak power for inverters and motor controllers
- Discharge current up to 2C
- Continuous charge current up to 1C
- Sets voltage, broadcasts, SoC and temperature
 External field replaceable fuse protection
- COLD CHARGING

Integrated self-heating

- STATUS VIEW
 - ON / OFF multi-color status LED

ACCESSORIES

LYNK II GATEWAY

- · Closed-loop communications with chargers and motor controllers
- CAN Open / Serial CAN
- Programmable relays for LVCO, Load Shedding
 SD Memory
- Download Battery Data

LYNK LITE GATEWAY

- Closed-loop communications with chargers and motor controllers
- CAN Open / Serial CAN
- Download Battery Data
- IP 65

BATTERY DISCHARGE INDICATOR

At-a-glance SoC display

BENEFITS

RUNS LONGER

- · 2x the high-current runtime of lead-acid battery
- Up to 100% usable capacityEasy to parallel more capacity
- Easy to paraller more supusi

LASTS LONGER

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

CHARGES FASTER

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

SURGE POWER

- High 3C Peak PowerDischarge Current up to 2C
- 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

RELIABLE AND SAFE

- LiFePO₄ is safe
- Maintenance-free
- UL94-5VA 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

- IEC 62619
- UL 2271
- CE • UN 38.3

SHIPPING CLASSIFICATION

UN 3480, Class 9 (Lithium batteries)

MECHANICAL SPECIFICATIONS

Industry Reference	BCI: GC2			
Length A (in/mm)	10.2	260		
Width B (in/mm)	7.1	180		
Height C (in/mm)	10.0	254		
Total Height D (in/mm)	10.8	275		
Weight (lbs/kgs)	30.7	14.0		
Terminal *	BM 5/16			
Cell(s)	Prismatic 16S1P			
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.

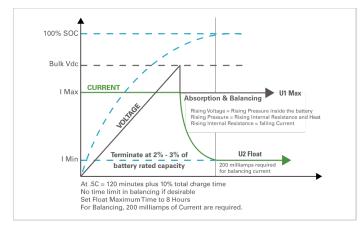
DLP-GC2-48V

Printed: 04/11/2023

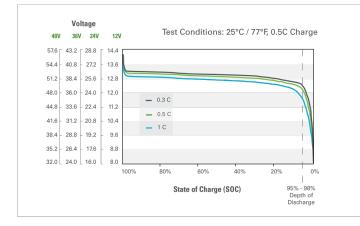
PERFORMANCE SPECIFICATIONS

Nominal Energy (kWh)	1.54	Minutes of Discharge					
Usable DoD	100%	@25A	@56A	@75A	@85A	@100A	
Rated Wh Capacity (1C)	1536	72	32	24	21	18	
Rated Ah Capacity (1C)	30						

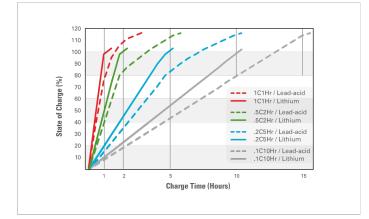
Fast Charging at .5C (2HR) to 1C (1HR)



Voltage in Relation to Rate of Discharge



Charge Performance (Lithium vs. Lead)

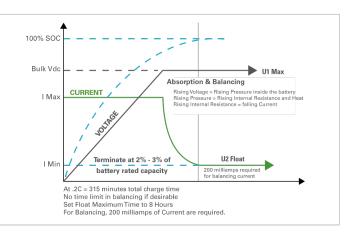


NOTES

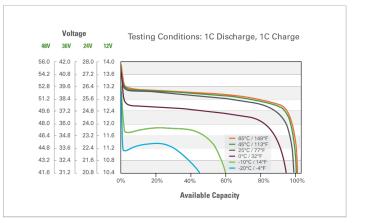
CAUTION: Direct connection to DC motors without proper safety protection, motor controllers, and external motor voltage clamping systems (such as high power anti-parallel diodes or braking resistor systems) may result in damage to the internal pack protection system which may result in unsafe situations.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

Discover® reserves the right to make adjustments to this publication at any time, without notice or obligation. Data in this publication are for reference use only and models may vary from shown. It is the responsibility of the reader of this information to verify any and all information presented herein. For more information contact us at info@discoverbattery.com

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



Discharge Voltage and Capacity vs. Temperature



Discharge Performance (Lithium vs. Lead)

