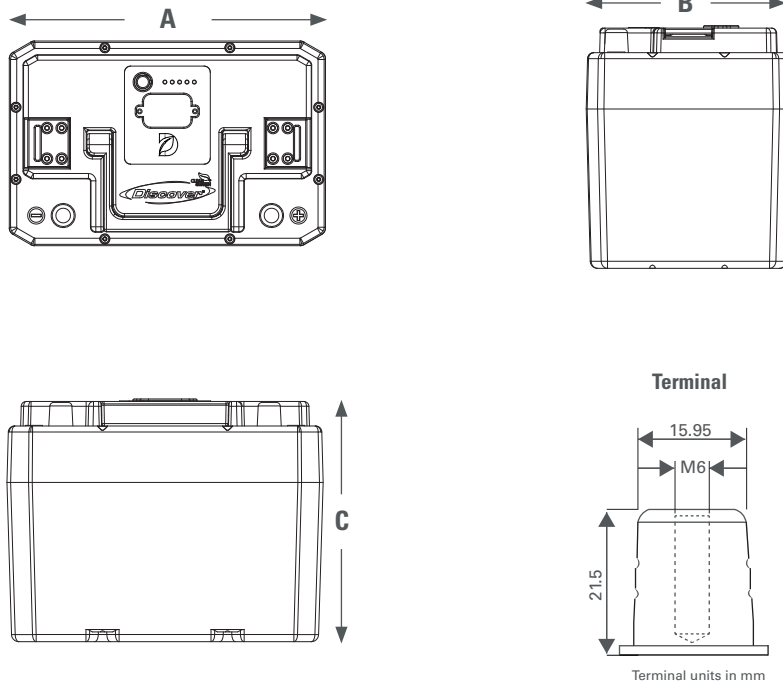


Lithium-ion Battery

Discover Advanced Energy allows for equipment design and functionality improvements and deliver productivity gains through enhanced cycling, charge time and weight reductions in stationary and mobile applications. Dramatic improvements in cycle life and charge efficiency combined with zero maintenance requirements provide the end user with significant cost of ownership savings.

MECHANICAL DRAWINGS



MECHANICAL SPECIFICATIONS

Length (A)	258 mm	10.2 in
Width (B)	167 mm	6.6 in
Height (C)	198 mm	7.8 in
Weight	12.4 kg	27.3 lb
Terminal	A2-M6	
Terminal Torque	7.0 - 7.7 Nm	5.1 - 5.7 ft-lb
Case Material	PC-ABS UL 94 V0 Compliant	
IP Rating	IP 55	

ELECTRICAL SPECIFICATIONS

Nominal Voltage	25.6 V
Charge Voltage	27.2 V
Maximum Voltage*	29.6 V
Minimum Voltage	22.4 V
Nominal Capacity (1C)	40 Ah
Nominal Energy (1C)	1024 Wh
Max Continuous Current	40 A
Peak Current	< 200 A for 5 s

Electrical Specifications at 25°C.
* Do not exceed 40V at the battery terminals.

ELECTRICAL SPECIFICATIONS

Cell Chemistry	LiFePO ₄	
Cell Modules	8S 8P	
Charge Temperature	0°C / 45°C	32°F / 113°F
Discharge Temperature	-20°C / 50°C	-4°F / 122°F
Storage Temperature	-20°C / 45°C	-4°F / 113°F
Self-Discharge 25°C / 77°F	3% per month (battery off)	

Constant Power - Minutes of Discharge			
300 W	500 W	800 W	1000 W
205	123	77	61
Constant Current - Minutes of Discharge			
@5A	@10A	@25A	@40A
480	240	96	60

BENEFITS & FEATURES

Efficient & Fast Charging

Charge efficiency > 95% at high charge rates. Increases productivity, reduces energy costs and eliminates the need for investments in battery change out systems.

Efficient and Stable Discharge

Delivers > 95% of capacity at high uniform and stable voltages during discharge. Increases equipment performance and reduces motor fatigue.

Robust Safety

Multiple levels of protection prevent operation outside of current, voltage, and temperature limits. Independently certified and tested

Weight Efficient

Systems provide > 3 times the energy per weight of high quality lead acid.

Environmentally Safe

Does not contain toxic metals such as cobalt, lead, cadmium, nor any corrosive acids or alkalis.

100% Recyclable

End of Life recovery and licensed recycling through Discover's factory warehouse network.

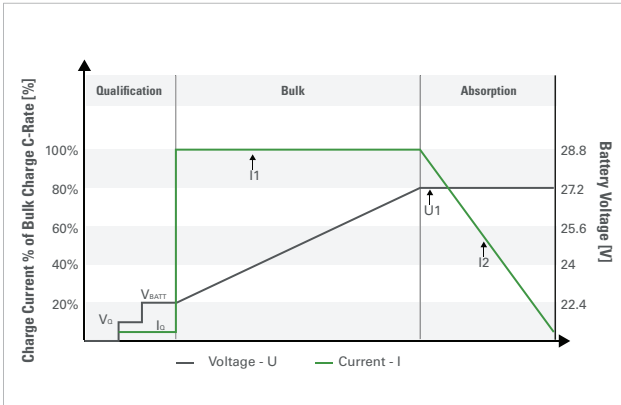
SAFETY AND PERFORMANCE CERTIFIED

- IEC 62133 (pending)
- UL 2271 (pending)
- UN 38.3

Shipping Classification

- UN 3480, Class 9 (rechargeable Li-ion battery)

VOLTAGE REGULATED IU CURVE

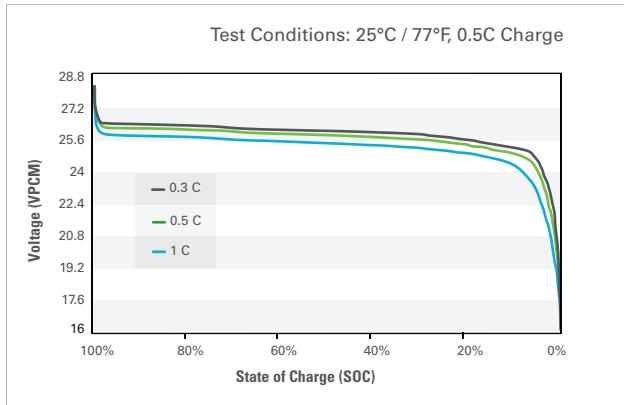


VOLTAGE REGULATED IU CHARGING CURVE PARAMETERS

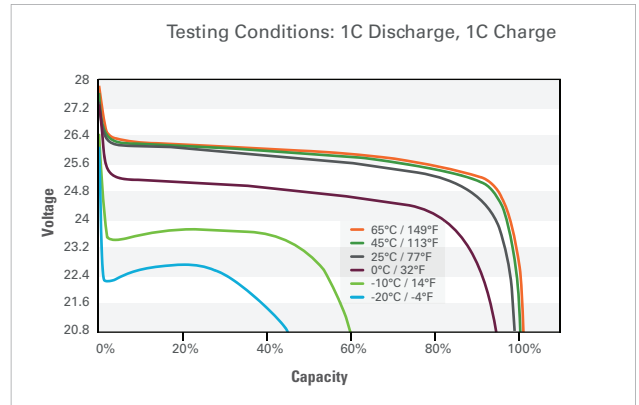
Nominal Voltage	24 V
Qualification Voltage (V_0^*)	Min 12 V / Max 24 V ($I_0 < 1 A$)
Battery Voltage (V_{BATT})	$\geq 20 V$
Bulk Current (I_1)	20 A recommended 40 A maximum
Absorption Voltage (U_1)	27.2 V
Termination Charge Current	$I_2 \leq 2 A$

*Qualification is optional to utilize auto-on feature

VOLTAGE IN RELATION TO THE STATE OF CHARGE (SOC)



DISCHARGE VOLTAGE IN RELATION TO THE TEMPERATURE



THERMAL DERATING CURVE (CURRENT)

