

Item	Specification	Description/Remark
Model	AT-LFP-12-100-BT-BV13	12V 100Ah / 200A Continuous Discharge Lithium LiFePO4 battery with Bluetooth Connectivity
Chemistry	Lithium Iron Phosphate (LiFePO4)	
Battery dimensions	L-260mm x W-168mm x H-209mm	
Weight	11kg	
Cell type	3.2V 100Ah	Prismatic
Battery module	4 pcs 3.2V 102Ah cells, 4 serial	
Casing material for single cell	Aluminium	
Standard capacity (0.2C5A)	100 Ah / 1280Wh	
Cycle life	> 4000 cycles at 100% Depth of Discharge (DoD)	Under normal usage where the DOD is <80%, cycle life is expected to be up to 5000 cycles
Rated voltage	12.8V	Working voltage per cell: 3.2V
Charge voltage	14.2 – 14.6V	Max. charge voltage per cell: 3.65V
Cut-off voltage	2.5V for lowest cell, nominal 10V	Cut-off is triggered when the first cell reaches 2.50V
Depth of discharge (DoD)	100%	Batteries can be discharged to 100% of the rated capacity
Standard charge current	20A	0.2C
Charging time	Approximately 5 hours	When charging from low voltage cut-off point
Optimum charge current range	20A (0.2C) to 50A (0.5C)	Cell max voltage < 3.65V
Rapid charging	Max. charge current 100A (1C3A)	Temperature increase falling within 15°C is normal. Over 15°C will affect the service life of the cells.
Max continuous discharge current	200A	1.75C, cell min voltage> 2.0v
Peak discharge current	400A	3.2C (3 seconds)
Discharge performance in normal temperature	20A (0.2C3A) ≥ 100% 1C3A ≥90%	
Operating temperatures	Charge 0°C~55°C (Ambient) Discharge -20°C~60°C (Ambient) Storage -20°C ~ 40°C	
Impedance (Max, at 1000Hz.)	≤ 20mΩ	
Storage performance	Capacity can be kept ≥ 80% in storage for 12months	Battery should be kept at -20°C ~ 45°C where it's dry, clean and well-ventilated.
Communication	Bluetooth	
Connecting Terminals Pos (+) & Neg (-)	M8	
IP Rating (Ingress Protection)	IP65	Protected from total dust ingress & protected from low pressure water jets from any direction

Heavy Duty - Built-in Battery Protection System

AMPTRON® lithium batteries have a built-in Battery Protection System (BPS) designed to prevent damage to the cells from most external accidental occurrence that would normally cause damage. The internal BPS will automatically disconnect to prevent damage to the cells, and will automatically reconnect when the conditions return to normal range. This technology also performs internal cell balancing to prevent any cells developing potentially damaging imbalances when charging.

Internal Features:

- Low Voltage Protection Switch - Automatically disconnects at 10V
- Over Voltage Protection Switch - Automatically disconnects at 14.6V
- Short Circuit Protection Switch - Automatically disconnects
- Internal cell balancing - The BPS balances the cells by sending more current through the length way circuit boards and into cells with a lower voltage. The BPS will also discharge cells that exceed 3.65V during charging.

