

Item	Specification	Description/Remark
Model	AT-LFP-12-50-V03	12V 50Ah / 70A LiFePO4 battery
Chemistry	Lithium Iron Phosphate (LiFePO ₄)	
Dimensions	196 x 166 x 175mm	L x W x H
Weight	7kg	
Warranty	4 year warranty	
IP Rating	IP65	
Standard capacity (0.2C5A)	50Ah / 640Wh	
Cycle life	> 2000 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	Voltage per cell: 3.2V
Max charge voltage	14.4±0.1V	Max. charge voltage per cell: 3.65V
Cut-off voltage	~10V	Battery cells are disconnected once the lowest cell reaches 2.50V
Depth of Discharge (DoD)	100%	Batteries can be discharged to 100% of the rated capacity
Standard charge current	10A (0.2C5A)	Max. charge current 50A (1C3A)
Max continuous discharge current	22A	1C
Peak discharge current	70A	1.4C, cell min voltage >2.0v
Discharge performance in normal temperature	Discharge capacity /standard capacity×100% 0.2C3A ≥ 100% 1C3A ≥90%	
Operating temperatures	Standard 0°C~45°C Discharge -20°C~65°C Storage -20°C~45°C	
Impedance (Max, at 1000Hz.)	≤ 45mΩ	
Storage performance	Capacity can be kept ≥ 80% in storage for 12months	Battery should be kept at -20°C~65°C in a dry, clean and well-ventilated location

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.

