

Item	Specification	Description/Remark
Model	AT-LFP-48-50BV01	48V 50Ah / 70A cont discharge LiFePO4 Battery
Chemistry	Lithium Iron Phosphate (LiFePO4)	
Battery dimensions	L490mm x W171mm x H240mm	L x W x H
Weight	24kg	
Cell type	3.2V 50Ah	Prismatic cells
Battery module	16 pcs 3.2V 50Ah cells, 1 parallel and 16 serial	
Casing material for single cell	Aluminium	
Standard capacity (0.2C5A)	51.2V 50Ah / 2560Wh	
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	51.2V	Working voltage per cell: 3.2V
Charge voltage	57.6V	Max. charge voltage per cell: 3.6V
Cut-off voltage	40-44.8V	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
Optimum charge current	10A	0.2C
Charging time	Approximately 5 hours	When charging from low voltage cut-off point
Rapid charging	Max. charge current 50A (1C)	Temperature increase falling within 15°C is normal. Over 15°C will affect the service life of the cells.
Max continuous discharge current	70A	1.4C
Peak discharge current	140A	2.8C for 5 seconds
Discharge performance in normal temperature	10A (0.2C3A) ≥ 100% 50A (1C3A) ≥ 90%	
Operating temperatures	Standard 0°C~45°C Discharge -20°C~65°C Storage -20°C~45°C	
Impedance (Max, at 1000Hz.)	≤ 15mΩ	
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.
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.