A1 Batterypro
The Big Blue Buildings
Mackay & Townsville

Mackay: (07) 4957 6123
Townsville: (07) 4774 7344
Email: orders@a1batterypro.com.au

| Item | 12V 100Ah $LiFePO_4$ battery | 12V 50Ah $LiFePO_4$ battery |
|---|---|---|
| **Model** | AT-LFP-12-100-V02 | AT-LFP-12-50-V01 |
| **Chemistry** | Lithium Iron Phosphate ($LiFePO_4$) | Lithium Iron Phosphate ($LiFePO_4$) |
| **Battery dimensions** | 330 x 172 x 215mm | 240 x 135 x 225mm |
| **Weight** | 13kg | 7kg |
| **Cell type** | LISHEN 3.2V 35Ah | LISHEN 3.2V 35Ah |
| **Battery module** | 12 pcs 3.2V 35Ah cells, 3 parallel and 4 serial | 8 pcs 3.2V 25Ah cells, 2 parallel and 4 serial |
| **Casing material for single cell** | Nickel plated steel | Nickel plated steel |
| **Standard capacity (0.2C5A)** | 100Ah / 1280Wh | 50 Ah / 640Wh |
| **Cycle life** | > 2000 cycles at 100% Depth of Discharge (DoD), up to 5000 cycles at 80% DoD | > 2000 cycles at 100% Depth of Discharge (DoD), up to 5000 cycles at 80% DoD |
| **Rated voltage** | 12.8V (Working voltage per cell: 3.2V) | 12.8V (Working voltage per cell: 3.2V) |
| **Charge voltage** | 14.4 - 14.6V (Max. per cell: 3.65V) | 14.4 - 14.6V (Max. per cell: 3.65V) |
| **Cut-off voltage** | 10V (Discharge voltage per cell: 2.50V) | 10V (Discharge voltage per cell: 2.50V) |
| **Depth of Discharge (DoD)** | 100% | 100% |
| **Standard charge current** | 50A (0.5C) | 25A (0.5C) |
| **Charging time** | Approximately 5 hours (from low voltage cutoff) | Approximately 2 hours (from low voltage cutoff) |
| **Optimum charge current range** | 20A (0.2C5A) to 100A (1C3A) | 10A (0.2C5A) to 50A (1C3A) |
| **Rapid charging** | Max. charge current 100A (1C3A) (Max Temperature increase within 15°C) | Max. charge current 50A (1C3A) (Max Temperature increase within 15°C) |
| **Max continuous discharge current** | 100A (1C, cell min voltage> 2.0v) | 50A (1C, cell min voltage> 2.0v) |
| **Peak discharge current** | 200A (2C for 5 seconds) | 100A (2C for 5 seconds) |
| **Discharge performance in normal temperature** | 20A (0.2C3A) ≥ 100%; 1C3A ≥90 % | 10A (0.2C3A) ≥ 100%; 1C3A ≥90 % |
| **Operating temperatures** | Standard 0℃~45℃<br>Discharge -20℃~65℃<br>Storage -20℃~45℃ | Standard 0℃~45℃<br>Discharge -20℃~65℃<br>Storage -20℃~45℃ |
| **Impedance (Max, at 1000Hz.)** | ≤ 45mΩ | ≤ 45mΩ |
| **Storage performance** | Capacity can be kept ≥ 80% in storage for 12months | Capacity can be kept ≥ 80% in storage for 12months |

## 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.