

# LiFePO<sub>4</sub> 24V 50Ah Battery Specifications

| Item                                        | Specification                                                                               | Description/Remark                                                                                       |
|---------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Model                                       | AT-LFP-24-50AV01                                                                            | 24V 50Ah LiFePO <sub>4</sub> battery                                                                     |
| Chemistry                                   | Lithium Iron Phosphate (LiFePO <sub>4</sub> )                                               |                                                                                                          |
| Battery dimensions                          | 328mm x 171mm x 215mm                                                                       | L x W x H                                                                                                |
| Weight                                      | 13.5kg                                                                                      |                                                                                                          |
| Cell type                                   | 3.2V 50Ah                                                                                   |                                                                                                          |
| Battery module                              | 8 pcs 3.2V 50Ah cells, 1 parallel and 8 serial                                              |                                                                                                          |
| Casing material for single cell             | Nickel plated steel                                                                         |                                                                                                          |
| Standard capacity ( 0.2C5A)                 | 50Ah / 1280Wh                                                                               |                                                                                                          |
| Cycle life                                  | > 2000 cycles at 100% Depth of Discharge (DoD) with the battery capacity retention is ≥ 80% | Under normal usage where the DOD is <80%, cycle life is expected to be up to 5000 cycles                 |
| Rated voltage                               | 25.6V                                                                                       | Working voltage per cell: 3.2V                                                                           |
| Max charge voltage                          | 29.2V                                                                                       | Max. charge voltage per cell: 3.65V                                                                      |
| Cut-off voltage                             | Nominal 20V                                                                                 | 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                     | 25A                                                                                         | 0.5C                                                                                                     |
| Rapid charging                              | Max. charge current 50A (1C <sub>3</sub> A)                                                 | 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 (3 seconds)                                                                                         |
| Discharge performance in normal temperature | 10A (0.2C <sub>3</sub> A) ≥ 100%<br>50A (1C <sub>3</sub> A) ≥ 90%                           |                                                                                                          |
| Operating temperatures                      | Standard 0°C ~ 45°C<br>Discharge -20°C ~ 65°C<br>Storage -20°C ~ 45°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.                        |