

# Residential Li-ion Battery

## TU-4850ESS



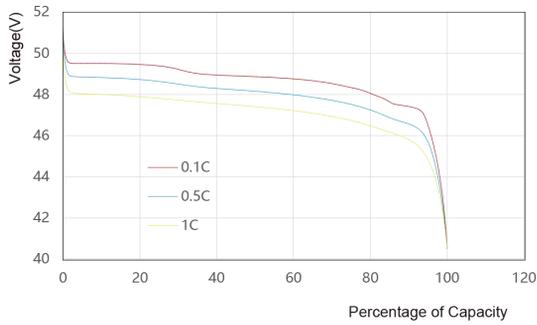
TU-4850ESS is a powerful 48V LiFePO4 battery system designed specially to provide power backup for off-grid, on-grid and residential energy storage applications. Its modular design allows parallel installation to meet the greater demand for power backup.

-  Ultra long cycle life
-  Compatible with a variety of inverters
-  High energy density
-  Easy to install and upgrade
-  High operational reliability
-  Optimizing monitoring strategy via remote control/diagnostics
-  Built-in intelligent battery management system protects the battery pack and prolongs its service life

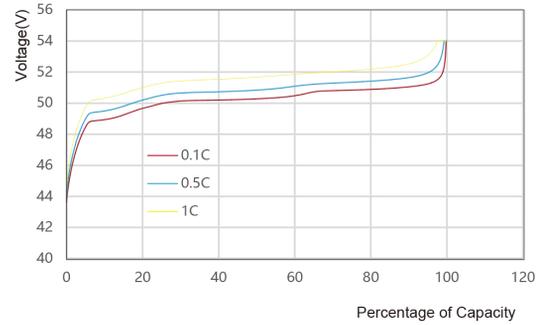
### Discharge Data

| Constant Current Discharge Data (25°C) |        |       |       |       |       |       |       |       |       |       |
|--|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Current/A<br>Voltage/V \ Time/h        | 0.1C   | 0.2C  | 0.3C  | 0.4C  | 0.5C  | 0.6C  | 0.7C  | 0.8C  | 0.9C  | 1.0C  |
| 45.0                                   | 9.560  | 4.902 | 3.283 | 2.442 | 1.943 | 1.601 | 1.369 | 1.191 | 1.050 | 0.950 |
| 43.5                                   | 10.017 | 4.993 | 3.339 | 2.475 | 1.978 | 1.634 | 1.399 | 1.210 | 1.080 | 0.970 |
| 42.0                                   | 10.094 | 5.041 | 3.374 | 2.517 | 2.008 | 1.654 | 1.409 | 1.232 | 1.090 | 0.980 |
| 40.5                                   | 10.201 | 5.090 | 3.390 | 2.533 | 2.021 | 1.674 | 1.420 | 1.240 | 1.099 | 0.989 |

## Performance Curve



Discharging Curves at Different Rates (25°C)



Charging Curves at Different Rates (25°C)

## Specification

|                            |                     |
|----------------------------|---------------------|
| Nominal Voltage            | 51.2V(16S1P Module) |
| Nominal Capacity           | 50Ah                |
| Continuous Discharge Power | 2560W               |
| Cycle Life                 | ≥6000 Cycles        |
| Monthly Self-discharge     | ≤3.0%               |
| Communication Interface    | RS485/CAN           |
| Charge Voltage             | 57.6V               |
| Max. Charge Current        | 50A                 |
| Max. Continuous Current    | 50A                 |
| Discharge Cut-off Voltage  | 43.2V               |
| Charge Temperature         | 0°C ~ 55°C          |
| Discharge Temperature      | -20°C ~ 60°C ≤95%   |
| Storage Temperature        | 0°C ~ 40°C ≤85%     |
| Dimensions                 | 440*440*133mm       |
| Weight                     | 27Kg ± 1Kg          |



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