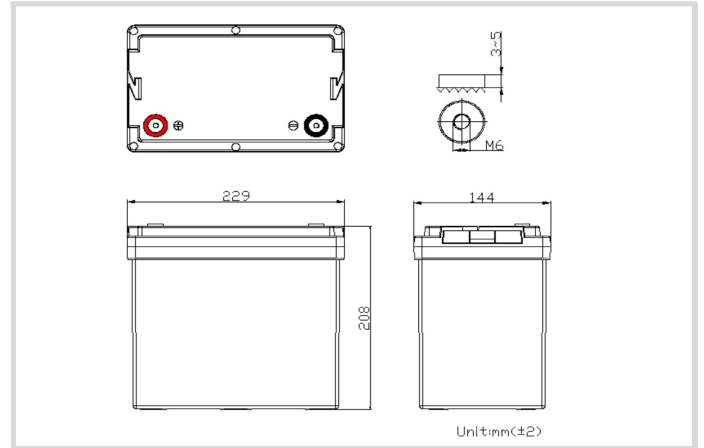


# LFP12-50EV (12.8V50Ah)

Suomen Akut LiFePO4 lithium batteries are able to provide you superior performance, durable life cycle, high safety and long lasting reliability under different situations. Suomen Akut insists on using state-of-art of high quality lithium cell and advanced BMS technology, our batteries are robustly designed for wide range applications. Suomen Akut's 12V, 24V, 48V/51.2V series lithium battery, which are popularly used in industrial, residential, commercial and military fields, such as solar/wind energy storage power system, home ESS, telecommunication site, UPS/Data Center backup power, electric vehicle, golf cart, floor machines, forklifts, robotics, marine, RV, medical equipment etc.



## BATTERY SPECIFICATIONS

|                     |                                                          |
|---------------------|----------------------------------------------------------|
| Nominal Voltage     | 12.8V                                                    |
| Nominal Capacity    | 50Ah@0.5C                                                |
| Min. Capacity       | 50Ah@0.5C                                                |
| Nominal Energy      | 640Wh                                                    |
| Internal Resistance | ≤ 10mΩ                                                   |
| Cycle Life          | 3500Cycles @25A Charging/Discharging ,Until 80% Capacity |
| Self Discharge      | ≤ 2% per month at 25°C&50%SOC                            |
| Bluetooth&Heat      | Bluetooth and Heat                                       |

## Standard Charging &Discharge

|                                     |                                                                                       |
|-------------------------------------|---------------------------------------------------------------------------------------|
| Charging Voltage                    | 14.0~14.4V                                                                            |
| Charging Mode                       | CC-CV                                                                                 |
| Recommened Charging Current         | ≤ 25A                                                                                 |
| Max.Charging Current                | 50A     Continuous charging with this current may trigger BMS temperature protection. |
| Recommened Discharging Current      | 25A                                                                                   |
| Max. Continuous Discharging Current | 60A                                                                                   |
| Max.Pulse Current                   | 150(<10S)                                                                             |
| Discharging Cut-off Voltage         | 10.8                                                                                  |

## Operating Condition

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| Charge Temperature    | 0℃ to 45℃(32℉ to 113℉) @60±25% Relative Humidity   |
| Discharge Temperature | -20℃ to 60℃(-4℉ to 140℉) @60±25% Relative Humidity |
| Storage Temperature   | 0℃ to 45℃(32℉ to 113℉) @60±25% Relative Humidity   |

## Structure

|                       |                   |
|-----------------------|-------------------|
| Casing                | Plastic           |
| Dimension(L*W*H*TH)   | 229*144*208mm     |
| Weight                | Approx.    6.3Kgs |
| Terminal              | M6                |
| Water Dust Resistance | IP65              |

## Number of batteries used in series and parallel

|                                        |      |
|----------------------------------------|------|
| Maximum number of series connections   | 4PCS |
| Maximum number of parallel connections | 4PCS |

# LFP12-50EV (12.8V50Ah)

## Certifications

|                        |                    |                  |
|------------------------|--------------------|------------------|
| ■ UL(Cell)             | ■ CE(Cell/Battery) | ■ IEC62133(Cell) |
| ■ UN38.3(Cell/Battery) | ■ ROHS(Cell)       | ■ IEC62619(Cell) |

## Constant Current Discharge Data (Amperes @ 25°)

| Discharge Time          | 1h  | 2h  | 3h    | 4h    | 5h  | 10h | 20h  |
|-------------------------|-----|-----|-------|-------|-----|-----|------|
| Cut off voltage (10.8V) | 50A | 25A | 16.7A | 12.5A | 10A | 5A  | 2.5A |

## Constant Power Discharge Data (Watts @ 25°)

| Discharge Time          | 1h   | 2h   | 3h   | 4h   | 5h   | 10h   | 20h   |
|-------------------------|------|------|------|------|------|-------|-------|
| Cut off voltage (10.8V) | 620W | 314W | 211W | 159W | 128W | 64.5W | 32.3W |

## Market Application



Low-speed car



Golf cart



Light EV



Robotics



Cleaning

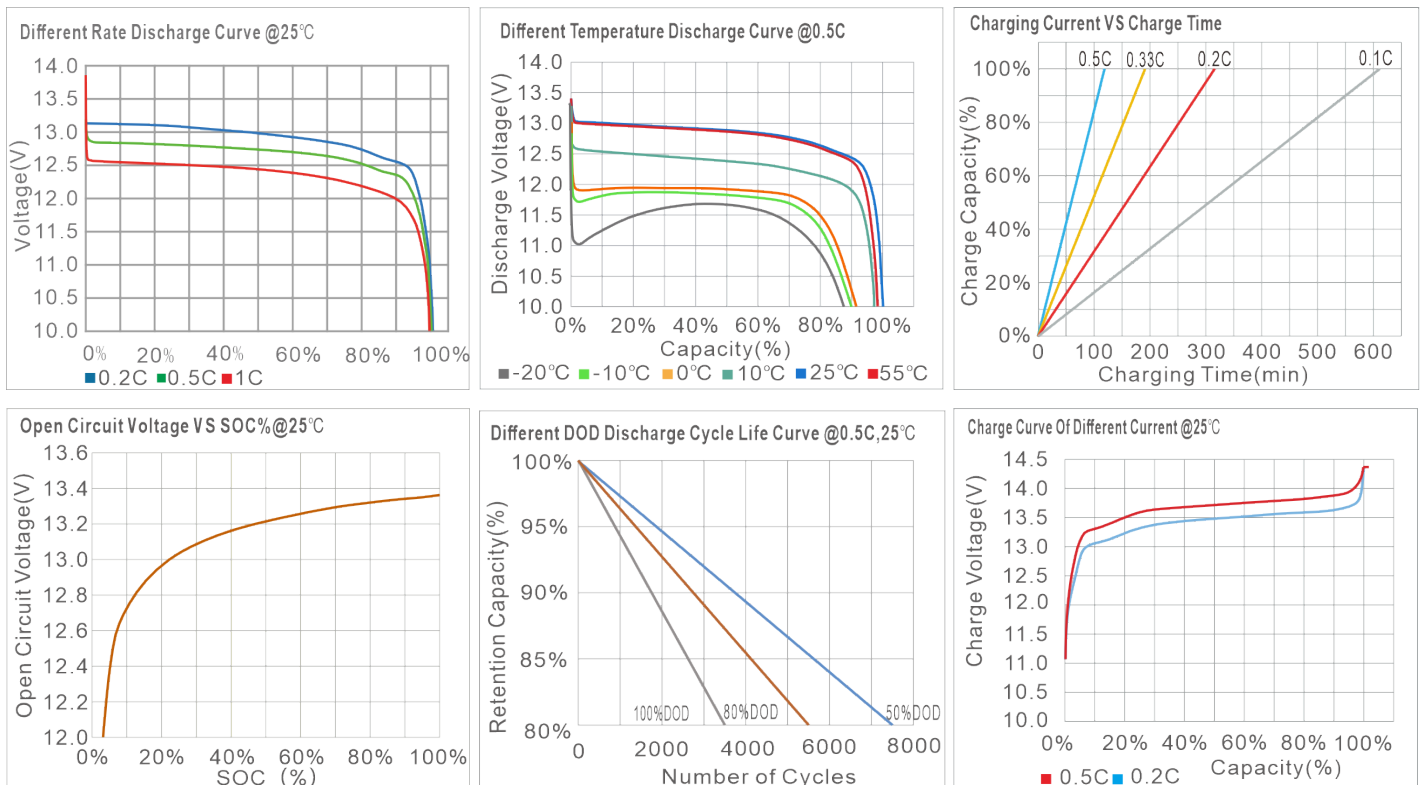


Solar & Wind



Lighting

## Battery characteristic curve



Note 1: Please always refer to the latest edition of our technical manual that published on our website to ensure safe and efficient operation.

Note 2: When make parallel connection, please full discharge batteries, then recharge after parallel connected; when series connect, please keep batteries with same remain capacity.

Note 3: Parallel connection is only for longer backup time, not for larger output power.