

- ※ Thanks for selecting the EPEVER LiFePO4 battery; please read this manual carefully before using the product.
- ※ Do not use the product in humid, salt spray, corrosion, greasy, flammable, explosive, dust accumulative, or other severe environments.
- ※ Please reserve this manual for future review.

## LiFePO<sub>4</sub> (LFP) Battery

LFP5.12KWH25.6V-P65L2GF40

### 1. Important Safety Instructions



#### Work and storage precautions:

- a) Please store the battery in a cool and dry place. Keep the battery away from corrosive, explosive, and insulating gases or conductive dust, as well as away from sources of fire, heat, and high voltage. It is forbidden to immerse the battery in water and keep children out of reach of the battery. No static electricity exists (static electricity can easily damage the battery protection circuit and cause battery damage).
- b) Fix the battery securely in a reasonable environment, and connect the connector reliably to avoid arcs and sparks caused by the contact friction.
- c) Handle the battery gently to avoid vibration, collision, and pressure shock. Otherwise, it may cause battery short circuit, resulting in high temperature and fire.
- d) Do not short-circuit the battery, and do not disassemble the battery to avoid danger.
- e) Please keep the battery in a half-charge state (40%~80% SOC is preferred). Please use non-conductive materials to wrap the battery to avoid direct contact with metal, which may cause damage to the battery.
- f) Dispose of discarded batteries safely and not put them in fire or liquid.



#### Hazard warning:

- a) It is strictly forbidden to crush, drop, collide, puncture, burn, or other destructive acts on the battery.
- b) Do not disassemble the battery. Improper disassembly may damage the battery's protection function, causing battery deformation, heating, smoking, or burning.
- c) Do not short-circuit the battery. Connecting the battery's positive and negative poles with conductive materials, storing and transporting the battery together with conductive materials are prohibited.
- d) Do not heat or burn batteries. Otherwise, it will cause the melting of battery components, loss of safety functions, or electrolyte combustion. Overheating can deform the battery, heat, smoke, or burn.



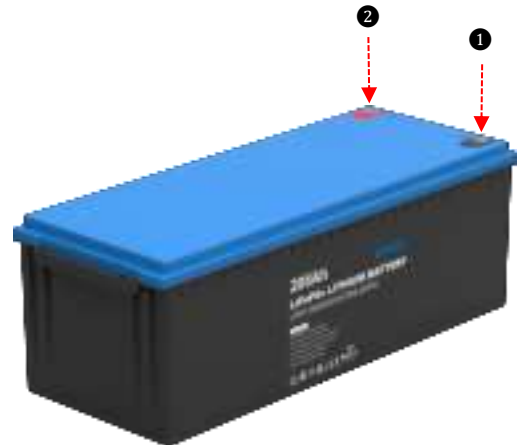
#### Emergency treatments:

- a) Avoid skin and eye contact with the electrolyte when it leaks. In case of contact, immediately wash with plenty of water and seek help from

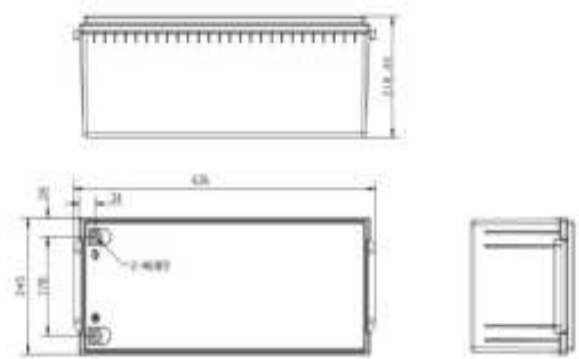
a doctor.

- b) It is forbidden for any person or animal to swallow any part of the battery or the substances contained in the battery.

### 2. Appearance



① Lithium battery negative terminal    ② Lithium battery positive terminal



### 3. Charging Operation

#### 1. General Checking.

- Check thoroughly including all the cables for showing no damages.
- Make sure the mains supply complies with the specification of the charger and the battery.

#### 2. Turn off the charger and connect it to the battery.



**WARNING: Check the battery polarity before connecting to the charger. It is forbidden to reverse connect the battery.**

#### 3. Connect the charger to mains supply and turn on the charger.

##### ● Standard charge:

Charge to 28.8V with 40A (0.2C) constant current, and then charge to 10A (0.05C) with 28.8V constant voltage cutoff.

**Note: All tests stated in this document shall be performed at 25±2°C.**

### 4. Discharging Operation

#### 1. Before discharging, ensure the load and equipment are in the off state.

#### 2. Connect the battery to the load and equipment correctly.



**WARNING: Check the battery polarity before connecting to the load and equipment. It is forbidden to reverse connect the battery.**

#### 3. Turn on the load and equipment.

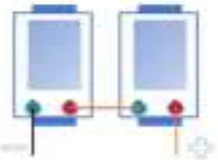
##### ● Standard discharge:

After the battery is standard charged, discharging the battery with a constant current of 40A (0.2C) till the battery voltage drops to 20.8V.

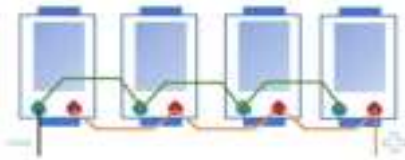
**Note: All tests stated in this document shall be performed at 25±2°C.**

## 5. Connect in series/parallel

### ● Connect in series (at most 2 pcs)



### ● Connect in parallel (at most 4 pcs)



**WARNING:** When the batteries are connected in series or parallel, measure the battery voltage with a multimeter. The battery voltage shall be consistent or the voltage difference is less than 0.2V (it is normal if there is a slight spark during the parallel connection). It is forbidden to connect the battery in series/parallel when the battery voltage exceeds this range.

## 5. Disclaimers

- Please use the LFP batteries under the product specification. It may cause fire or expansion if the batteries are used incorrect.
- We will not guarantee the performance and safety unless the batteries are used under the product specification.
- Improper use or storage of batteries resulting in poor performance is not covered by the warranty.
- When the battery cycle life meets the requirements of the specification, the battery will expire prematurely.

## 6. Xiaoxiang Electric APP

1. Xiaoxiang Electric APP is a lithium battery management APP independently developed. The APP mainly displays: lithium battery voltage, current, capacity, temperature and other curves, charge and discharge switch control, SOC, battery voltage, Charge and discharge current, protection status, basic parameters, etc., through the background permission operation, you can also set the parameters of the lithium battery protection board to make the health status of the lithium battery more transparent and ensure the safety of the use of the lithium battery. According to market feedback, the upgraded version of Xiaoxiang Electric optimizes the overall interface, adopts a modular layout, and adds more parameters and function settings, just to bring users a faster, more complete and stronger experience.



Android-client



IOS-client

2. Registering an Account:

After the Xiaoxiang Electric APP is successfully installed, open the APP, allow Bluetooth to be turned on, and obtain location information, the APP will automatic the account registration page pops up, please enter the mobile phone number as required, set the password, and click Confirm when finished.

### 3. Bind/ Unbind Device:

3.1 Binding device: When connecting to Bluetooth for the first time, the APP automatically pops up a dialog box to prompt: whether to bind this device, click OK to bind; Obtain Setting permissions requires background consent to modify parameters(After the battery is bound, other users cannot connect to the battery).

3.2 Unbind devices: Enter the My interface, select the device that needs to be unbound, and click Unbind. One account can be bound to multiple devices.

## 7. Specifications

| Model                                  | LFP5.12KWH25.6V-P65L2GF40                                                                               |
|----------------------------------------|---------------------------------------------------------------------------------------------------------|
| Battery Type                           | LiFePO <sub>4</sub>                                                                                     |
| Nominal Voltage                        | 25.6V                                                                                                   |
| Nominal Capacity                       | 205Ah                                                                                                   |
| Energy                                 | 5248Wh                                                                                                  |
| Continuous Discharge Current           | 100A                                                                                                    |
| Charge Cut-off Voltage                 | 28.8V                                                                                                   |
| Discharge Cut-off Voltage              | 20.8V                                                                                                   |
| Maximum Charge Current                 | 100A                                                                                                    |
| Maximum Discharge Current              | 200A@30min                                                                                              |
| Peak Discharge Current                 | 240A@2S                                                                                                 |
| Recommend Discharge Current            | 100A                                                                                                    |
| Work Voltage Range                     | 20.8V~28.8V                                                                                             |
| Open-circuit Voltage                   | 25.4V~26.8V                                                                                             |
| Internal Resistance                    | ≤20mΩ                                                                                                   |
| Cycle Life                             | >4000 times (0.5C charge&discharge 80%DOD @25℃)                                                         |
| Number of series/parallel              | Max 2 battery packs in series<br>Max 4 battery packs in parallel                                        |
| Certification                          | UN38.3 MSDS IEC62619 CE-RED ROHS                                                                        |
| Charge&Discharge Temperature           | Charge: 0℃~+55℃<br>Discharge: -20℃~+60℃                                                                 |
| Storage Temperature Range <sup>①</sup> | -5℃~+0℃/35℃~+45℃ (≤2 months)<br>5℃~+35℃ (≤3 months,optimum storage temperature)<br>15℃~+35℃ (≤6 months) |
| Relative Humidity                      | 60%±20% RH                                                                                              |
| Connect Terminal                       | M8                                                                                                      |
| Dimension (L x W x H)                  | 636mm*245mm*218mm                                                                                       |
| Net Weight                             | 40.7±0.5KG                                                                                              |
| IP Class                               | IP65                                                                                                    |
| Warranty                               | 3 years (See warranty agreement for details)                                                            |

① When the battery is stored for more than 3 months, the storage voltage should be maintained at 26~26.8VDC.

② For long-term storage, charge at least once every three months (no less than 30 minutes@0.2C).

Any changes without prior notice! Version number: V1.1