※ 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.

LiFePO4 (LFP) Battery

LFP2.56KWH12.8V-P65L1

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.

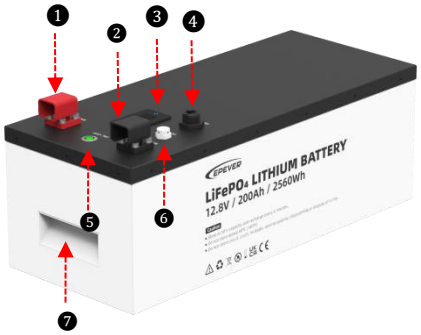
c) Do not short-circuit the battery. Connecting the battery's positive and negative poles with conductive materials, storing and transporting the battery together with conductive materials are prohibited.

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.

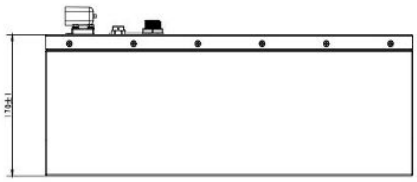
Emergency treatments:

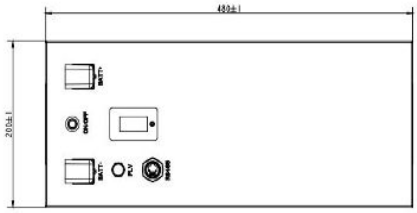
a) Avoid skin and eye contact with the electrolyte when it leaks. In case of contact, immediately wash with plenty of water and seek help from a doctor. It is forbidden for any person or animal to swallow any part of the battery or the substances contained in the battery.

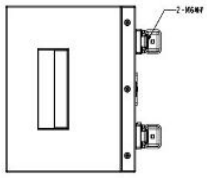
2. Appearance



❶ Battery positive terminal
❷ Battery negative terminal
❸ LCD screen
❹ RS485 communication port
❺ Power switch indicator
❻ Pressure reducing value
❼ Handle







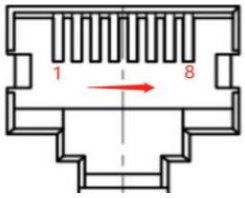
3. LCD Panel

No.	Status	Instruction
❶	Working status	Including: STBY (standby), CHG (charging), DISCH (discharging), and ERROR.
❷	Data display	Display the battery current voltage, current, and temperature.
❸	Protections	Including: OC (over current protection), CHG (charging protection), DISCH (discharging protection), and TEMP (temperature protection)
❹	SOC value	Display the actual SOC percentage.
❺	SOC icon	Display the SOC by cell, one cell indicates the SOC is 25%.
❻	Power button	Short press the power button to light up the screen. After 30 seconds, the screen goes off and enters the energy-saving mode.

4. RS485 Interface Definition

The RS485 communication interface pin are defined as follows, and the RJ45 communication interface is used to connect the upper computer of the lithium battery PC.

Pin No	RJ45 Definition
1	RS485-B
2	RS485-A
3	NC
4	NC
5	NC
6	NC
7	RS485-A
8	RS485-B



(RJ45)

4. 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.

4. Press the LCD power button once, and the LCD shows "CHG" to start the charging process.

- **Standard charge:**

First, charge the battery to 14.4V with a constant current of 20A (0.2C), and then charge to 5A (0.05C) with a constant voltage of 14.4V .

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

5. 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.

4. Press the LCD power button once, and the LCD shows "DISCH" to start the discharging process.

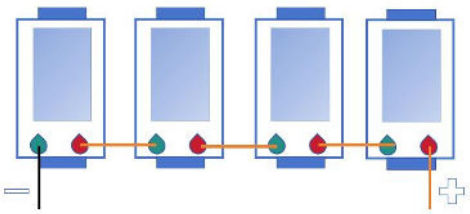
- **Standard discharge:**

After the battery is standard charged, discharging the battery with a constant current of 20A (0.2C) till the battery voltage drops to 10.4V.

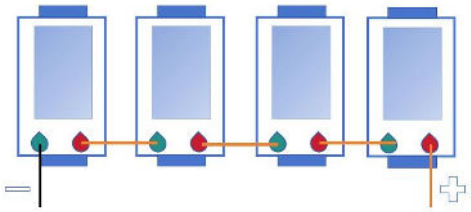
Note: All tests stated in this document shall be performed at 25±2℃.

6. Connect in series/parallel

- **Connect in series (at most 4 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.

7. 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.

8. Specifications

Model	LFP2.56KWH12.8V-P65L1
Battery Type	LiFePO4
Nominal Voltage	12.8V
Nominal Capacity	200Ah
Energy	2560Wh
Continuous Discharge Current	50A
Charge Cut-off Voltage	14.4V
Discharge Cut-off Voltage	10.4V
Maximum Charge Current	100A
Maximum Discharge Current	100A@30min
Peak Discharge Current	120A@10S
Recommend Discharge Current	50A
Work Voltage Range	10.4~14.6V
Open-circuit Voltage	12.7~13.4V
Internal Resistance	≤20mΩ
Cycle Life	>6000 times (0.5C charge&discharge 80%DOD @25℃)
Number of series/parallel	Max 4 battery packs in series/ Max 4 battery packs in parallel
Certification	UN38.3 MSDS IEC62619
Charge&Discharge Temperature	Charge: 0℃~+55℃ Discharge: -20℃~+60℃
Storage Temperature Range①	-5℃~+0℃/35℃~+45℃ (≤2month); 5℃~+35℃ (≤3 months, Optimum storage temperature); 15℃~+35℃ (≤6 months)
Relative Humidity	60%±20% RH
Connect Terminal	M6
Dimension (L x W x H)	480mm x 200mm x 170mm
Net Weight	23.8±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 13~13.4V.

② For long-term storage, charge at least once every 3 months (no less than 30 minutes@0.2C).

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