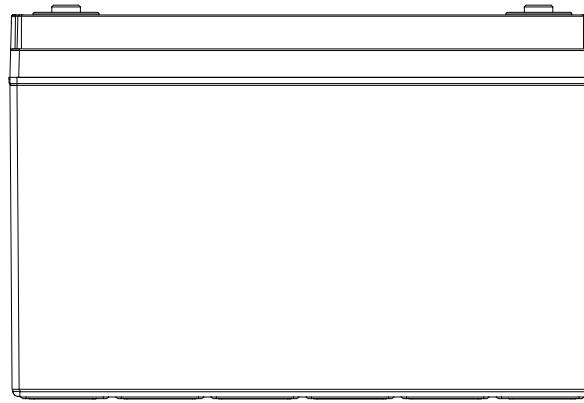
MARSRIVA

USER MANUAL

Lead Acid to Lithium Battery

MR-LFP12-100-LAR(V2)



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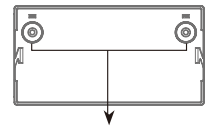
Usage Method

1. Single battery use (voltage rating 12.8V)

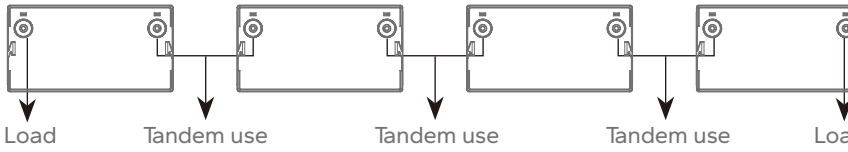


2. Batteries used in series (voltage rating 51.2V, up to 4 in series)

Battery series use requirements: must be the same type of product, ① # ② # ③ # ④ # voltage must be low voltage state, to achieve series connection;

Note: Up to 4 batteries can be connected in series, and the low voltage state means that you need to discharge all the power inside each battery before connecting them in series.

Tandem Connection Schematic

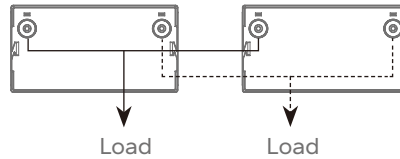


3. Batteries are used in parallel

Battery parallel use requirements: must be the same type of product, the voltage must be in the same voltage state, the pressure difference is less than 0.5V to realize parallel connection.

Note: Up to 16 batteries in parallel, pay attention to the parallel connection, not from a battery lug convergence line.

Parallel Connection Schematic

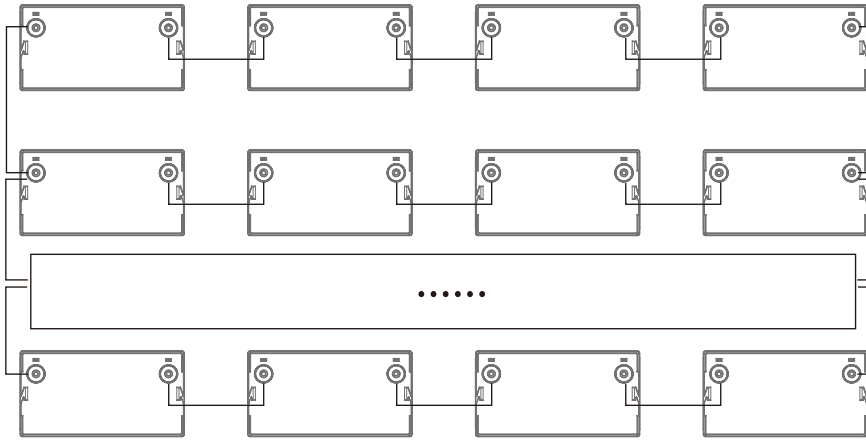


4. Batteries are used in series and parallel

Requirements for the use of battery packs in series and parallel: must be the same type of product, the voltage of each group must be low voltage state, the voltage of each group must be in the same voltage state, the voltage difference is less than 0.5V within the series and parallel connection.

Note: The first 4 batteries will be strung together as a group, and then parallel with another group, up to 15 groups.

Schematic Diagram of Series and Parallel Connection



Up to 15 groups in parallel

Bluetooth Connection Instructions

1. Download "XiaoXiaoElectric APP" from the mobile mall or Google Chrome;
2. Open "XiaoXiaoElectric APP", click register and login;
3. After successful login, it will jump to the device list, if you don't see the real-time point of the device list, click the connection behind the Bluetooth address of the device in the device list, and the real-time data will be displayed after successful connection

Note:

- Only one Bluetooth address can be connected to one cell phone.
- Cell phones too far away from the battery pack will not be searched.
- It is recommended to connect in the open or close distance.
- With a charged battery, if the connection fails or cannot be connected please try a different cell phone.

Specifications

Model	MR-LFP12-100-LAR(V2)
Rated Capacity	1.3kWh
Battery Type	BYD LiFePO4 Battery (Grade A)
Individual Battery Capacity	102Ah
Battery Pack Series-Parallel Mode	4S1P
Nominal Voltage	12.8VDC
Full Charge Voltage	14VDC – 14.6VDC
Discharge cut-off voltage	10.8VDC
Standard Output Current	100A
Maximum Output Current	105A
Standard Input Current	100A
Maximum Input Current	105A
Sleep Self-Consumption	≤ 800uA
Communication Method	Bluetooth Connection
Battery cycle life	≥ 6000 cycles @25℃, 70% EOL.
Charging Temperature	0℃ to 60℃
Discharge Temperature	-15℃ to 55℃
Dimension	255×165×210mm
Weight	9.94Kg

Safety Precautions

1. In order to prevent accidents such as leakage, heat generation, fire, explosion, and performance degradation of lead-converted lithium batteries, please use the batteries normally according to the following specifications. We are not responsible for accidents caused by failure to follow the specifications.

2. Hold it lightly and try to avoid violent vibration;

3. Do not immerse the battery in water or other liquids, pay attention to moisture;

4. Should avoid the battery positive and negative end short circuit;

5. Please charge according to the charging environment temperature 1℃ to 25 ℃ for charging, must be in our company designated, lead to lithium battery charger for charging; not to use other chargers to charge privately;

6. Discharge control current≤30A, discharge ambient temperature -10℃ to 55℃ ;

7. It is prohibited to disassemble the battery, disassembling the battery may cause internal short circuit, which may lead to decomposition of internal substances, fire and explosion. In addition, disassembling the battery may make the battery electrolyte leakage, and the electrolyte inside the battery will cause damage to the human body; if the electrolyte splashes on the skin, eyes or other parts of the body, please flush with water immediately, and go to the hospital for treatment immediately;

8. Do not dispose of the discarded batteries by fire, as this may result in explosion and other dangerous accidents;

9. If the battery is damaged, the battery is deformed, the electrolyte is leaking or you smell the electrolyte and other abnormal phenomena, do not use the battery any more and send it to the authorized office of the manufacturer or the relevant organization for proper disposal. In addition, the battery leaking electrolyte should be kept away from fire source to avoid causing explosion;

10. Users are not allowed to dismantle the battery cover privately and are strictly prohibited to open it, otherwise, our company will not be responsible for it.

Storage

Battery storage in the ambient temperature 5℃ to 25℃ , relative humidity less than 75% of the clean, dry, ventilated indoor, avoid contact with corrosive liquids, away from sources of ignition and heat; the battery to maintain about 50% – 60% of the state of power; in order to prevent the battery from over-discharging the battery in the storage period of about 15 days charging once, the time of 2 – 3 hours or so.

Maintenance and upkeep

1. For the first time, the battery can reach its maximum capacity after 3 – 5 times of use;

2. The battery should be used in an air-circulated, dry environment, avoiding proximity to sources of ignition;

3. The best working environment temperature of the battery 15℃ to 35℃ , outside of this temperature range will affect the normal operation of the battery;

4. Cannot short-circuit the positive and negative terminals of the battery to avoid danger;

5. Can not use organic solvents to clean the battery shell; if an accident occurs, use carbon dioxide fire extinguishers, use carbon tetrachloride, sand and other fire extinguishing equipment;

6. Battery failure, please send it to the manufacturer's authorized office or the relevant agencies to properly handle, please do not discard to avoid danger.

Precautions During Transportation

1. Batteries are adapted to automobiles, trains, airplanes and other modes of transportation, and should avoid sunshine, rain and violent vibration during transportation;

2. Batteries must be insulated with shockproof material and marked with a label with fragile words to avoid damage to the batteries caused by bumps on the way;

3. It should be upward and marked with a good upward labeling, do not put it upside down, nor can it be placed at random;

4. Batteries in the transportation loading and unloading process must be gently held and placed, do not collide at random;

5. Do not press heavy objects on the battery for transportation, to avoid extrusion causing damage to the battery;

6. Do not mix with flammable, explosive, and sharp metal objects for transportation;

7. There should be moisture-proof, water-proof and fire-proof labels on the packages to avoid danger due to transportation.

Thank you for purchasing Marsriva product

PRODUCT WARRANTY CARD

Product :

Model :

Purchase Date (DD / MM / YY) :

Customer Name :

Telephone Number :

E-mail Address :

Dealer's Name and Address :

Serial Number* :

This Warranty applies only if the Product was newly manufactured on the Date of Purchase and not sold as used, refurbished, or manufacturing seconds. Please keep the proof of purchase and this warranty card for future service requests.

IMPORTANT!

Please store this card in a secured location for future reference.
Marsriva reserves the right to request this card before accepting repair requests.
This does not affect or limit your mandatory statutory rights.

Marsriva Technology Co., Ltd.
Website: www.marsriva.com
E-mail: support@marsriva.com
Made in China

Specifications are subject to change without notice, all product drawings are for reference only.