

12.8V 200AH LiFePO4 Battery Production Process

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01

Battery cell configuration

We use Pirsmatic LiFePO4 battery cell to make series and parallel to a completed battery pack.

For 12.8V 200Ah, we use 3.2V 100Ah battery cell, 4S2P (4 series 2 parallels);

Use fixture to make battery cell neat and flat; Separate the batteries with epoxy plates for insulation.



02

Fixing Frame

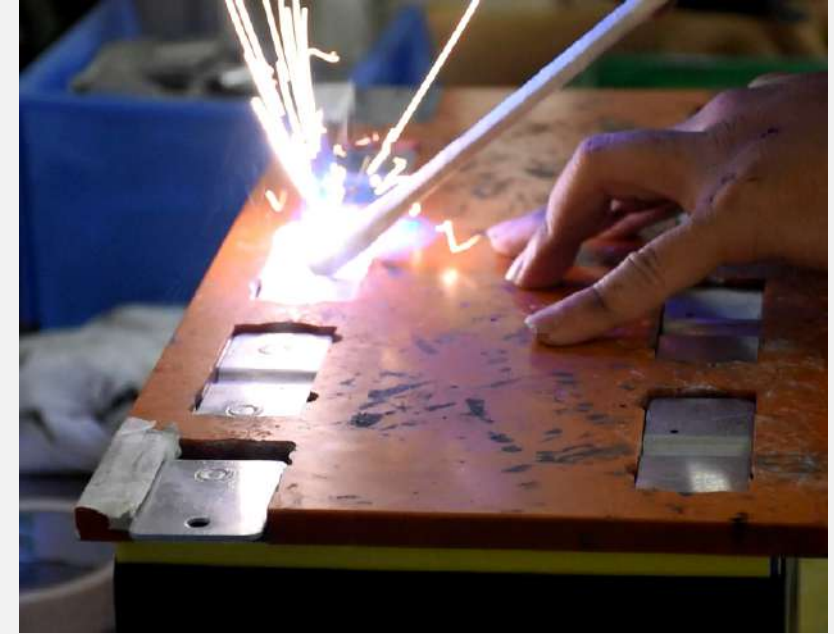
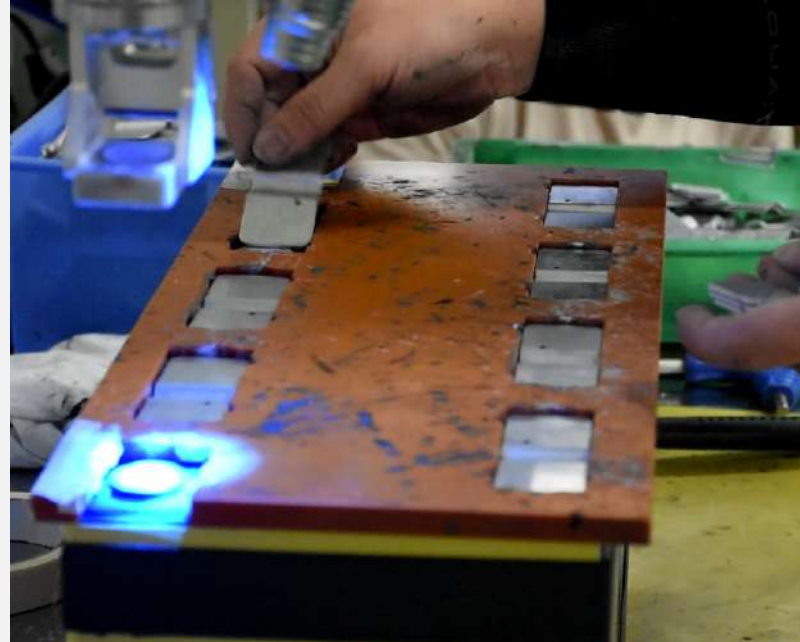
Put on 2 sheet metal frames, this frames are used to constrain the shape of the battery to make it compact



03

Laser Welding

1. Use customized welding mold to fix welding position;
2. Put aluminum buss bars on the welding terminal;
3. Start Welding by Laser Spot Welder, use a Aluminum rod to press the buss bars for fixing and soldered in place, there will be no false welding



04

Small screw with welding plate

After welding the buss bars, put small screws with welding plate, this components is for welding the signal acquisition wires.

Install the ribbon cable welding piece in the aluminum hole in turn, and lock it by electric screwdriver with screws;



05

Weld signal acquisition wires

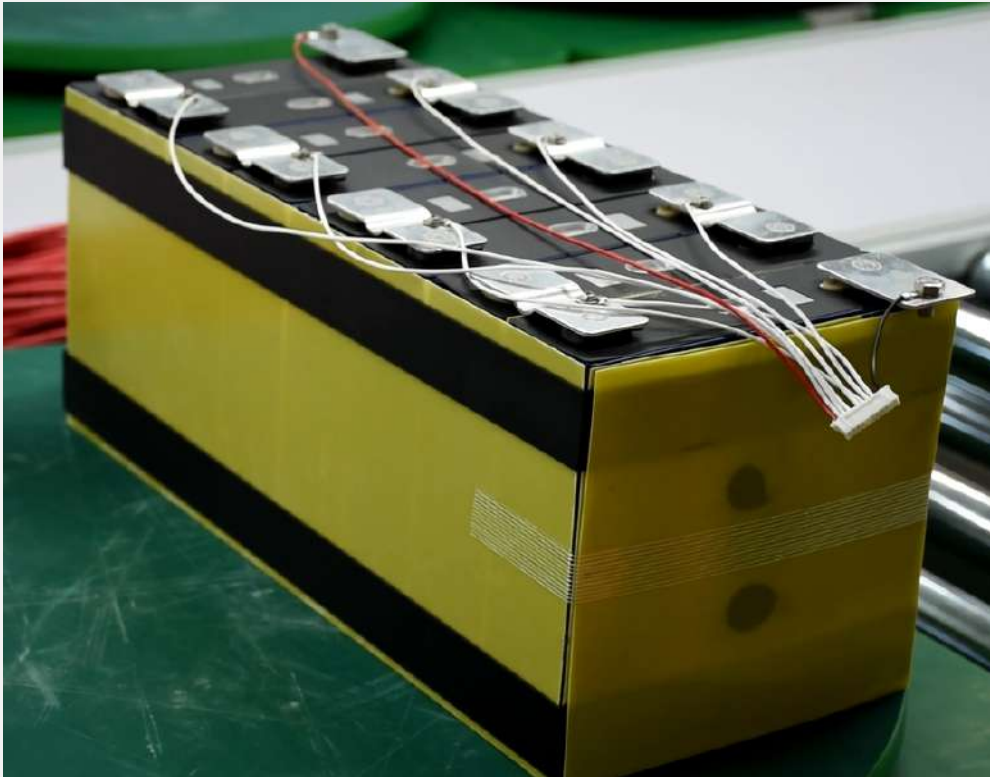
Tin the connecting piece on each small screw, and solder the wires.



06

Test the wires connection

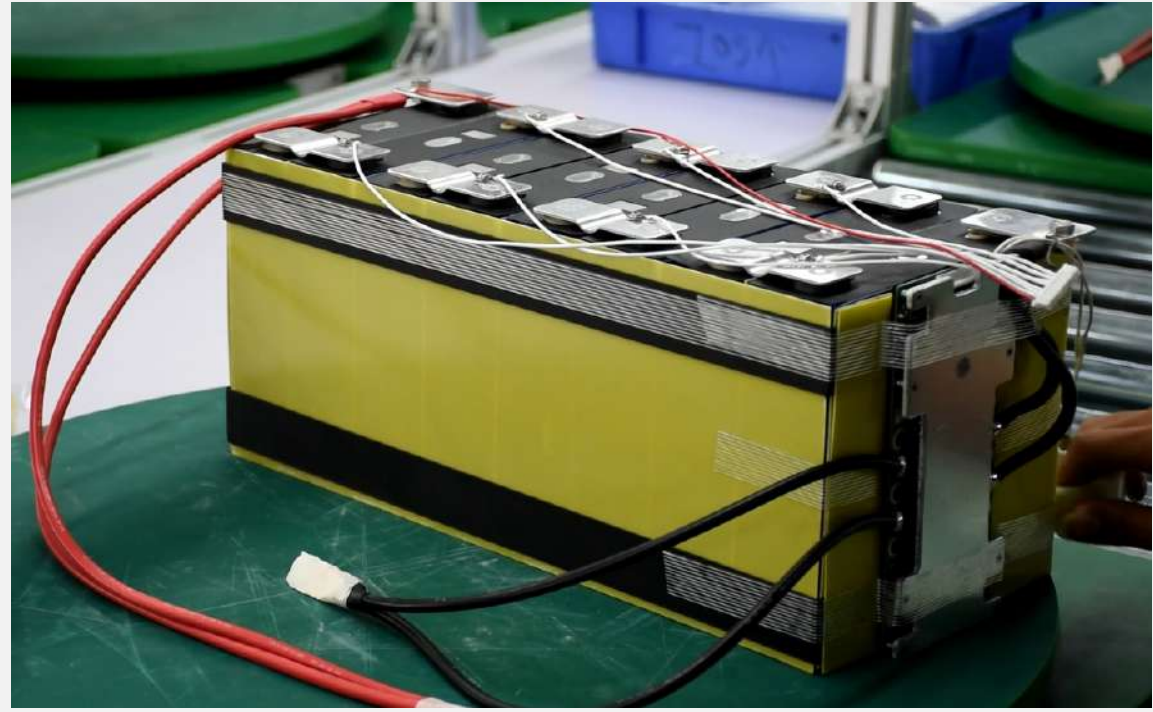
Add a Epoxy board on the side(BMS position), for thermal insulation and insulation;
Use tester to test the wires connection if weld properly.



07

Connect BMS

Connect negative and positive cable between battery and BMS by screws;
Use 3M8934 fiber tape to tight the BMS;



08

Wire winding storage

Use Wire winding tube to arrange/sort out the wires, for protect and collect the wires;
Use 3M8934 fiber tape fixing the wires



09

Stick EVA

Stick EVA on two sides and the top side; protect the BMS and the aluminum buss bars;



Testing by Testing System

Connect positive and negative cable, tested by testing system to check correct welding and assembling;
(Battery pack voltage, Battery internal resistance, etc.)

Textured sticker wraps the terminal avoiding short-circuit;



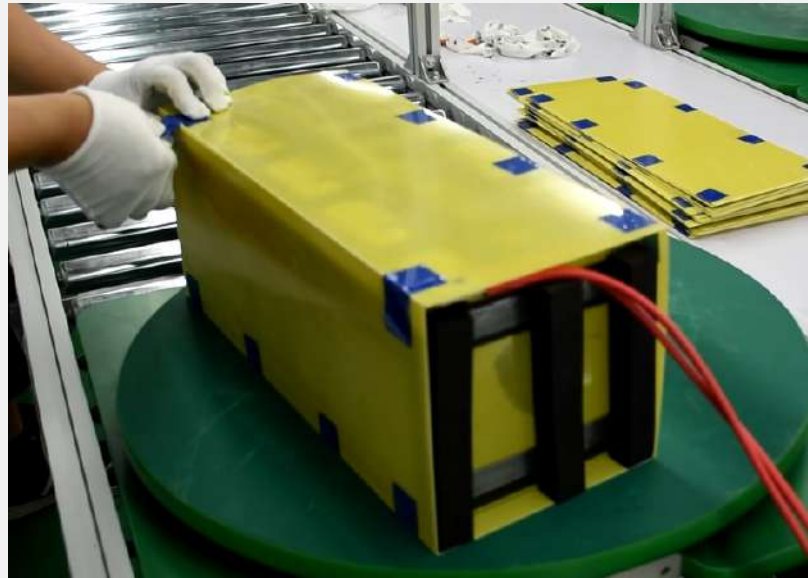
11

Black soft glue + Epoxy board packaged

Put the black soft on the solder joints of the flat wires and the wiring of the positive and negative output wires;

After sticking the foam glue, wrap the battery with fiberboard;

After wrapping the fiberboard/epoxy board, use blue Mara glue to close the fiberboard interface, and then reinforce it with fiber glue.



EVA foam+ Battery housing

Use EVA foam to stick around the battery pack;
Black Soft is applied to the bottom of the shell



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Aging Test

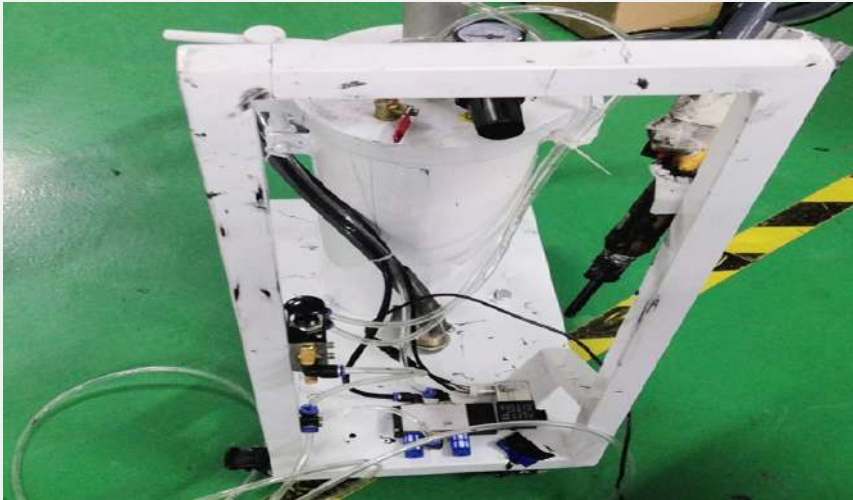
Connect P+ C+ of the aging cabinet to the positive pole of the battery module, and P- C- to the negative pole of the battery module. The positive and negative terminals should be separated to avoid short circuit of the battery.

Each battery module must be affixed with a corresponding serial number to query the aging data.



Battery Housing Cover

1. Paste black foam on the upper part of the battery, and align the foam position with the two horizontal sides of the upper cover, so as not to play a fixed role when sealing the cover.
2. Connect the output wires of the battery module to the terminals of the upper cover with screws, red to red and black to black.
3. Use a pneumatic gluer to apply black silica gel to the sealing groove of the shell and the terminals.
4. After the upper cover is covered, wipe off the excess silicone squeezed out with a white cloth, then place it in the designated area, and finally put on the handle.



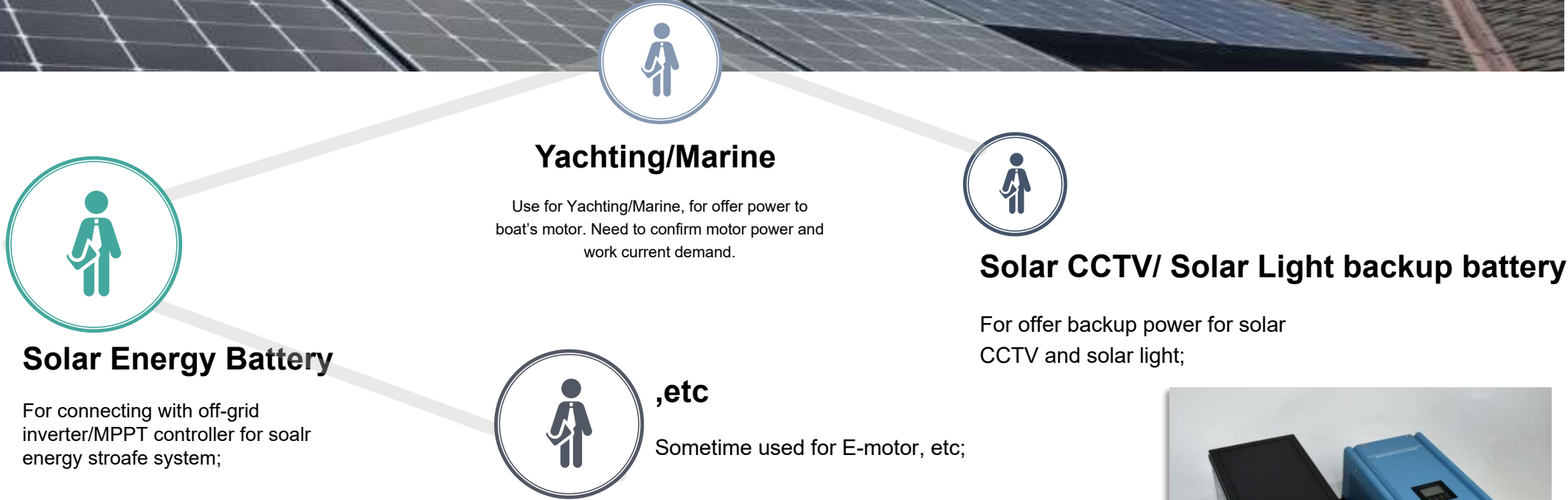
Packaging

The battery is wrapped with thick foam and packed in a carton;
1 battery pack / carton;



Application (---Replace Lead-Acid/AGM battery)

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thanks

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