$LiFePO_4$ BATTERY PACK

IB–BP-LFP

with Battery Management System (BMS)

THIS PRODUCT HAS THE CE MARK

AND HAS BEEN MANUFACTURED IN ACCORDANCE WITH ISO 9001 STANDARD

manual version: 1.0.0
firmware version: 1.0.0

Spis Treści

IB–BP-LFP

1 General information

The **IB–BP-LFP** is $LiFePO_4$ battery pack witch standard battery dimensions.

Applications:

- Boats, yachts, campers.
- Emergency lighting.
- For uninterruptible power source (UPS).
- Fire protection and security systems.
- Photovoltaic, wind farms.
- Vehicles, electrical appliances.

2 Features

- Long cycle life.
- High safety.
- Wide operating temperature range.
- High capacity.
- Steady output voltage.
- Low self-discharge ratio.
- Modular construction.
- High vibration and shock resistance.

3 Technical data

Nominal voltage	12.8V
Nominal capacity	100Ah
Expected life cycle	≥4000 cycles, with 0.2C charge and discharge rate, at 25°C, 80%DOD
Charge method	CC-CV
Max. charge voltage	14.6V
Continuous charge current	≤100A
Continuous discharge current	≤100A
Peak discharge current (max. 5 Seconds)	≤260A
Discharge cut-off voltage	10.0V
Discharge temperature	-10 ± 65°C
Charge temperature	0 ± 45°C
Storage temperature	-10 ± 45°C
Self-discharge (at 50% SOC)	≤3%/month
Screw terminals	M8
Dimensions (LxWxH)	260 x 172 x 214 mm
Weight	11,5 kg

During transportation, 50% SoC (state of charge) must be kept.

Keep battery pack in dry, shady and cool environment.

Caution! Avoid polarity reversal.

Caution! Never use the battery pack near a strong magnetic field, otherwise the BMS may be damaged.

If battery pack emit peculiar smell, heats up, or deforms during using or charging process, disconnect it and stop exploitation.

4 Safety features

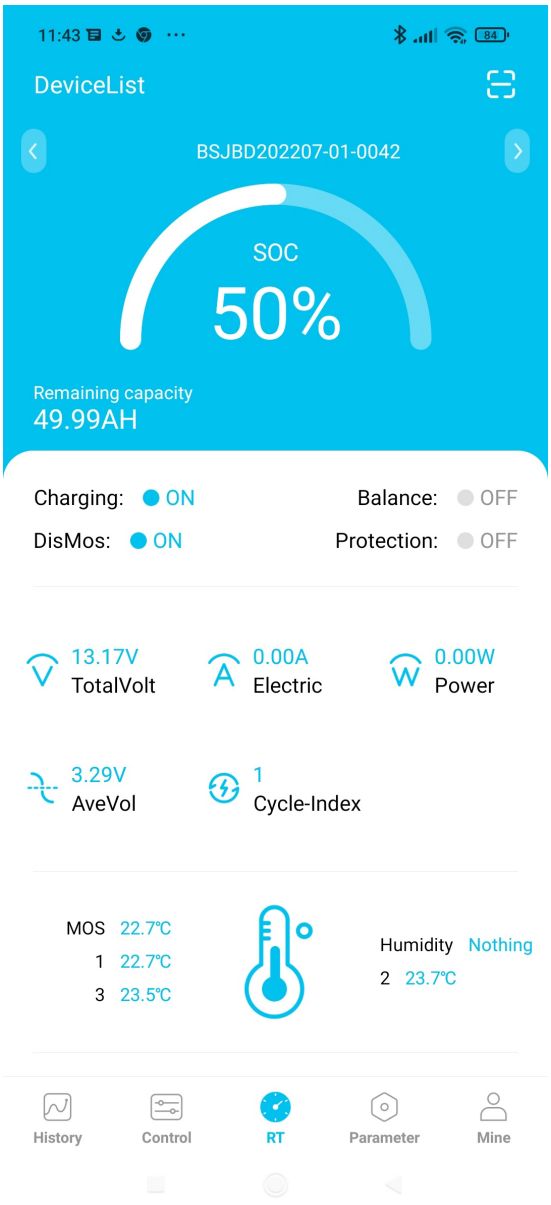
- **Charge protection.** Seiko IC system effectively controls MOS to prevents battery pack overcharge.
- **Discharge protection.** It prevents damage to the battery pack and increases its service life.
- **Over current protection.** It prevents damage to the battery pack from excessive currents.
- **Short circuit protection.** Automatic protection during short circuit.
- **Thermal protection.** Temperature control prevents damage caused by operation out of work temperature range.
- **Puncturing.** There is no self-ignition or explosion phenomenon during mechanical damage.

All values in the table refers to a single cell in battery pack.

Charge Protection.	Over charge detection voltage.	3.75 ± 0.05V
	Over charge detection delay time.	0.96 ÷ 1.4s
	Maximum charge voltage.	3.65 ± 0.05V
	Maximum charge current.	≤100A
Discharge Protection.	Over discharge detection voltage.	2.2V ± 0.10V
	Over discharge detection delay time.	20ms
Over current protection.	Maximum continuous current.	≤100A
	Over current detection current.	260A
	Over current detection delay time.	100ms
Short Circuit Protection.	Short Circuit detection delay time.	250 us

5 Bluetooth monitoring

The **IB–BP-LFP** battery pack has been equipped with a monitoring system based on Bluetooth communication. You can download the application for communication with the battery pack from the Google Play or Appstore using the links below or searching for ”Xiaoxiang„.



6 Warranty terms and conditions

- Warranty is for a period of 24 months from the date of purchase of goods.
- Defects revealed during the warranty period shall be repaired within 21 working days, counting from the date of taking the equipment to the service.
- If it is necessary to import goods or parts from abroad, repair time is extended by the time necessary to import them.
- The customer delivers and collects the goods to the service at his own expense. Goods sent at the expense of the service will not be accepted.
- Service is not obligated to provide the purchaser with replacement goods for the duration of the repair.
- Repair under warranty will be made upon presentation of a clearly described defect, customer contact information and sales document.
- Warranty covers only defects caused by reasons inherent in the product sold. The warranty does not cover damages caused by external factors such as: mechanical damage, contamination, flooding, atmospheric phenomena, improper installation or operation, as well as operation inconsistent with the intended use and operating instructions. The warranty does not apply if the customer makes unauthorized repairs, changes to the firmware or formatting the device.
- Due to natural wear and tear of consumables, some of them are not covered by the warranty (e.g. cables, batteries, chargers, microcontacts, buttons, etc.).
- In case of an unjustified claim for warranty repair, the costs of sending the equipment to and from the service shall be borne by the Customer.
- The service centre has the right to refuse warranty repair in case of: finding inconsistencies between the data in the documents and on the equipment, making repairs on their own, changes in equipment design.
- Refusal to perform warranty repair is equivalent to loss of warranty.