



BPL52B 1P52S PACK Datasheet

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Zhuhai Virtual Power Plant Technology Co., Ltd

Statement

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Revise resume

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1 Product Model

The product model definition rules refer to the following instructions.

BP: Battery pack

L: Liquid cooling

52: Battery

B: Manufacturer code

2 Application Notes

This document is intended to explain the specifications of the battery pack BPL52A and to provide customers with information on the use of this product. The standard supply content of this product is battery PACK, please refer to the table below for a detailed list of components.



Fig. 1 Appearance of BPL52A

Table 1. Detailed component list

Serial number	Components	Quantity	Description
1	Positive power terminals	1	PACK main power input/output interface for PACK power connection between PACK and PACK, or PACK with Power connection between RCM.
2	Negative power terminals	1	PACK main power input/output interface for PACK power connection between PACK and PACK, or PACK with Power connection between RCM.
3	MSD	1	When used for repairs, manually disconnect the battery.
4	Fire detector tee quick connector and fire detector tube	1	The tee connector is used to connect the fire detector tube inside the PACK and outside the PACK, and the fire detector is used to transport perfluorohexanone fire extinguishing gas.
5	Explosion relief valve	1	It is used to release high-pressure gases
6	Communication interface	1	Used to communicate with daisy chains

7	Liquid cold plate	1	Used for battery heat dissipation and heating
8	Cathode module	1	1P26S
9	Negative module	1	1P26S

3 Product Specifications

Table 2 Battery pack parameter table

Serial number	project	Specifications:	Note
1	Rated voltage	166.4V	1P52S
2	The nominal capacity of the module	$\geq 314\text{Ah}$	
3	Factory SOC	30%~40%SOC	
4	Battery pack size	L1140mm×W790mm×H247.7mm	Tolerance±1.0mm
5	Mod weight	330kg	Tolerance ± 1 kg
6	Standard charge and discharge power	0.5P	

7	Maximum continuous charge and discharge power	1.0P	
8	Battery pack charge upper limit voltage	187.2V	25±2°C, 52×3.60V
9	Module discharge lower limit voltage	145.6V	25±2°C, 52×2.8V
10	Operating temperature	Discharge: -20°C~55°C Charging: 0°C~45°C	The battery can function normally within the specified temperature range Job
11	Storage temperature	-20°C~ 45°C	≤ 1 month
		0°C~ 35°C	≤ 1 year
12	Storage humidity		<70% RH (no condensation)

3.1 Standard charging

At 25 ± 2°C, the PACK charges to 26124.8V at 3.6W constant power.

3.2 Standard discharge

At $25 \pm 2^\circ\text{C}$, the module charges to 26124.8V at 2.8W constant power. Continuous charging and discharging process, charging and discharging

Let stand for 30 minutes between electricity.

4 Product Description

The battery pack BPL52B is composed of two 1P26S modules connected in series, and the modules integrate voltage and temperature acquisition. Wiring harness, MSD, detonation relief valve, and BMU.

4.1 Schematic diagram of battery pack dimensions

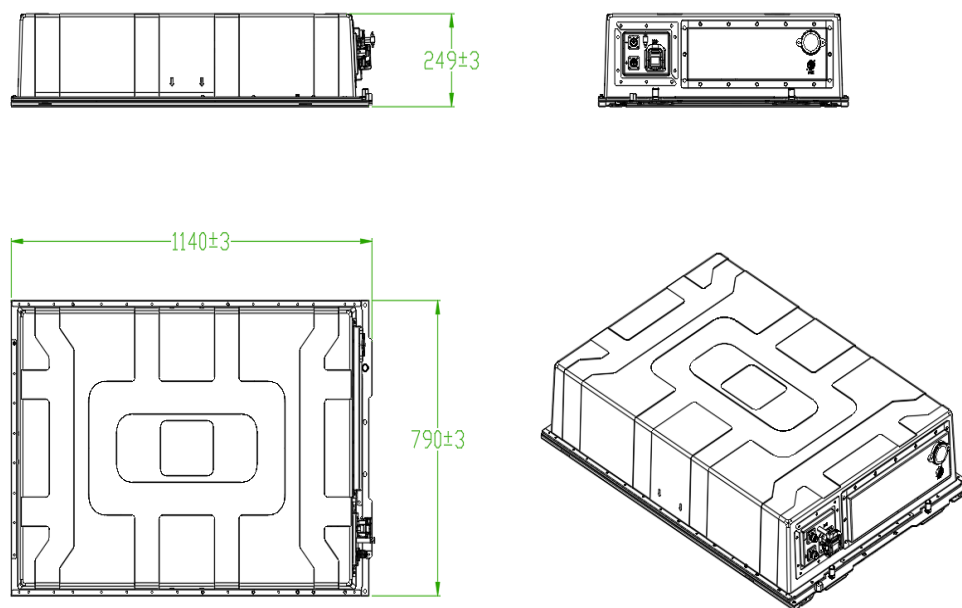


Figure 2 Battery pack BPL52A outline drawing

4.2 PACK Barcode Rules



Barcode code BP2407300001

BP: Battery pack

24: Year of manufacture

07: Production month

30: Production Day

0001: Serial number

5 Product Instructions

a. The battery pack can be used individually or in series between multiple battery packs.

When using the battery pack in series, pay attention to the positive and negative poles of the battery pack should not be reversed, otherwise it may lead to battery scrapping and potential safety hazards.

b. Battery packs used in series must be charged and discharged at the same time to maintain the consistency of the cells.

c. The battery pack must be used under the specified charging rate conditions, and the upper limit voltage of the charge shall not exceed the specification to avoid overcharging, so as not to cause problems with the charging and discharging performance, mechanical properties and safety performance of the battery.

d. The battery pack must be used under the specified discharge rate conditions, and the lower discharge voltage shall not exceed the specified standard to avoid over-discharge, which will drastically reduce the battery capacity and overheat the battery, resulting in battery scrapping and potential safety hazards.

e. The battery pack must be used under specified environmental conditions, and too high or too low ambient temperature will affect the performance of the battery cell.

6 Product Maintenance

a. The battery pack should be stored (more than 1 month) in a clean, dry and ventilated room with an ambient temperature of 0°C-35°C (<70%RH).

- b. The battery pack should avoid contact with corrosive substances and keep away from fire and heat sources.
- c. When the battery pack is left for a long time, it is recommended to charge and discharge the battery every 3 months.
- d. In order to prevent over-discharge, the battery should be charged regularly, and it is recommended to keep the storage power of the battery pack at 30%~40%.

7 Precautions

- a. It is forbidden to disassemble or reassemble the battery pack.
- b. Do not short-circuit the battery pack.
- c. It is forbidden to use the battery pack in an environment close to heat or water sources.
- d. It is forbidden to incorporate nails into the battery pack, hit with a hammer or step on them.
- e. Severely damaged or deformed battery packs are prohibited.
- f. Reverse charging and discharging are prohibited.

Disclaimer

This equipment should be used within the scope specified in this specification of the product. The manufacturer shall not be liable for the loss of personnel, animals or property due to improper behavior in the process of installation, commissioning,

maintenance, use, etc., or for non-compliance with the use of the product outside the specified scope of use.