

# User Manual



**PSWG-PB-SU**

Uninterruptible Power Supply System

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# 1. Important Safety Warnings

Please comply with all warnings and operating instructions in this manual strictly. Save this manual properly and read carefully the following instructions before installing the unit. Do not operate this unit before reading through all safety information and operating instructions carefully.

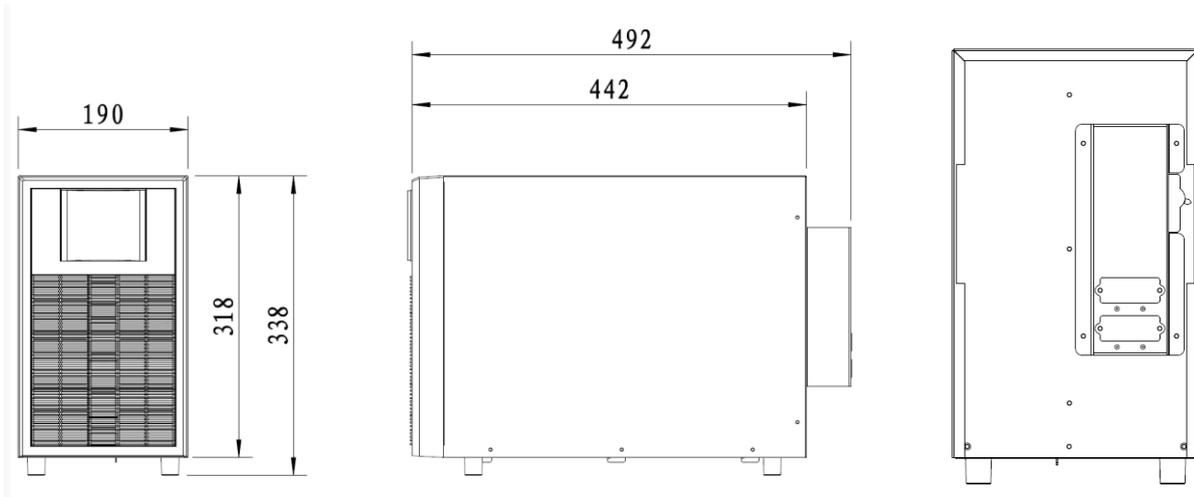
- The battery bank which is supplied with a factory input plug can be safely connected to the wall receptacle by the user.
- This battery bank is connected to an UPS. There will be voltage at the output terminals if the UPS is turned on even if the input AC Mains is not available.
- Make sure that the AC Utility outlet is correctly grounded.
- Do not try to repair the unit yourself, contact your local supplier or your warranty will be void.
- Use a certified input power cable with the correct plugs and sockets for the appropriate voltage system.
- To eliminate any overheating of the battery bank, keep all ventilation openings free from obstruction and do not place any foreign objects on top of the battery bank. Keep the battery bank 20 cm away from the wall.
- Make sure the battery bank is installed within the proper environment as specified. (0-40°C and 30-90% non-condensing humidity)
- Do not install the battery bank under direct sunlight. Your warranty will be void if the batteries fail due to overheating.
- This battery bank is designed for indoor use only.
- This battery bank is not designed for use in dusty, corrosive and salty environment.
- The warranty for this battery bank will be void if water or other liquid is spilt or poured directly onto the battery bank. Similarly we do not warrant any damage to the battery bank if foreign objects are deliberately or accidentally inserted into the battery bank enclosure.
- The battery will discharge naturally if the system is unused for a period of time.
- It should be recharged every 2-3 months if unused. If this is not done, then the warranty will be null and void. During normal operation, the batteries will be automatically remained in charged condition.
- Servicing of Batteries Should be Performed or Supervised by Trained Personnel with Knowledge of Batteries and the Required Precautions
- When replacing batteries, replace with the same quantity, type & capacity.
- CAUTION – Do not dispose of battery or batteries in an open fire. The battery may explode.
- CAUTION – Do not open or mutilate the batteries. The electrolyte from the batteries is toxic and harmful to the skin and eyes.
- CAUTION – Risk of Electric Shock – Battery circuit is not isolated from AC, hazardous Voltage may exist between battery terminals and ground. Test before touching with bare hands.
- CAUTION – A Battery can present a risk of electrical shock and high short circuit current. The following precaution should be observed when working on batteries:
  1. Remove watches, rings, or other metal objects.
  2. Use tools with insulated handles.
  3. Wear rubber gloves and boots.

- 4. Do not lay tools or metal parts on top of batteries.
- 5. Disconnect charging source prior to connecting or disconnecting battery terminals.
- Do not plug or unplug the battery connector if UPS works in DC (discharging) mode.

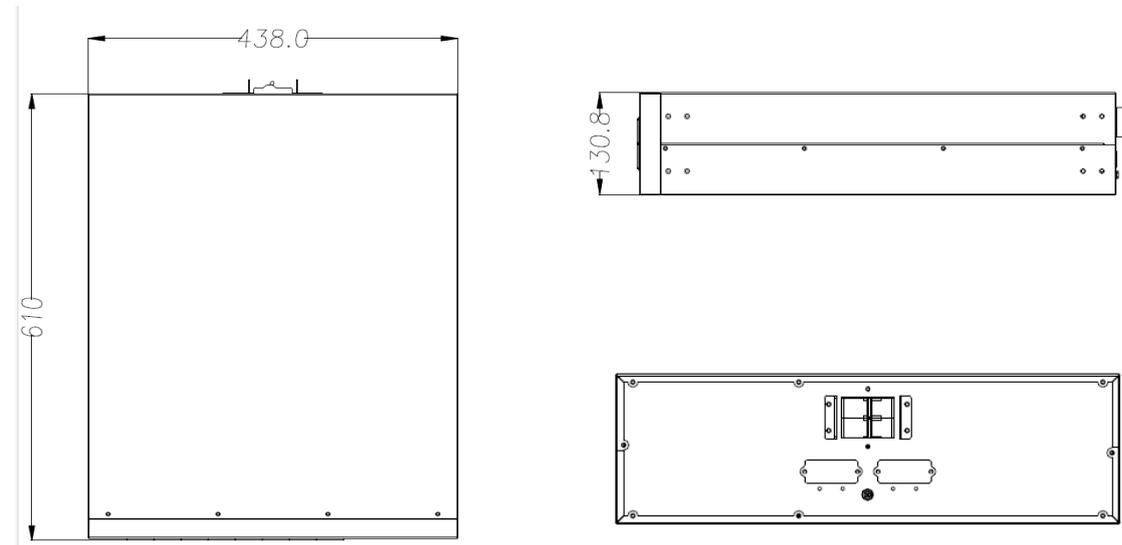
## 2. Installation and Setup

**NOTE:** Before installation, please inspect the unit. Be sure that nothing inside the package is damaged. Please keep the original package in a safe place for future use.

### 2-1 Rear Panel View



**Tower battery pack**



**Rack battery pack**

1. DC connector : connects to either UPS or 2<sup>nd</sup> battery pack
2. DC breaker:
  - Battery over-current protection breaker

- Easy swap battery: When switching battery, put the position of the breaker in "O" position. In case there is 2<sup>nd</sup>(or next) battery pack connected with the battery bank, the DC voltage from the UPS Bat.+/- will flow through without any interruption to the 2<sup>nd</sup> Battery Bank.

## 2-2 Installation and Setup

### Unpacking & Inspection

1. Remove the battery pack from the packing.

**Note:** The battery pack is very heavy, be cautious when unpacking and lifting the unit to avoid injury.

2. Check the inside package
  - Battery pack unit
  - Battery connection cable x 1



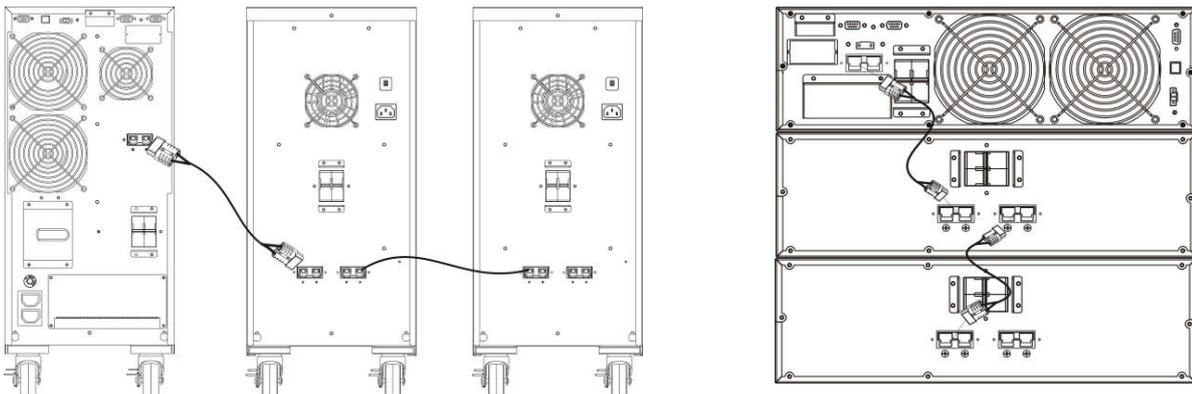
### Selecting Installation Position

It is necessary to select a proper environment to install the unit, in order to minimize the possibility of damage to the battery bank and extend the life of the batteries. Please follow the instructions below:

1. Keep at least 20cm (8 inches) clearance from the rear panel of the unit from the wall or other obstructions.
2. Do not block the air-flow to the ventilation openings of the unit.
3. Please ensure the installation site environmental conditions are in accordance with the unit's working specifications to avoid overheat and excessive moisture.
4. Do not place the unit in a dusty or corrosive environment or near any flammable objects.
5. This unit is not designed for outdoor use.

### Connecting with UPS and Other Battery Pack

Follow below installation chart to connect with UPS and other battery pack with included cable.



Tower UPS

Rack UPS

## 3. Battery Installation

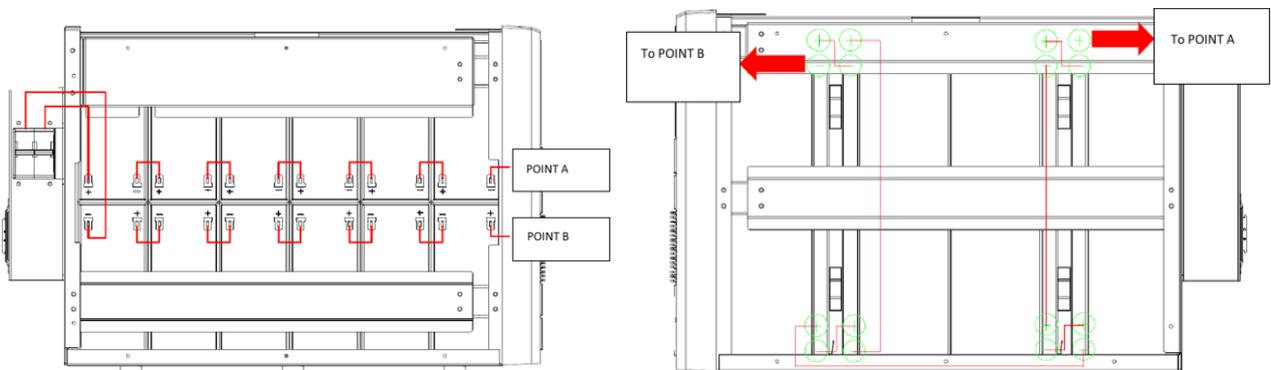
**If your battery pack is not installed with batteries, please follow proper procedure to put batteries inside of unit.**

**NOTE: MAKE SURE THAT THE BATTERY PACK IS DISCONNECTED FROM THE UPS BEFORE PERFORMING THE FOLLOWING SEQUENCE OF OPERATIONS.**

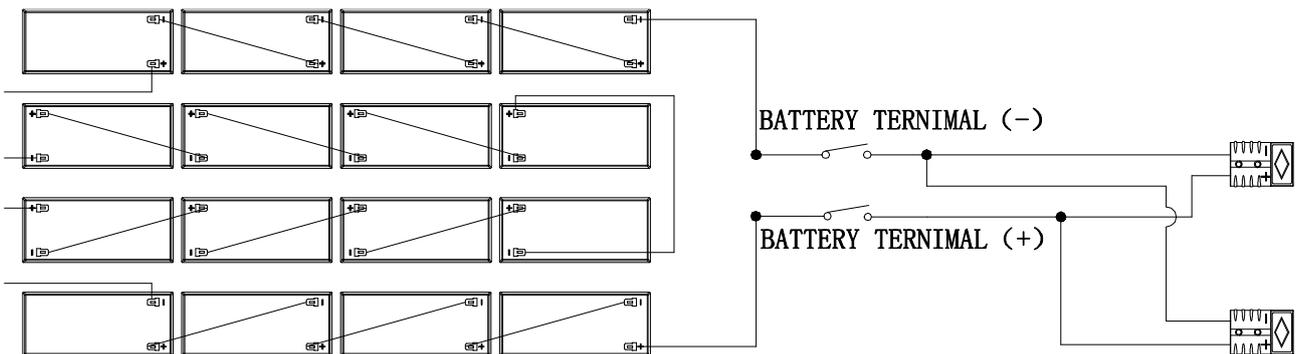
## WARNING:

- The equipment should be installed from service personnel
- When installing the batteries, use the same number and type of batteries showed in the battery label
- Do not open or mutilate the battery or batteries, released electrolyte is harmful to the skin and eyes
- A battery can present a risk of electric shock and high short circuit current. The following precaution should be observed when working on batteries
  - A) Remove watches, rings or other metal objects.
  - B) Use tools with insulated handles

## Tower Battery Pack:



## Rack Battery Pack:



## 4. Storage & Maintenance

The unit contains no user-serviceable parts. If the battery service life (3~5 years at 25°C ambient temperature) has been exceeded, the batteries must be replaced. In this case, please contact your dealer.



Be sure to deliver the spent battery to a recycling facility or ship it to your dealer in the replacement battery packing material.

### Storage

Before storing, charge the unit 4 hours. Store the unit covered and upright in a cool, dry location. During storage, recharge the battery in accordance with the following table:

Storage Temperature	Recharge Frequency	Charging Duration
-25°C - 40°C	Every 3 months	1-2 hours
40°C - 45°C	Every 2 months	1-2 hours

### 5. Battery PACK Specifications:

Battery Model	PB-SURH	PB-SUTH
Battery Quantity	20PCS (12V/9AH)	
Internal Connection Method	Series Connection	
PACK Voltage	240Vdc	
Dimensions	438*610*130.8mm	190*492*338mm
Weight	67.2kg	58.2kg

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# 1. 重要安全警告

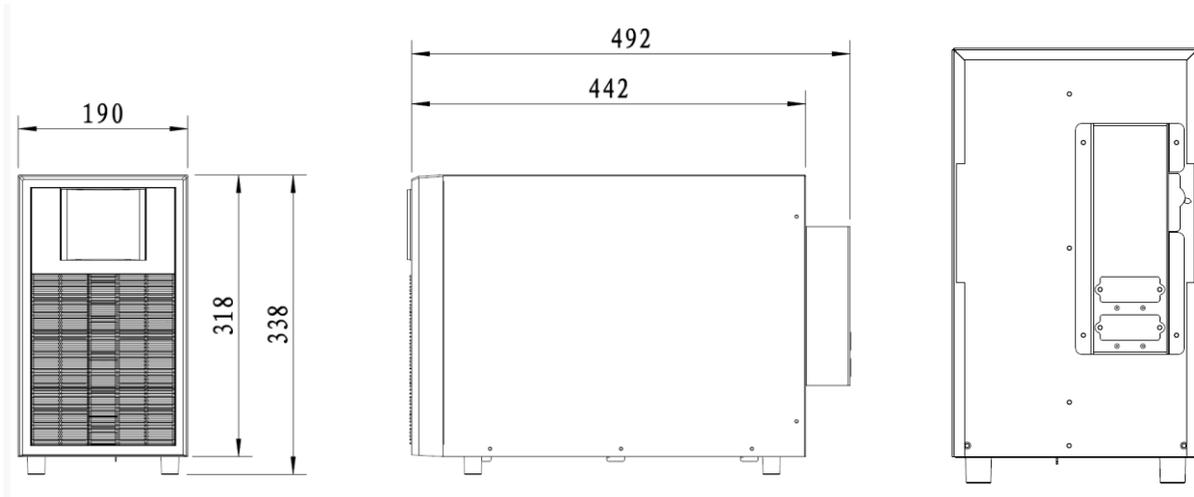
请严格遵守本手册中的所有警告及操作说明。妥善保存本手册，并在安装设备前仔细阅读以下说明。在阅读全部安全信息及操作说明前，请勿操作本设备。

- 用户可安全地将配备工厂输入插头的电池组连接至墙壁插座。
- 该电池组连接至不间断电源 (UPS)。即使输入交流电源不可用，只要 UPS 处于开启状态，输出端子仍会保持电压。
- 请确认空调电源插座已正确接地。
- 请勿自行维修设备，联系当地供应商，否则保修将失效。
- 使用经过认证的输入电源线，确保插头与插座与相应电压系统匹配。
- 为防止电池组过热，应确保所有通风口畅通无阻，且不得在电池组上方放置任何异物。电池组应与墙壁保持 20 厘米距离。
- 确保电池组安装在规定的适宜环境中 (0-40°C, 30-90% 非凝结湿度)。
- 切勿将电池组置于阳光直射处。若因过热导致电池失效，保修将失效。
- 本电池组专为室内使用设计。
- 本电池组不适用于粉尘、腐蚀性及盐分环境。
- 若电池组直接接触水或其他液体，保修将失效。若异物被故意或意外插入电池组外壳，亦不承担保修责任。
- 若系统长时间未使用，电池将自然放电。
- 若未使用，应每 2-3 个月充电一次。若未按此操作，保修将失效。正常运行期间，电池将自动保持充电状态。
- 电池维护应由具备电池知识及必要预防措施的受过培训人员执行或监督
- 更换电池时，应更换相同数量、类型及容量的电池。
- 警告：切勿将电池或电池组投入明火中，否则可能导致电池爆炸。
- 警告：切勿打开或损坏电池。电池中的电解液具有毒性，对皮肤和眼睛有害。
- 警告 - 电击风险 - 电池电路未与交流电源隔离，电池端子与接地之间可能存在危险电压。接触前请先进进行测试。
- 警告：电池可能造成触电和短路电流过大的风险。操作电池时应遵守以下预防措施：
  1. 移除手表、戒指或其他金属物品。
  2. 使用带绝缘手柄的工具。
  3. 戴橡胶手套和靴子。
  4. 切勿将工具或金属部件放置在电池上。
  5. 连接或断开电池端子前，请先断开充电电源。
- 若 UPS 处于直流 (放电) 模式，请勿插拔电池连接器。

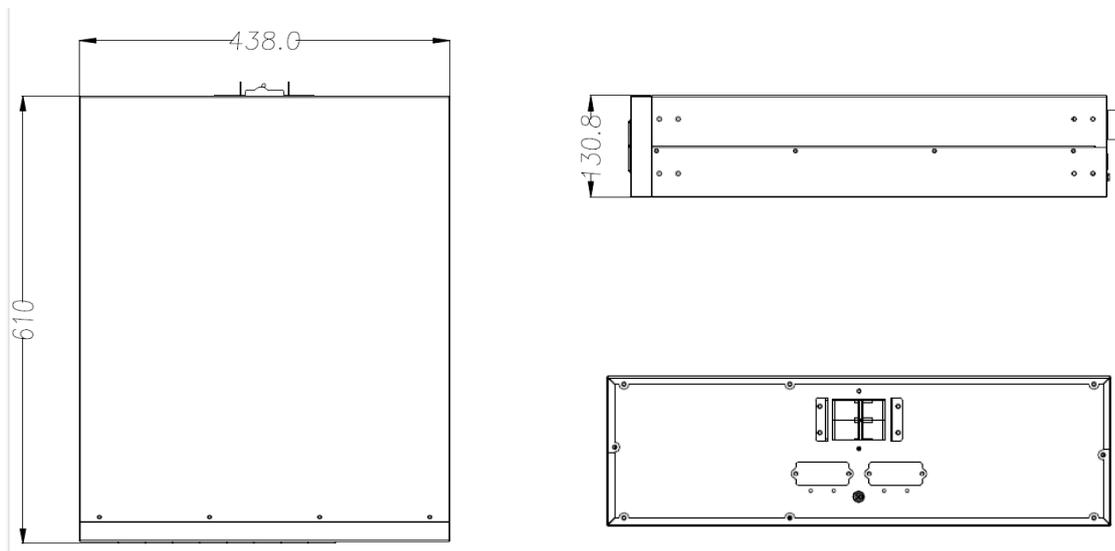
## 2. 安装与设置

注：安装前请检查设备，确保包装内物品无损坏。请将原包装妥善存放以备后续使用。

### 2-1 面板视图



### 塔式电池组



### 机架式电池组

1. DC 连接器：可连接 UPS 或第二电池组
2. 直流断路器：

- 蓄电池过电流保护断路器
- 电池更换简易操作：更换电池时，需将断路器置于‘O’档位。如果电池组连接了第二个电池包，不间断电源（UPS）电池的正负直流电压将不间断地流向第二个电池组。

## 2-2 安装与调试

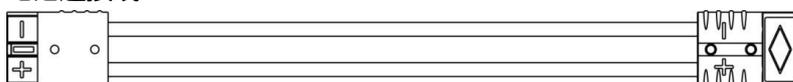
### 拆包与检查

1. 从包装中取出电池组。

注：电池组重量较大，拆包及搬运设备时需谨慎操作以避免受伤。

2. 检查内包装

- 电池组单元
- 电池连接线 x 1



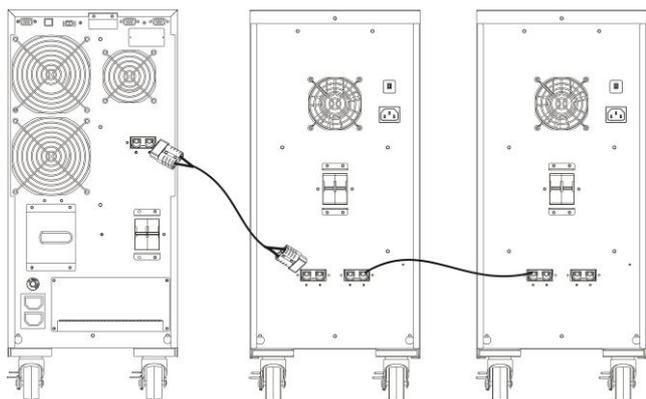
### 选择安装位置

为最大限度降低电池组损坏风险并延长电池使用寿命，需选择适宜的安装环境。请严格遵循以下操作规范：

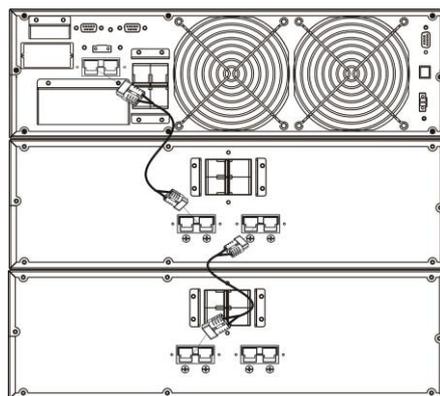
1. 设备后板与墙壁或其他障碍物之间应保持至少 20 厘米（8 英寸）的间距。
2. 切勿阻塞设备通风口的气流。
3. 请确保安装现场环境条件符合设备工作规范，避免过热和湿度过高。
4. 请勿将设备置于多尘或腐蚀性环境中，亦不可靠近任何易燃物品。
5. 本装置不适用于户外使用。

### UPS 与电池组的连接

请按照以下安装示意图，使用随附电缆将 UPS 及其他电池组连接。



塔式连接电池



机架式连接电池

### 3. 电池安装

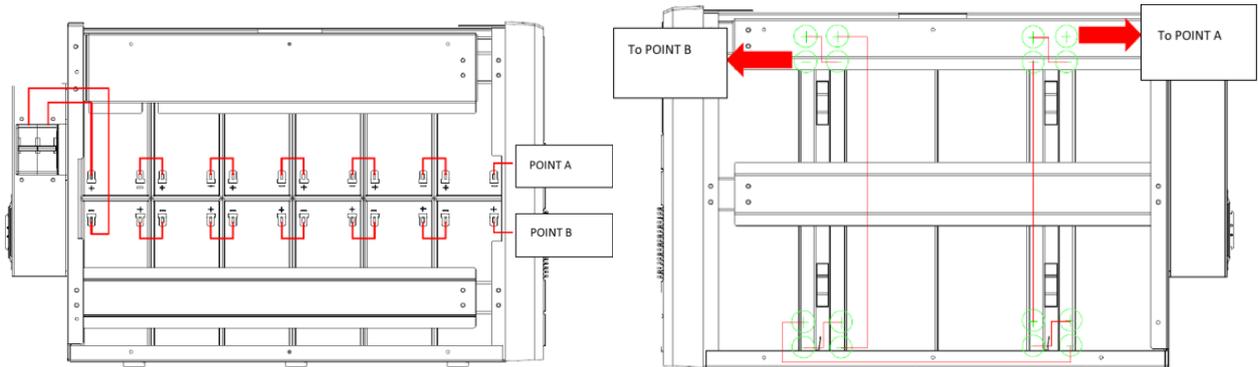
若电池组未与电池一同安装，请按照正确操作流程将电池装入设备内部。

注意：执行以下操作步骤前，务必确保电池组已与 UPS 断开连接。

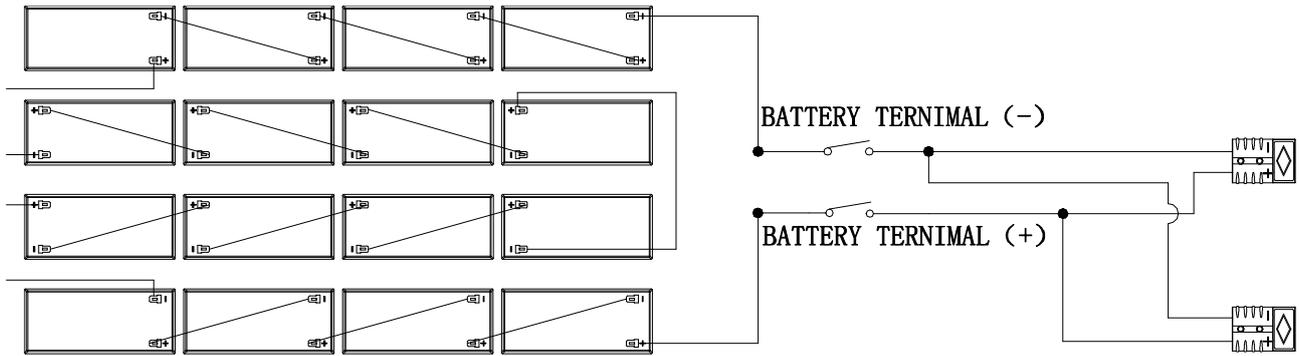
#### 警告：

- 该设备应由服务人员进行安装
- 安装电池时，应使用与电池标签所示相同数量及类型的电池
- 切勿打开或损坏电池或电池组，泄漏的电解液对皮肤和眼睛有害
- 电池可能造成触电及高短路电流风险。操作电池时应遵守以下预防措施
  - A) 拆除手表、戒指或其他金属物品。
  - B) 使用带绝缘手柄的工具

#### 塔式电池组：

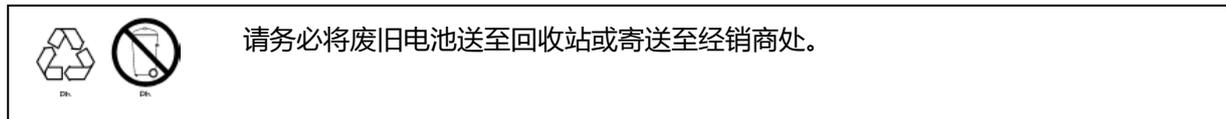


#### 机架式电池组：



## 4. 储存和维护

本设备不含用户可自行维修的部件。若电池使用寿命（25°C环境温度下3~5年）已超过，必须更换电池。如需更换，请联系您的经销商。



### 存储

储存前需对设备进行4小时充电。将设备置于阴凉干燥处，保持盖子关闭且直立存放。储存期间，按以下表格要求对电池进行充电：

储存温度	充电频率	充电持续时间
-25°C - 40°C	每 3 个月一次	1-2 小时
40°C - 45°C	每 2 个月一次	1-2 小时

## 5. 电池 PACK 规格:

电池型号	PB-SURH	PB-SUTH
电池数量	20PCS (12V/9AH)	
内部连接方式	串联	
PACK 电压	240Vdc	
尺寸	438*610*130.8mm	190*492*338mm
重量	67.2kg	58.2kg