

ResiPOWER RA Battery Bank Installation User's Manual

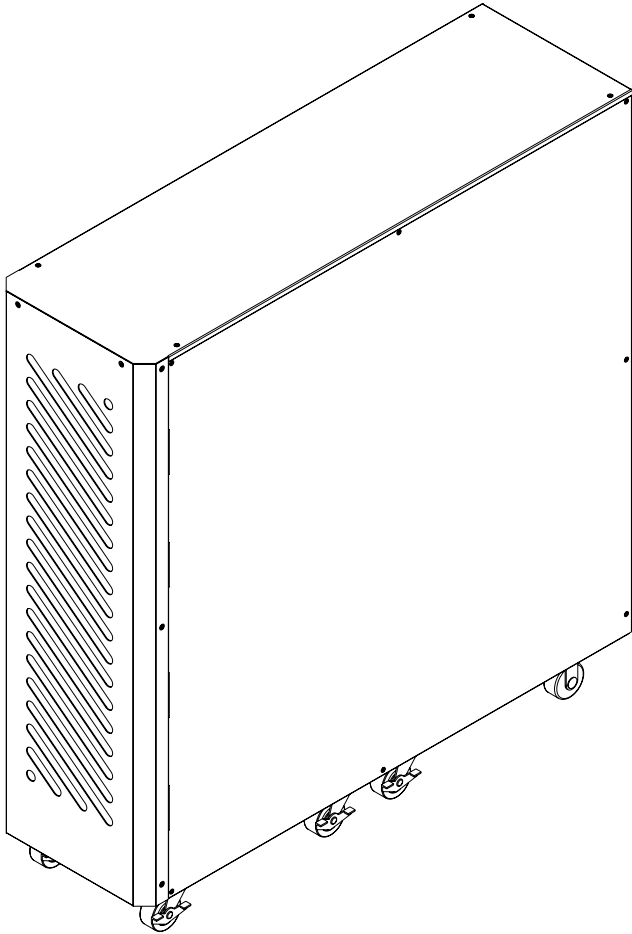


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1. Important Safety

SAVE THESE INSTRUCTIONS

This manual contains important safety instructions. Read all safety, installation and operating instructions before installing the Battery Bank. This manual contains important instructions that should be followed during installation and maintenance of the battery bank and batteries.

An Important Notice

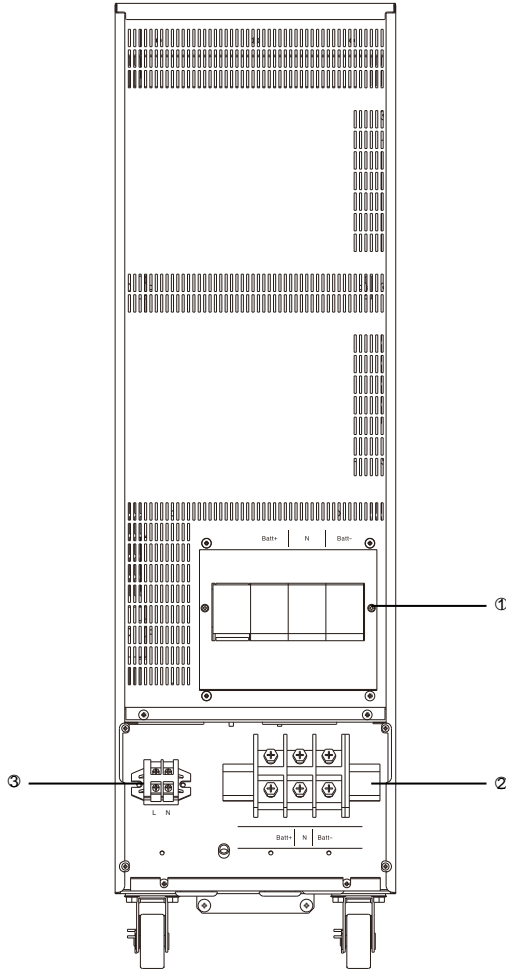
- Make sure the battery bank is installed within the proper environment as specified. (0-40°C and 30-90% non-condensing humidity)
- Do not install the battery bank under direct sunlight. Your warranty will be void if the batteries fail due to overheating.
- This battery bank is designed for indoor use 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
- External battery cabinets supplied with the UPS shall have adequate installation instructions to define cable sizes for connection to the UPS. Installation instructions for the battery shall be provided by the UPS battery manufacturer.
- To avoid electrical shock, turn off the unit and unplug it from the AC power source before servicing the battery.
- Do not disconnect battery connectors under load." or equivalent.
- Battery replacement and external battery cabinet installation shall be handled by SERVICE PERSONNEL only.
- Connection to External Battery shall be installed by SERVICE PERSONNEL only
- Installation or replacement of batteries located in a SERVICE ACCESS AREA:
The service manual shall include the following instructions for battery replacement and disposal:
A) Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.
B) When replacing batteries, replace with the same type and number of batteries or battery packs.
C) CAUTION: Do not dispose of batteries in a fire. The batteries may explode.
D) CAUTION: Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.
E) CAUTION: A battery can present a risk of electrical shock and high short-circuit current. Contact with any part of a grounded battery can result in electrical shock.

The following precautions should be observed when working on batteries:

- a) Remove watches, rings, or other metal objects.
- b) Use tools with insulated handles.
- c) Wear rubber gloves and boots.
- d) Do not lay tools or metal parts on top of batteries.
- e) Disconnect charging source and load prior to installing or maintaining the battery.
- f) Remove battery grounds during installation and maintenance to reduce likelihood of shock. Remove the connection from ground if any part of the battery is determined to be grounded.

2. Introduction to the Rear View

2.1 Rear View Descriptions



1. Fuse holder
2. To UPS Battery Terminals
3. Charging Board AC Input Terminals (Option)

3. Installation and Operation

Note: The packing condition and the external surfaces of the cardboard should be inspected carefully before installation. Retain the packing material for future use.

3.1 Unpacking

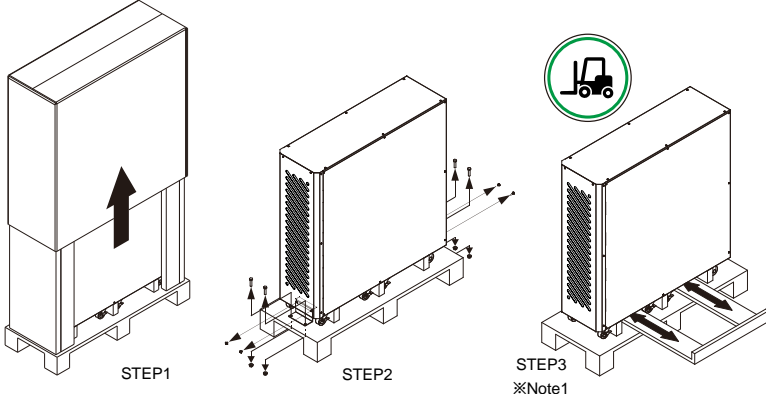
3.1.1 Model with Batteries

STEP1 : Remove the packing materials and cut straps. Remove the cardboard box.

STEP2 : Unscrew the fastening rail kits on the front and rear side.

STEP3 : Remove the battery bank.

※Note1: The battery bank with batteries is very heavy, be cautious when unpacking and lifting the unit to avoid injury. And stacker must be used when moving.



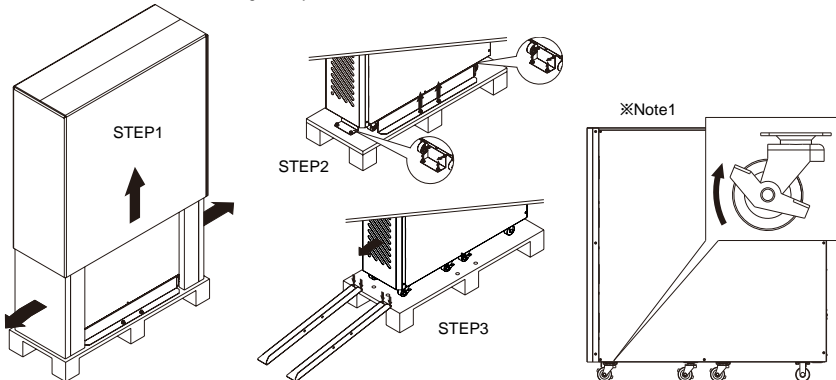
3.1.2 Model without Batteries

STEP1 : Cut the straps on the carton box. Remove the carton box and the packing materials.

STEP2 : Unscrew the fastening rail kits on the front, rear, right and left side of the pallet.

STEP3 : Use the rail kits as a ramp by placing them in front of the battery bank. Then gently roll down the battery bank from the pallet.

※Note1: Unlock the castor wheels before moving battery bank.



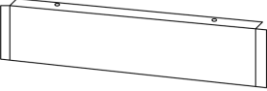



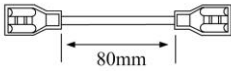
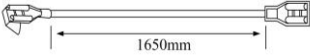
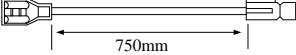
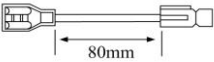
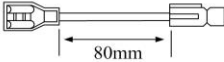

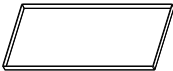



3.2 Standard Package includes

The battery bank if shipped without the internal batteries installed, follow the procedures outlines below.

If the bank is shipped with batteries, skip this section and proceed to 3.6.

- User Manual
- Accessories Kits as below:

Battery Fixed Support : 10pcs		Screw (M3 x 6mm) : 10pcs		Mylar Film : 30pcs	
					
Nylon Rivet : 60pcs	Fuse : 3pcs	Self tapping screw(M5) : 4pcs		Cable#0544 : 90pcs	
					
Cable#6398 : 5pcs			Cable#5075 : 3pcs (3:3 UPS only)		
					
Cable#5038 : 5pcs			Cable#5040 : 5pcs		
					
Cable#0189 : 8pcs		3 Batteries Tray : 20pcs	4 Batteries Tray : 10pcs		
					

3.3 Charging Board (Option)

Charging board provides three specifications, as below :

Charging Board	144~192Vdc(500W)
	192~240Vdc(500W)
	240Vdc(1000W)

3.4 Battery Quantity

Battery Bank use battery, as below :

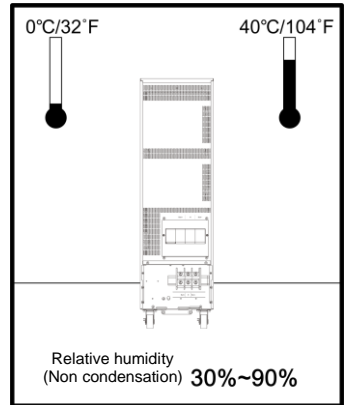
UPS Model No.	Number of Battery (pcs)	Max. strings of battery	
		7AH/9AH	12AH
3:3 10KVA~40KVA	40	2	1
	38	2	1
	36	2	1
	34	2	1
	32	3	1
3:3 10KVA	30	3	2
	28	3	2
	26	3	2
1:1 6KVA~10KVA	20	5	2
	18	5	2

	16	5	2
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3.5 Selecting Installation Position

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

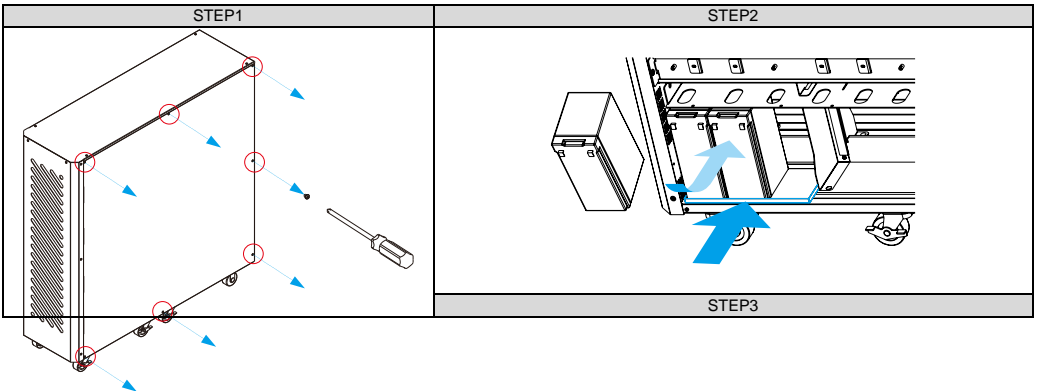
- 3.5.1 Keep at least 20cm(8 inches) clearance from the rear panel of the battery bank from the wall or other obstructions.
- 3.5.2 Do not block the air-flow to the ventilation openings of the unit.
- 3.5.3 Please ensure the installation site environmental conditions are in accordance with the battery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

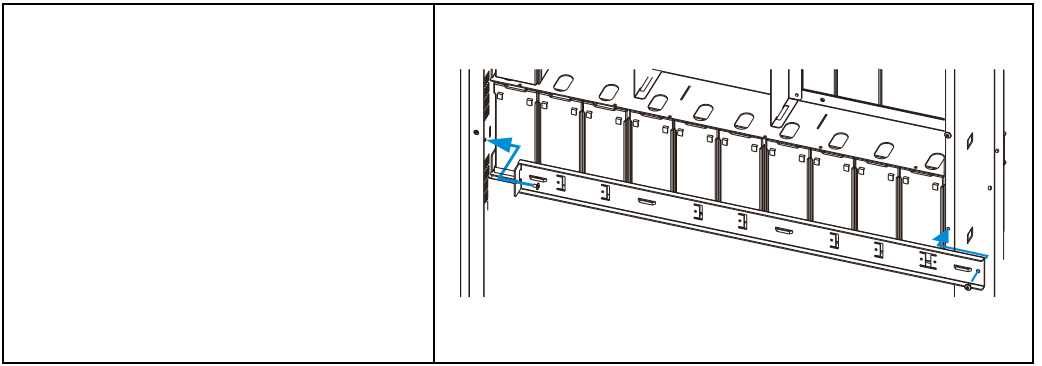


3.6 Installing The Battery

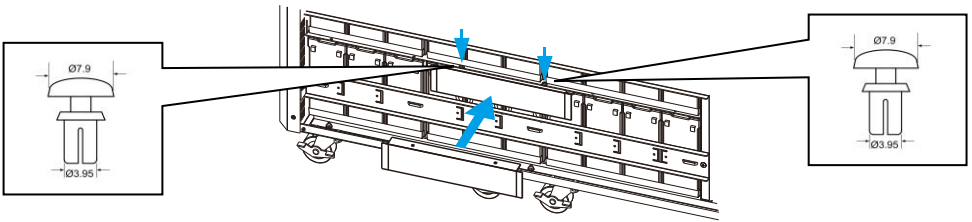
※Lock the castor wheels before installing the batteries.

- STEP1 : Remove the right/left side panel.
- STEP2 : To install tray and battery in the battery bank. (Please refer to Appendix).
- STEP3 : Install the battery guardrail.
- STEP4 : Using nylon rivet to fix mylar film.
- STEP5 : Connect Anderson terminal.
- STEP6 : Install the fuse into the fuse holder.
- STEP7 : Measure the voltage of terminal block to ensure the battery connections are correctly.
- STEP8 : Install the right/left side panel.

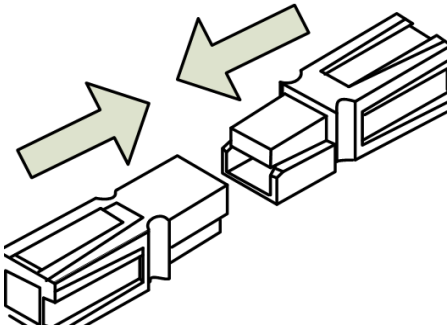




STEP4

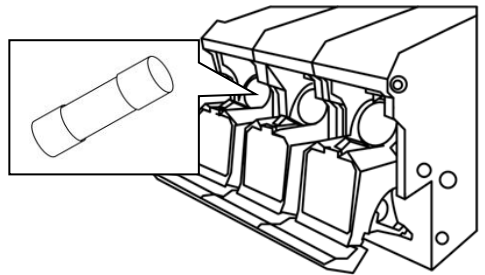


STEP5

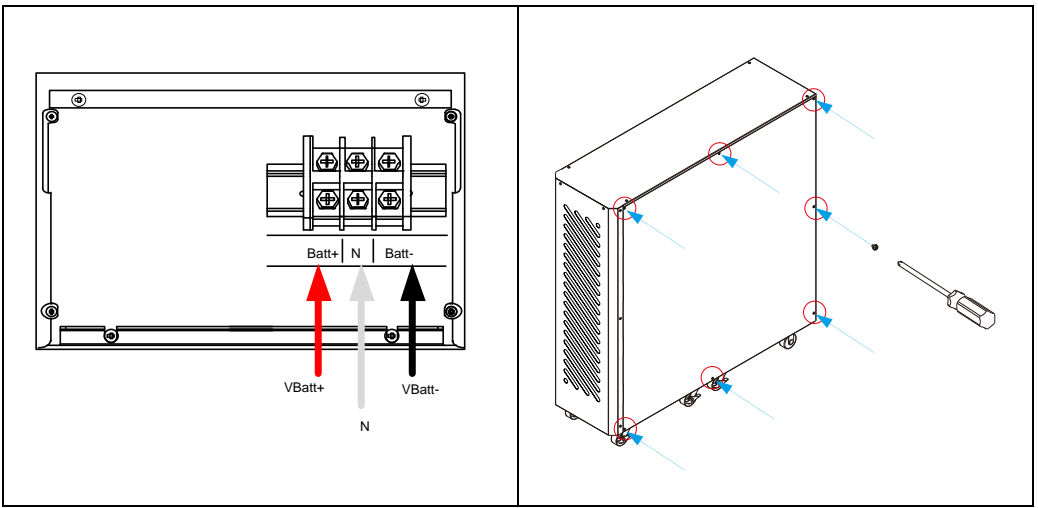


STEP7

STEP6



STEP8



3.7 Battery Replacement

※Lock the castor wheels before replacing the batteries.

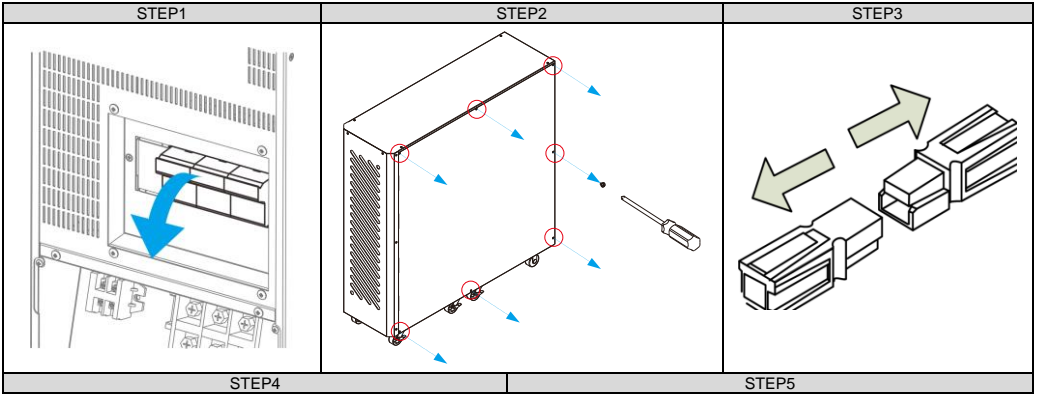
STEP1 : Disconnect the fuse holder.

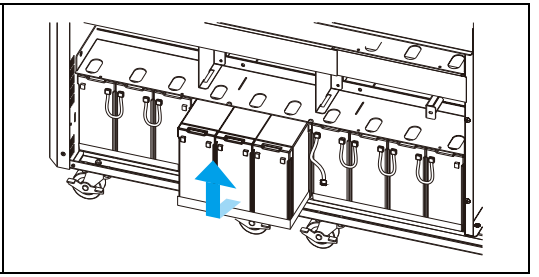
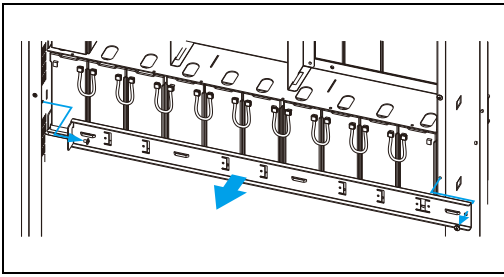
STEP2 : Remove the right/left side panel.

STEP3 : Disconnect Anderson terminal.

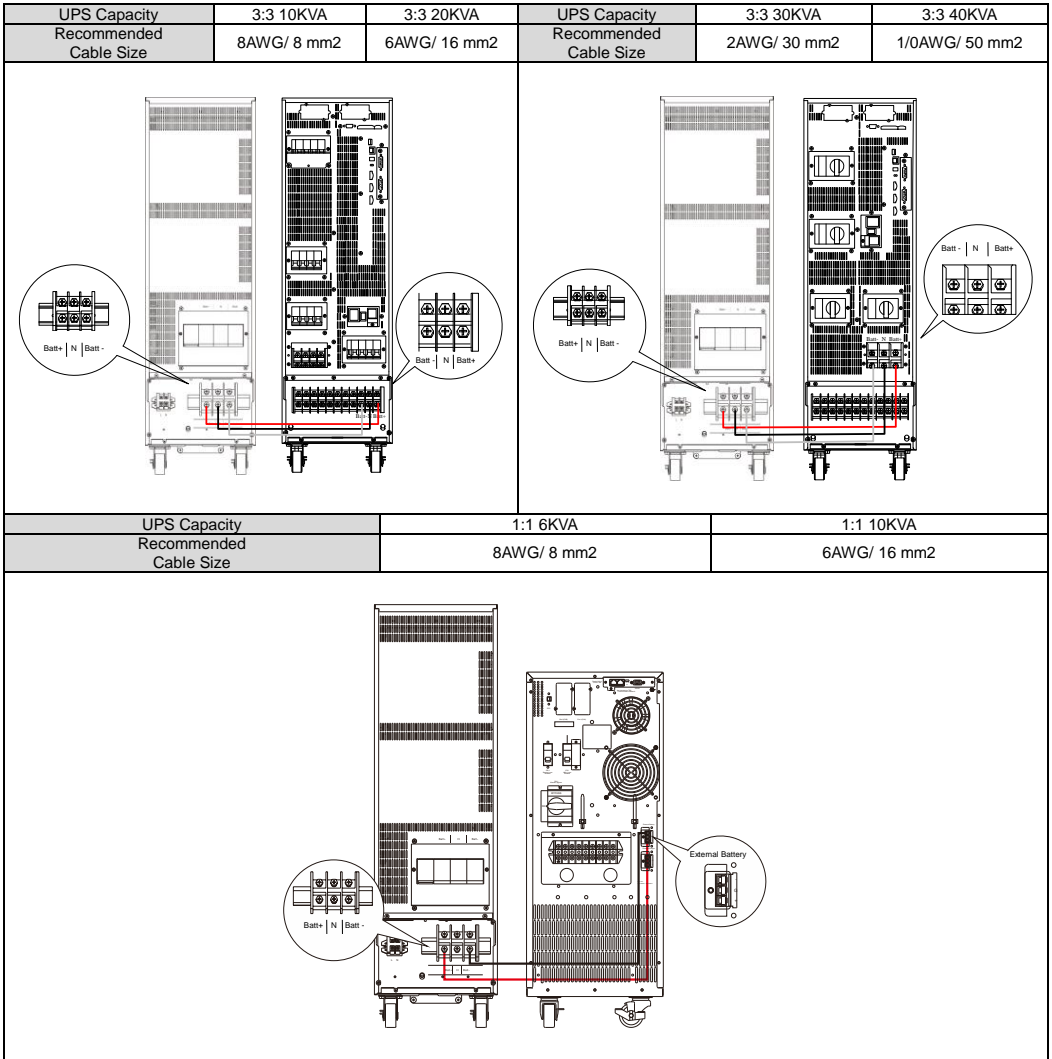
STEP4 : Remove the battery guardrail.

STEP5 : Disconnect battery cable and take the battery out of the battery bank.





3.8 Wiring of UPS and Battery Bank



3.9 Storage Instructions

For extended storage through moderate climate(-15 to +30 °C / +5 to +86 °F), the batteries should be charged for 12 hours every 6 months by plugging the UPS power cord into the wall receptacle. Repeat this every 3 months under high temperature (+30 to +45 °C / +86 to +113 °F) environment.

3.10 Specifications

■ 7AH/9AH

Battery bank												
UPS Capacity	1:1 6KVA/ 10KVA			3:3 10kVA			3:3 10KVA/ 15KVA/ 20KVA/ 30KVA/ 40KVA					
Voltage Rating(VDC)	240	216	192	±156	±168	±180	±192	±204	±216	±228	±240	
Battery Capacity	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	7AH 9AH	
Battery Quantity (pcs)	100 (20x5)	90 (18x5)	80 (16x5)	78 (26x3)	84 (28x3)	90 (30x3)	96 (32x3)	68 (34x2)	72 (36x2)	76 (38x2)	80 (40x2)	
Dimensions (WxHxD.)	mm	260x890x850										
	inch	10.24x35.04x33.46										
Weight W/O	kg	49.5										
	lb	109.12										
7AH/pcs 2.2 kg 4.85 lb	kg	269.5	247.5	225.5	221.1	234.3	247.5	260.7	199.1	207.9	216.7	225.5
	lb	594.1	545.6	497.1	487.4	516.5	545.6	574.7	438.9	458.3	477.7	497.1
9AH/pcs 2.4 kg 5.29 lb	kg	289.5	265.5	241.5	236.7	251.1	265.5	279.9	212.7	222.3	231.9	241.5
	lb	638.1	585.2	532.3	521.8	553.5	585.3	617.1	468.9	490.1	511.2	532.4
Operation Environment	0-40°C / 32-104°F, 30-90%RH non-condensing											

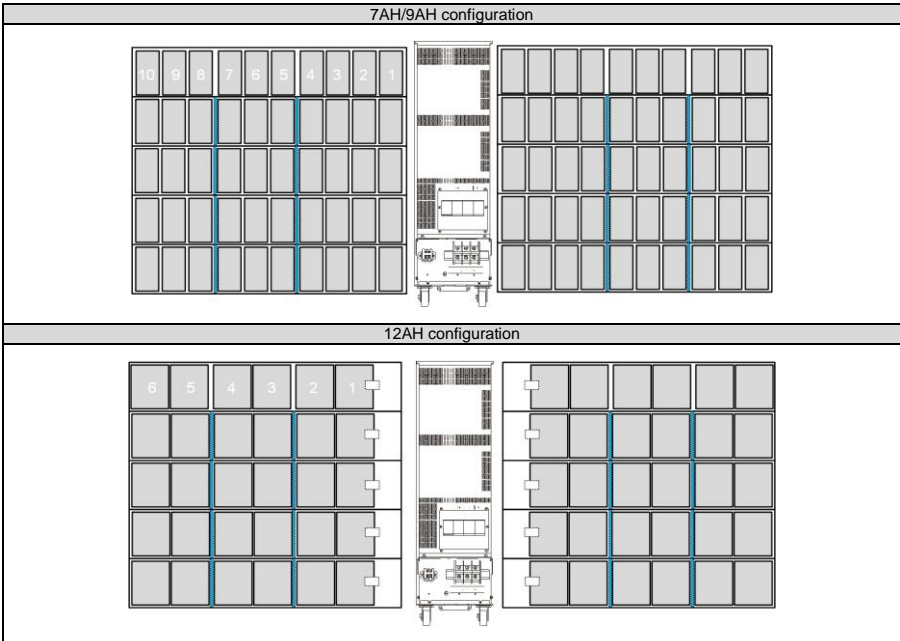
■ 12AH

Battery bank												
UPS Capacity	1:1 6KVA/ 10KVA			3:3 10kVA			3:3 10KVA/ 15KVA/ 20KVA/ 30KVA/ 40KVA					
Voltage Rating(VDC)	240	216	192	±156	±168	±180	±192	±204	±216	±228	±240	
Battery Capacity	12AH	12AH	12AH	12AH	12AH	12AH	12AH	12AH	12AH	12AH	12AH	
Battery Quantity (pcs)	40 (20*2)	36 (18*2)	32 (16*2)	52 (26x2)	56 (28x2)	60 (30x2)	32 (32x1)	34 (34x1)	36 (36x1)	38 (38x1)	40 (40x1)	
Dimensions (WxHxD)	mm	260x890x850										
	inch	10.24x35.04x33.46										
Weight W/O	kg	49.5										
	lb	109.12										
12AH/pcs 3.8 kg 8.37 lb	kg	201.5	186.3	171.1	247.1	262.3	277.5	171.1	178.7	186.0	193.9	201.5
	lb	443.9	410.4	376.9	544.7	578.2	611.7	377.2	393.9	410.0	427.4	444.2
Operation Environment	0-40°C / 32-104°F, 30-90%RH non-condensing											

4. Appendix

■ Battery Bank Descriptions

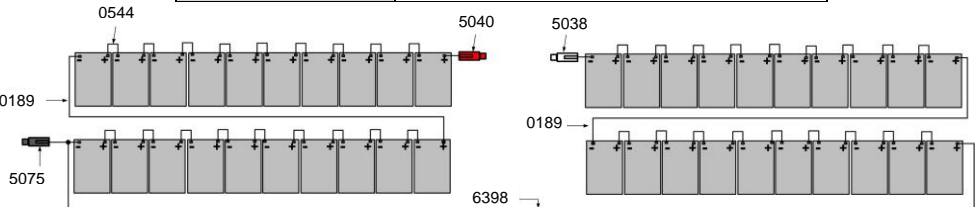
Battery bank has 5 shelves. For 7AH/9AH, 10 batteries can be placed on one shelf. For 12AH, 6 batteries can be placed on one shelf but for 1:1 UPS only 5 batteries, as below:



■ Connecting Cable to Battery

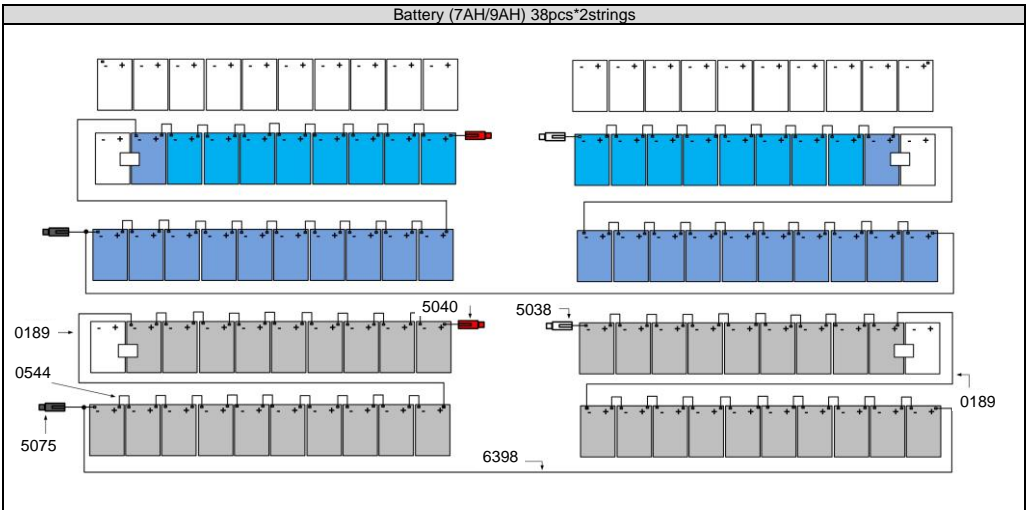
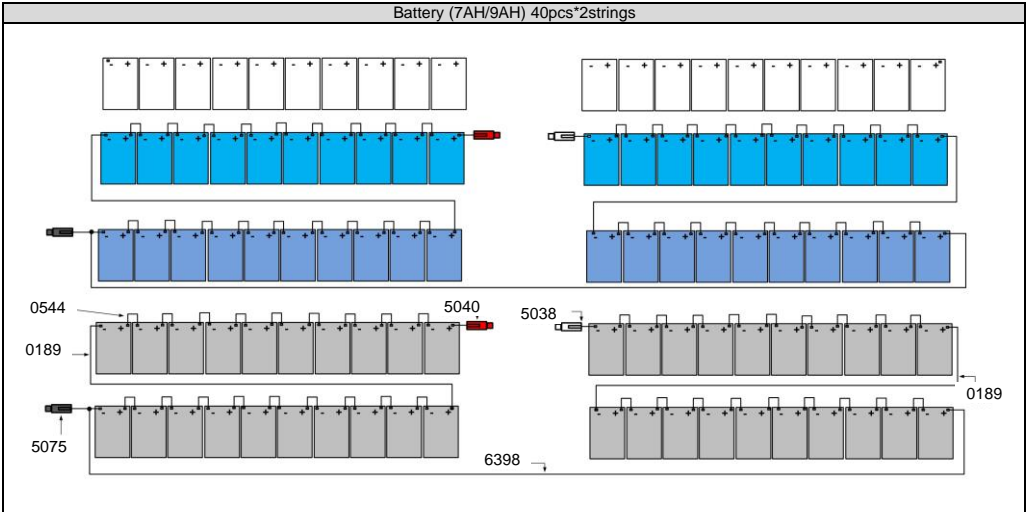
The internal wiring diagram, as below:

Cable#	Description
5040	Positive battery cable
5038	Negative battery cable
5075	Neutral battery cable
0189	Battery connection cable
0544	Battery connection cable
6398	Neutral battery connection cable

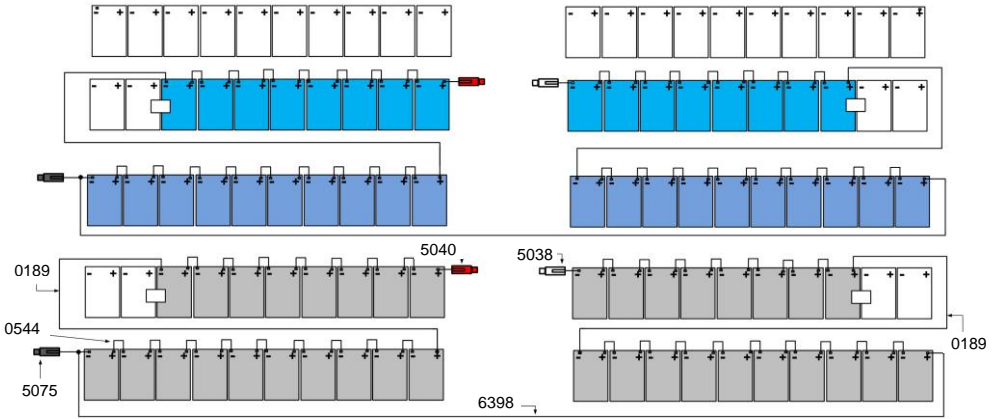


◆ 3:3 UPS Battery Bank Installation

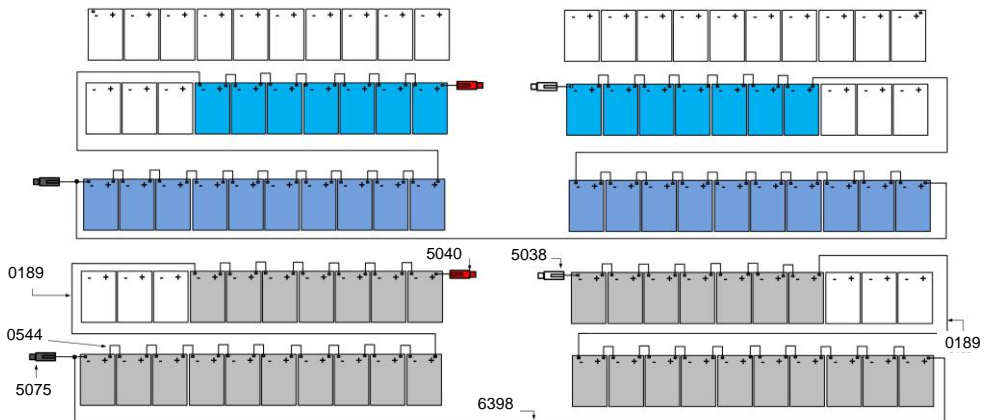
■ Battery (7AH/9AH) internal wiring diagram



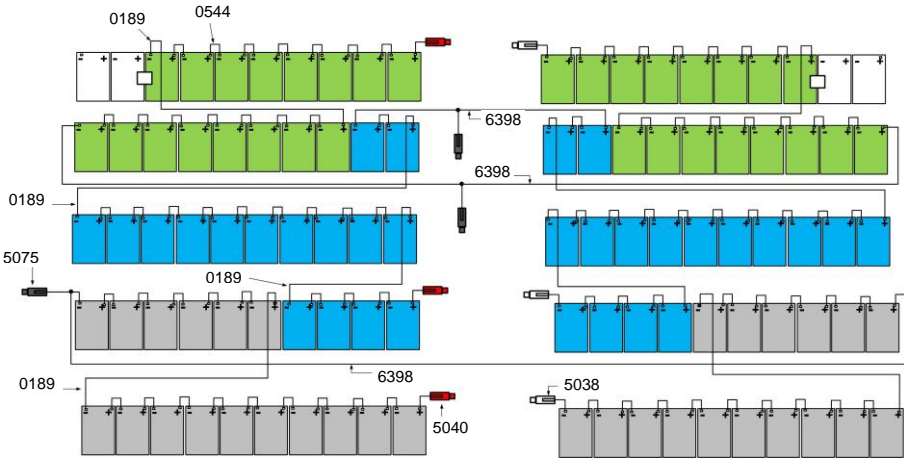
Battery (7AH/9AH) 36pcs*2strings



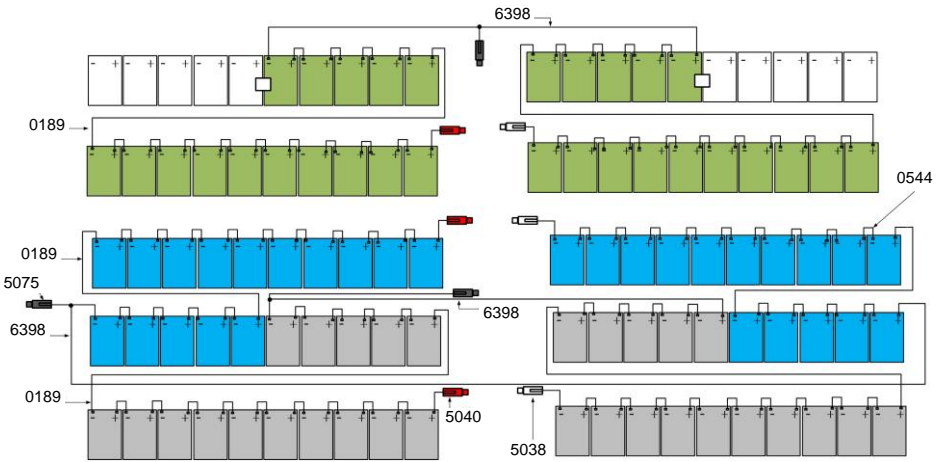
Battery (7AH/9AH) 34pcs*2strings



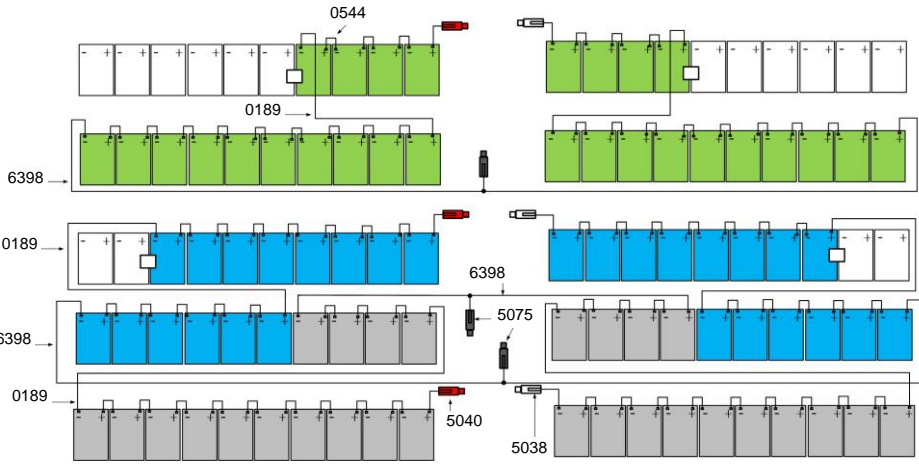
Battery (7AH/9AH) 32pcs*3strings



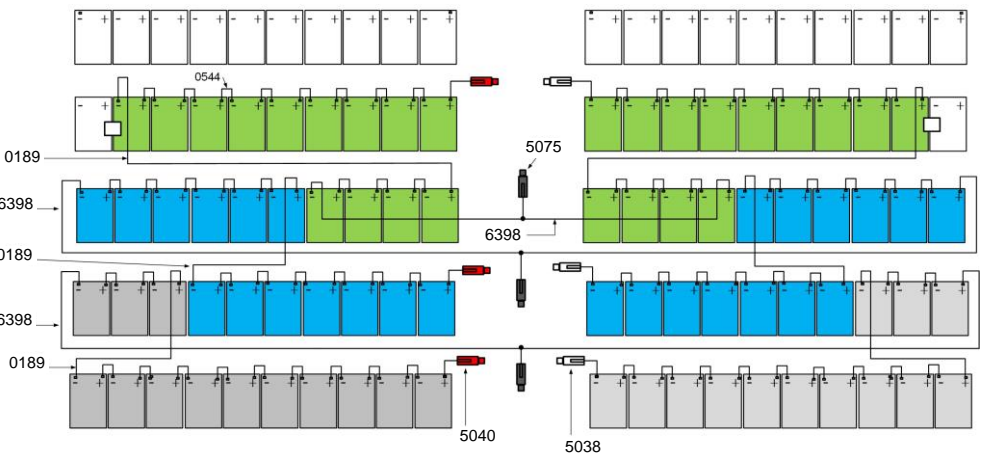
Battery (7AH/9AH) 30pcs*3strings



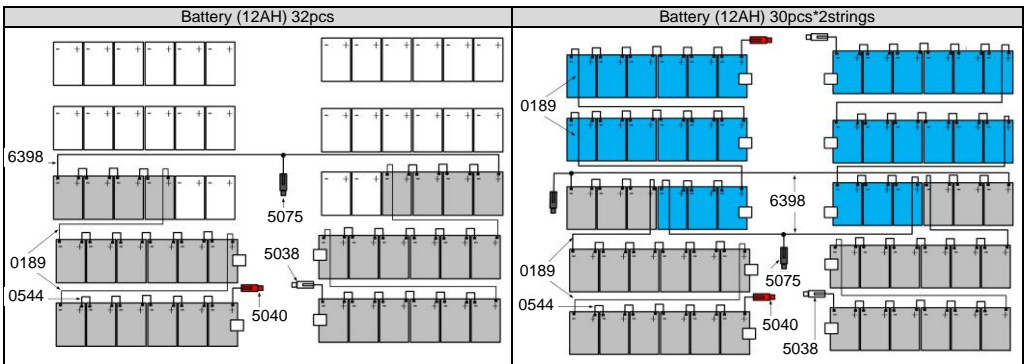
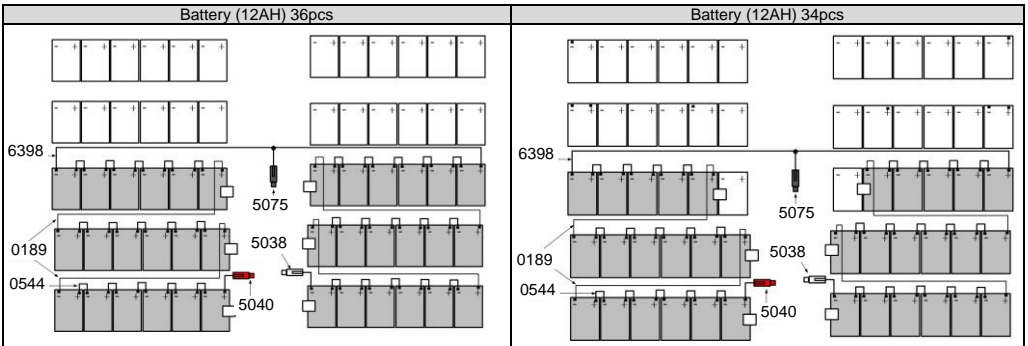
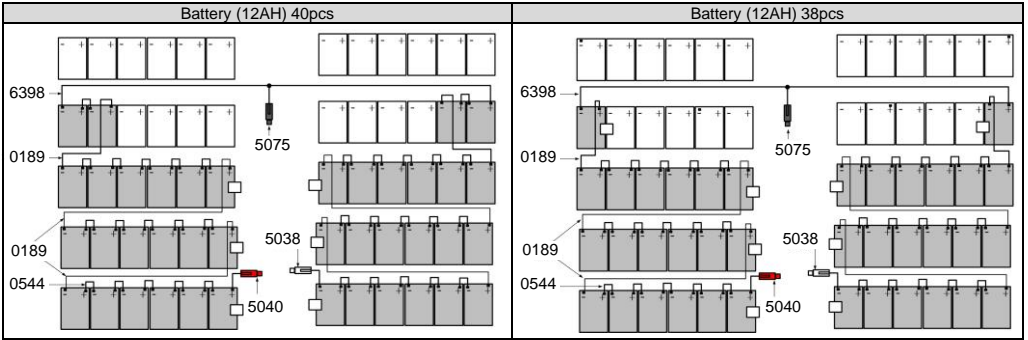
Battery (7AH/9AH) 28pcs*3strings

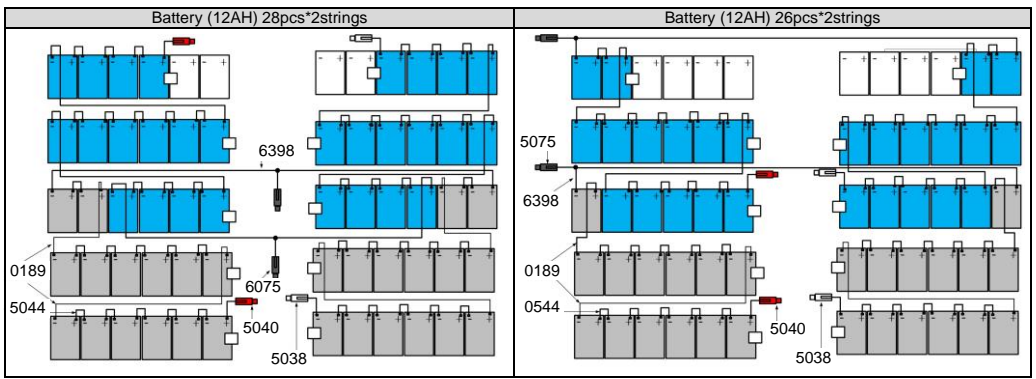


Battery (7AH/9AH) 26pcs*3strings



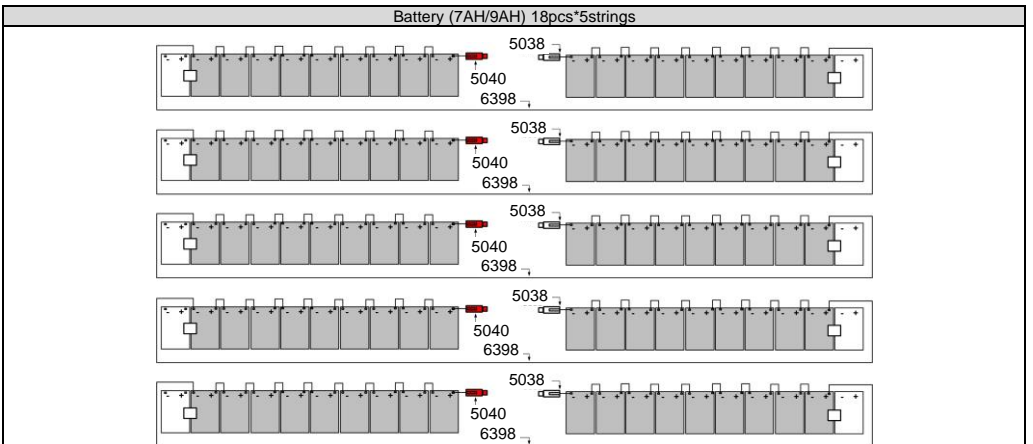
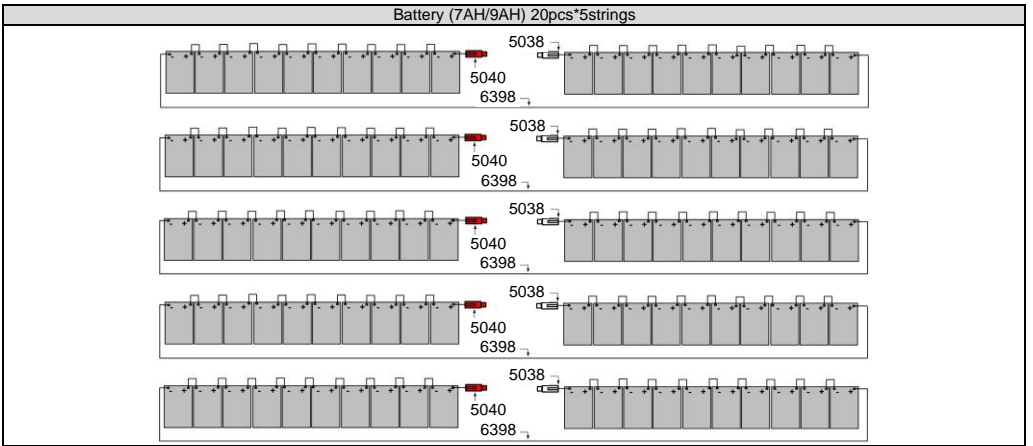
■ Battery (12AH) internal wiring diagram



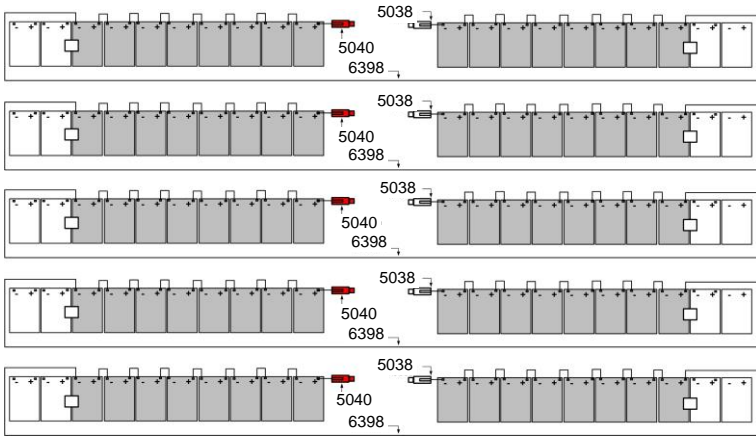


◆ 1:1 UPS Battery Bank Installation

- Battery (7AH/9AH) internal wiring diagram

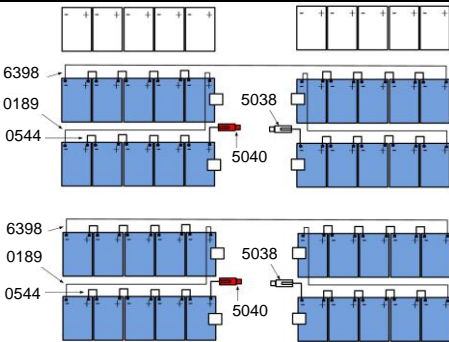


Battery (7AH/9AH) 16pcs*5strings

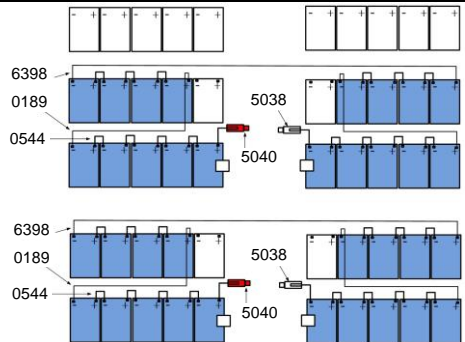


■ Battery (12AH) internal wiring diagram

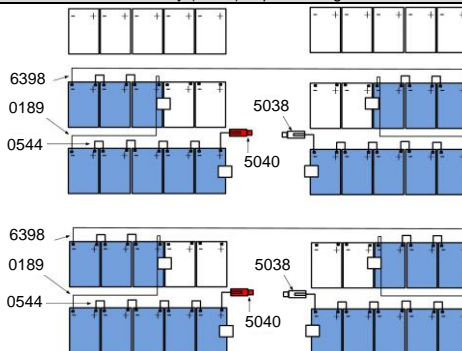
Battery (12AH) 20pcs*2strings



Battery (12AH) 18pcs*2strings



Battery (12AH) 16pcs*2strings



5. Dutypoint Standard Warranty

AGM is Dutypoint's service partner under the formation of Fluid Water Group. Dutypoint Systems standard product warranty is valid for a period of 12 months. To qualify for 24 months of cover, commissioning must be carried out by a qualified person from our service partner (AGM) within the first 12 months from the date of despatch. A servicing visit must be completed within 12 months from the date of commissioning by a qualified person from our service partner. Full terms and conditions are located on the website <https://www.dutypoint.com/terms-and-conditions>

If you need to contact us regarding any issue regarding your Dutypoint product, please contact Dutypoint or AGM customer support teams.

Dutypoint Tel: 01452 300110

Dutypoint Email: enquiries@dutypoint.com

AGM Tel: 03335 775151

AGM Email: service@agmservice.co.uk

