

# Delta UPS - Amplon Family

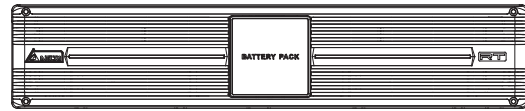
Delta External Battery Pack for  
Amplon RT 5/ 6/ 8/ 10/ 15/ 20kVA UPS

## Installation & Operation Quick Guide

ENGLISH

### 1 Product Introduction

The Delta External Battery Pack is applicable to Delta Amplon RT 5/ 6/ 8/ 10/ 15/ 20kVA UPS. When the UPS is operating during a power outage, the battery pack provides DC power, which maintains inverter operation to supply power to the critical loads connected to the UPS.



(Figure 1: Delta External Battery Pack Front View)

### 2 Important Safety Instructions

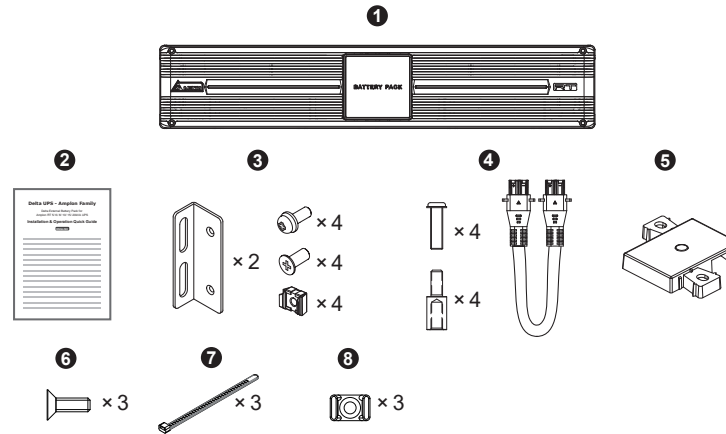
- Servicing of batteries and battery packs must be performed or supervised by qualified service personnel knowledgeable in batteries, battery packs and the required precautions. Keep unauthorized personnel away from batteries and battery packs.
- A battery can present a risk of electric shock and high short-circuit current.
- To reduce the risk of fire or electric shock, install the battery pack in a temperature and humidity controlled indoor area free of conductive contaminants.
- Forbid opening or removing the cover of the battery pack to avoid high voltage electric shock.
- The risk of dangerous high voltage is possible when the batteries are still connected to the UPS even though the UPS is disconnected from the mains. Do not forget to disconnect the battery cable to completely cut off the battery source.
- Only qualified service personnel can perform battery replacement. Before battery replacement, please turn off the battery breaker. If replacing the batteries without turning off the UPS, please make sure the UPS has detected "Battery Disconnected" before connecting the battery cable or turning on the battery breaker.
- Only use the same type of batteries from the same supplier. Never use old, new and different Ah batteries at the same time.
- The number of batteries must meet UPS requirements.
- Do not reverse or short circuit the polarity + and - when connecting the batteries because this will destroy the device and constitute a risk of electric shock or fire.
- Use a voltage meter to measure whether the total voltage, after battery pack connection, is around  $12.5Vdc \times$  the total number of batteries.
- The external slits and openings in the battery pack are provided for ventilation. To ensure reliable operation of the battery pack and to protect the battery pack from overheating, these slits and openings must not be blocked or covered. Do not insert any object into the slits and openings that may hinder ventilation.
- Do not allow liquid or any foreign object to enter the battery pack.
- Do not place beverages or any other liquid-containing vessels on or near the battery pack.
- Do not dispose of the battery or batteries in a fire. The batteries may explode.
- Do not open or mutilate the battery or batteries. The released electrolyte is harmful to the skin and eyes and may be toxic.



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- Observe the following before replacing 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 the top of batteries.
  5. Disconnect charging source prior to connecting or disconnecting the batteries' terminals.

### 3 Package List

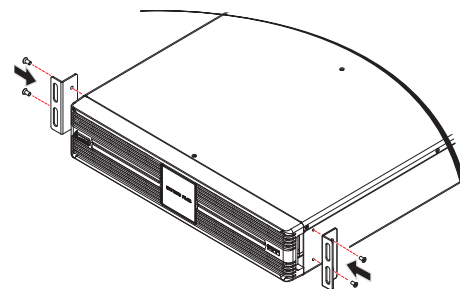


No.	Item	Q'ty
1	Delta External Battery Pack	1 PC
2	Installation & Operation Quick Guide	1 PC
3	Bracket Ear	1 SET
4	Battery Cable	1 SET
5	Tower Stand Extender	RT-6KB: 4 PCS RT-10KB: 6 PCS
6	M4 Screw	3 PCS
7	Cable Tie	3 PCS
8	Cable Ties Fixing Holder	3 PCS

### 4 Installation Procedures

#### Rack Mounting:

- 1 Attach the included bracket ears to the lateral mounting holes of the Delta external battery pack. See Figure 2.



(Figure 2: Mount the Bracket Ears)

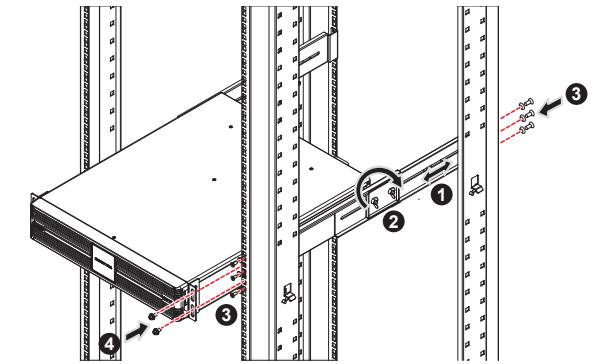
- 2 Follow steps 1 to 4 to install the Delta external battery pack in Delta's rail kit (optional). See Figure 3.

Step 1: Adjust the length of the rails according to your rack.

Step 2: Tighten the rails' nuts.

Step 3: Fix the rails on your rack.

Step 4: Install the Delta external battery pack on your rack and tighten the provided screws.



(Figure 3: Install the Delta External Battery Pack on Your Rack)



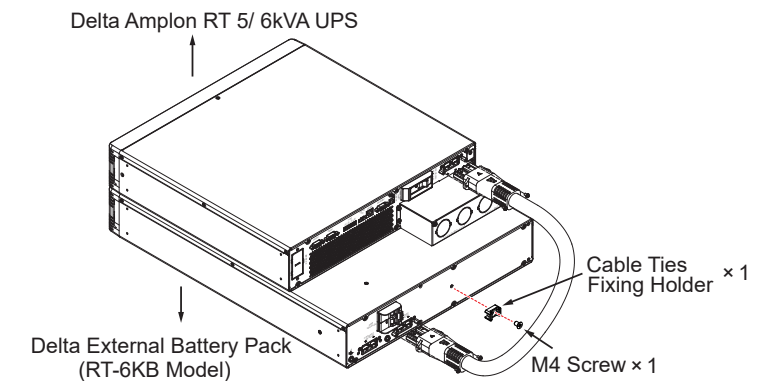
#### NOTE:

1. If you want to use a non-Delta rail kit, please only follow step 4.
2. If you want to use a non-Delta rail kit, the minimum distance for the Delta external battery pack supported on non-Delta rail kit is at least 40mm.

- 3 To eliminate the battery cable bending space, please use the M4 screws, the cable tie and the cable ties fixing holder (provided in the external battery pack's package) to fix the battery cable, so as to prevent interference between the battery cable and the panel of the Rack. The installation steps are as following. The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' fixing methods are similar. Thus, in Figure 4 & Figure 5, only the illustration of model RT-6KB and 5/ 6kVA UPS is taken for example.

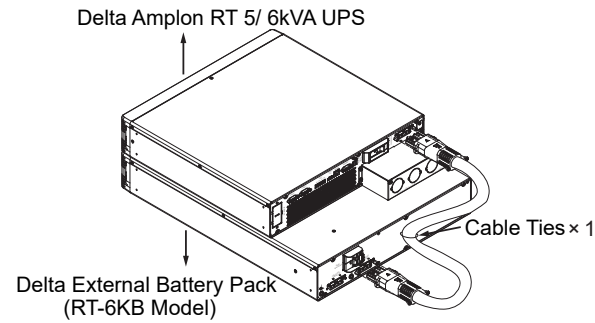
Step 1: Use the M4 screws (provided in the external battery pack's package) to fix cable ties fixing holder (provided in the external battery pack's package) on the hole of the rear panel.

See Figure 4.



(Figure 4: Fix the Cable Ties Fixing Holder)

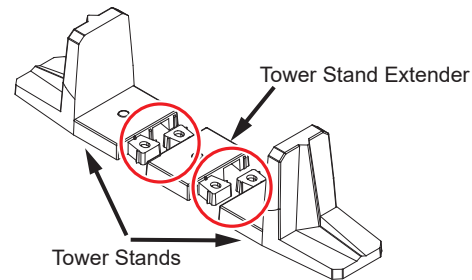
Step 2: After use the battery cable to connect the UPS and the external battery pack, please use the cable ties to fix the battery cable on the cable ties fixing holder. See **Figure 5**.



(Figure 5: Fix the Battery Cable)

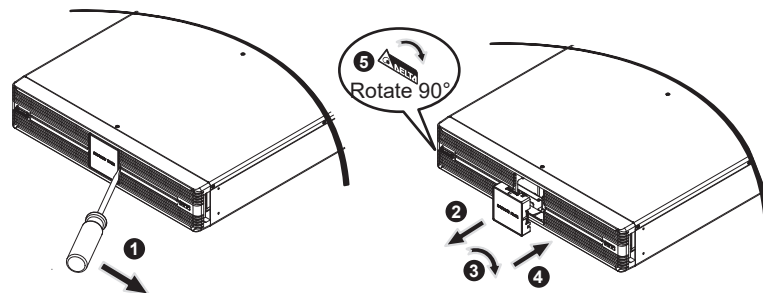
• **Tower Mounting:**

- 1 Connect the provided tower stand extenders with the tower stands provided in the UPS's carton (please take the UPS and the Delta external battery pack's size into consideration). See **Figure 6**.



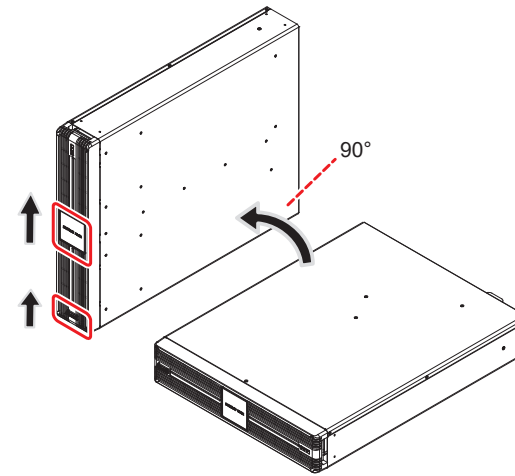
(Figure 6: Connect the Tower Stand Extenders with the UPS's Tower Stands)

- 2 Pull out the Delta external battery pack's control panel (1 & 2), rotate it 90° clockwise (3) and re-insert the control panel (4). After that, rotate the Delta logo nameplate 90° clockwise (5). See **Figure 7**.



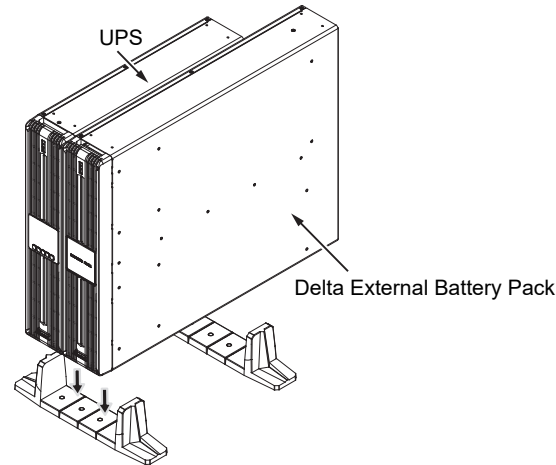
(Figure 7: Rotate the Delta External Battery Pack's Control Panel & Delta Logo Nameplate)

- 3 Carefully lift the Delta external battery pack upright with the Delta logo and the icon shown on the control panel facing up. A minimum of two people are required. See **Figure 8**.



(Figure 8: Place the Delta External Battery Pack Upright)

- 4 Place the Delta external battery pack and the UPS inside the tower stands. See **Figure 9**.

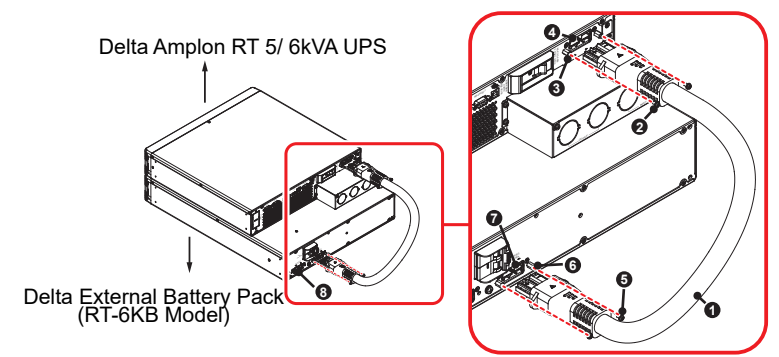


(Figure 9: Place the Delta External Battery Pack and the UPS inside the Tower Stands)

• **Connect the Delta External Battery Pack with the 5/ 6/ 8/ 10kVA UPS**

The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' paralleling methods and UPS connection methods are similar. Thus, in **Figure 10**, only the illustration of model RT-6KB and 5/ 6kVA UPS is taken for example.

- 1 Connect one end of the provided battery cable (1) to the external battery connector (4) on the UPS, and connect the other end to the external battery connector (7) on the Delta external battery pack. Use the provided screws (2) and standoffs (3) to fix the battery cable firmly. Make sure that the positive cable (+) connects to the positive pole (+) and the negative cable (-) connects to the negative pole (-). See **Figure 10**.



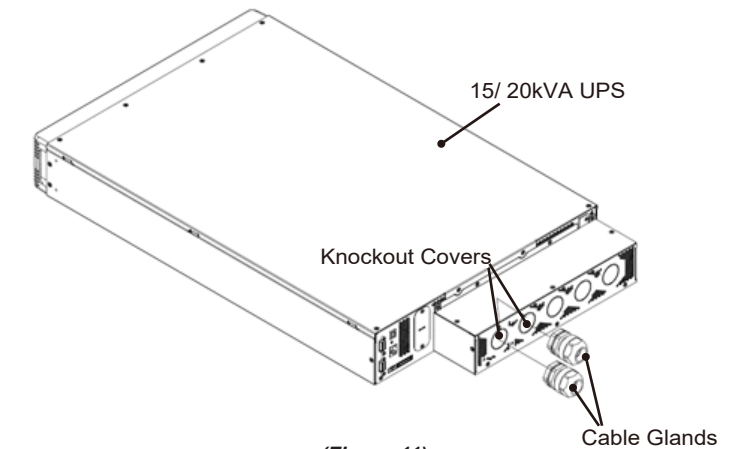
(Figure 10)

**NOTE:** There are two identical external battery connectors (7 & 8) on the Delta external battery pack, and you may use either of the battery connectors (7 & 8) to connect to the UPS.

• **Connect the Delta External Battery Pack with the 15/ 20kVA UPS**

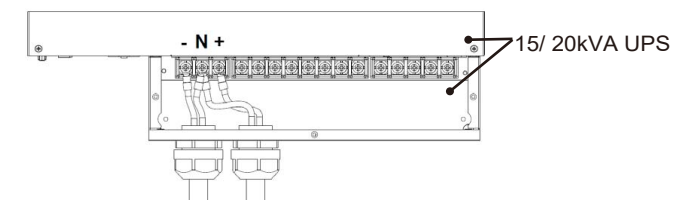
**NOTE:** If it is not for common battery application, each 15/ 20kVA UPS must connect to at least two external battery packs, and the number of battery packs must be the multiple of two and only two of the battery packs need to be connected to the 15/ 20kVA UPS. The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' paralleling methods and UPS connection methods are similar. Thus, in the following instructions and **Figure 13**, only one 15/ 20kVA UPS connecting to two Delta external battery packs (model RT-10KB) is taken for example.

- 1 Remove the two knockout covers from the UPS's rear panel, and install two cable glands (user-supplied) on the location where you removed the knockout covers. See **Figure 11**.



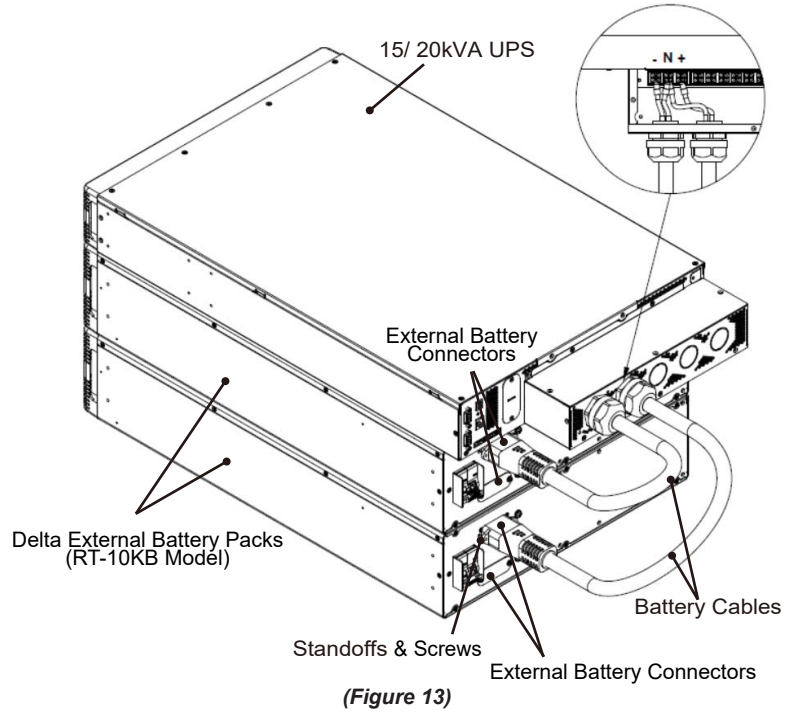
(Figure 11)

- 2 Insert the two battery cables (provided in the UPS's package) into the two user-supplied cable glands, connect the battery cables to the UPS's battery input terminals, and turn the cable glands in a clockwise direction in order to fix the cable glands on the UPS firmly. See **Figure 12**.



(Figure 12)

- Connect the two battery cables to the two battery packs' connectors respectively. For each battery cable, use the two screws and two standoffs (provided in the package with the battery cable) to firmly fix the battery cable on the battery pack. See **Figure 13**.



**NOTE:** There are two identical external battery connectors on the Delta external battery pack, and you may use either of the battery connectors to connect to the UPS.

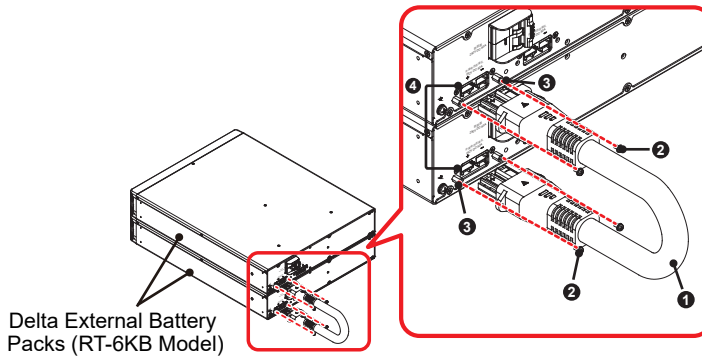
• **Parallel the Delta External Battery Packs with the 5/ 6/ 8/ 10kVA UPS**

To extend the backup time, you may parallel the Delta external battery packs before connecting them to the UPS. The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' parallel methods are similar. Thus, in **Figure 14**, only the illustration of RT-6KB model is taken for example.

**WARNING:** For parallel application, only use the same type of Delta external battery packs (same material No.).

- Use the provided battery cable (1) to connect each parallel Delta external battery pack's battery connector (4). Each Delta external battery pack has two identical battery connectors; you can choose either of them for connection. Make sure that the positive cable (+) connects to the positive pole (+) and the negative cable (-) connects to the negative pole (-). Use the screws (2) and standoffs (3) (provided in the battery cable's package) to fix the battery cable firmly on the parallel Delta external battery packs. Please see **Figure 14**.

**NOTE:** If you want to connect more than two Delta external battery packs, follow the steps mentioned above.



(Figure 14)

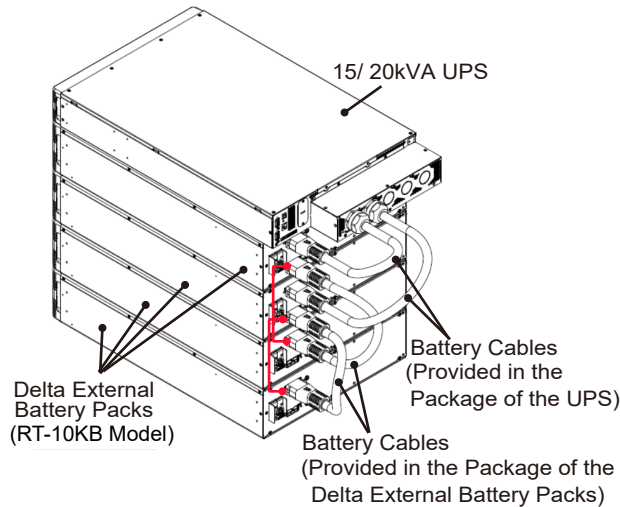
- After paralleling the Delta external battery packs, follow the steps mentioned in '**Connect the Delta External Battery Pack with the 5/ 6/ 8/ 10kVA UPS**' to complete the connection between the UPS and the parallel Delta external battery packs.

• **Connect the 15/ 20kVA UPS (Single Unit) with the Parallel Delta External Battery Packs**

**WARNING:** For parallel application, only use the same type of Delta external battery packs (same material No.).

If it is not for common battery application, each 15/ 20kVA UPS must connect to at least two external battery packs, and the number of battery packs must be the multiple of two and only two of the battery packs need to be connected to the 15/ 20kVA UPS. The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' parallel methods and UPS connection methods are similar. Thus, in the following instructions and **Figure 15**, only one 15/ 20kVA UPS connecting to four parallel Delta external battery packs (model RT-10KB) is taken for example.

- Each Delta external battery pack has two identical battery connectors; you can choose either of them for the battery cable connection mentioned below. Use the battery cable (provided in the Delta external battery pack) to connect the 1<sup>st</sup> and 3<sup>rd</sup> parallel Delta external battery packs' battery connectors. Use the battery cable (provided in the Delta external battery pack) to connect the 2<sup>nd</sup> and 4<sup>th</sup> parallel Delta external battery packs' battery connectors. Make sure that the positive cable (+) connects to the positive pole (+) and the negative cable (-) connects to the negative pole (-). Please see **Figure 15**.
- After paralleling the Delta external battery packs, follow the steps mentioned in '**Connect the Delta External Battery Pack with the 15/ 20kVA UPS**' to complete the connection between the UPS and any two of the parallel Delta external battery packs. Please see **Figure 15**.

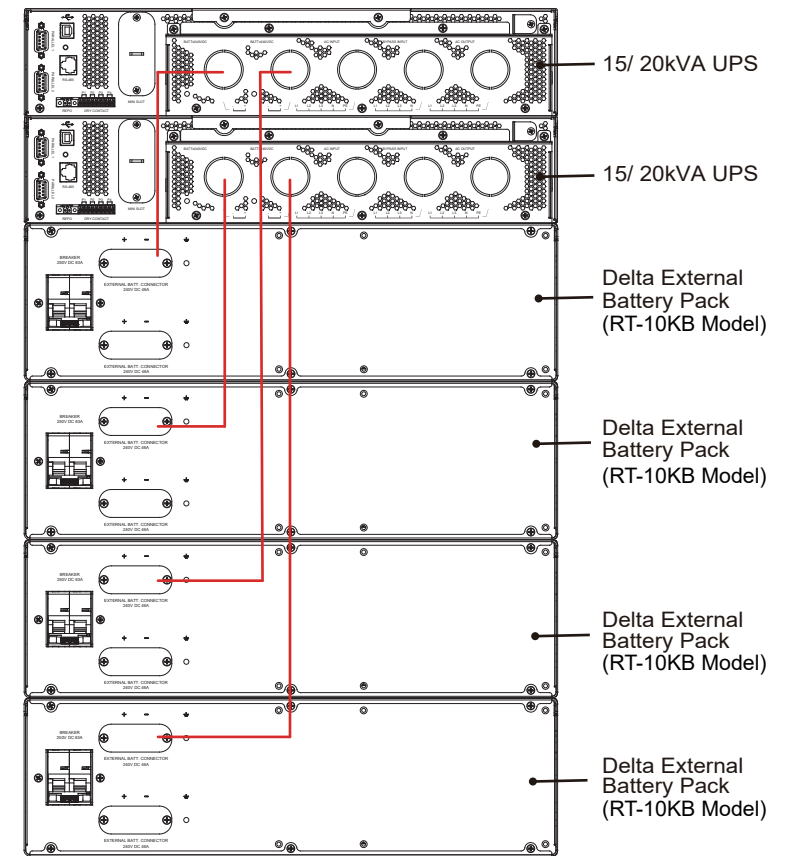


(Figure 15)  
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• **Connect the 15/ 20kVA UPSs (Parallel Units) with the Delta External Battery Packs**

If it is not for common battery application, each 15/ 20kVA UPS must connect to at least two external battery packs, and the number of battery packs must be the multiple of two and only two of the battery packs need to be connected to the 15/ 20kVA UPS. The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' parallel methods and UPS connection methods are similar. Thus, in the following instructions and **Figure 16**, each of the two parallel 15/ 20kVA UPSs connecting to two parallel Delta external battery packs (model RT-10KB) is taken for example.

- Use the two battery cables (provided in the 1<sup>st</sup> parallel 15/ 20kVA UPS's package) to connect the 1<sup>st</sup> parallel 15/ 20kVA UPS with its two Delta external battery packs. Use the two battery cables (provided in the 2<sup>nd</sup> parallel 15/ 20kVA UPS's package) to connect the 2<sup>nd</sup> parallel 15/ 20kVA UPS with its two Delta external battery packs. Please see **Figure 16** and cross-refer to '**Connect the Delta External Battery Pack with the 15/ 20kVA UPS**'.



(Figure 16)

**NOTE:** If you want to connect more than two Delta external battery packs (the number of battery packs must be the multiple of two) to any parallel 15/ 20kVA UPS, please refer to the steps above.

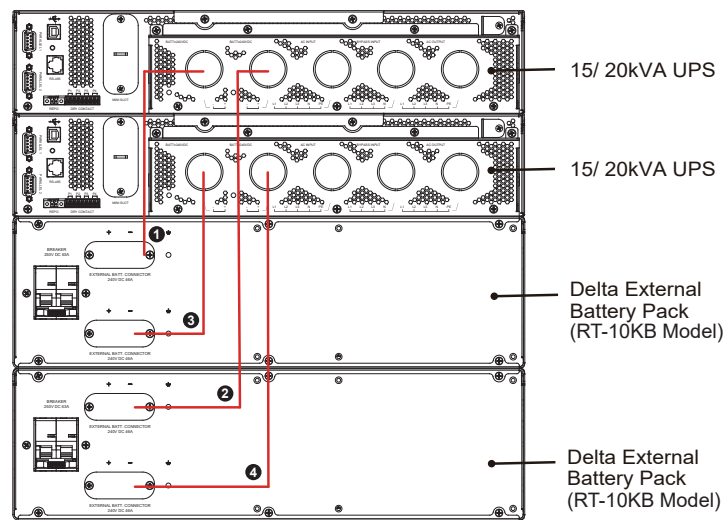
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• **Common Battery Application (only Applicable to Two Parallel 15/ 20kVA UPSs)**

For common battery application, it is only applicable to two parallel 15/ 20kVA UPSs. Please note that the number of external battery packs must be the multiple of two. The Delta external battery pack has two models, RT-6KB and RT-10KB. The two models' UPS connection methods are similar. Thus, in the following instructions and **Figure 17**, two parallel 15/ 20kVA UPSs connecting to two Delta external battery packs (model RT-10KB) are taken for example.

- 1 Use the two battery cables (provided in the 1<sup>st</sup> parallel 15/ 20kVA UPS's package) to connect the 1<sup>st</sup> and 2<sup>nd</sup> Delta external battery packs' battery connectors. Please see 1 and 2 shown in **Figure 17** and cross-refer to 'Connect the Delta External Battery Pack with the 15/ 20kVA UPS'.
- 2 Use the two battery cables (provided in the 2<sup>nd</sup> parallel 15/ 20kVA UPS's package) to connect the 1<sup>st</sup> and 2<sup>nd</sup> Delta external battery packs' battery connectors. Please see 3 and 4 shown in **Figure 17** and cross-refer to 'Connect the Delta External Battery Pack with the 15/ 20kVA UPS'.



(Figure 17)

## 5 Operation Procedures

- 1 Follow **Delta Amplon RT Series 5/ 6/ 8/ 10kVA UPS User Manual & Delta Amplon RT Series 15/ 20kVA UPS User Manual** to execute input/ output connection.
- 2 Follow **4 Installation Procedures** to connect the UPS and the Delta external battery pack(s).
- 3 Turn on every Delta external battery pack's breaker and the UPS's input breaker.
- 4 Follow **Delta Amplon RT Series 5/ 6/ 8/ 10kVA UPS User Manual & Delta Amplon RT Series 15/ 20kVA UPS User Manual** to turn on the UPS.

## 6 Optional Accessories

No.	Item	Function
1	Rail Kit	Mounts the UPS or the external battery pack to your rack and allows easy removal and maintenance.
2	Tower Stand	Mounts the UPS or the external battery pack in an upright position.

**NOTE:** If you need any rail kit or tower stand for installation, please contact your local dealer or customer service.

## 7 Technical Specifications

Delta External Battery Pack		RT-6KB	RT-10KB
<b>Applicable to Amplon RT Series UPS</b>		5/6/8/10/15/20kVA*1	
<b>Battery</b>	Type	VRLA	
	Q'ty	16 × 12V/7Ah	20 × 12V/9Ah
<b>Dimensions (W × D × H)</b>		440 × 565 × 88 mm (17.3" × 22.2" × 3.5")	440 × 650 × 130 mm (17.3" × 25.6" × 5.1")
<b>Weight</b>		39 kg (86 lb)	67 kg (147.7 lb)
<b>Environment</b>	Operating Temperature	0 ~ 40°C (32 ~ 104°F)	
	Relative Humidity	5 ~ 95% (non-condensing)	

- NOTE:**
1. \*1: RT-6KB is default for RT 5/ 6kVA UPS, and RT-10KB for RT 8/ 10/ 15/ 20kVA UPS.
  2. Refer to the rating label for the safety rating.
  3. All specifications are subject to change without prior notification.

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