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.
- Avoid 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.
- Turn off the UPS and cut off the AC source before performing battery/ battery pack replacement.
- 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 × the total number of batteries.
- The external slits and openings in the battery pack are provided for ventilation.
- 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.

3 Package List

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Q’ty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Delta External Battery Pack</td>
<td>1 PC</td>
</tr>
<tr>
<td>2</td>
<td>Installation &amp; Operation Quick Guide</td>
<td>1 PC</td>
</tr>
<tr>
<td>3</td>
<td>Bracket Ear</td>
<td>1 SET</td>
</tr>
<tr>
<td>4</td>
<td>Battery Cable</td>
<td>1 SET</td>
</tr>
<tr>
<td>5</td>
<td>Tower Stand Extender</td>
<td>RT-6KB: 4 PCS RT-10KB: 8 PCS</td>
</tr>
</tbody>
</table>

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

(Figure 2: Mount the Bracket Ears)

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

1. Adjust the length of the rails according to your rack.
2. Tighten the rails’ nuts.
3. Fix the rails on your rack.
4. Install the Delta external battery pack on your rack and tighten the provided screws.

(Figure 4: Connect the Tower Stand Extenders with the UPS’s Tower Stands)

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

(Figure 5: Rotate the Delta External Battery Pack’s Control Panel & Delta Logo Nameplate)

Continue to the Next Page ➔ ➔
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 6.

Place the Delta external battery pack and the UPS inside the tower stands. See Figure 7.

Figure 6: Place the Delta External Battery Pack Upright

Place the Delta external battery pack and the UPS inside the tower stands. See Figure 6.

Connect the Delta external battery pack and the UPS inside the tower stands. See Figure 7.

Place the Delta external battery pack and the UPS inside the tower stands. See Figure 6.

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 8, only the illustration of model RT-6KB and 5/6kVA UPS is taken for example.

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 8, only the illustration of model RT-6KB and 5/6kVA UPS is taken for example.

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' parallel methods and UPS connection methods are similar. Thus, in the following instructions and Figure 11, only one 15/20kVA UPS connecting to two Delta external battery packs (model RT-10KB) is taken for example.

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' parallel methods and UPS connection methods are similar. Thus, in the following instructions and Figure 11, 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 9.

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 10.

NOTE: There are two identical external battery connectors (1 & 2) on the Delta external battery pack, and you may use either of the battery connectors (1 & 2) to connect to the UPS.

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

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Use the provided battery cable (1) to connect each parallel Delta external battery pack’s battery connector (2). 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 (−). See Figure 8.

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’ paralleling methods are similar. Thus, in Figure 12, 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.).

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1. Use the provided battery cable (1) to connect each parallel Delta external battery pack’s battery connector (2). 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 (−). See Figure 8.

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’ paralleling methods are similar. Thus, in Figure 12, 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.).
the positive pole (+) and the negative cable (-) connects to the negative pole (-). Use the screws (,) and standoffs (,) (provided in the battery cable’s package) to fix the battery cable firmly on the parallel Delta external battery packs. Please see Figure 12.

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

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 13.

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 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 14, each of the two parallel 15/ 20kVA UPSs connecting to two 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 1st and 4th 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 13.

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 14, 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 1st parallel 15/ 20kVA UPS’s package) to connect the 1st parallel 15/ 20kVA UPS with its two Delta external battery packs. Use the two battery cables (provided in the 2nd parallel 15/ 20kVA UPS’s package) to connect the 2nd parallel 15/ 20kVA UPS with its two Delta external battery packs. Please see Figure 14 and cross-refer to ‘Connect the Delta External Battery Pack with the 15/ 20kVA UPS’.

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

For common battery application, only use the same type of Delta external battery packs. Please see Figure 15 and cross-refer to ‘Connect the Delta External Battery Pack with the 15/ 20kVA UPS’.

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 UPSs, please refer to the steps above.

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 15, two parallel 15/ 20kVA UPSs connecting to two Delta external battery packs (model RT-10KB) are taken for example.

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


4. Follow Installation Procedures to connect the UPS and the Delta external battery pack(s).

5. Turn on every Delta external battery pack’s breaker and the UPS’s input breaker.


7. Technical Specifications

<table>
<thead>
<tr>
<th>Delta External Battery Pack</th>
<th>RT-6KB</th>
<th>RT-10KB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable to Amplon RT Series UPS</td>
<td>5/6/8/10/15/20kVA*</td>
<td></td>
</tr>
<tr>
<td>Battery Type</td>
<td>VRLA</td>
<td></td>
</tr>
<tr>
<td>Q’by</td>
<td>16 x 12V/7Ah</td>
<td>20 x 12V/9Ah</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>440 x 565 x 88 mm (17.3” x 22.2” x 3.5”)</td>
<td>440 x 650 x 130 mm (17.3” x 26.0” x 5.1”)</td>
</tr>
<tr>
<td>Weight</td>
<td>39 kg (86 lb)</td>
<td>67 kg (147.7 lb)</td>
</tr>
<tr>
<td>Environment Operating Temperature</td>
<td>0 ~ 40°C (32 ~ 104°F)</td>
<td></td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>5 ~ 95% (non-condensing)</td>
<td></td>
</tr>
</tbody>
</table>

NOTE:
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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