

Installation Manual



Lithium Battery Systems TL Series

**VHR TL4850LFP, VHR TL4880LFP, VHR TL48100LFP, VHR
TL48100LFP-3U, VHR TL48150LFP, VHR TL48200LFP**

Dear Customer,





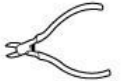

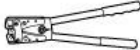

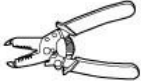





Thank you for choosing HRESYS Lithium Battery Systems!

Unboxing & Initial inspection

- Please read this manual before installation.
- Please inspect the package before unboxing, if any destroy with appearance, contact with the supplier as soon as possible.
- This device shall be installed and operated by professionals.

Preparation for Installation

- Batteries shall not be placed in direct sunshine or close to heat source.
- Batteries shall be installed in place with good ventilation to assure **sufficient** enough heat dissipation.
- Batteries shall be placed in area with clean **air** ambient and low humidity.
- Heavy weight shall not be placed on any cable.
- ~~Required~~ **Appropriate** tools and materials **must be used** ~~are available~~. Use **insulated only tools with insulated handles**.
- The following figure **illustration below** is for reference only.

 Phillips screwdriver	 Flathead screwdriver	 Adjustable torque wrench	 Heat shrink tubing
 Diagonal plier	 Power cable cutting pliers	 Power cable crimping tool	 Network cable pliers
 Wire clippers	 Clamp meter	 Hot air gun	 Heat shrink tubing
 Protective gloves	 Protective gloves		

Installation of Battery Modules

Battery modules of TL-LFP series are applicable for installation in 19-inch cabinets.

Cabinet Information:

19-inch Standard Cabinet;

Dimensions: 600mm(L) x 600mm(W) x 1000mm(H);



Step 1: Secure the battery shelf firmly into the cabinet using M6 bolts.



Step 2: Place the module onto the shelf and push the module into the cabinet.



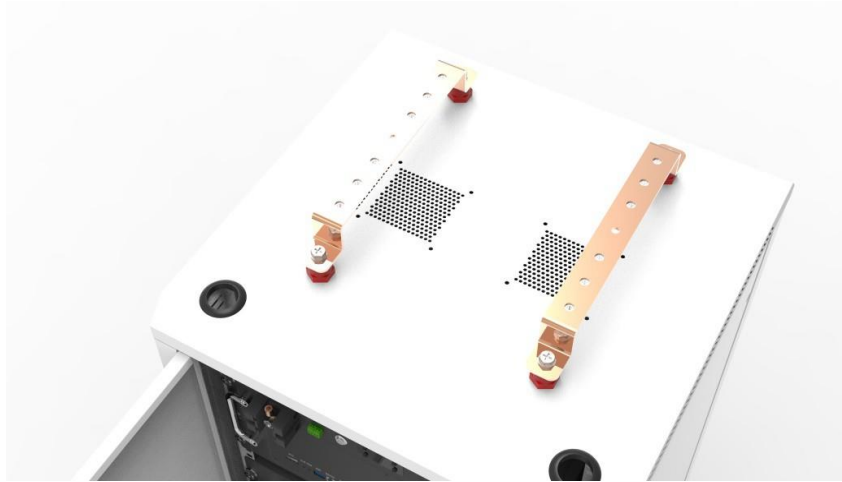
Step 3: After the module is placed inside the cabinet, secure tight the module front panel to the 19" rails of the cabinet using M6 bolts.



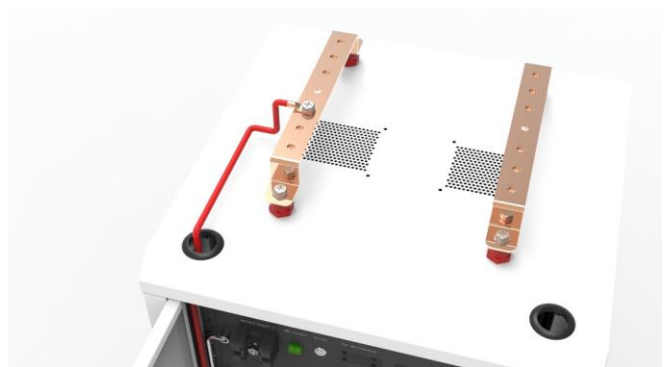
Step 4: Install remaining battery modules as per the steps above, and ensure all the modules are fixed firmly.



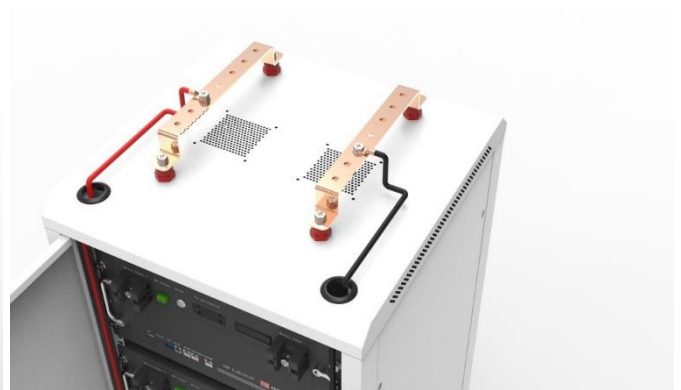
Step 5: Install stand-off insulators on the top panel of the cabinet, and fix the output busbars firmly to the stand-off insulators top by bolts.



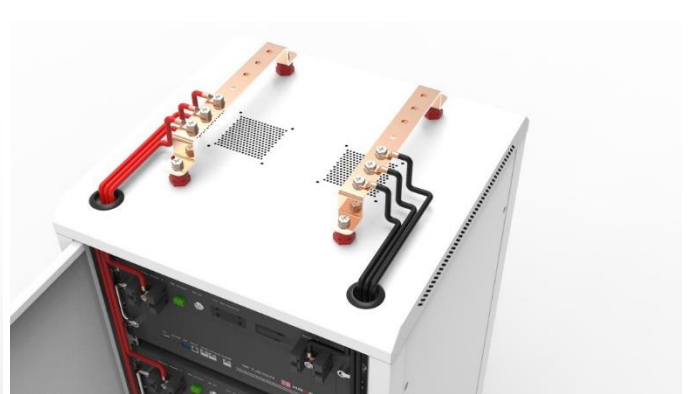
Step 6: Connect securely positive terminal of each module with the bottom end of positive output cables . Direct the positive cable up, towards the cabinet's top panel, along the side panel as shown on the picture (below-left), through one of two cable holes in the top panel of the cabinet. Then connect the top end of the positive output cable firmly, by bolt, to the positive busbar installed on stand-off insulators on the cabinet top panel, as its shown on the picture (below-right).



Step 7: Connect securely negative terminal of each module with the bottom end of negative output cables. Direct the positive cable up, towards the cabinet's top panel, along the side panel as shown on the picture (below-left), through one of two cable holes in the top panel of the cabinet. Then connect the top end of the negative output cables firmly, by bolt, to the negative busbar installed on stand-off insulators on the cabinet top panel, as its shown on the picture (below-right).



Step 8: Steps 6. and 7. to be repeated for all the modules installed in the rack (see pictures below).



Step 9: Connect the communication lines between modules. Reserve one communication line in the top module for connection with PCS.



Step 10: IMPORTANT ! Connect firmly each module's front panel to the 19" rack of the cabinet by earthing cable (as per picture below-left).



Step 11: Installation is complete.





Smart Energy Solutions for a Cleaner World

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