AESON POWER



HRESYS

48V LI-ION BATTERY SYSTEM ASSEMBLY INSTRUCTIONS

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1 Safety & Warning

1.1 - Unboxing and Inspection

- Please read this manual before commencing the installation.
- Please inspect the package before unboxing, if any defects of external appearance - contact with the supplier as soon as possible.
- The battery system must be assembled, installed, commissioned, and operated by professionally trained personnel only.

1.2 - Safety

- Batteries shall not be placed under direct sunlight or close to a heat source.
- Batteries shall be installed in a place with good ventilation to assure enough heat dissipation.
- The battery systems shall be placed in a location with clean air and low humidity.
- Heavy weight shall not be placed on any cable.
- Required tools and materials are available. Use only insulated tools. The following figure 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		

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Below are the recommended furniture moving dollies to lift and move the rack into the final location.



2 General

The system consists of an IP21 cabinet with 19-rack with side panels and a front door. The battery shelves and a pre-assembled DC Distribution Module secured to the 19-inch rack. The DC Distribution module consists of a mounting panel, battery isolators, output busbars, cables and wires. The battery modules are to be installed on battery shelves – one module per shelf, as per the instruction below.

3 Installation Instruction

3.1 – DC Distribution module

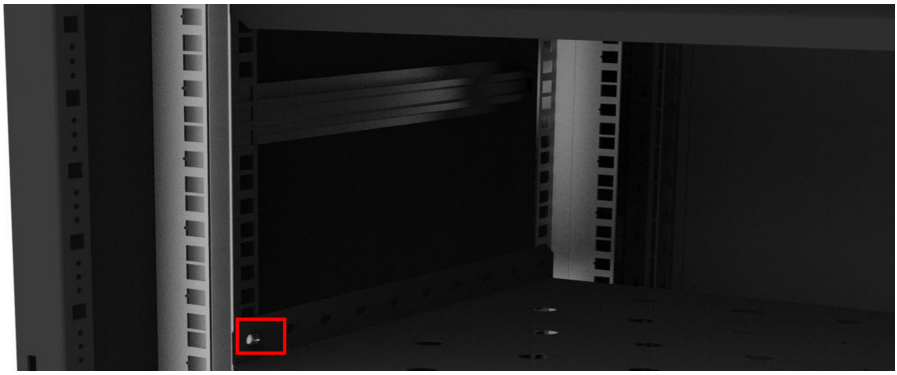
Step 1:

The 19-inch rack enclosure comes with the DC Distribution module already installed. Check if there is no damage to the DC Distribution module front panel, battery isolators (double pole miniature circuit breakers - MCBs), connections of the output DC cables to the circuit breakers, etc.). The number of battery isolators (MCBs) must coincide with the number of battery shelves.

NOTE:

a. Each of the Isolators is a Double Pole DC Miniature Circuit Breaker rated at 100A, 10kA.

b. The positive and negative DC output copper busbars are firmly fixed, properly marked and the DC output positive and negative circuit breaker output cables are correctly connected to the busbars.



Step 2:

Connect all the positive battery cables to the positive output busbar and all the negative battery cables to the negative output busbar of the DC Distribution module.



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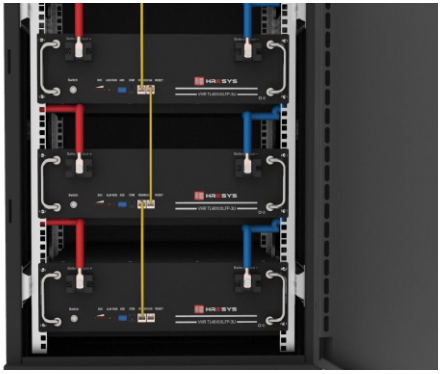
3.2 – Connection of the DC Distribution Module to the Battery Modules

Connect the red positive battery power cable, from the CB1 of the DC Distribution Module to the positive terminal of the Battery Module 1, and the black negative battery power cable from the CB1 of the DC Distribution Module to the negative terminal of the Battery Module 1. The positive cables are to be located at the Left-Hand Side and the negative power cables are to be located at the Right-Hand Side of the 19-inch rack (as per the image below).
Repeat the operation for connecting the CB2 to Battery Module 2, CB3 to Battery Module 3 and to the other remaining modules, in the same pattern.



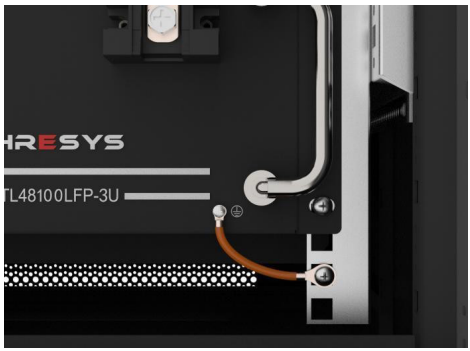
3.3– Communication Cables

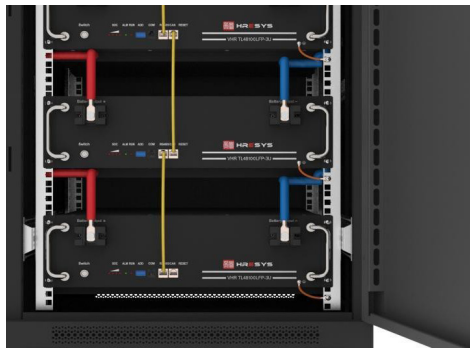
Connect the communication lines between modules in a Daisy-Chain manner. Reserve one communication line in the top module for connection with inverter.



3.4 – Earthing

Connect firmly the earthing cables by the screws to each module's front panel and the cabinet's 19-inch rack, as per the image below. Then connect the cabinet(s) earthing circuitry to the building's earthing contour.





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