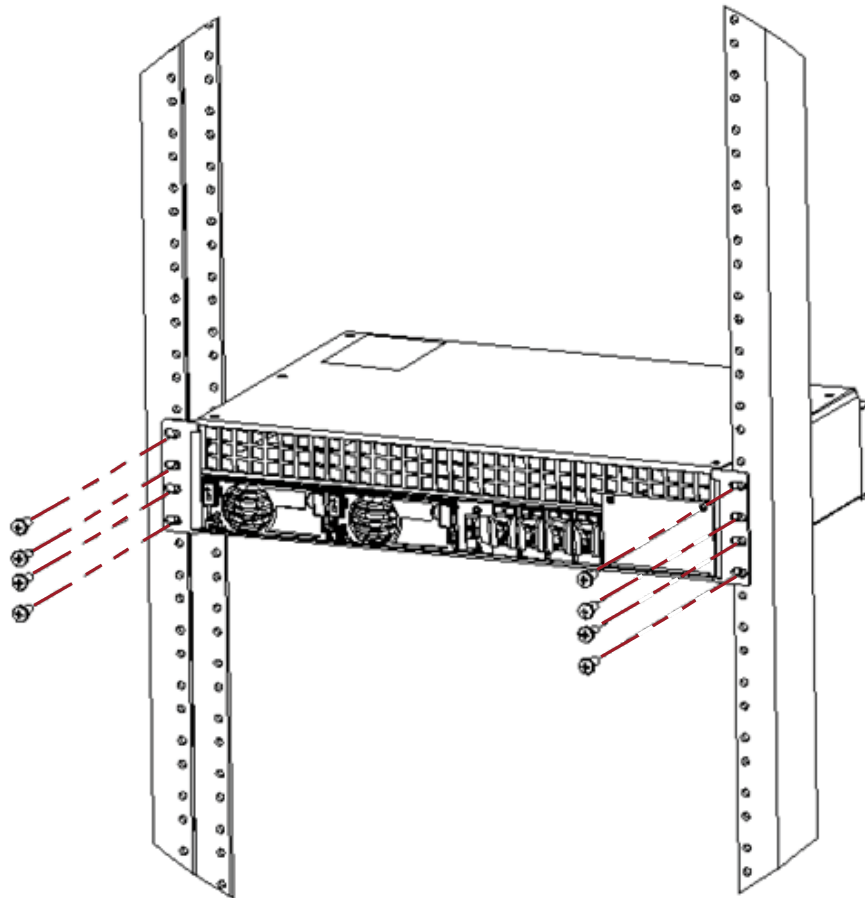


Aspiro 1U in 2U Enclosure

Quick Install Guide



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START HERE

This guide includes the basic steps for installation of a UL listed Aspiro 2U enclosure. For more detailed information, please see the full instruction manual which is available from UNIPOWER.

Disclaimer

UNIPOWER is not responsible for system problems that are the result of incorrect installation or modification of the instructions provided in this guide.

WARNING!

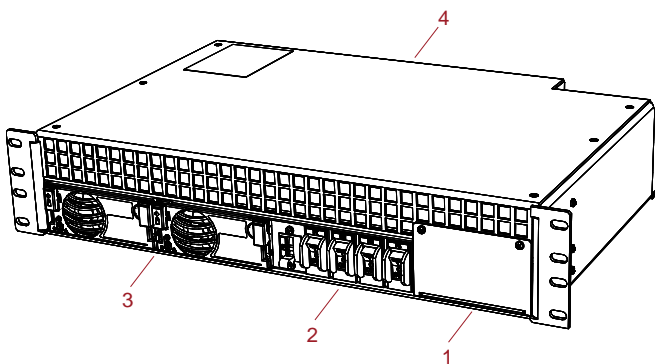
There are potential hazards related to the installation of this system. It is recommended to carefully read and understand the contents of the [instruction manual](#) Safety Chapter before performing this installation.

WARNING!

It is strongly recommended to turn off the AC Power Source before performing this installation.

1 System Description

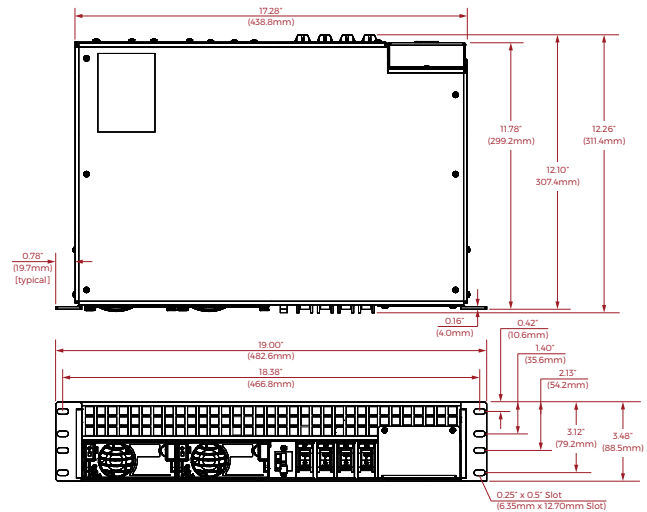
The system is supplied as a single 19 inch x 2U rack mount enclosure and incorporates positions for up to two rectifier modules and one controller.



1. Slot for optional controller.
2. Battery (x1) and load (x4) breakers.
3. Slots for one or two rectifier modules.
4. AC input, DC output and signal connections.

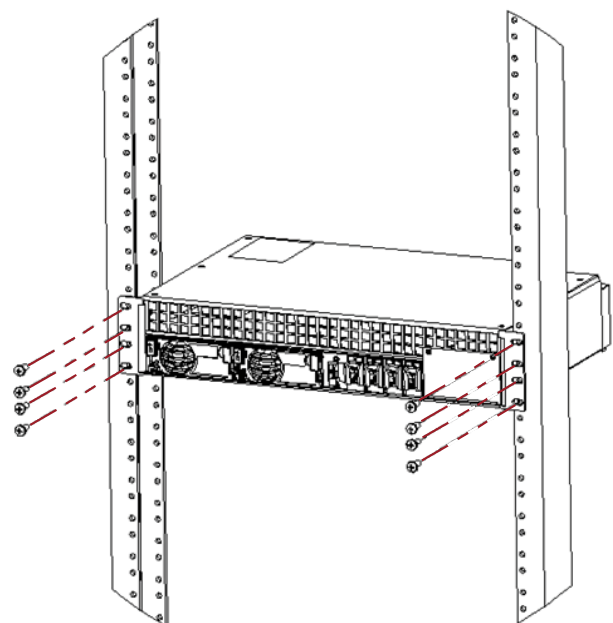
2 Rack Mounting

The system is designed for 19 inch rack mounting. There needs to be sufficient clearance at the front for rectifier installation [$>36"$ (914mm)], and at the rear for connections and airflow [$>6"$ (152mm)].



NOTE:

It is recommended to remove the rectifiers before installing the shelf to the cabinet or rack.



3 AC Input Connections

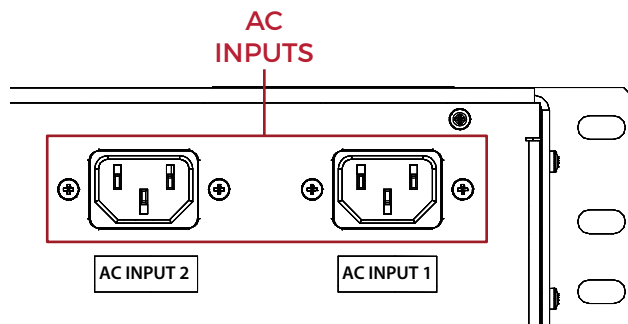
WARNING!

The power system is internally grounded. Grounding is achieved through the 3 conductor AC power cord.

CAUTION

Depending on deployment region with regards to lightning strikes and heavy inductive energy, it is highly recommended to install AC Surge Protection Class C at the electrical panel.

AC connectors are situated on the right rear side of the system as shown below.



The following breakers for isolating the AC source are recommended for each input:

120VAC operation - 20A.

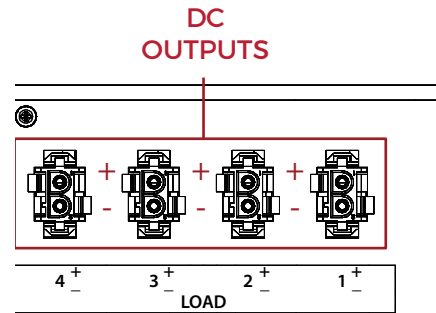
230VAC operation - 16A.

4 DC Output Connections

DC output connections are available at the rear, with connections labeled corresponding to each load breaker.

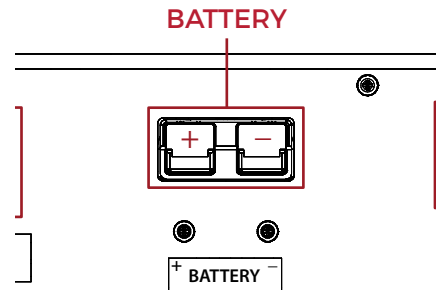
Load breakers should be in the OFF position when connecting the loads,

Mate-N-Lock connectors are used for DC output connections.



5 Battery Connections

The battery connections are located at the center of the rear panel of the system. Ensure that the battery breaker is in the OFF position.



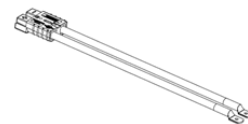
WARNING!

Improper handling with batteries can be dangerous. Please read and understand the information in the instruction manual Safety chapter before connecting batteries.

WARNING!

The battery breaker should be in the OFF position. The battery cables should be connected to the battery first, then to the system.

Battery cable (ZLH.00254.01) is custom design for the Aspiro enclosure.



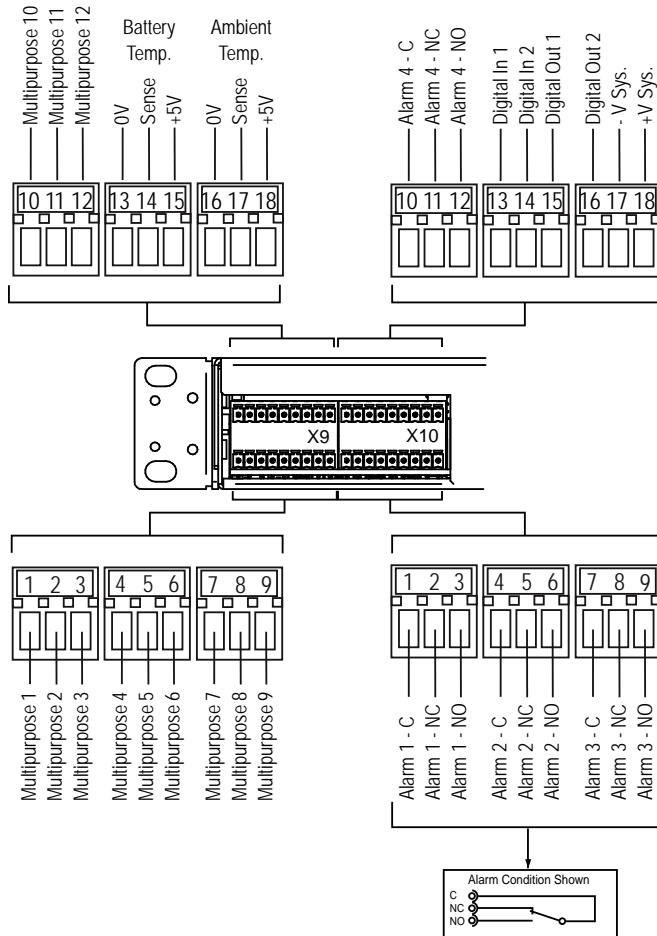
Connect to the battery first and then plug the connector end into the system battery connector.

Continued on page 4 →

Continued from page 3

6 Alarm & Symmetry Connection

Alarm and Symmetry Connections are situated at the rear of the system. There are connections for the 4 alarm contacts and 2 x 3 way connections for the symmetry. Multi Purpose connections 7-12 can be reconfigured as external analog inputs.



WARNING!

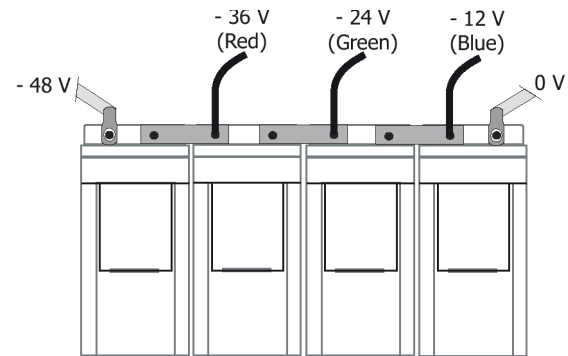
Multi Purposes 7-12, Digital In/Outs and Ambient Temperature are not available with the PCC controller.

NOTE:

The configuration of alarms and symmetry connections may vary depending on the controller configuration, if fitted.

7 Symmetry Connection

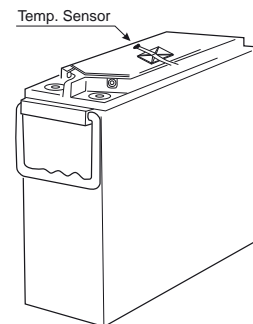
1. Attach the inter-block connections plates between the batteries.
2. Insert the correct sized cable lug that fits the bolt into one pole of the inter-block connection plate. Fasten the lugs and plates to individual battery poles.
3. For 4-block measurement fix 3 wires of symmetry cable to individual cable lugs.



8 Temperature Sensor(s)

Temperature Sensor Connection for supervising battery temperature is usually delivered pre-installed when used. If it is added later, use a three-pin plug and connect to terminals 13-15 on connector X9 at the rear of the system.

The sensor itself should be fastened to the battery after battery installation: Unwind the cable, remove the paper covering the adhesive for the sensor and fasten the sensor to the battery.



If an external temperature sensor is to be used this should be connected in the same way to terminals 16-18 on connector X9.

9 Commissioning Procedure

1. Remove the alarm cover and check that all connections are made according to the installation drawing. Verify that all connections are properly tightened with sufficient torque.
2. Ensure that load and battery MCB breakers are set to OFF position - ensuring the load and battery strings are connected.
3. Ensure that all rectifier modules are removed. If not, remove each one in turn starting from the rightmost position.
4. Check the battery polarity with the multimeter at the SB-50 connector. Place the positive lead of the meter to the positive contact and the negative lead to the battery contact. The meter must now show a positive voltage. If the voltage is negative, change over the connection of the gray and black battery cables to the batteries.
5. Plug in the AC power cord.
6. Plug in the rectifier modules, starting from the left most position. Make sure to fasten the rectifiers again. The rectifiers will turn on automatically. Empty rectifier positions must be cover with rectifier blanks.
7. Set all load breakers into the "1" (ON) position.
8. The green LED on the controller should blink for approximately 20 sec.
9. The output voltage will increase slowly to U1 (float charge voltage).
10. Turn the battery breaker to the "1" (ON) position.
11. If any alarms are present, they should be reset in accordance with the procedure for the installed controller, ACC Extended (ACX) or PCC.
12. The system should now be without alarms.
13. Attach all the system covers in their correct places.
14. Check that all changes to drawings, if any, have been completed.
15. Clean the site.
16. Fill in the commissioning record (table 5-2 in section 5.8 in the instruction manual).

10 EMC Considerations

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. Please see the [instruction manual](#), section 3.1.8, for more details.

11 PowCom Login

NOTE:

Remote access using PowCom software is only available when a controller is installed.

If you don't have PowCom software you can download it from the UNIPOWER web site at:

www.unipowerco.com/powcom/PowCom_setup.zip

Once you have downloaded the file, you will need a license number to activate the software. This can be found in the readme.txt file in the installation package.

To activate your PowCom software with your license, please follow the instructions below.

1. Start PowCom and go to Communication/Properties in the menu.
2. Click on the license tab in the Properties window. Copy and paste your license number and click on the Activate License button.

Please exit the program and restart it again in order to fully activate the license.

If any problem occurs do not hesitate to contact our technical support.

The PowCom user manual is available from the UNIPOWER web site at:

www.unipowerco.com/pdf/powcom-man.pdf

Technical Support

For more complete information relating to installation and operation of this system please read the Instruction Manual which can be downloaded from the UNIPOWER web site at:

<http://www.unipowerco.com/pdf/PM110-6500-00-D1.pdf>

For additional technical support or feedback, please visit www.unipowerco.com/contact/ where you will find the phone number for your region.

Alternatively, email:

technical.support@unipowerco.com