SAFETY

IMPORTANT SAFETY INSTRUCTIONS: SAVE THESE INSTRUCTIONS

This guide contains important instructions that you must follow during installation and maintenance of the Enphase AC Battery. Failing to follow any of these instructions voids the warranty (enphase.com/en/quality-support).

In case of Fire or Other Emergency

In all cases:

- If safe to do so, switch off the AC breaker for the AC Battery circuit, and if an isolator switch is present, switch off the AC isolator for the AC Battery circuit.
- Contact the fire department or other required emergency response team to evacuate the area.

In case of fire, when safe do the following:

- If needed, use a fire extinguisher. Suitable types are water, CO2, and types A, B, and C. Do not use metal halide extinguishers.

In case of flooding:

- Shut off all water if any part of the AC Battery is submerged or is wet.
- Make sure to protect the system by finding and stopping the source of the water, and pumping it away.
- Let the area dry completely before use.

In case of unusual noise, smell or smoke:

- Ensure nothing is in contact with the AC Battery or the AC Battery in the venting area on top of the battery.
- Contact Enphase Customer Support at enphase.com/global/support/contact.

Safety and Advisory Symbols

DANGER: This indicates a hazardous situation, which if not avoided, will result in death or serious injury.

WARNING: This indicates a situation where failure to follow instructions may result in death or serious injury.

NOTE: This indicates information particularly important for optimal system operation. Follow instructions carefully.

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PREPARATION

A) Make sure you have 1) an Enphase AC Battery and 2) an Enphase Wall Mount Bracket. The packages contain:

- The AC Battery box contains an Enphase AC Battery and an access panel cover.

NOTE: Check the “Install by” label on the box to verify that the AC Battery will be installed on the date shown.

- The Wall Mount Bracket box includes only the bracket. These are available in two widths to accommodate 400mm and 600mm stud-spacing.

B) Make sure you have the following required items:

- Enphase Envoy-S Metered communications gateway with production (CT) and consumption (CT) installed and configured as described in the Enphase Envoy-S Metered Quick Install Guide.
- Tools: wireway fitting tools, drill, 4mm bit, screwdriver, socket, spanner, adjustable spanner, torque wrench, level, 4mm Allen key, and wire stripper.

- Four 6 mm diameter lag bolts/screws, 25 to 30 mm long depend on walling that wall, for each Wall Mount Bracket. Check with a structural engineer and local standards for requirements specific to your site.

- Washers for use between fastener heads and wall mount bracket.

- The AC Battery is not waterproof.

- Do not exceed the maximum number (13) of AC Batteries in the Enphase Storage System.

C) Make sure you have the following optional items, if needed:

- 20A main circuit breaker
- Wireway and fittings
- Install the PV modules, Enphase microinverters, and Envoy-S as directed by the installation manuals.

INSTALLATION

Steps one through four describe installation of the wall-mount bracket and junction box wiring, while steps five and six describe mounting the battery and energizing the system.

1 Choose a location for the AC Battery array

The AC Battery housing is an IP-20 rated metallic enclosure. The terminal blocks on the wall mount bracket accept a maximum wire size of 4mm²:

A) Choose a readily accessible, well-ventilated, unoccupied indoor location (like a garage), which is out of direct sunlight and where the ambient temperature and humidity are within -20° to 45°C and 0% to 95% RH, non-condensing.

B) Ensure that the mounting location can sustain the weight of the AC Battery, including all connected equipment (2kW and 600mm long). The AC Battery weighs 9.5 kg per battery.

C) Plan the mounting location to be at least 300mm (one foot) off the ground and 300mm (one foot) from the ceiling. Keep the battery(es) away from falling or moving objects, including motor vehicles.

D) Ensure that there are no pipes or electrical wires where you plan to drill.

E) Plan to maintain at least 300mm (one foot) of clearance in front of each bracket.

F) Consider the dimensions of the AC Battery, ease of access, height, and length of cable when selecting the location.

G) Do not block the vents or allow liquids to contact the AC Battery. The AC Battery is not waterproof.

H) Before mounting the AC Battery, you can connect to the site’s substation (load centre) using an appropriate branch circuit.

I) Following local standards: Decide whether to connect using external conduit or by wireway, as needed. This determines which knockout(s) to use in the junction box. Check if an AC isolator is required. Plan the location for the AC isolation switch, if needed.

J) If you are installing more than one AC Battery, continue to maintain minimum required clearances as shown in Step 2.
Install the wall mount bracket

A) Make sure that the wall mount bracket matches the wall stud spacing and that the lowest wall mount bracket position meets clearance requirements as shown.

B) Place the wall mount bracket on the wall so that the mark on the wall aligns with the centre of the stud. Use two 2.5mm² - 4mm² conductors (1.1mm strip length). Use a screw driver to depress the terminal.

C) Gently arrange all the wires and connectors inside the junction box. Place the cover. Tighten the cover screw using a Phillips screwdriver.

D) Once all wires in the junction box are connected and secured, check that there are no exposed conductors.

E) If connecting additional AC Batteries, be sure to use another wire and another set of wires to connect out of the junction box to the next junction box.

F) WARNING! Risk of electric shock. The system is not ready to be energised! Do not close the circuit breaker yet.

Wiring the junction box

A) Size the electric wiring (Line, Neutral and Ground) depending on the upstream breaker or fuse. Use 2.5mm² - 4mm² wire with maximum 20A branch circuit protection.

DANGER: Risk of electric shock. Check that the dedicated circuit breaker protecting the branch where the AC Battery will be connected is turned off before wiring.

WARNING: Risk of equipment damage. Never connect an Enphase AC Battery junction box to two active conductors. Always connect to one Line (active) and one Neutral.

B) Using the wires and suitable wireways, connect the AC isolator (if used) and the first adjacent AC Battery junction box. Use the openings provided by the knockouts to connect the wireways and pass the wires through them.

NOTE: Do not modify or rewire the pre-installed wiring or bonding connections in the junction box.

C) Connect each wire in the junction box to its corresponding conductor (Line, Neutral and Ground). Each push terminal accepts two 2.5mm² - 4mm² conductors (1.1mm strip length). Use a screwdriver to drive to depress the terminal.

DANGER: Risk of electric shock. The system is not ready to be energised! Do not close the circuit breaker yet.

Mount the AC Battery on the wall

A) Size the electric wiring (Line, Neutral and Ground) depending on the upstream breaker or fuse. Use 2.5mm² - 4mm² wire with maximum 20A branch circuit protection.

DANGER: Risk of electric shock. Check that the dedicated circuit breaker protecting the branch where the AC Battery will be connected is turned off before wiring.

WARNING: Risk of equipment damage. Never connect an Enphase AC Battery junction box to two active conductors. Always connect to one Line (active) and one Neutral.

B) Place the AC Battery on the wall mount bracket, ensuring that the junction box does not sit on the cover. Tighten the cover screw using a Phillips screwdriver.

WARNING: Risk of injury and equipment damage. Do not mount an AC Battery on a bracket that is not properly mounted.

C) The Enphase AC Battery LED should now be solid red for the first 10 minutes during the start up phase. If the LED lights red while the AC Battery boots up, it should then turn to a blue or green colour (depending on the charge level). If the LED remains red for more than two minutes, the battery is in trickle charge mode and will remain so until it reaches a minimum state of charge. This may take as long as 30 minutes. If the LED remains red after one hour or changes to a flashing red state, contact Enphase Customer Support at enphase.com/support to read more about troubleshooting AC Battery Installation and Operation Manual.

DANGER: Risk of electric shock. The system is not ready to be energised! Do not close the circuit breaker yet.

TROUBLESHOOTING

LED overview

When the AC Battery boots up, it should then turn to a blue or green colour (depending on the charge level). If the LED remains red for more than two minutes, the battery is in trickle charge mode and will remain so until it reaches a minimum state of charge. This may take as long as 30 minutes. If the LED remains red after one hour or changes to a flashing red state, contact Enphase Customer Support at enphase.com/support to read more about troubleshooting AC Battery Installation and Operation Manual.

Battery not working

If the AC Battery is not working correctly, perform the following steps. If the issue persists, contact Enphase Customer Support at enphase.com/support.

A) If the AC Battery does not operate, check the temperature in the room and increase cooling and/or ventilation as required.

B) If the AC Battery LED is off, turn off the breaker for the branch circuit, wait for at least one minute, and turn it back on.

C) If a brownout or blackout is occurring, the AC Battery powers down automatically. This is normal. When power is restored, it automatically starts up again.

D) If you do not see AC Battery information in Enlighten, check that the Envy-S and the Internet connection are working.

E) Refer to the AC Battery Installation and Operation Manual at enphase.com/support to read more about troubleshooting AC battery operation.