



The Smart Home Battery Solution



Installation Manual

for the

PowerPod 2



This installation manual applies to the following PowerPod 2 configurations:

Model Numbers:

PP2 - AC - BAT<Capacity> - INV<Output Power> - CELL<Carrier>
PP2 - DC - BAT<Capacity> - INV<Output Power> - CELL<Carrier>

Available PowerPod 2 capacity 10,15, 20 kWh with continuous power output of 5, 6, 7.6, 8.6, 9.6 kW and cell carrier Verizon, ATT, Rogers, No Carrier (WiFi Only) options.

PN: INS-0001_Rev_13_EP_PP2_Manual

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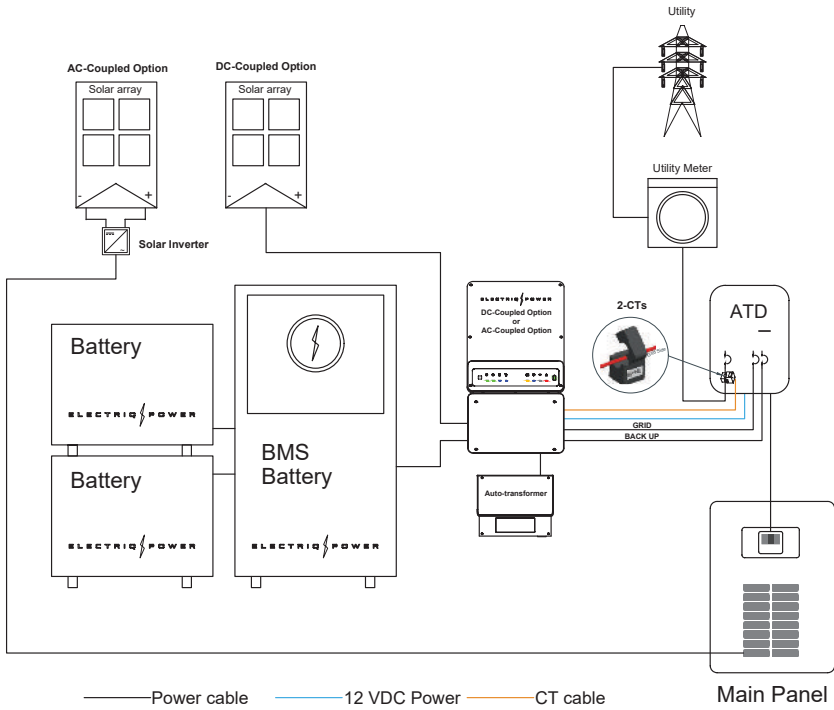
1. INTRODUCTION

The PowerPod 2 is a high-performance fully integrated home energy storage, management, and monitoring system powered by LFP (cobalt-free) batteries. The product includes a hybrid solar/battery inverter controlled by intelligent software. It comes in both whole home and partial-home backup. Whole home backup has two options for the solar connection, 1) the AC option which keeps the solar connected directly to the load and 2) the DC-coupled option which connects solar directly to the PowerPod 2 inverter.

All PowerPod 2 models manage grid and backup power from photovoltaic (PV) panels, batteries, and the utility. When the PV panels generate enough power, the system will support the backup load, charge the batteries and feed back to the grid all at the same time. When the power generated by the PV panels is not sufficient to support the backup load, the inverter takes power from either the batteries or the utility depending on the mode the homeowner has selected. For multi-day grid outages the system will resupply power to the home by restarting from solar each day and solar charge the batteries even if the batteries were completely drained and system shut down the previous day. PowerPod 2 comes in different inverter, battery sizes and cellular/WiFi options to match your energy, backup and data communication needs. There are six inverter models ranging from 7600 to 9600 W, three batteries sizes; 10, 15 and 20 kWh and four communication options: Verizon, ATT, Rogers and WiFi.

The PowerTools app is required to commission the PowerPod 2. It is recommended that the installer have the latest version of the app installed on their phone before starting the installation process. The PowerTools App can be downloaded via Google's Play Store or Apple's App Store.

1.1. WHOLE HOME BACKUP CONFIGURATION



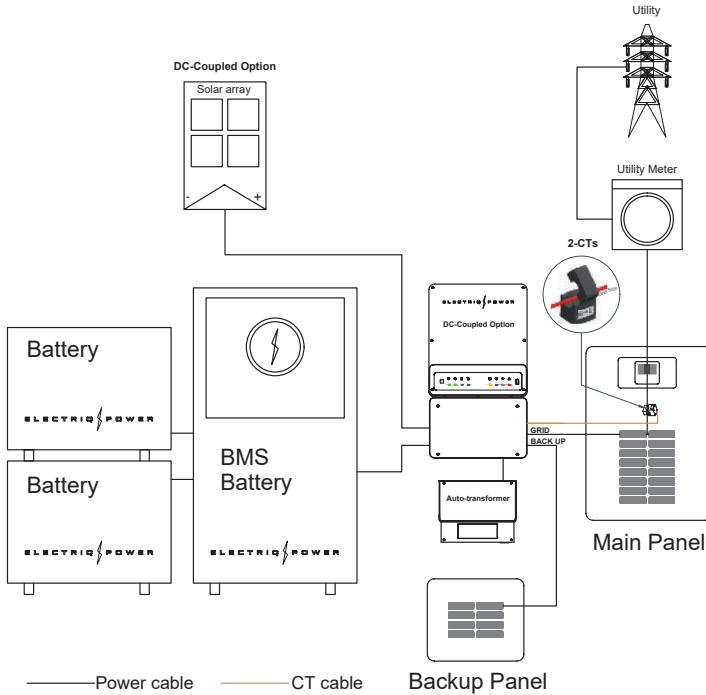
ATD-Automatic Transfer Device, Service Entry,
Models: ATD200-50-US10 & ATD100-50-US10

Features:

- 1) The ATD automatically transfers between on-grid mode and backup mode with its internal control circuitry powered by the inverter's 12 VDC output.
- 2) It has internal circuit breakers that connect the main panel, utility grid and the inverter's grid input and backup.
- 3) When the utility grid is active the ATD connects the main and the utility grid.
- 4) When the utility grid fails, the device connects the main panel and the backup output of the inverter to form a whole home backup.

1.2. PARTIAL-HOME BACKUP CONFIGURATION

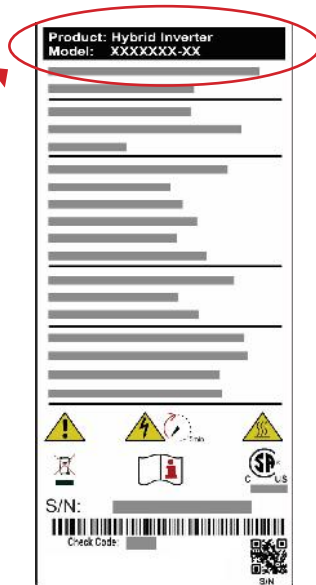
Option only available for DC-coupled systems (inverter model A-ES).



Inverter Nameplate

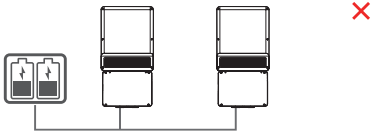
Check the inverter nameplate located on the side of the inverter labeled 'Model' to determine which system you have.

DC-coupled is the GWXXXXA-ES inverter and the AC-Coupled is the GWXXXXA-BP inverter.

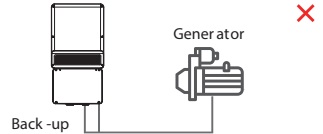


Unacceptable Installations

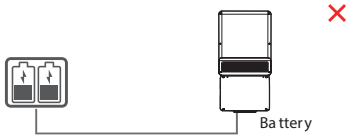
Avoid the following installations which will damage the system or the Inverter. Following installations should be avoided. Or any damage caused will not be covered by the Electriq Power warranty policy.



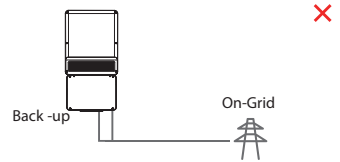
Single battery bank cannot be connected to multiple inverters.



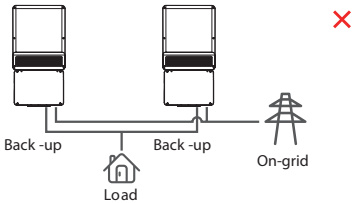
On-Grid or backup side cannot be connected to any AC generator.



Battery without official compatible statement cannot be connected to inverter



Backup side cannot be connected to grid.






No parallel connection of the backup is allowed in general application. Contact Electriq Power first for advanced application.

2. SAFETY WARNINGS


READ ALL INSTRUCTIONS AND CAUTIONARY MARKINGS ON THE UNIT AND THIS MANUAL BEFORE USING THE INVERTER. STORE MANUAL IN A LOCATION FOR EASE OF FUTURE ACCESS.


WARNING: Users should not attempt to service the PowerPod 2. Only an authorized PowerPod technician should attempt to service the PowerPod 2.


Safety Symbols


	<p>WARNING. This indicates the risk of electric shock. The presence of high voltage levels may constitute a risk of injury or death to users and/or installers.</p>
	<p>CAUTION. This indicates important information where failure to comply may result in safety hazards or cause damage to this product.</p>
	<p>CAUTION. This indicates the risk of a hot surface. The surface may reach a temperature high enough to cause serious burn injuries.</p>

General Precautions

- 

CAUTION. Before installing and using this inverter, read all instructions and cautionary markings on the inverter and all appropriate sections of this guide. This inverter must be installed by licensed electricians only.
- 

CAUTION. Normally grounded conductors may be ungrounded and energized when a ground fault is indicated.
- 

CAUTION. Due to inverter weight it is to be lifted by at least two people for safety.
- 

WARNING. These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that specified in the operating instructions unless you are qualified to do so.



WARNING. Authorized service personnel should reduce the risk of electrical shock by shutting down the equipment to install or service.

1. Initiate Solar PV Rapid Shutdown,
2. Turn OFF the Main circuit breakers supplying Grid connection,
3. Turn OFF the AC Main Backup breakers supplying Load connections,
4. Turn off the PV Switch located outside the inverter enclosure on the left side,
5. Remove battery cabinet front panels, 3 mm allen wrench required,
6. Turn off all DC BMS and battery breakers located on BMS and each battery. Note, breaker indicator RED is ON and GREEN is OFF.
7. Allow two minutes for all sources of supply to discharge and,
8. Check that AC and DC voltages are at a safe level,
9. Access to the inverter wiring requires opening the access panel, 3 mm allen wrench required,
10. Access to the Auto-Transformer requires opening the access panel, 2.5 mm allen wrench required.

To isolate equipment, do the following:

1. Turn OFF the Main circuit breakers supplying Grid connection,
2. Turn OFF the AC Main Backup breakers supplying Load connections.



WARNING. Do not disassemble this inverter yourself. It does not contain user-serviceable parts. Attempting to service this inverter yourself may cause a risk of electrical shock or fire and will void the warranty from the manufacturer.



WARNING. To avoid a risk of fire and electric shock, make sure that existing wiring is in good condition and that the wire is not undersized. Do not operate the Inverter with damaged or substandard wiring.



CAUTION. Under high temperature environment, the cover of this inverter could be hot enough to cause burns if accidentally touched. Ensure that this inverter is away from normal traffic areas.



WARNING. During the installation process, drilling, punching, and screwing the bolts can cause metal burrs, which must be cleaned up to prevent them from falling into the electronics.



WARNING. Use only recommended accessories.



CAUTION. To reduce risk of fire hazard, do not cover or obstruct the cooling fan.



CAUTION. Do not operate the Inverter if it has received a sharp blow, been dropped, or otherwise damaged in any way. If the Inverter is damaged, call for an RMA (Return Material Authorization).



WARNING. Exposed hazardous voltage, during servicing or for emergency procedures use labeled lockout hasps with durable steel lockout hasps on a lockable manual breaker or disconnect rated for 240 VAC 50 AAC on the main service panel to enable Lock-Out-Tag-Out per the Standard for Electrical Safety in the Workplace, NFPA 70E, and the Standard for Workplace Electrical Safety, CSA Z462.



CAUTION. Residential indoor installation shall provide smoke alarms in accordance with building, fire and installation codes.



BATTERY PACK WARNINGS:

There is danger of generating heat / smoke / rupture flames.

Do not disassemble battery pack.

Do not touch disassembled battery pack.

Do not reassemble battery pack.

Do not immerse the battery pack in any liquids or get it wet.

Do not short circuit battery pack.

Do not incinerate or heat the battery pack.

Do not use or leave the battery near a fire, stove or heated place.

Do not impact the battery pack or throw it.

Do not use a damaged and/or deformed battery pack.

Do not drive sharp objects into the battery pack, strike it with any object or stand on it.

Do not place the battery pack on materials such as tools, electric wire, screws, etc.

In case of a leak in the battery pack, avoid contact.

Do not touch your eyes if accidental contact with leaky battery.

Do not expose to corrosive substances such as sea breeze, steam or chemicals.

Do not install in humid places or places with condensation.

Do not install outdoors in climates where the temperature drops below 0°C (32°F) for extended periods.

Do not install in direct sunlight.

Do not install or use the PowerPod 2 if it has been damaged in any way.

The ambient temperature (charging) must be between 0°C and 55°C; discharging temperature must be between -20°C and 55°C; relative humidity must be between 10% and 90% to ensure optimal operation. Do not operate where the temperature and humidity are beyond the specified limits. High ambient temperature above 40°C will cause power derating.

SOC	Charge/Discharge Rate
>80%	Charge rate will gradually slow down until SOC reaches 100%
0% to 100%	Charge rate is derated when temperature is below 10° C (i.e. 50° F)
0% to 100%	Charging will stop when cell temperature goes below or at 0° C (32° F)
0% to 100%	Discharging will stop when cell temperature goes below -20° C (-4° F).



WARNING. Only charge the PowerPod 2 within the specified conditions (e.g. temperature range, voltage, current, etc). Failure to do so may result in damages, heat generation, smoke, fire, or explosion.

The unit has a Pollution Degree rating of PD4 (Electrical equipment for outdoor use). The unit must be mounted with clearances listed and have adequate air flow. i.e. Must not be in a closed room smaller than 12' x 12' x 8'.

Do not directly solder the PowerPod 2. This may result in damages, heat generation, smoke, fire, or explosion.

The unit was designed with an NEMA 3R protection rating and is for indoor and outdoor installations.

It is recommended that the installation of the enclosures should be protected from direct sunlight, snow, rain and other negative influences which may cause function impact or life aging.



CAUTION. Do not expose the PowerPod 2 to liquids or flooding.

Do not dispose of equipment or batteries with household waste.

Do not dispose of batteries in a fire or by burning. The batteries can explode.



WARNING: Risk of electric shock. Risk of fire. Do not attempt to repair the battery(ies); it contains no user-serviceable parts. Tampering with or opening the battery(ies) will void the warranty. If the battery(ies) fails, contact Electriq Power Customer Support for assistance at support@electricpower.com.



WARNING: Proper disposal of lithium-ion batteries is required. Follow all local codes and regulations for proper disposal and recycling of lithium ion batteries. Contact your Electriq Power representative with any questions or concerns. The customer cannot keep the old lithium-ion batteries because they are dangerous and considered hazardous waste.



WARNING: Take care when lifting the Battery. The Battery is heavy and may require a lifting tool to initially lift the battery high enough to get a good hold on it.

In the event that Inverter, one or more batteries or PowerPod 2 is defective and needs to be removed, replaced, temporarily uninstalled, disposed of, decommissioned or if Electriq Power Customer Support authorizes a replacement (RMA), perform the following steps:

1. Follow installation and service shut down.
2. Contact Electriq Power Customer Support at support@electriqpower.com.



MULTIPLE WARNINGS. NOTE! Method of active anti-islanding protection: The Inverter monitors for sudden changes in the impedance of the grid by looking for changes in the second to the eighth harmonic.

Perform installation and wiring in accordance with all applicable local electrical codes and standards.

Protection against lightning and resulting voltage surge must be in accordance with local standards.

Using unapproved attachments or accessories could result in damage or injury and could result in voiding the warranty.

Use Class 1 wiring methods for field wiring connections to terminals of a Class 2 circuit. Select the wire size based on the protection provided by the circuit breakers / fuses. Install properly rated over current protection as part of the system installation.

To ensure optimal reliability and to meet warranty requirements, the Inverter must be installed and/or stored according to the instructions in this guide.



WARNING: Users should not attempt to service the PowerPod 2.

Only an authorized technician should attempt to service the PowerPod 2.



WARNING: Risk of injury and equipment damage. Protect the PowerPod 2 from damage and improper use.



WARNING - ARC FLASH AND SHOCK HAZARD:

Appropriate PPE and Tools Required (protective eye-wear and gloves) while working on the energized equipment. Voltages up to 600 VDC and 240 VAC Present. Arc Flash Approach Boundary 1.0 m. Arc Flash Prohibited Approach Boundary 24 mm.

Note on DC Wiring and NEC

Some electricians or installers may be unfamiliar with DC wiring in a residential setting. Make note of all relevant codes, which may include:

1. NEC 690.41, 690.42 and 690.43 for DC PV and battery circuits, if required, is the responsibility of the installer.
2. NEC 690.31(G) for DC PV circuits in buildings.
3. NEC 215.12(C)(2) for correct DC wiring coloring.
4. NEC TABLE 310.15(B)(16) for Allowable Ampacities of Insulated Conductors for Not More Than Three Current-Carrying Conductors in Raceway (conduit wiring over 12").
5. NEC TABLE 310.15(B)(17) for Allowable Ampacities of Insulated Conductors in Free Air (chassis wiring).
6. NEC Section 300.3(C)(1) Conductors of circuits rated 600 volts, nominal, or less.

Rapid Shutdown

Electric Power Systems are compatible with NEP devices to comply with NEC 2017, and Tigo rapid shutdown devices to comply with NEC 2020 regulations. Tigo TS4-A-F and TS4-A-2F are examples of compatible devices.



WARNING: Never touch the terminals of the inverter directly. It will cause lethal electric shock.



WARNING: The final connection for DC strings should be done at the array not at the inverter.



WARNING: Because this inverter is non-isolated, only two types of PV modules are acceptable: monocrystalline and poly crystalline with only Class A-rated. To avoid any malfunction, do not connect any PV modules with possibility of leakage current to the inverter. For example, non-grounded PV modules will cause leakage current to the inverter.



WARNING: This unit is not provided with a GFDI device. This inverter's DC battery circuits must be used with an external GFDI device as required by the Article 690 of the National Electrical Code, ANSI/NFPA 70.



CAUTION: To reduce the risk of injury, use the proper cable size for PV module connection.



CAUTION: To reduce the risk of damage due to surge, Electric Power recommends surge protection between the modules and the inverter.



CAUTION: Exceeding the maximum input voltage can destroy the unit. Check the PV string voltage before wiring the connection.



WARNING: Make sure the circuit breaker is off before making or modifying any connections.



WARNING: Backup load terminals are to be wired to a separate subpanel. Never connect backup load lines directly to the main service panel without use of an external automatic transfer switch. Direct connection of backup loads output to the grid will result in damage to the inverter.



WARNING: Do not connect backup loads output in parallel with the grid!



CAUTION: Before making the final connection or closing the breaker, make sure the connections have the correct polarity. Check polarity labels.



CAUTION: Do NOT apply anti-oxidant substance on the terminals before terminals are connected tightly.



WARNING: Check positive (+) and the negative (-) terminals. If the PowerPod 2 is connected with reversed polarity, unexpected reactions may occur such as damages, heat generation, smoke, fire, or explosion.



WARNING: Do not connect between the positive (+) and negative (-) terminals with a conductive material (e.g. wire, a cable, etc.). This may result in damages, heat generation, smoke, fire, or explosion.



CAUTION: Make sure the AC Load and AC Grid are properly connected. Misconnecting them will damage the product.



WARNING: To reduce the risk of injury, use the recommended wire size. It is very important for system safety and efficient operation to use the appropriate wire for grid (utility) connection.



WARNING: To prevent the risk of electric shock, make sure the ground wire is properly earthed before operating this unit whether the grid is connected or not.



INVERTER WARNINGS. The Inverter is intended to operate with an Internet connection. Failure to maintain an Internet connection may have an impact on the warranty. See electricpower.com/warranty for full terms and services.

Properly mount the Inverter or place it on a flat, plain surface that can bear heavy weights. Ensure that the mounting location is structurally suited to bearing the weight of the Inverter.

During use, storage, and transport, keep the Inverter:

- Properly ventilated
- Away from water, other liquids, heat, sparks, and direct sunlight
- Away from excessive dust, corrosive and explosive gases, and oil smoke
- Away from direct exposure to gas exhaust, such as from motor vehicles
- Free of vibrations
- Away from falling or moving objects, including motor vehicles
- At an elevation of less than 3,000 m (9,843 ft) above sea-level
- In a location compliant with fire safety regulations (has a smoke alarm)
- In a location compliant with local building codes and standards
- Conditions for the Inverter installation site apply also to storage conditions.

IN CASE OF FIRE OR OTHER EMERGENCY

In case of flooding:

- Stay out of water if any part of the system or wiring is submerged.
- If possible, protect the system by finding and stopping the source of the water, and pumping it away.
- If submerged, the whole system may need to be replaced.
- Let the area dry completely before use.

In case of unusual noise, smell:

- Ensure nothing is in contact with the system or in the venting area on top of the Inverter or Battery enclosures.
- Ventilate the room.
- Contact Electriq Power Customer Support at: support@electriqpower.com

In cases of fire or smoke:

- Fire involving Lithium-ion battery can be extremely dangerous. Lithium-ion batteries can flash fire or explode.
- Close doors as you leave to confine fire as much as possible. If the alarm is not already sounding, pull the fire alarm on your way out of the building. If there is no alarm to activate, yell "fire" as you leave. Move quickly to an open area, away from buildings, trees, power lines, and roadways.
- When in safe location call fire department and report a possible Lithium-ion battery fire.

In all other cases:

- If safe to do so,
 1. Initiate Rapid Shutdown and allow the DC voltage to drop to a safe level,
 2. Power down inverter, and
 3. Disconnect wiring sources of AC and DC power.
- Contact the fire department or other required emergency response team.
- Evacuate the area.

DISCLAIMER

The AC & DC-coupled systems are transported, used and operated under environmental and electrical conditions. Any of the following conditions may void the manufacturer's aftermarket service or warranty:

- Inverter is damaged during transfer.
- Inverter is out of warranty or any extended warranty if applicable.
- Inverter is installed, refitted or operated in improper ways without authority from manufacturer.
- Inverter is installed or used under improper environment or technical condition mentioned in this user manual, without authority from manufacturer.
- Installation or configuration of the inverter does not follow requirements mentioned in this user manual.
- The inverter is installed or operated against the requirements or warnings that are mentioned in this user manual.
- Inverter is broken or damaged by any force majeure like lightning, earthquake, fire hazard, storm and volcanic eruption etc.
- Inverter is disassembled, changed or updated on software or hardware without authority from manufacturer.
- Inverter is installed, used or operated against any related items in international or local policies or regulations.
- Any non-compatible batteries, loads or other devices connected to the AC or DC-coupled system.

Note: Manufacturer will keep the right to explain all the contents in this user manual.

For outside installations, ensure that NEMA Type 4X is maintained. All enclosure connections must be sealed well. Confirm that there is no

3. INSTALLATION AND COMMISSIONING

3.1. PREREQUISITES

3.1.1. PLANNING FOR INSTALLATION

The steps below are an overview of the full installation process, which are broken down into greater detail throughout the manual. See *Appendix 5.1, "WHAT'S IN THE BOX"* to ensure all of the parts have been shipped with the PowerPod 2 system:

1. Unbox the PowerPod 2 system and its components.
2. Load the PowerTools app on a mobile device.
3. Log in to the PowerTools app with certified installer credentials.
4. Click 'Add New System' within PowerTools app.
5. Remove PowerPod 2 system from box, check that you have everything (Appendix 5.1, "WHAT'S IN THE BOX") and scan the barcode on the side of the system.
6. Input new system address.
7. Select whole home or partial-home — verify by checking the inverter nameplate on the side of the inverter enclosure.
8. Select the system size (10, 15, 20 kWh).
9. Mount the following:
 - PowerPod 2 mounting bracket and enclosure.
 - Inverter mounting bracket and enclosure.
 - Auto-transformer mounting bracket and enclosure.
 - (For whole home configuration only) Automatic transfer switch mounting bracket and enclosure.
 - Take a picture within the PowerTools app to proceed to the next step.
10. Connect the batteries, BMS, and take a picture within the PowerTools app to proceed to the next step.
11. Connect the inverter and auto-transformer and take a picture within the PowerTools app to proceed to the next step.
12. Connect the automatic transfer switch and take a picture within the PowerTools app to proceed to the next step.
13. Begin the commissioning process within the PowerTools app and properly diagnose, if necessary, or continue on to the next step.
Hint: Commissioning normally takes less than 10 minutes. If taking longer, check system wiring, CTs, etc.
14. Fill out the 'System Configuration' step within the PowerTools app and proceed to the next step.
15. Select the 'System Mode' within the PowerTools app and proceed to the next step.
16. Ensure that the summary is correct on the PowerTools app screen.
17. Fill out the customer information within the PowerTools app and press 'Finish'.

3.1.2. TIPS FOR SUCCESS

To ensure that the installation is as seamless as possible and to avoid common pitfalls, it is best to adhere to the following tips:

Installation: PowerTools App

- Download the PowerTools app. **THE POWERPOD 2 SYSTEM CANNOT BE COMMISSIONED WITHOUT THIS APP.**
- Follow along with the PowerTools app and take the required pictures as you progress through the installation.

Installation: Placement

- The wiring kits shipped with each system are set to a specific length. Placement of the enclosures are critical when determining the install site of all the hardware components of the PowerPod 2 system. **Refer to the 'Clearances and Knockout Locations' section for more information.**
- Observe clearances in section 3.2, "CLEARANCES AND KNOCKOUT LOCATIONS" for adequate cooling and maintenance. No conduit must be placed within 2" of the wall's surface of the inverter's or auto-transformer's top and bottom to allow for adequate cooling of the equipment rear cooling fins.

Installation: Assembly

- When placing the batteries in the main (10kWh) enclosure, the first battery is always installed on the bottom and the BMS is always in the top spot (above the fourth battery).
- The inverter and add-on (5kWh) enclosure must be on opposite sides of the main (10kWh) enclosure.
- If there are two add-on (5kWh) enclosures, the second one is placed on top of the first add-on (5kWh) enclosure.
- The battery DC power connections in the main (10kWh) enclosure face away from the inverter. **Follow the sticker guides within the enclosures.**
- The battery DC power connections in the add-on (5kWh) enclosures face toward the main (10kWh) enclosure. **Follow the sticker guides within the enclosures.**
- Assure there are enough batteries so that the backup load doesn't exceed 1200W continuous per battery module.

Battery Size	Maximum Continuous Backup load 75% DoD
10 kWh	5000 W
15 kWh	7500 W
20 kWh	7600 (7600 W Inverter)
20 kWh	9600 (9600 W Inverter)

Max power subject to inverter size. **DO NOT EXCEED INVERTER RATING.*

Installation: Wiring

- When wiring the batteries together, the order in which these are connected is important. **Use Section 3.3.3 BATTERY, Step 17 to wire the system properly (BMS → 8, 7, 6, 5, 4, 3, 2, 1).**

System Commissioning

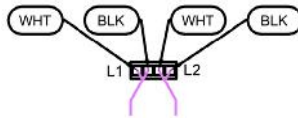
- When commissioning the system, inspect the display on the PowerPod 2, 10 kWh enclosure, inverter indicators and commissioning app to see what state it is in.

3.1.2. TIPS FOR SUCCESS (CONTINUED)

CTs

CT placement, orientation and wiring is very critical to successfully commission the system. If CT are not correct the system WILL NOT COMMISSION. CT are tested during commissioning "System Verification," "Meter" check. Taking a few precautionary steps as outlined below will assist the installer with most of the common CT issues.

- CT Placement 1: CT1 must be place on L1 as connected at the inverter.
 - Hint**, use a voltmeter when the grid is on and the inverter is connect to check that it reads zero VAC from main utility entry point L1 to the inverter's L1 connection. If it measures 240 VAC reverse the CTs, as the CT placement is incorrect.
- CT Placement 2: the CTs must read the same current as the utility meter is reading. This includes seeing the current from the inverter's grid tied breaker.
 - Hint**, the CTs must read the current that the utility meter reads at the main's utility entry point.
- CT Orientation: the CTs label is marked, "House(K)-->Grid(L)"
- CT Wiring: this has been the most troubling because installers use conduit that is too small to pull through the inverter's four pin green CT connector. If the wires must be removed, mark with tape (electrical or otherwise) the L1 (left side) and L2 (ride side) pair before removing the connectors. See diagram below.



Hints, Other conditions that hinder the Meter System Verification check.

- L1 and L2 power imbalance. If L1 and L2 current is different by more than 8 AAC the system may not commission. Use current meter to identify and turn off some of the home breakers (most likely single 120 V breakers) that are causing the imbalance.
- Rapid changing loads. If the home load or system power is not stable the system may not commission. Items that cause rapidly changing loads are:
 - Solar production in either the AC or DC coupled system. Try commissioning with the solar off.
 - Home furnaces, AC unites, electric hot water heaters, pool pumps, vacuum cleaners, etc. Try turning off all home double (240 breakers).
 - Battery charging above 90% (i.e. the inverter's 4th battery indicator is blinking. See indicator below. Wait until battery charging is nearly completed as shown by the green 10kWh battery SOC circle indicator.

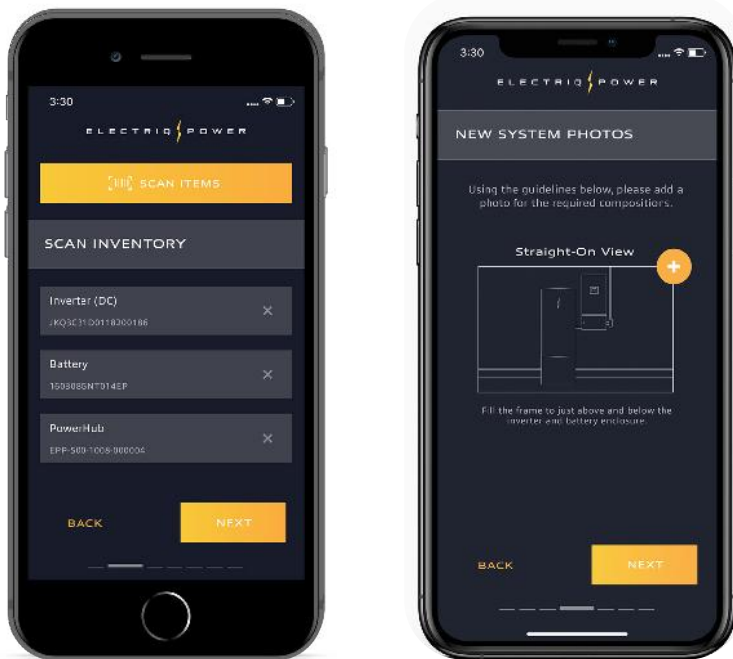


The state of charge is indicated by the amount of the ring that is filled. The ring to the left is indicating that the state of charge is at 75%.

3.1.3. COMMISSIONING INITIAL STEPS

The PowerTools app is required to commission the Electric Power PowerPod 2 system. This app cannot be accessed nor will the system be able to be commissioned if you are not a certified installer. If your organization is certified and you do not have login credentials, contact the certified representative of your organization to obtain them. If you or your organization is not certified and would like to become certified, **visit <https://electricpower.com/installer-training-certification/>** and fill out the form.

1. If the PowerTools Commissioning App is not already installed, this can be downloaded via Google's Play Store or Apple's App Store. If the app is already installed, log in to your account using your certified installer credentials.
2. Once logged in, click 'Add New System' and 'Scan' the PowerPod 2's enclosure's bar-code located on the side of enclosure.
3. Fill out the customer details then click 'Next'.
4. Select the configuration that matches your installation, as well as the system size.
5. Complete steps as the app guides you through the commissioning process.



PowerTools App

3.2. MOUNTING SYSTEM

REQUIRED TOOLS AND EQUIPMENT

Before installing the battery enclosures, make sure nothing inside the package is damaged. For a detailed list of materials supplied with the PowerPod 2, reference Appendix 5.1 'What's in the Box'.

Below is a list of recommended tools and equipment you will need to

PARTS NAME	Size	Description
Gloves		
Automatic Screw Driver	#1 & #2 Phillips	
Wrench	17 mm	Battery Enclosure Feet
Allen Wrench	4mm	Inverter Cover & battery cover
Allen Wrench	3mm	Auto-transformer cover
Socket Nut Drive	1/2"	Lag Bolt Mounting Bracket
Socket Nut Drive	10mm	Nuts for BMS, Batteries & PE Wire
EQUIPMENT	FEATURES/FUNCTIONS	
AC/DC True RMS Voltmeter	DC millivolts DC volts AC millivolts ¹ True RMS AC volts ¹ True RMS Lo-Z Auto volts Example: Fluke 117	
AC/DC Current Clamp Meter	DC Current 0.001 to 100 A. AC Current 0.001 to 100 A. Example: GTC CM100	



CAUTION: Bearing capacity of the wall must be higher than 220lbs/100kg to safely support the inverter.

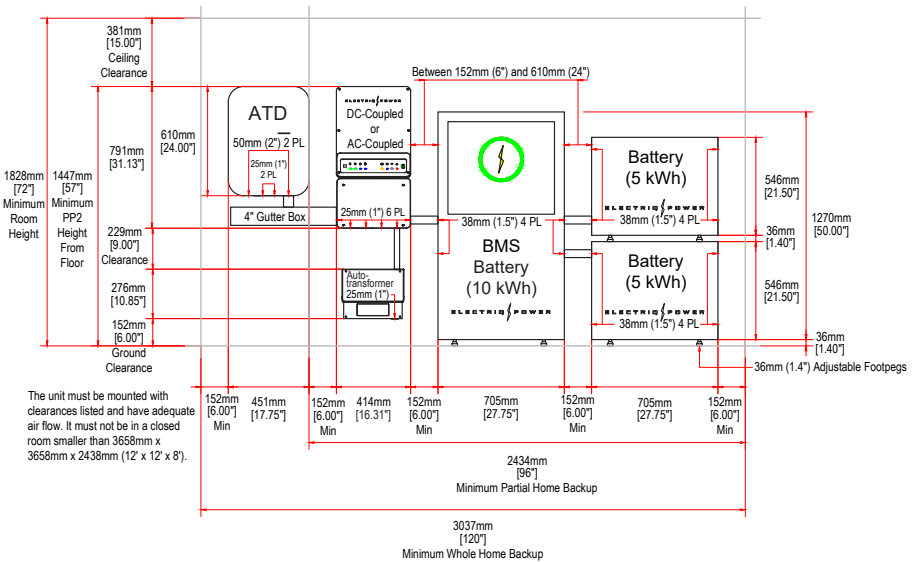
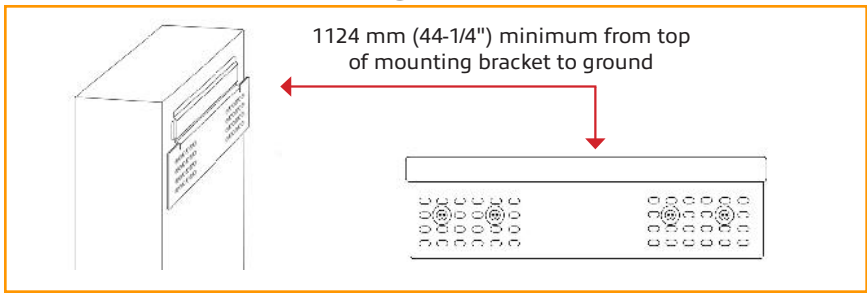
La capacité de roulement du mur doit être supérieure à 100 kg pour soutenir en toute sécurité l'onduleur

CLEARANCES AND KNOCKOUT LOCATIONS

Placement of the PowerPod 2 system and its components are critical. Wires are pre-measured for the configurations shown in this installation manual or when it is reversed. Utilize the minimum distances between all components as stated in this manual. Wall mounted batteries must rest firmly on the floor to support the weight of the batteries.

There are multiple knockouts on the inverter and battery enclosures, as shown with the diagrams with red arrows, to help give the installation process more flexibility when placing the hardware.

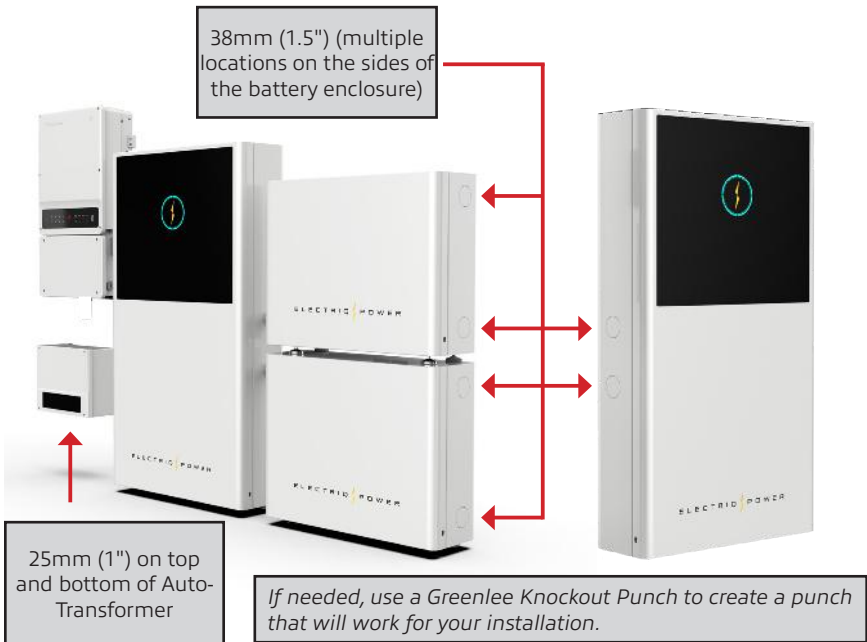
NOTE: The installation space is greater than 83.3 cubic meters.



*DO NOT modify pre-existing cables. The inverter-to-battery distance may be extended an additional 1219 mm (48") from 610 mm (24") to 1829 mm (72") by an optional Kit, Extension 12' (2XBatt+Comms Harness) 500-1001.

Please note that all measurements below are for conduit fittings.

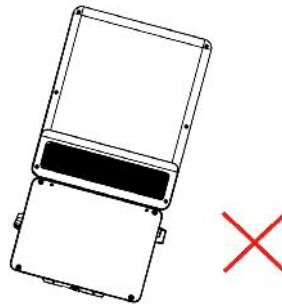
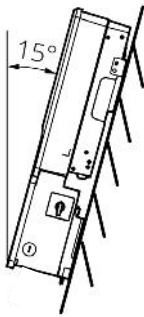
Observe clearances in section, "CLEARANCES AND KNOCKOUT LOCATIONS" for adequate cooling and maintenance. No conduit must be placed within 2" of the wall's surface of the inverter's or auto-transformer's top and bottom to allow for adequate cooling of the equipment's rear cooling fins.



3.2.1. SELECTING MOUNTING LOCATION

Refer to the 'Clearances and Knockout Locations' section when mounting and installing the inverter. The following considerations must be taken into account before selecting where to install:

- Inverter should be installed vertically or lie on a slope by a max of 15°.
- Any part of this system shouldn't block the switch and breaker from disconnecting the inverter from DC and AC power.
- Inverter should be installed on a solid surface, where it is suitable for inverter's dimensions and weight.



- Refer to Section 3.2 'Clearances and Knockout Locations' to ensure the placement of the inverter does not exceed the cable lengths.
- Keep the inverter away from high-heat sources. Ambient temperature should be lower than 40°C. (High ambient temperature will cause power derating of inverter.)
- It is recommended that the installation of the inverter should be prevented from direct sunlight, snow, rain and other negative influences which may cause function impact or life aging.



- Product label on inverter should be clearly visible after installation. Do not damage the label.
- Do not install the inverter when it is snowing or raining. If you have to, pay attention to the waterproof and moisture-proof of the inverter and distribution box.
- Leave enough space around the inverter according to 3.2. CLEARANCES AND KNOCKOUT LOCATIONS for natural heat dissipation.

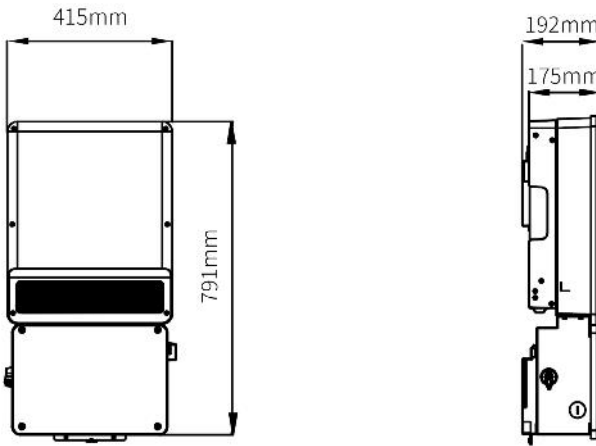


CAUTION. Inverter should be installed away from combustible, explosive and strong electro-magnetic materials.

The inverter is suitable for mounting on concrete or other non-combustible surface only.

doit être installé loin des matériaux électro-magnats combustibles, explosifs et forts.

L'onduleur est adapté au montage sur le béton ou toute autre surface non combustible seulement



CAUTION: Bearing capacity of the wall must be higher than 220lbs/100kg to safely support the inverter.

La capacité de roulement du mur doit être supérieure à 100 kg pour soutenir en toute sécurité l'onduleur

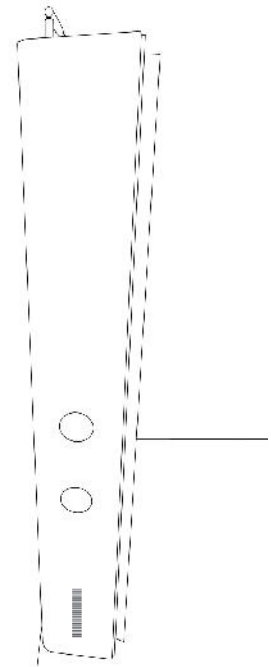
3.2.2. BATTERY ENCLOSURE(S)

To begin installing the battery enclosures, follow the steps below:

1. If the PowerPod 2 Commissioning App is not already installed, this can be downloaded via Google's Play Store or Apple's App Store. If the app is already installed, log in to your account using your certified installer credentials.
2. Once logged in, click 'Add New System' and 'Scan' the PowerPod 2 enclosure's bar-code located on the side of enclosure.
3. Fill out the customer details then click 'Next'.
4. Select the configuration that matches your installation, as well as the system size.
5. Remove the 2 screws from the side portions of the enclosure with an allen wrench.
6. Remove the front cover by slightly pulling the bottom half away from the enclosure while lifting up. Then set aside the cover.

WARNING! *Be careful when removing the cover, as the display cable may be connected to the front cover.*

7. **Place mounting bracket onto predetermined wall for installation and ensure that the bracket has 1124 mm (44-1/4") of minimum clearance above the ground (with pegs twisted in). The pegs can be adjusted a maximum of 35 mm (1-3/8") when fully twisted out.**
8. **The mounting bracket for the 5 kWh battery enclosure must be mounted at a minimum of 464 mm (18-1/4") above the ground.**
9. Determine what type of wall you're working with to use the appropriate amount of lag bolts.
10. Hang the enclosure on the bracket and ensure that the slots line up correctly. To assure that the weight of the battery rests firmly on the floor, leave a 6 mm (1/4") gap between the enclosure and the wall mounting bracket.



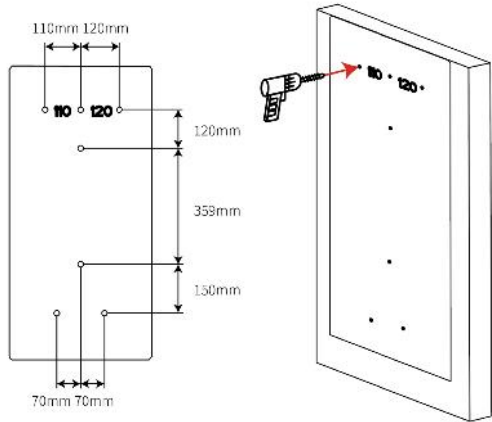
11. Once the system has been mounted, take a photo within the PowerTools app.

3.2.3. INVERTER INSTALLATION

1. Take out the template which is to locate the hole position of the wall mounted bracket.

Fix the template on the wall which is suitable for installation of inverter.

Drill 7 holes on the wall according to the size on the template (8mm in diameter, and 80mm in depth).



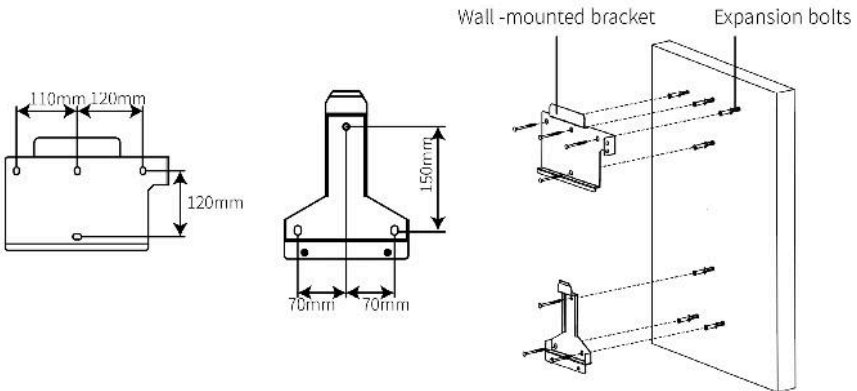
CAUTION: Avoid drilling holes in walls where existing cables may exist inside or on the opposite side of the wall that may be damaged.

Make sure the hole positions are aligned and level.

Évitez de percer des trous dans les murs où des câbles existants peuvent exister à l'intérieur ou sur le côté opposé du mur qui pourrait être endommagé.

Assurez-vous que les positions de trou sont horizontales et verticales.

2. Use expansion bolts to fix the wall-mounted bracket onto the wall tightly.



3. Carry the inverter by holding the heatsink on two sides and place the inverter on the wall-mounted bracket.



CAUTION: Do not use force when mounting to avoid damaging the heatsink sides and inverter.

The connection unit is not for lifting and placement.

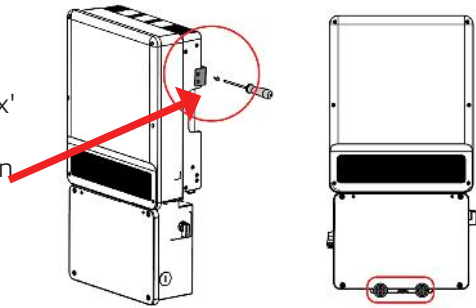
Avoid holding and lifting by the connection unit, balance and lifting should be done on the inverter.

Ne forcez pas lors du montage pour éviter d'endommager les côtés du dissipateur thermique et l'onduleur.

L'unité de connexion n'est pas conçue pour le levage et la mise en place.

Évitez de tenir et de soulever par l'unité de connexion, l'équilibre et le levage doivent être effectués sur l'onduleur.

4. Fasten the inverter using the provided screws in the three positions circled in red. See Appendix 5.1 'What's in the Box' to identify the provided screws, 5mm x 12mm screw, torque min 2.1 max. 2.5 Nm (min. 1.5 max. 1.8 ft lb).



5. Check the inverter nameplate located on the side of the inverter to determine which system you have.

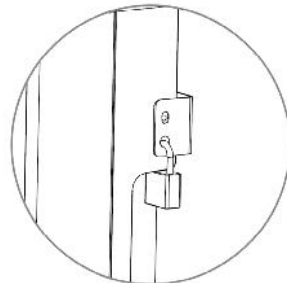
DC-coupled is the A-ES inverter and the AC-Coupled is the A-BP inverter.



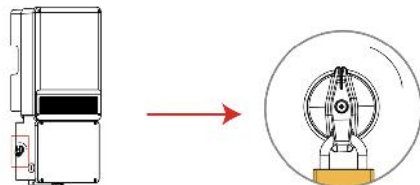
6. Take a picture within the PowerTools app.

Security Feature

Inverter can be locked for prevention of theft. Lock will not be provided by inverter manufacturer.



DC switch should be in "OFF" position during installation and maintenance. A lock can be applied to prevent any tampering.



3.2.4. AUTO-TRANSFORMER



CAUTION: An auto-transformer is required for off-grid operation; otherwise, there is no neutral.

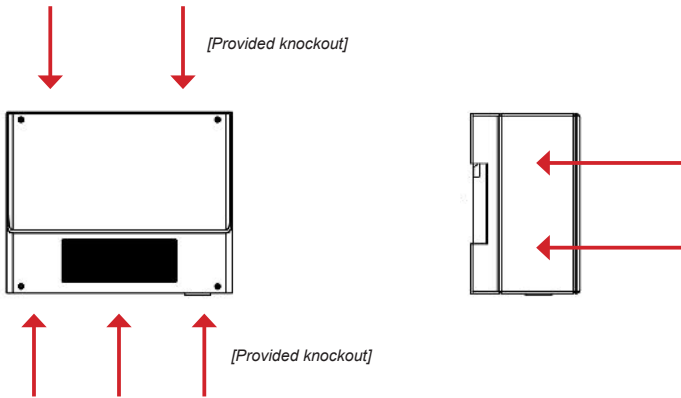
The auto-transformer cannot be installed near flammable, explosive or strong electro-magnetic equipment.

L'auto-transformateur ne peut pas être installé près de l'équipement électromagnétique inflammable, explosif ou solide.

Un autotransformateur est nécessaire pour le fonctionnement hors réseau; sinon, il n'y a pas de neutre.

Optional Knockouts

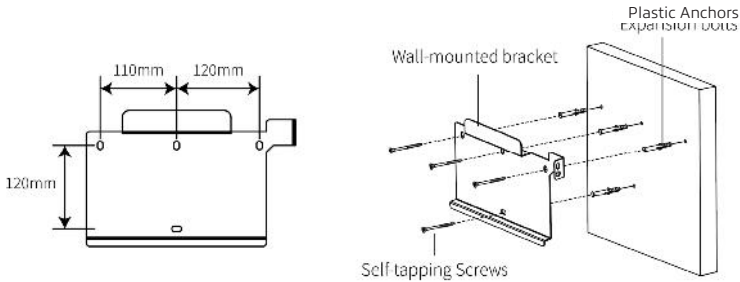
Use the Greenlee Knockout Punch tool for optimum placement and wire routing between the inverter and auto-transformer.



Leave enough space around the auto-transformer according to the below figure for natural heat dissipation. Please refer to Section 3.2 of the manual, 'Clearances and Knockout Locations', for the required clearances.

1. Use the wall-mounted bracket as a template and drill holes in the wall, 10mm in diameter and 80mm deep.

Fix the wall-mounted bracket on the wall using the plastic anchors in the accessories bag.

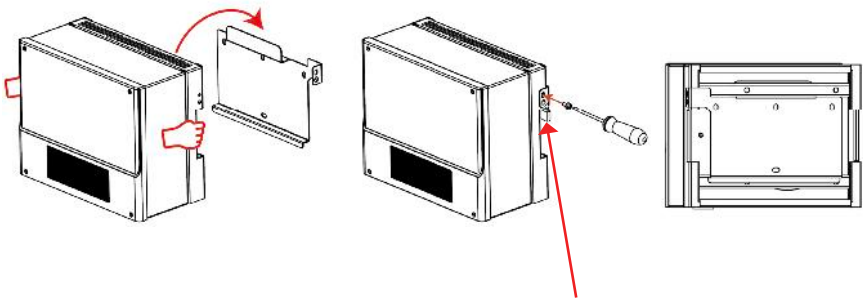


2. Carry the auto-transformer by holding the heatsink on two sides and place the equipment on the mounting bracket.



CAUTION: The auto-transformer is small in size, but very heavy. It is recommended that two people carry it during installation.

L'auto-transformateur est de petite taille, mais très lourd. Il est recommandé que deux personnes le portent pendant l'installation.



3. Secure auto-transformer to wall bracket 5mm x 12mm, torque min. 2.1 max. 2.5 Nm (1.5 min. 1.8 max. ft lb).



4. Take a picture within the PowerTools app.

3.2.5. AUTOMATIC TRANSFER SWITCH (ATS)

An ATS is required for whole home configurations. Follow product specific instructions when mounting the ATS.



Take a picture within the PowerTools app and press 'Next' to proceed to the next step.

3.3. INSTALLING SYSTEM

3.3.1. GENERAL REQUIREMENTS



CAUTION: Before starting installation or commissioning the PowerPod 2, read the statements as below carefully.

- During wiring connection, the installer should always wear proper PPE.
- Installation and commissioning must be performed by a licensed electrician in accordance with local, state, and National Electrical Code ANSI/NFPA 70 requirements.
- The method and process of installing and wiring connection must comply with all US National Electric Code (NEC) requirement and local AHJ inspector requirements in the United States. Meanwhile in Canada method and process must comply with Canadian Electric Code: Part I and Part II, and the local AHJ inspector requirements.
- The wiring installation must strictly observe correct specification. Otherwise, it may bring waterproof and electrical problems.

Avant de commencer l'installation ou la mise en service de PowerPod 2, veuillez lire attentivement les déclarations ci-dessous.

- Pendant la connexion au câblage, l'opérateur doit toujours porter un EPI approprié.
- L'installation et la mise en service doivent être effectuées par un électricien agréé conformément aux exigences locales, étatiques et nationales du Code électrique ANSI/NFPA 70.
- La méthode et le processus d'installation et de connexion au câblage doivent se conformer à toutes les exigences du Code national électrique (NEC) des États-Unis et aux exigences locales des inspecteurs de l'AHJ dans les États-Unis. Pendant ce temps, au Canada, la méthode et le processus doivent être conformes au Code canadien de l'électricité : partie I et partie II, ainsi qu'aux exigences locales des inspecteurs de l'AHJ.
- L'installation de câblage doit observer strictement les spécifications correctes. Sinon, il peut apporter des problèmes imperméables et électriques.



CAUTION: Before connecting battery cable, make sure that all the switches connected to the inverter are closed and that there is no power left in the inverter.

- Be careful about any electric shock or chemical hazard. Personal injury may be caused by short circuit of battery. High transient current will release an energy surge capable in some instances of causing a thermal event.
- Do not connect or disconnect battery cable when inverter is running.
- Make sure that the battery switch is off and the open circuit battery voltage is always less than or equal to 500 V DC.
- Do not connect load between inverter battery cables.
- Using improper wires may cause bad contact and high impedance, which is dangerous to the system.
- Make sure the battery cables are connected correctly. The polarities of battery should be connected correspondingly
- Veuillez suivre les exigences et les étapes ci-dessous strictement, ou des dommages onduleur ou même un incendie peuvent se produire si elle n'est pas satisfaite des conditions suivantes.
- Avant de connecter le câble de la batterie, assurez-vous que tous les interrupteurs connectés à l'onduleur sont fermés et qu'il n'y a plus de puissance dans l'onduleur.
- Soyez prudent au sujet de tout choc électrique ou danger chimique.

Les blessures corporelles peuvent être causées par le circuit de la batterie. Un courant transitoire élevé libérera une surtension d'énergie, même sera en mesure de causer un incendie.

- Ne pas connecter ou déconnecter le câble de la batterie lorsque l'onduleur est en marche.
- Assurez-vous que l'interrupteur de la batterie est éteint et que la tension de la batterie en circuit ouvert est toujours inférieure ou égale à 500 V DC.
- Ne pas connecter la charge entre les câbles de batterie de l'onduleur.

- L'utilisation de fils inappropriés peut causer un mauvais contact et un obstacle élevé, ce qui est dangereux pour le système.
- Assurez-vous que les câbles de batterie sont connectés correctement.

Les polarités de la batterie doivent être connectées en conséquence.

3.3.2. CONDUIT

Install conduit and wire gutters between all mounted enclosures.

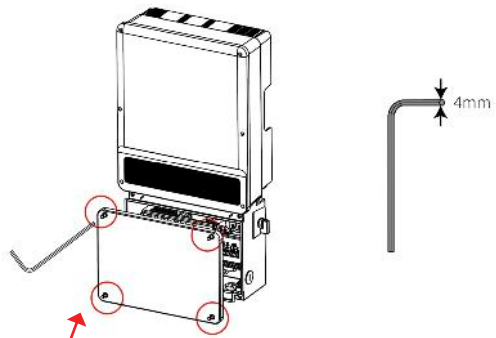


Take a picture of the conduit installation within the PowerTools app and press 'Next' to proceed to the next step.

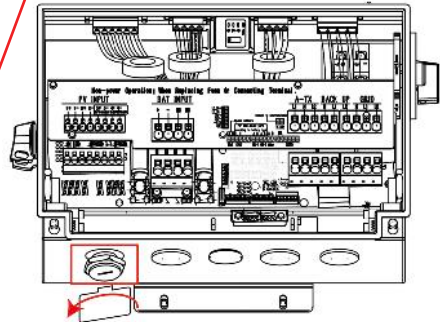
3.3.2.1. CONDUIT AND PLUGS

Inverter and auto-transformer are for conduit fittings of a diameter of 1". The main (10kWh) enclosure to add-on (5kWh) enclosures are for conduit fittings of 1.5". An appropriate conduit adapter should be applied when conduit fittings with different dimensions are used.

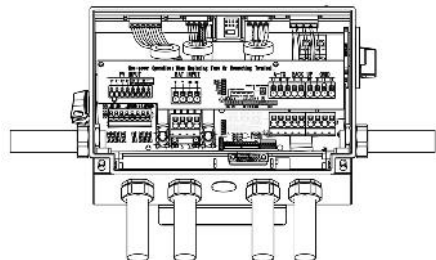
1. Remove the 4 screws by Allen Wrench to remove the cover of the connection box.



2. Remove the waterproof cover provided in the hardware accessories box.



3. Insert the corresponding conduit and fittings, then fasten the joint.



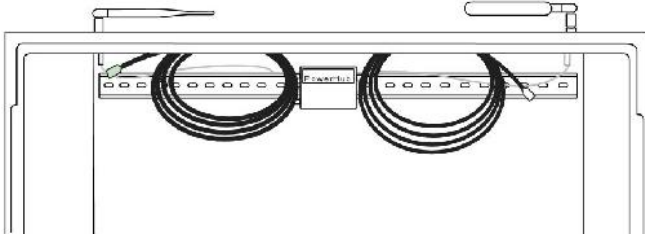
4. Replace the cover.
Tighten screws to:

*5mm, torque min. 2.1 max.
2.5 Nm (min. 1.5 max. 1.8
ft lb)*

3.3.3. BATTERY INSTALLATION

1. Before installing the batteries, check that the BMS, Battery and Cable revisions you received match one of the configurations below. Then follow the next installation instructions below specific to the configuration type you received. DO NOT use BMS and Battery revisions with Communication Cable revisions other than the three configurations defined below. Check Appendix 5.1, "WHAT'S IN THE BOX" to identify that BMS, Battery and Cables match one of the configurations below.
 - 1.1 Configuration 1, Rev. A BMS and Batteries with Original Rev. A Communication Cables
 - 1.2 Configuration 2, Rev. A BMS and Batteries with Universal Rev. B Communication Cables
 - 1.3 Configuration 3, Rev. B BMS and Batteries with Rev. C Communication Cables

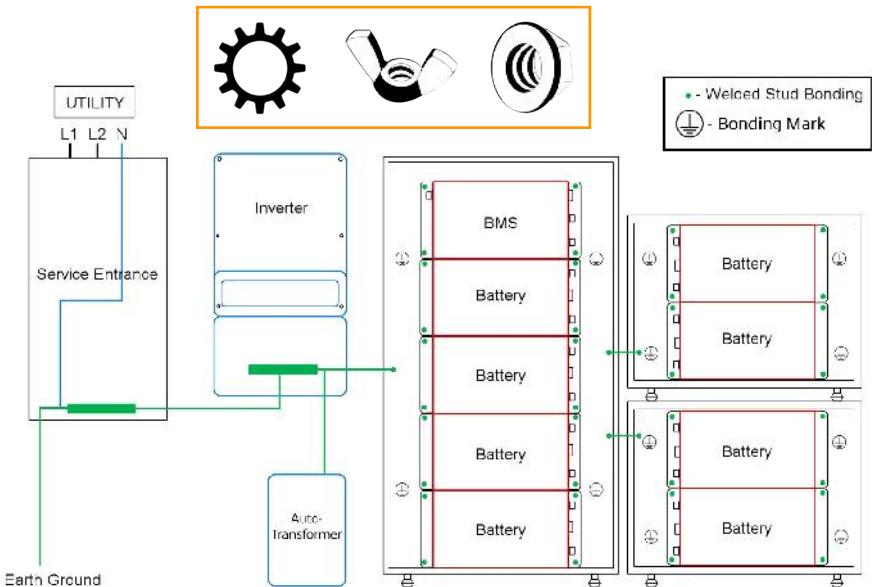
2. Before installing the batteries, ensure the enclosure is securely fastened and that all clearances have been adhered to as stated in Section 3.2, 'Clearances and Knockout Locations.'
3. There will be four cables coming from the left and right of the PowerHub 2, which will be wired later on into the BMS, inverter, communications cable and front display cover.



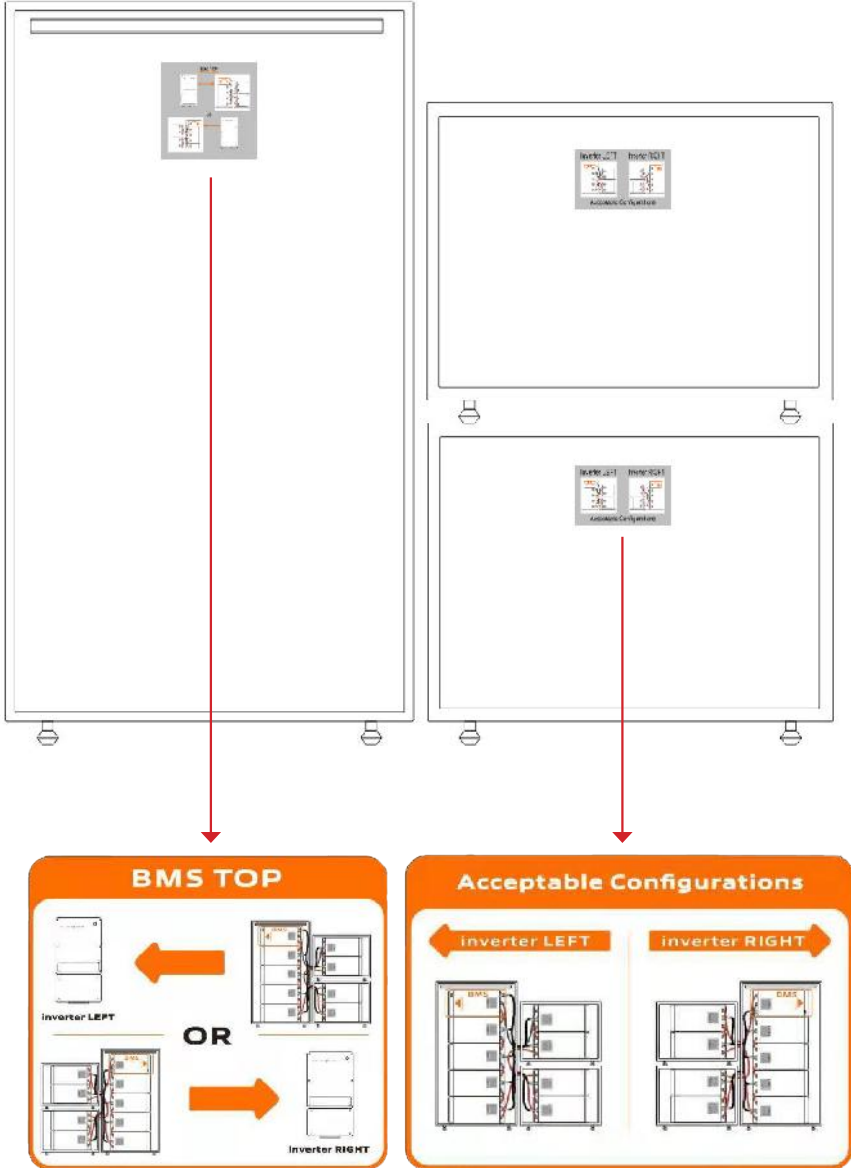
Note: Accessory bags inside the enclosure will have all the required cables and screws.

BONDING THE BATTERY ENCLOSURE DIAGRAM

Bonding to main (10 kWh) and add-on (5 kWh) enclosure front panel not shown. Bond between main enclosure and front panel with a PE wire connected to marked PE PEMs. **Ensure a tooth lock washer is used before tightening down any wing nuts or bolts.** Torque Note: 6 mm PE and battery mounting PEMs torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb).

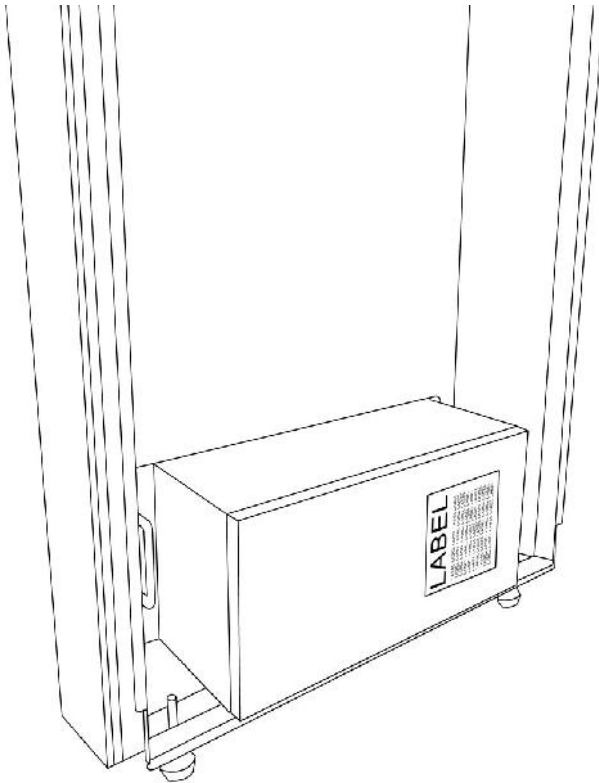
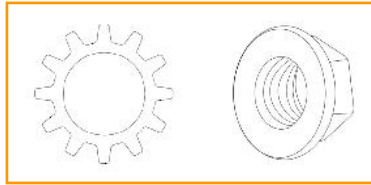


- Place the batteries in the enclosure ensuring that the orientation of the batteries are correct depending on which side the inverter will be installed on. Use the stickers in the back of the enclosure as a guide when installing the batteries and BMS.



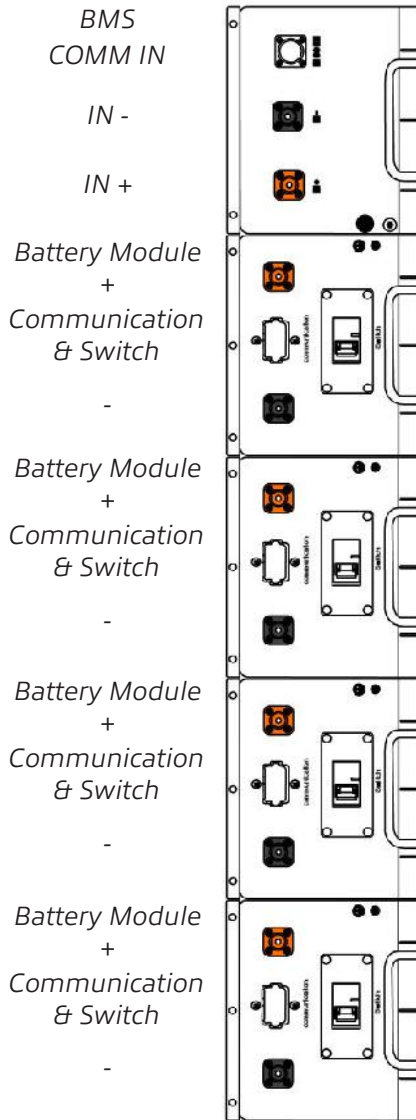
5. Place the first battery in the enclosure and ensure that the stickers align with the BMS when orientated in the correct position (see next page). Also, use the sticker on the back of the enclosure as a guide.

***NOTE - USE INCLUDED TOOTH LOCK WASHERS (10mm) WHEN SECURING THE BATTERIES AND BMS.** *Torque Note: 6 mm PE and battery mounting PEMs torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb).*



CAUTION: Do not remove the battery terminal safety caps until the cables are ready to be installed.

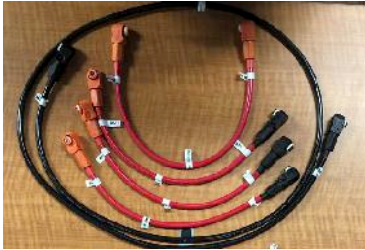
6. The diagram below shows the proper orientation the batteries will need to be mounted within the enclosure and wired when the inverter is in the left position.
7. Ensure the BMS (top box) is also orientated in the correct position. Use the sticker on the back of the enclosure as a guide.



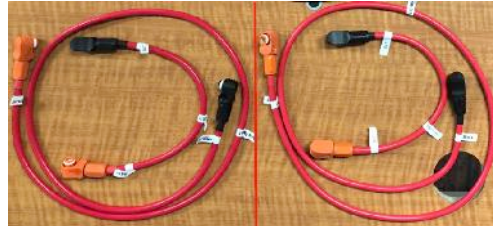
BATTERY CONNECTIONS

Locate your wiring harness kit and begin wiring your batteries.

All the cables shown on this page are required for a 20 kWh system. The 10 and 15 kWh systems will only have a portion of the battery power and communication cables below.




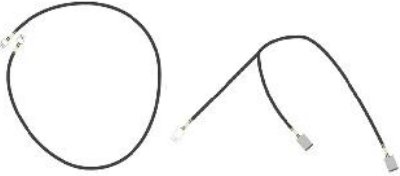
↑
For 10 kWh



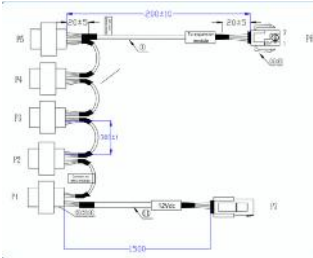
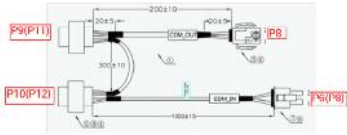
↑ Add-on for 15 kWh
↑ Add-on for 15 kWh and 20 kWh

Configuration 1 Rev. A BMS & Batteries with (Rev. A) Communication Cables	
Harness, COM BMS and Batteries (10kWh) (1) 1.S4, D1, D2, D3, D4, PA1, PA2 and Backup 24V ID 001.005.0147	
Harness, COM BMS and Batteries (5 kWh add-on for 15 kWh Batt) (2) (Left) SA1 - SA4 ID 001.005.0150 (Right) D5, D6, PA4 ID: 001.005.0148	
Harness, COM BMS and Batteries (5 kWh add-on for 20 kWh Batt) (3) (Left) SA2 - SA5 ID 001.005.0151 (Right) D7, D8, PA5 ID: 001.005.0149	

Use the above PowerPod 2 Battery Communications Cables to interconnect the **(1)** 10 kWh batteries and BMS. **(2)** 15kWh add-on and **(3)** 20 kWh add-on. Note, make sure PA1 connects to SA1 and PA2 connects to SA2 etc.

Configuration 2 Rev. A BMS & Batteries with (Rev. B) Communication Cables	
Harness, BMS (10 kWh) (1) S4, D1, D2, D3, D4, PA1, PA2 and Backup 24V ID: UNIV CABLE 001.005.1062	
(2) Harness, Batteries (5 kWh add-on for 15 kWh and 20 kWh Batt) (Left) SA1(SA2) - PA4(PA5) ID: UNIV CABLE 001.005.1088 (Right) D5(D7), D6(D8), SA4(SA5) ID: UNIV CABLE 001.005.1087	

Use the above PowerPod 2 Battery Communications Cables to interconnect the **(1)** 10 kWh batteries and BMS. **(2)** 15kWh add-on and **(2)** 20 kWh add-on. Note, make sure PA1 connects to SA1(SA2) and PA2 connects to SA1(SA2), etc.

Configuration 3 Rev. B BMS & Batteries with (Rev. C) Communication Cables	
Harness, COM BMS and Batteries (10kWh) (1) 12Vdc, Connect to BMS module, To expansion module ID: Master Module_COM Cable	
Harness, COM BMS Batteries (5 kWh add-on for 15 kWh and 20 kWh Batt) (2) COM_IN, COM_OUT ID: Extention Module_COM Cable	

Use the above PowerPod 2 Battery Communications Cables to interconnect the **(1)** 10 kWh batteries and BMS.

Note 1, make sure P1 connects to BMS and P2 to P5 connects to Batteries. **(2)** 15kWh add-on and **(2)** 20 kWh add-on.

Note 2, for 15kWh, make sure P6(P8) connects to P6 on 10kWh cable "To expansion module" and P9(P11) and P10(P12) connects to Batteries.

Note 3, for 20kWh, make sure P6(P8) connects to P8 on the 20kWh cable "COM_OUT" and P9(P11) and P10(P12) connects to Batteries.

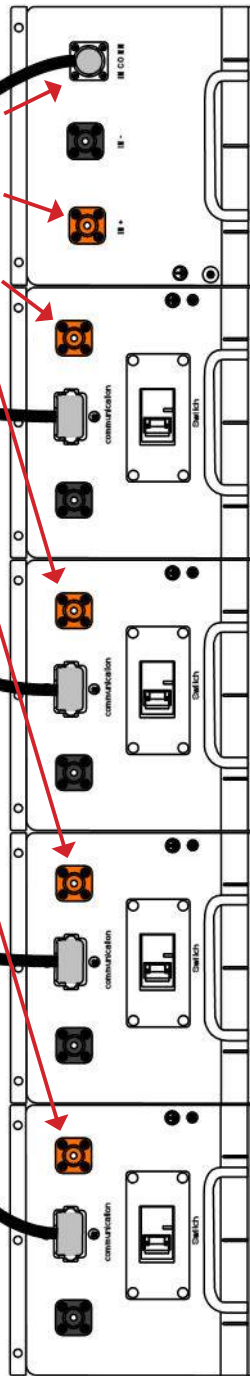
1. Begin by connecting the COMM IN cable into the COMM IN on the BMS.
2. With the same communications cable, connect to the communications port on the battery beneath the BMS (second from top position).
3. Continue to connect the same communications cable until all of the batteries have been connected. Note that the order in which these are connected is important. Use the diagram below to wire the system properly 10 kWh (BMS -> 4, 3, 2, 1); 15 kWh (BMS -> 6, 5, 4, 3, 2, 1) and 20 kWh (BMS -> 8, 7, 6, 5, 4, 3, 2, 1).



CAUTION: Do not remove the battery terminal safety caps until the cables are ready to be installed.

When the inverter is on the RIGHT side, the batteries and BMS are flipped. The COMM IN is on the bottom and the positive connection is on the top.

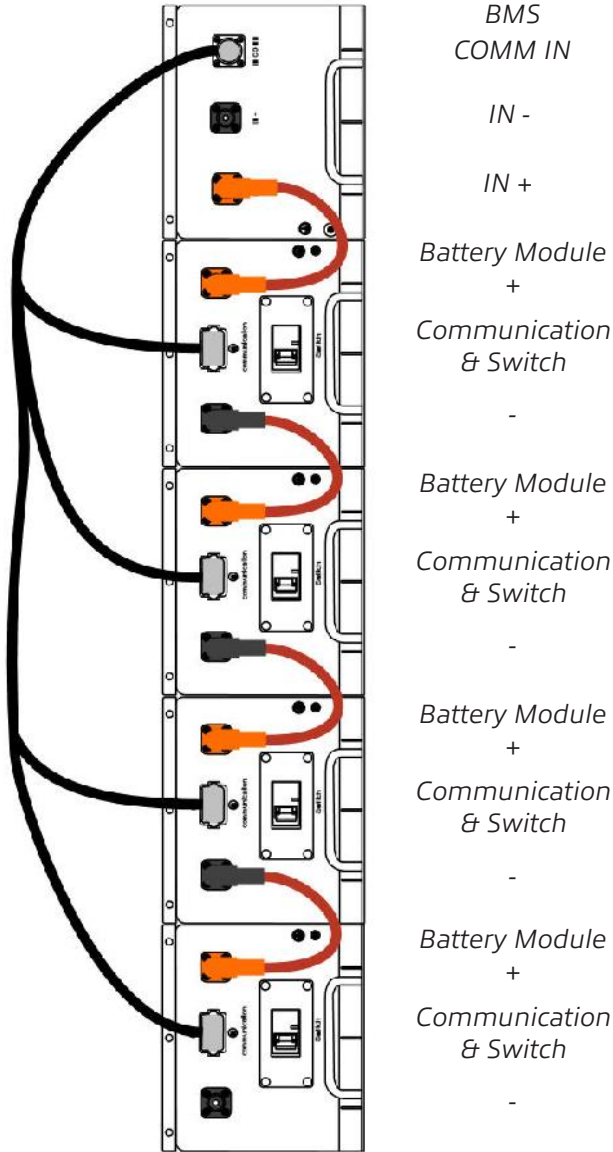
Note, the connector colors must always match when wiring the cables. The batteries connect in series to each other.



- BMS
- COMM IN
- IN -
- IN +
- Battery Module +
- Communication & Switch -
- Battery Module +
- Communication & Switch -
- Battery Module +
- Communication & Switch -
- Battery Module +
- Communication & Switch -

Orientation When Inverter is on the Left

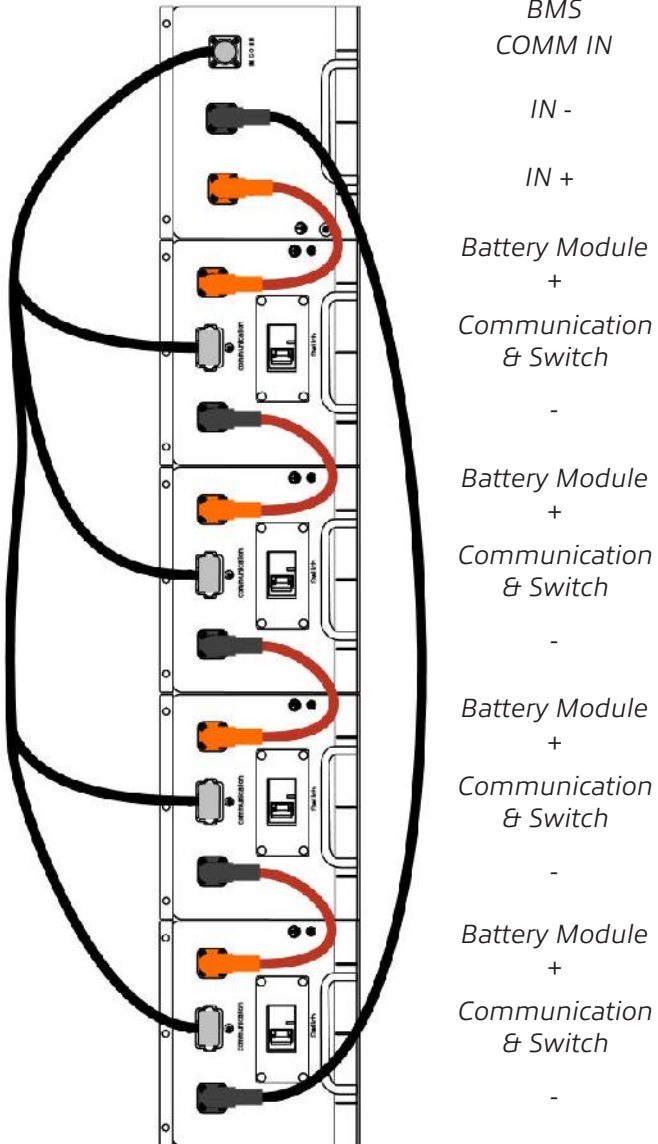
4. Begin to wire the batteries together from positive to negative in series to each other.
5. Once the batteries are all wired together, take the final positive connection on last battery and connect that back to the positive (red) BMS terminal.
6. Ensure all breakers are in the 'OFF' position. Due to the differences



Orientation When Inverter is on the Left

in the **right** and **left** side inverter installation, the orientation of the batteries will result in the breaker 'OFF' position not being the same from installation to installation. Note, breaker indicator RED is ON and GREEN is OFF.

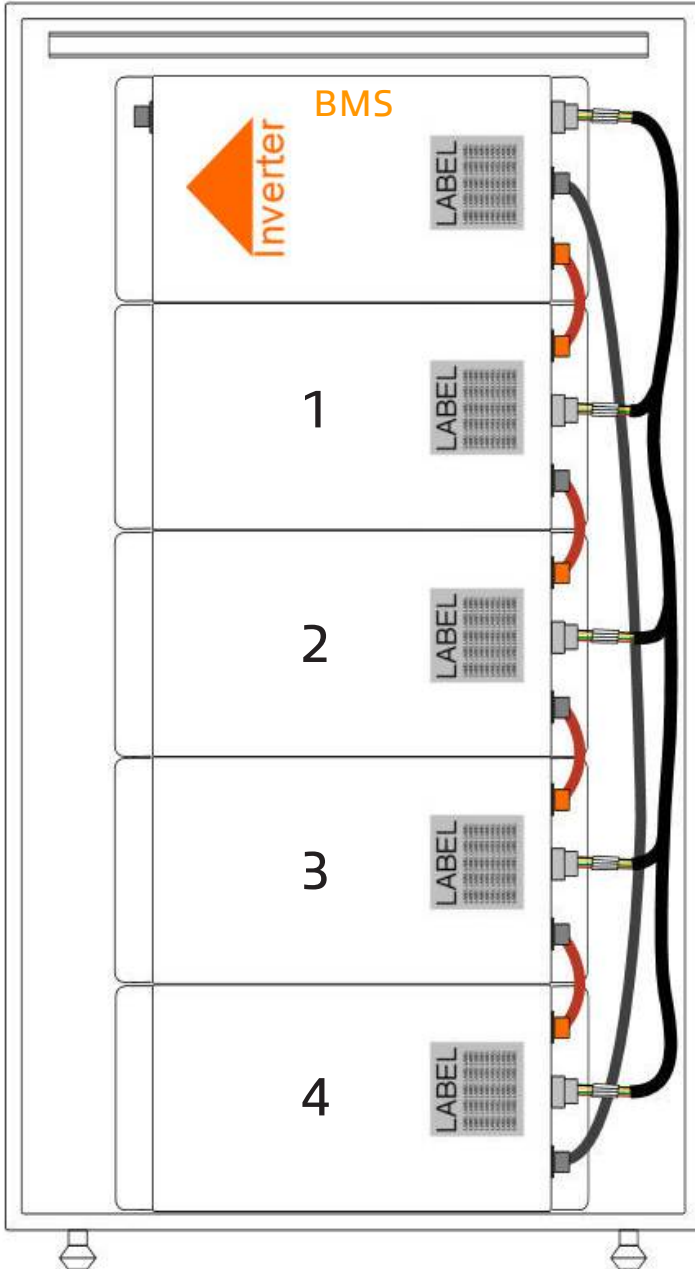
7. Route the final negative wire from the last battery (position 4) to the negative of the BMS. **NOTE THE COLOR CODING IN THE DIAGRAM BELOW.**



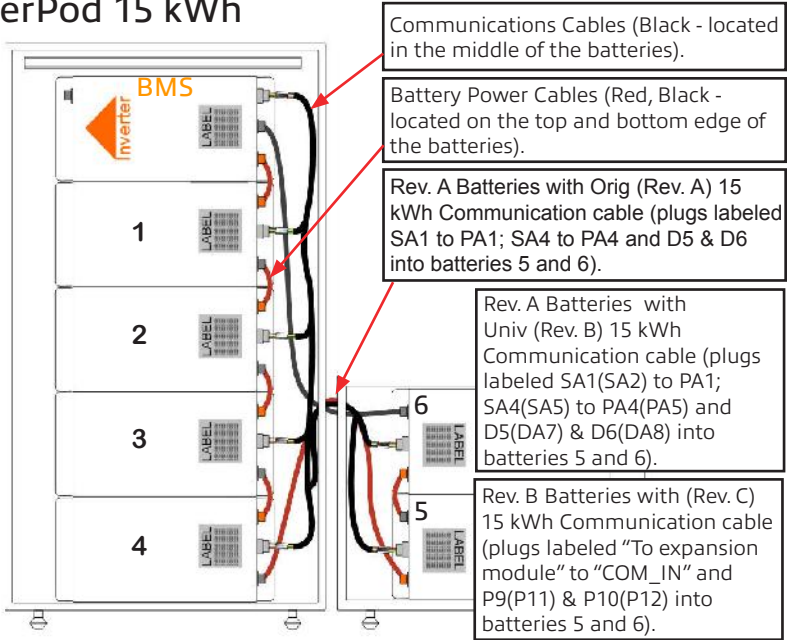
Orientation When Inverter is on the Left

- 8. The finished wiring installation should resemble the following diagrams: (Below - page 47) 10 kWh, (Top - page 48) 15 kWh, (Bottom - page 48) 20 kWh.

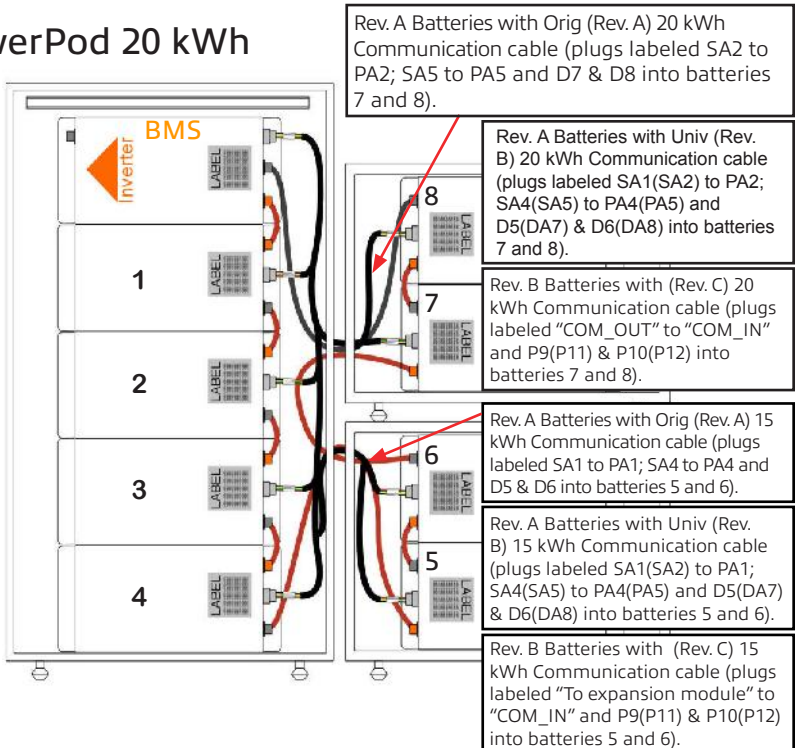
PowerPod 10 kWh



PowerPod 15 kWh

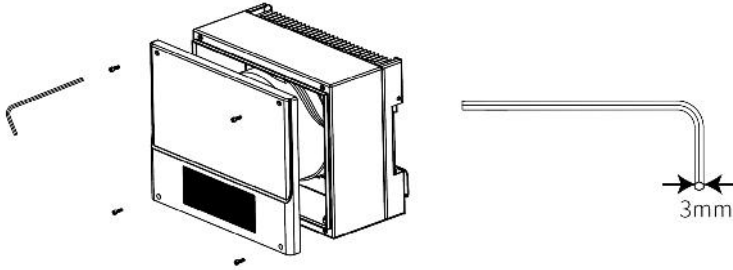


PowerPod 20 kWh

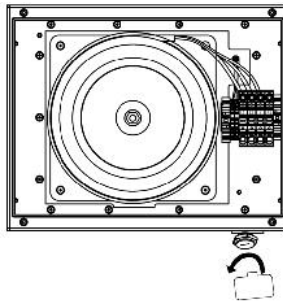


3.3.4. AUTO-TRANSFORMER CONNECTIONS

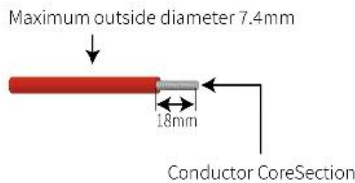
1. Use an Allen Wrench to remove the 4 screws of the auto-transformer and remove the cover.



2. Use a cap removal tool to remove the waterproof cover.



The maximum AC current is 40A. Use 90°C wire rated, and gauge size per code, for 40 A copper.

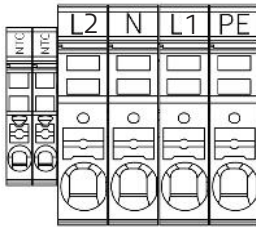


3. For the NTC auto-transformer connection to the inverter use the pre-made cable shipped with the inverter. If a longer NTC connection is needed, use 22 AWG or 24 AWG, 600 V insulated wire. One end of the NTC cable is connected to the inverter with the 2-pin terminal and the other end is connected to the auto-transformer spring connectors marked "NTC".

Route all the auto-transformer cables, L1, L2, N, PE and TX-NTC cables between inverter and auto-transformer. Connect as shown by the two diagrams below.



4. Once the Auto-Transformer has been wired, take a photo within the PowerTools app and press 'Next' to move on to the next.

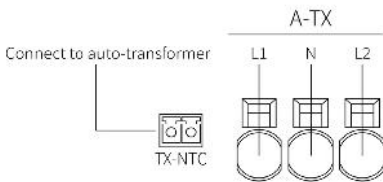


[Connector Accepts 6 AWG Max]



Auto-transformer connection from inverter. AC connection accepts 12 AWG min. and 6 AWG max.

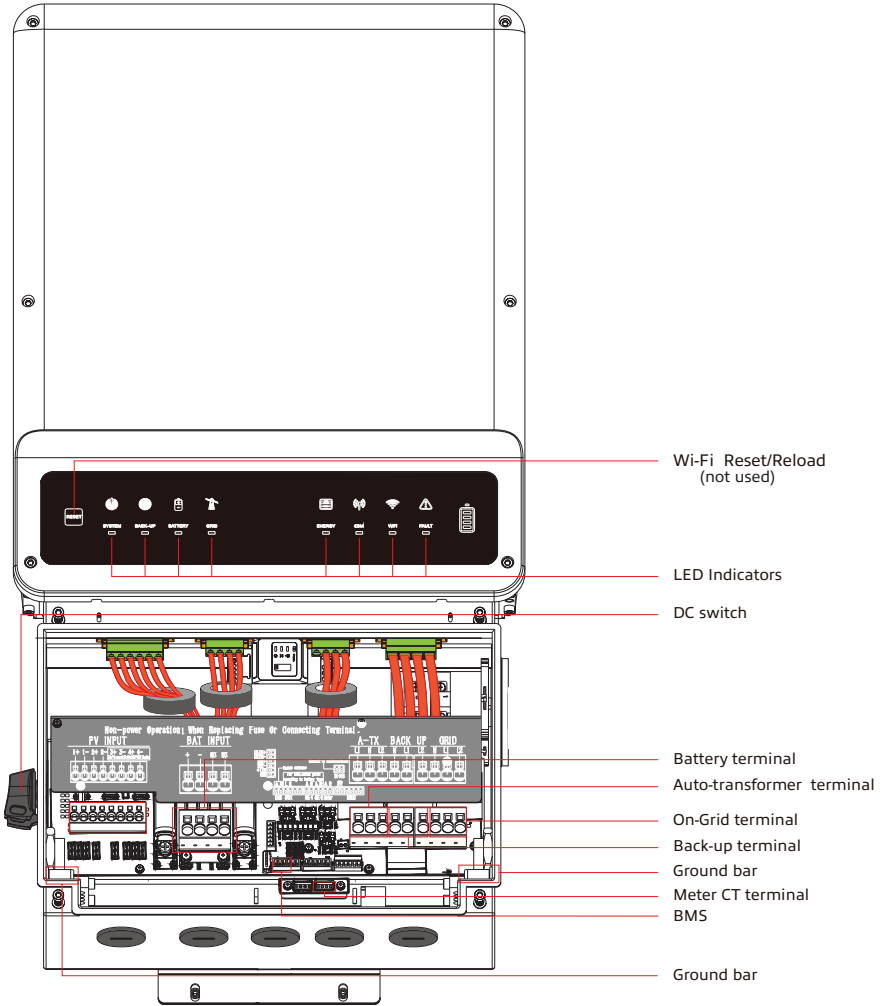
5. After auto-transformer to inverter wiring is completed, fasten the auto-transformer front cover



Inverter connections from auto-transformer.

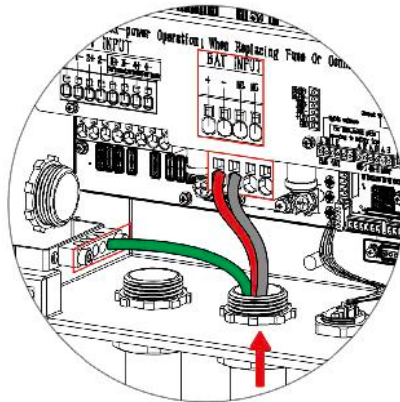
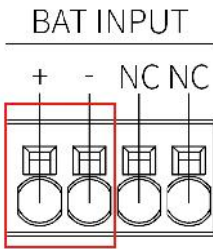
3.3.5. INVERTER CONNECTIONS

For overload values of the inverter, see Appendix 5.4 'Inverter Overload'.



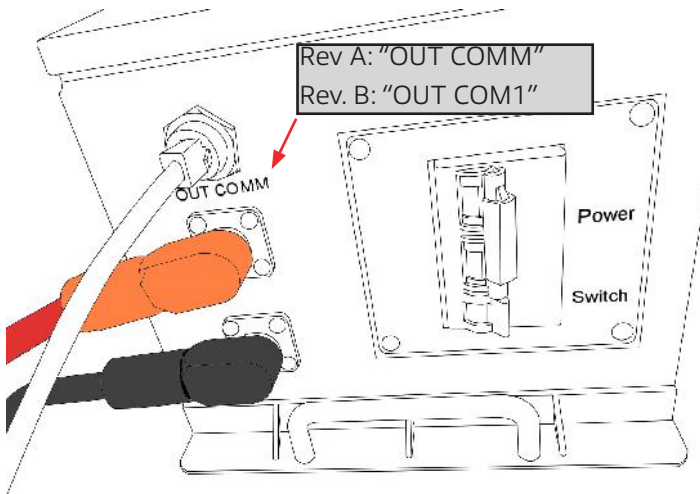
3.3.5.1. CONNECT BATTERY TO INVERTER

1. Connect long positive (red) and negative (black) ferrule ends of the battery cable to the inverter + and - BAT INPUT as shown below. Use pre-made battery-to-inverter cables. The battery cables through battery port Connect battery cables to battery terminals. If the battery is required to connect with PE cable, connect PE cable to ground bar. *GND Torque: 0.25 in set screw, torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb).*



Inverter connections from the battery

2. Plug in the long positive (red) and negative (black) cables into the same color BMS connectors as shown below



CAUTION: Do not turn on the switches at this time.

3.3.5.2. CTS

CT Connection

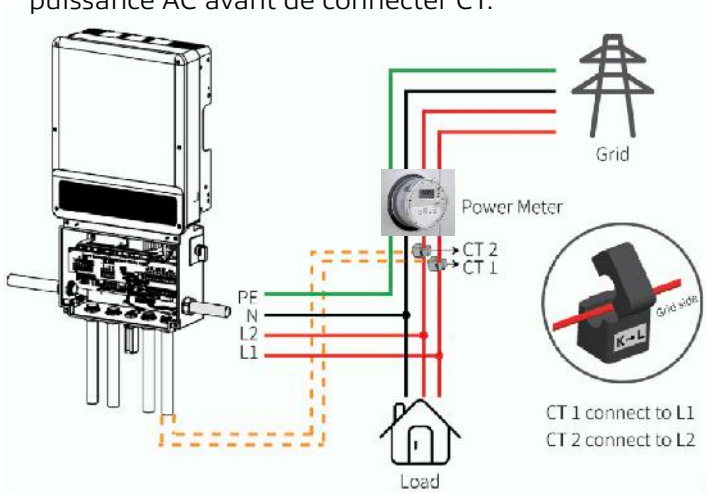
Two CTs in product box are required for the system installation to detect grid current direction and magnitude for proper system orientation. Follow the steps below to properly configure the two CTs:

1. Locate the two CTs in the accessory box.
2. The two grid CTs must be installed on L1 and L2 on the home's main utility entry point cables. L1 and L2 are determined by the grid connection marking on the inverter.

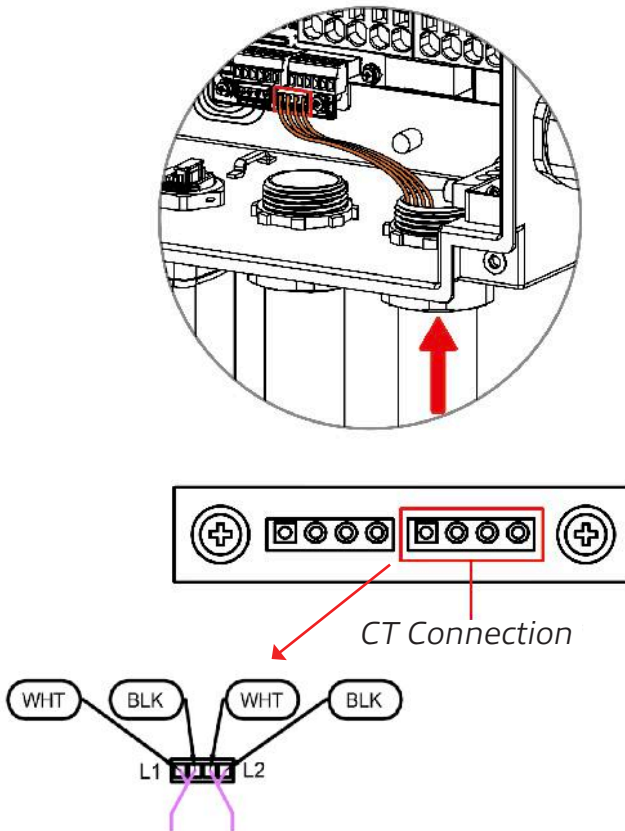


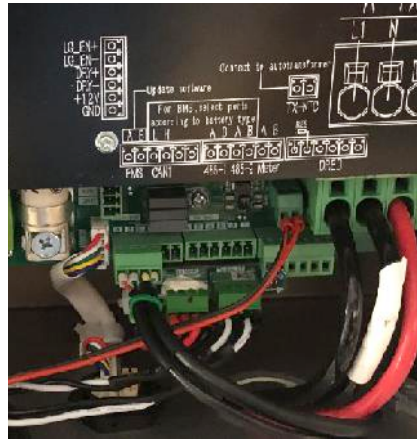
CAUTION: Make sure AC cable is totally isolated from AC power before connecting CT.

Assurez-vous que le câble AC est totalement isolé de la puissance AC avant de connecter CT.



- The CTs must be placed around the correct wire. They are labeled CT1 to connect to L1 and CT2 to connect to L2.
 - The CTs must face the correct direction. The "House(K)" side of the CT must face the main panel and the "Grid(L)" side must face the meter.
 - CT cable is 10m as default.
 - CT cable can be extended to maximum of 30m, contact support@electricpower.com for additional support.
3. Route the other end of the CT through the CT port and insert the 4-Pin terminal at the inverter as shown below.
 4. After all the wiring connected, close the wiring distribution box, ensure waterproof and moisture-proof and sealed well.
 5. ***Important*** Mark CTs wire connections if removing connector to route cable through conduit or remove excess wire length. See image below. L1 is the two left side connections (white wire on the left and black wire on the right) and L2 is the two right side connections (white wire left and black wire right).





Note, after all the wiring connections have been made, observe wiring is depicted as shown in the photo.

3.3.5.3. PHOTOVOLTAIC (PV) (DC-COUPLED ONLY)

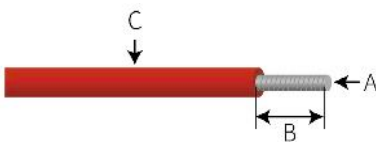


CAUTION: Before PV wiring connection, read this section carefully.

- The total short-circuit current of PV string must not exceed inverter's maximum DC short-circuit current.
- Positive and negative poles of PV strings should not be grounded.
- Conductors specification should be no less than AWG12.
- For the minimum isolation resistance to ground of the PV string, refer to the below table.
- Le courant de court-circuit total de la chaîne PV ne doit pas dépasser le courant de court-circuit DC maximal de l'onduleur.
- Les poteaux positifs et négatifs des cordes photovoltaïques ne doivent pas être cloués à la terre.
- Les spécifications des conducteurs ne doivent pas être inférieures à celle d'AWG12 en raison de ne pas être reliée au fusible.
- Pour la résistance d'isolement minimale à la terre du PV string, reportez-vous au tableau ci-dessous.

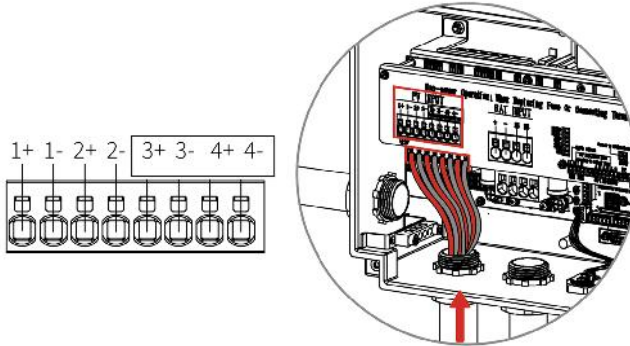
Inverter Model	Minimum Isolation Resistance
All models	> 1.0 MΩ

Use 90°C wire, 12AWG minimum Copper. Do not use aluminum cables.



Item	PV Wire Description	Value
A	Conductor core	Min. 12AWG Max. 10AWG
B	Conductor core length	18mm
C	Outside Diameter	Max 5.6mm

Route the PV cables through the PV port or left port shown as the picture. Connect PV cables to PV terminals.



- For 7/7.6/8.6/9.6kW, the installer can connect up to 8 PV cables to PV terminals (4 MPPT trackers).
- For inverter 5kW/6kW, the installer can only connect 4 PV cables to PV terminals (2 MPPT trackers).

Note: For inverter 5kW /6kW, do not connect PV cables to Port 3+ /3- /4+ /4-.



Once the system PV has been wired, begin wiring the Automatic Transfer Switch and take a photo within the PowerTools app and press 'Next' to move on to the next step.



CAUTION: The polarity of PV strings cannot be connected reversely, otherwise the inverter could be damaged.

Do not connect multiple PV inputs in parallel. If required, add a fuse outside or a breaker which observes safety specification.

The output terminal of PV module may be producing dangerous voltage.

Touching the terminal may cause electric shock. Before connecting PV input terminal, make sure DC switch is turned off and there is no voltage at the terminals of DC input products.

When PV is connected to the inverter and not shut down, do not contact or remove the PV input terminals in case of electric shock, such as connecting or disconnecting the PV strings or PV module in the PV strings.

Le terminal de sortie du module PV peut exister la tension dangereuse.

Toucher le terminal peut provoquer un choc électrique. Avant de connecter le terminal d'entrée PV, assurez-vous que l'interrupteur DC est éteint et qu'il n'y a pas de tension dans les terminaux des produits d'entrée DC.

Lorsque onduleur couplé CC est en cours d'exécution, ne pas fonctionner sur les terminaux d'entrée PV en cas de choc électrique, comme la connexion ou la déconnexion des chaînes photovoltaïques ou du module PV dans les chaînes photovoltaïques.

Make sure the ground line of GND is connect to the earthing point and stable connection between PV module frame and earthing point.

Assurez-vous que la ligne de sol de GND est reliée au point de terrassement et à la connexion stable entre le cadre du module PV et le point de terrassement.

3.3.5.4. GRID CONNECTIONS

On-Grid Connection

An external AC breaker is needed for on-grid connection to isolated from grid when necessary. Specifications of AC breaker used for different inverter model are advised. Read the following table and local requirement before selecting a suitable AC breaker.

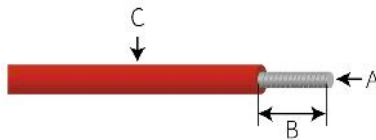
Model Number	AC-Grid "Breaker" Specification (A)
PP2-AC or DC-5000-10/15/20	30A Max.
PP2-AC or DC-6000-10/15/20	30A Max.
PP2-AC or DC-7000-10/15/20	35A Max.
PP2-AC or DC-7600-10/15/20	40A Max.
PP2-AC or DC-8600-10/15/20	40A Max.
PP2-AC or DC-9600-10/15/20	50A Max.

Note: The absence of AC breaker will lead to inverter damage if an electrical short circuit happens on grid side.



CAUTION: Make sure the inverter is totally isolated from any DC or AC power before connecting AC cable.

An external AC breaker is needed for on-grid connection to isolate from grid when necessary and protect from over current. Note maximum AC current in table below. Use AC copper wiring per local codes. Do not use aluminum cables.



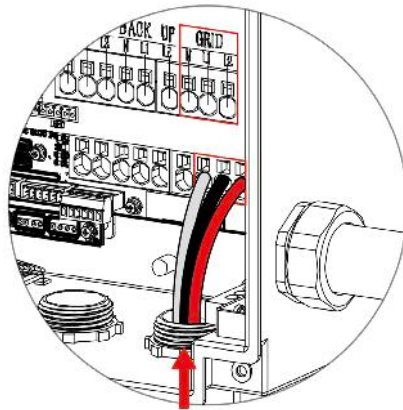
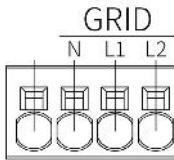
Item	PV Wire Description	Value
A	Conductor core	Min. 12 AWG Max. 6 AWG
B	Conductor core length	18mm
C	Outside Diameter	Max 7.4mm

Model Number	Grid "Wire Size" Rated for (A)
PP2-AC or DC-5000-10/15/20	35A
PP2-AC or DC-6000-10/15/20	40A
PP2-AC or DC-7000-10/15/20	45A
PP2-AC or DC-7600-10/15/20	50A
PP2-AC or DC-8600-10/15/20	50A
PP2-AC or DC-9600-10/15/20	50A



CAUTION: Make sure that all hardware is de-energized before connecting the cables.

1. Route the grid cables through the port closest to the grid connectors and connect to the "GRID" N, L1 and L2 connectors.



Inverter from grid connections

3.3.5.5. WHOLE HOME

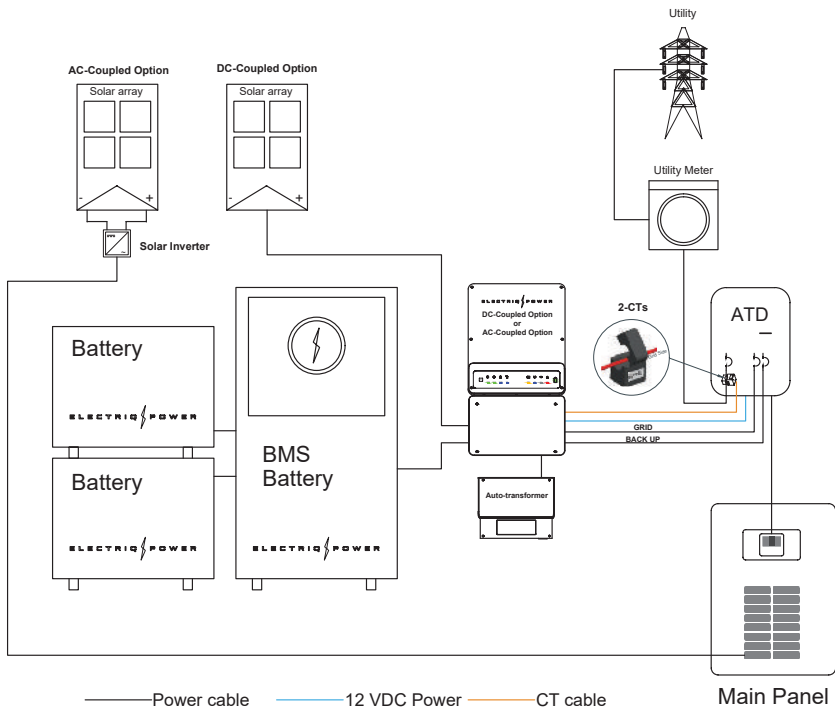
For whole home configurations, make sure an automatic transfer switch is installed. If off-grid, the maximum load must not exceed the inverter rating otherwise the inverter will turn off and the loads will not be backed up until load is reduced to max-rated output of inverter.

3.3.5.5.1. AUTOMATIC TRANSFER SWITCH

Refer to the connection instructions and wiring diagrams provided with the automatic transfer switch, and see Appendix 5.3, PowerPod 2 Wiring Diagram with ATS (ATD).



Once the Automatic Transfer Switch has been wired, take a photo within the PowerTools app and press 'Next' to move on to the next step.



AC-COUPLED ONLY

For how to best operate your solar system in off-grid applications, consult with your solar system vendor.

Backup Frequency Shift

When the battery SOC is high and the charging power is limited, the AC-coupled PowerPod's will increase the output frequency, causing the PV inverter to reduce the output power, until the battery enters a low-power discharge state.

3.3.5.6. PARTIAL-HOME (DC-COUPLED ONLY)

Requirements for reliable back-up

The below statement lays out general policies governing the energy storage inverters.

1. For DC-coupled systems, the standard PV installation typically consists of the connection of the inverter with both panels and batteries. In case of systems not connected to the batteries, DO NOT use the backup function. The PowerPod 2 warranty will not cover, and Electriq Power will not be liable for, any consequences arising from the use of the backup function on these systems.

2. Under normal circumstances, the backup switching time is less than 10 ms. However, some external factors may cause the system to fail on backup mode. As such, we recommend the users to be aware of conditions and follow the instructions as below:

- Do not connect loads if they depend on a stable energy supply for a reliable operation.
- Do not connect the loads which may in total exceed the maximum backup capacity.
- Avoid those loads which may create very high start-up current surges such as Air-conditioner, high-power pump etc.
- Avoid high ambient temperatures as they will reduce maximum power to backup loads.
- Avoid low ambient temperatures as they will stop batteries from charging and discharging.

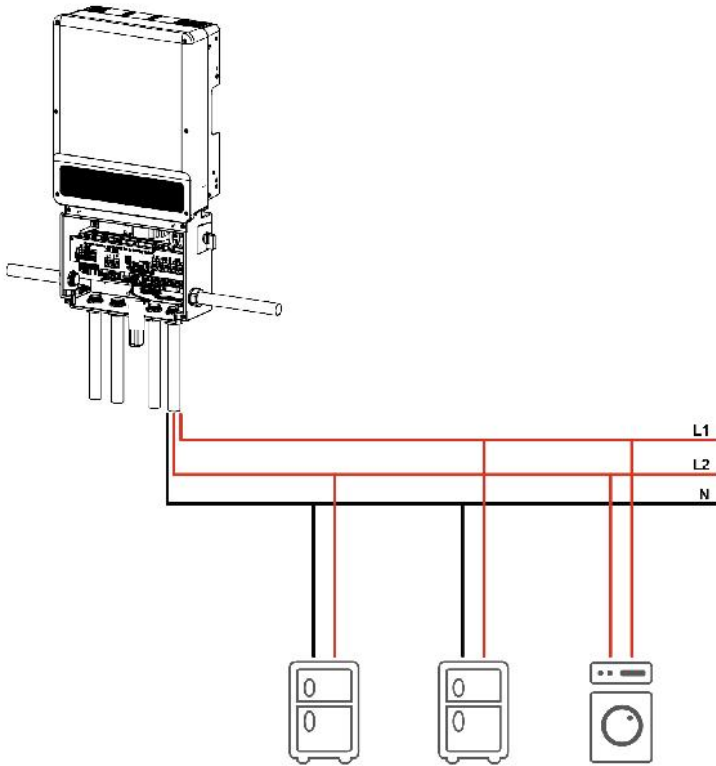


CAUTION: Make sure the inverter is totally isolated from any DC or AC power before connecting backup cable.

Assurez-vous que l'onduleur est totalement isolé de toute puissance DC ou AC avant de connecter le câble de backup.

When using the backup function of the inverter, corresponding protective devices like AC breaker should be applied to ensure safety or satisfy local requirements.

Backup Load Configuration



Partial-Home Backup Wiring Connection Process

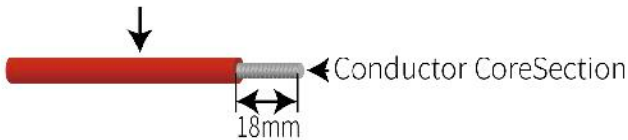


CAUTION: To reduce the risk of fire, do not connect to an AC load center (circuit breaker panel) having multi wire branch circuits connected.

Pour réduire le risque d'incendie, ne vous connectez pas à un centre de chargement AC (panneau de disjoncteur) ayant des circuits de branche multi-fil connectés.

Do not use aluminum cables.

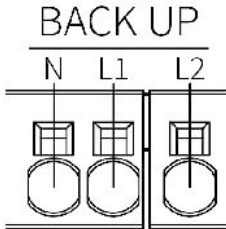
Maximum outside diameter 7.4mm



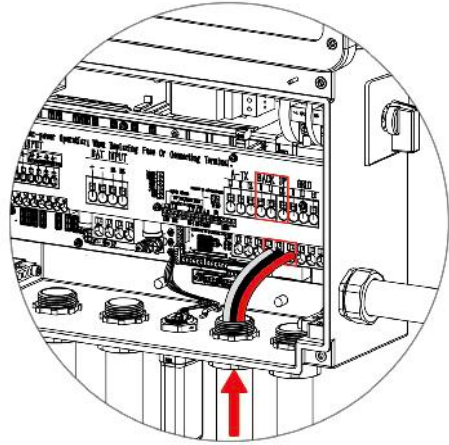
Model Number	Load "Breaker" Specification (A)
PP2-AC or DC-5000-10/15/20	30A
PP2-AC or DC-6000-10/15/20	30A
PP2-AC or DC-7000-10/15/20	35A
PP2-AC or DC-7600-10/15/20	40A
PP2-AC or DC-8600-10/15/20	40A
PP2-AC or DC-9600-10/15/20	50A

Model Number	Grid "Wire Size" Rated for (A)
PP2-AC or DC-5000-10/15/20	35A
PP2-AC or DC-6000-10/15/20	40A
PP2-AC or DC-7000-10/15/20	45A
PP2-AC or DC-7600-10/15/20	50A
PP2-AC or DC-8600-10/15/20	50A
PP2-AC or DC-9600-10/15/20	50A

1. Route the backup cables through the backup port. Connect backup cables to backup terminals.



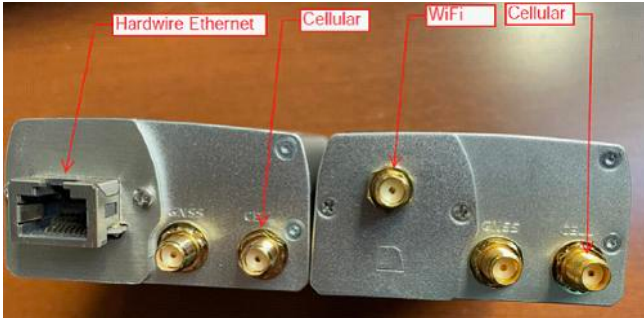
[Connector Accepts 6 AWG Max]



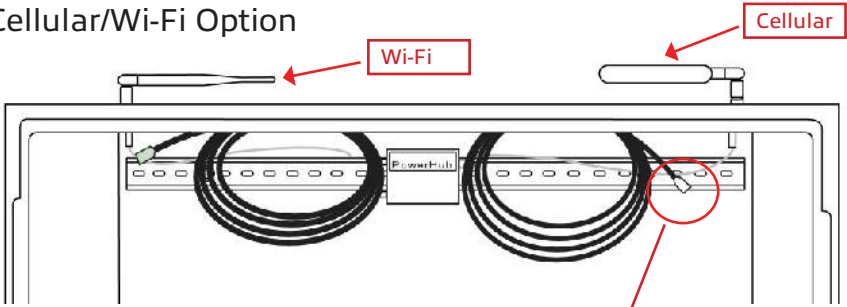
2. Once the system has been wired, begin wiring the Automatic Transfer Switch and take a photo within the PowerTools app and press 'Next' to move on to the next step.

3.3.5.7. POWERHUB 2 CONNECTIONS

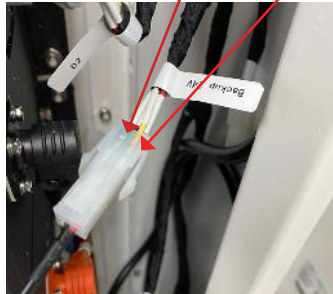
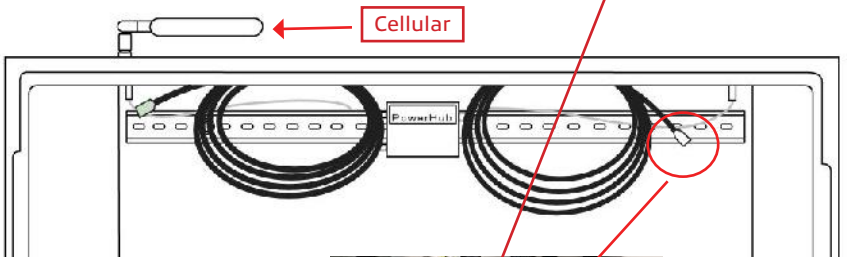
There are two different PowerHub 2 options, one Cellular and WiFi and the other with Cellular and R-45 hardwire Ethernet. See image below.



Cellular/Wi-Fi Option



Cellular/Hardwire Ethernet Option

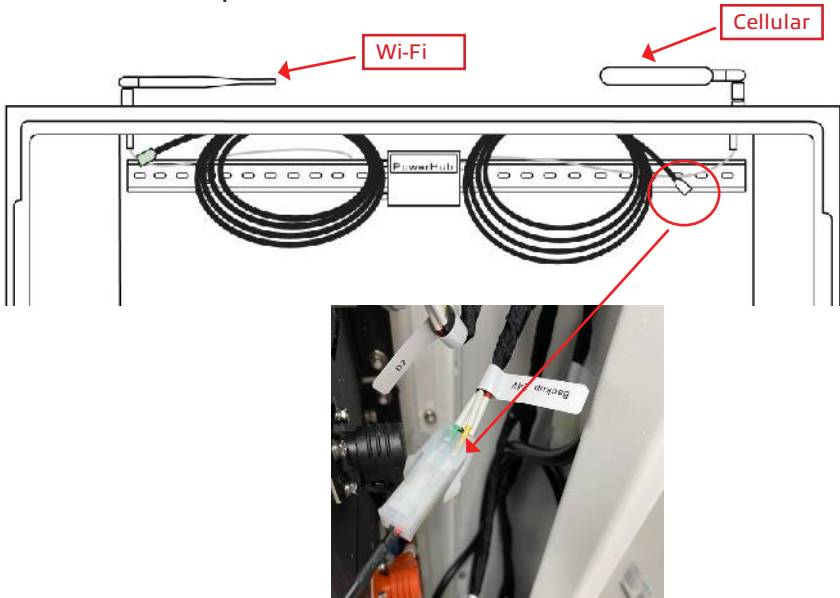


3.3.5.7.1. POWERHUB 2 CELLULAR / WI-FI OPTION CONNECTIONS

There are different PowerHub 2 wiring instructions depending on whether the battery is Rev. A or B or whether the PowerHub 2 connection cable is Rev. A, B or C. Pay attention below and follow the instructions for your configuration. If unsure of your configuration see Appendix 5.1, "WHAT'S IN THE BOX"

1. Locate the two cables coming from the right of the PowerHub 2 as seen here and connect the larger four pin white connector into the communications cable labeled "backup 24V" for Rev. A batteries and "12Vdc" for Rev B batteries. The other small black cable with the four pin white connector will be eventually wired into the display panel on the front cover of the enclosure.

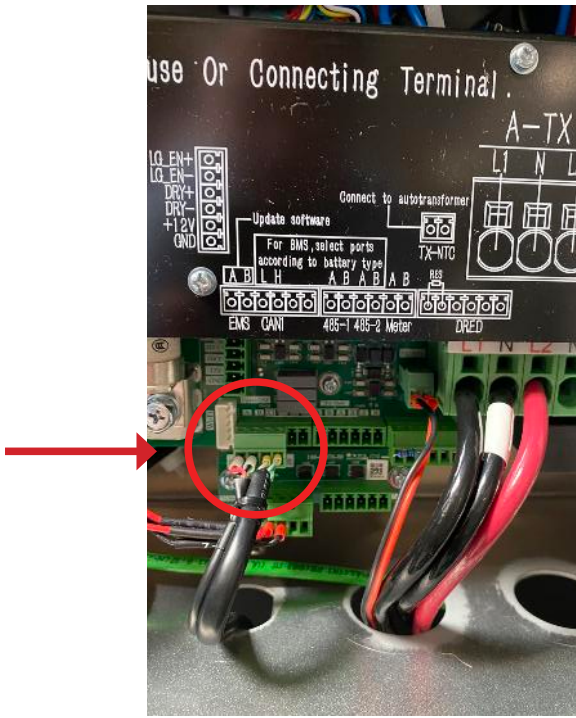
Cellular/Wi-Fi Option



- Next, plug in the RJ45 connection from the PowerHub 2 into the "OUT COMM" port for Rev. A batteries and "OUT COM1" port for Rev. B batteries. In both cases the port is located on the opposite side of the BMS (image below).



3. Plug in the green 4-pin communication connector to the inverter as depicted in the diagram below.



Once the system has been wired, take a photo within the PowerTools app and press 'Next' to move on to the next step.

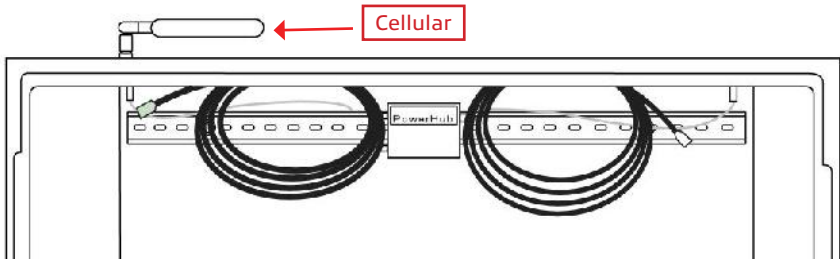
3.3.5.7.2. POWERHUB 2 CELLULAR / HARDWIRE ETHERNET OPTION CONNECTIONS

The hardwire Ethernet connection has one additional step than the Cellular/Wi-Fi connection. The first three steps are the same. So, first, follow steps 1 through 3 above but note the image below has no Wi-Fi antenna.

4, Route an active CAT 6 Ethernet cable. Plug one end into the home router and the other end to the RJ-45 PowerHub 2 connector.

Note, If mixed signal cables are routed in the same conduit, NEC Section

Cellular/Hardwire Ethernet Option



3.4. COMMISSIONING



CAUTION. Do not leave individual batteries on without commissioning the system. Leaving batteries on for extended periods of time without commissioning will discharged and possibly damage the batteries voiding the warranty.

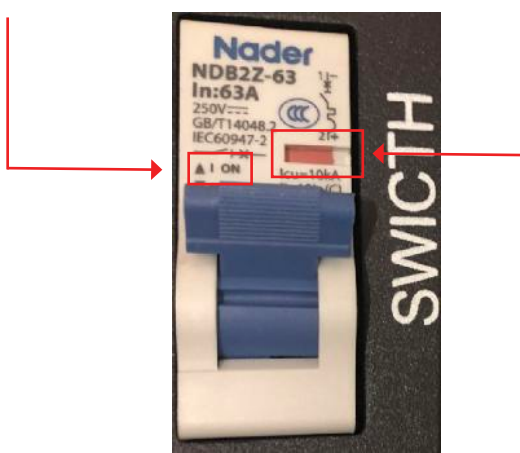
The PowerTools App, login and password are REQUIRED to commission the PowerPod 2. Be sure to install the app and add the new system as described in Section 3.1.3, Commissioning Initial Steps. Then, carefully follow the recommended commissioning sequence on the following page.

The commissioning outcome will verify system operation by running a series of system checks. If the checks are successful, the App will continue to guide the user to set the system to the desired operation mode. For more information on the Commissioning App see section 3.1.3, Commissioning Initial Steps.

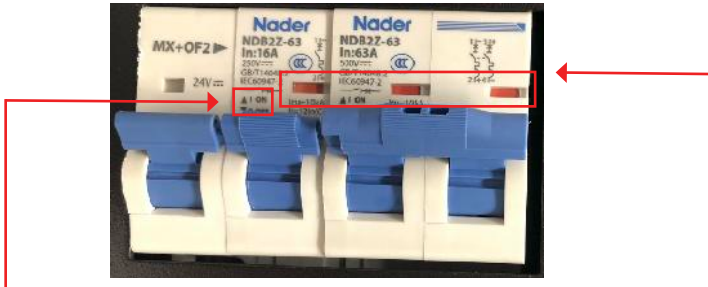
3.4.1. TURN ON SYSTEM

To power the PowerPod 2 system, do the following:

1. Begin by switching all of the batteries to the 'On' position.



Note, the 'On' position is when the indicators are RED.



2. Switch the BMS to the 'On' position.
3. The PowerHub and display should be operational at this point.
4. If the system is DC-coupled, switch on the PV.
5. Switch on the Grid.

3.4.2. ATTACH FRONT COVER

1. The front cover assembly requires attaching the bonding cable using the wing nut and PEM location, as pictured below (green cable).
2. Wire the small four pin black connector coming from PowerHub 2 for Rev. 1 cable and two, small two pin, one white and one black, connectors for the Rev. 2 cable and connect the other end to the main enclosure front cover display.

WARNING! Ensure 4 pin connector is connected correctly the first time. Otherwise it will short the display board and disrupt the entire CANbus communications of the PowerPod 2. If shorted, leave the front unit disconnected to allow coms to work properly.

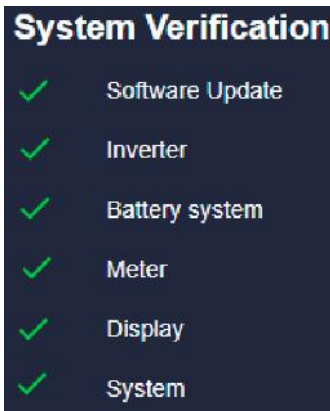
3. Place the front cover back onto the mounted main enclosure and ensure it is secure.
4. Once the cover is on, tighten the four screws on the front cover.



3.4.3. FINALIZE COMMISSIONING

Once the system has been properly assembled and wired, refer back to the PowerTools app and follow the next steps.

1. At this point you should be on 'System Startup' within the PowerTools App. Click 'Next' and wait for the system to connect to the network.
2. If the system is been successfully commissioned, the PowerTools app will show six green checkmarks alongside the six tests ran on the system. See image below. The PowerPod 2 display will also show a green circle with an illuminated yellow bolt. If there are no lights or any other colors than what is stated above, follow the instructions within the PowerTools app to troubleshoot your specific issue.







The system should now resemble the image above. If the display shows any other color than green, follow the troubleshooting directions on PowerTools app and see the display indicators on the next page.

3. Configure the system using the 'Inverter Grid Profile' and select the 'System Mode of Operation' on the following screen.
4. The final two steps will show an overview of the information input within the customer profile and it will prompt you with the customer's first name, last name, and email address.
5. Reinstall all front covers and ensure the set screws are fastened to keep the integrity of the NEMA 3R rating.

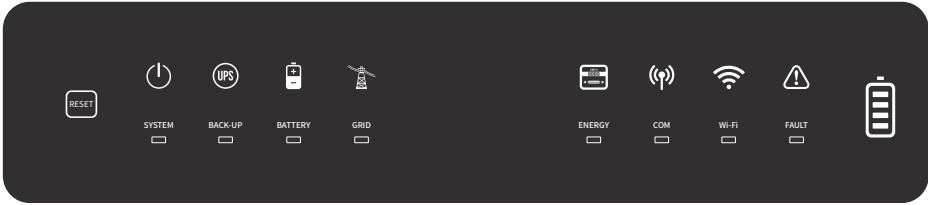
For additional help, contact Electriq Power Support at 1-833-GO-BATTERIES (462-2883) or support@electriqpower.com.

PowerPod 2 Display Indicators

State	PowerPod 2 Display	Solutions
Power On		A full white circle indicates that the display just turned on and has received no communication from PowerHub 2
Normal		The state of charge is indicated by the amount of the ring that is filled. The ring to the left is indicating that the state of charge is at 75%.

PowerPod 2 Display Indicators Continued

Inverter Indicators



INDICATOR	COLOR	STATUS	EXPLANATION
SYSTEM	Green		ON = System is ready
			BLINK = System is starting up
			OFF = System is not operating
BACK-UP	Green		ON = Back-up is ready / power available
			OFF = Back-up is off / on power available
BATTERY	Blue		ON = Battery is charging
			BLINK 1 = Battery is discharging
			BLINK 2 = Battery is low / soc is low
			OFF = Battery is disconnected / not active
GRID	Blue		ON = Grid is active and connected
			BLINK = Grid is active but not connected
			OFF = Grid is not active
ENERGY	Yellow		ON = Consuming energy from grid / buying
			BLINK 1 = Supplying energy to grid / zeroing
			BLINK 2 = Supplying energy to grid / selling
			OFF = Grid not connected or system not operating
COM	Blue		ON = BMS and meter communication ok
			BLINK 1 = Meter communication ok, BMS communication fail
			BLINK 2 = BMS communication ok, meter communication fail
			OFF = BMS and meter communication fail
WiFi	Yellow		OFF = N/A, not used
FAULT	Red		ON = Fault has occurred
			BLINK1 = Overload of back-up / Output / reduce load
			BLINK4 = CT wiring fault
			OFF = No fault

3.5. HOMEOWNER WALKTHROUGH

Congratulations on commissioning the PowerPod 2 system!

Please take this time to let its new owner know that their system has now been commissioned and what makes the PowerPod 2 an incredible addition to their property.

Demonstrate the following items to help the owner understand what puts the 'power' into the PowerPod 2:

- How to access their personalized homeowner app.
- Discuss the basic functionalities of the app and how to set the different system modes.
- Direct where all safety shutdown switches are and any other important safety precautions that may need to be taken in case of an emergency.

4. USER GUIDE

4.1. GENERAL

The PowerPod 2 is a fully-integrated home energy storage, management and monitoring system that gives you complete control of your energy. Experience longer-lasting battery life, increased reliability, and enhanced safety with Lithium Iron Phosphate (LiFePO₄) cells. With or without solar panels, the PowerPod 2 provides backup power and can self-consume or export excess power back to the grid.

4.2. DASHBOARD

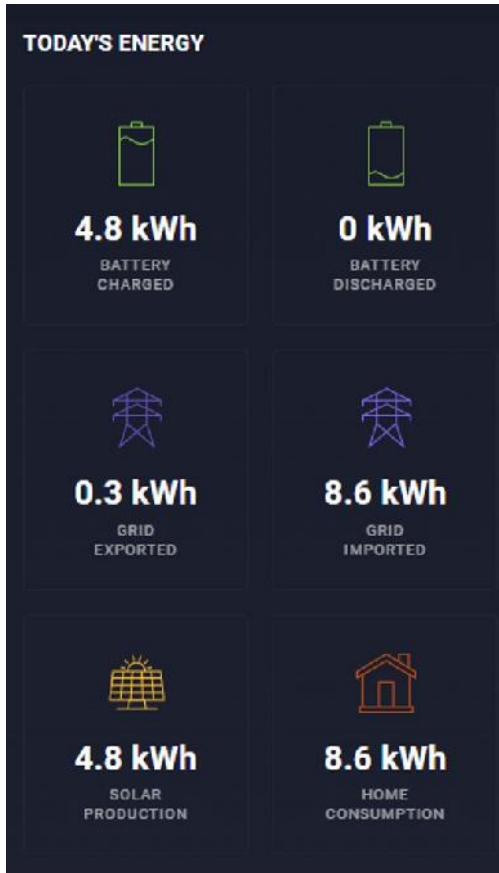
The Electriq Power App puts your power in your hands. The App is available on both iOS and Android devices, as well as on the web. As a user, you can easily see analytics and insights on your energy production, consumption, and storage, all in one intuitive, cloud-based application by viewing the realtime screen (POWER FLOW) and energy/power graphs screen (TIMELINE).

4.2.1. POWER FLOW

This view shows live readings from your solar panels, PowerPod battery, home consumption, and the grid, so you instantly know where your energy is coming from and where it's going.



This view also shows today's energy.



4.2.2. TIMELINE

The Timeline screen shows a daily graph of your energy generation and consumption to help you better understand your home's electrical activity.

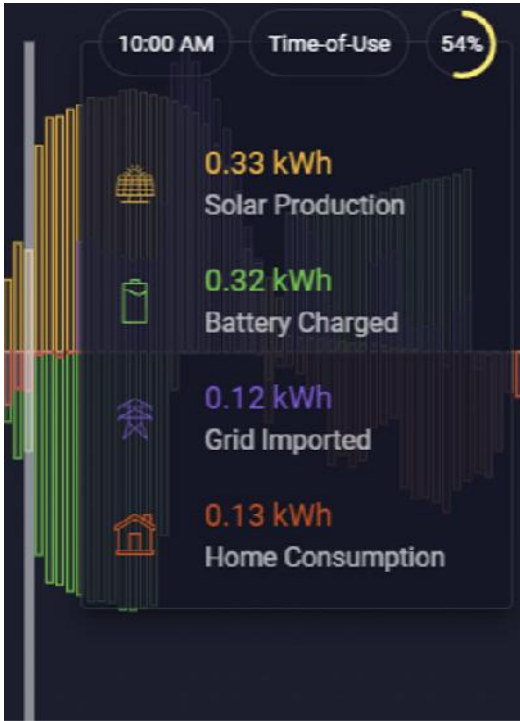
The calendar widget allows you to view data from a past date.



Clicking the checkboxes hide or reveal specific data.

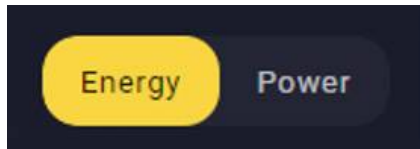


Hovering over the timeline's line graphs reveals a tooltip with specific readings for that precise time of day.



Choosing the Energy tab shows the kilowatts per hour bar chart for a breakdown of the day's energy activity.

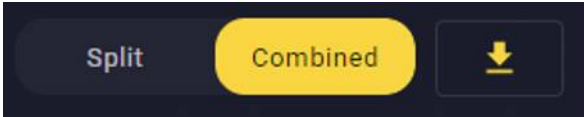
Choosing the Power tab shows the kilowatts line chart for a breakdown of the day's power activity.



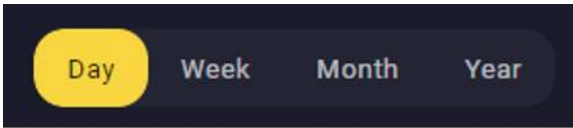
Choosing the “Split” tab separates the energy activity.

Choosing the combined chart combine all the energy activity on one chart.

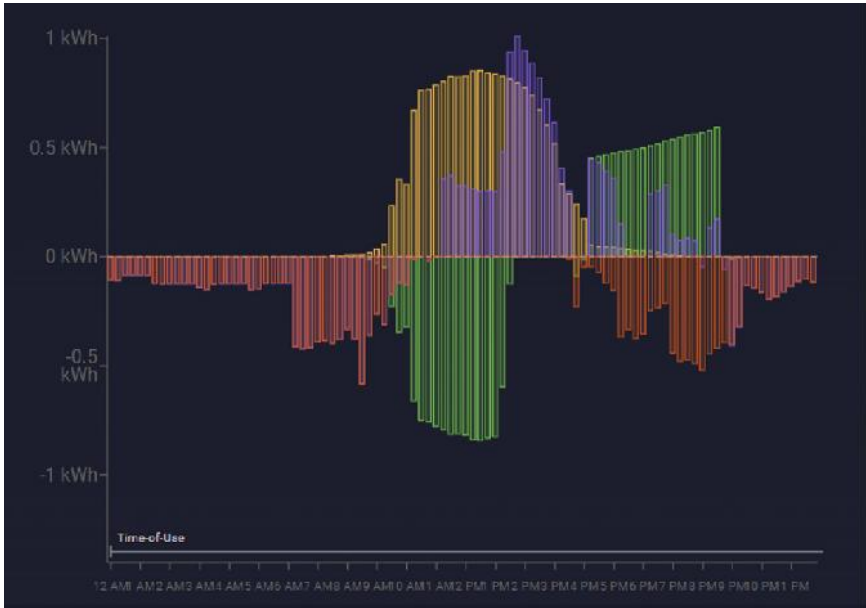
Choosing the down arrow exports either 15 minute or one hour the energy data to a csv file.



Day, Week, Month and Year give daily, weekly, monthly, and yearly views of your history using PowerPod 2. These views are helpful for understanding your home’s general energy behaviors over longer periods of time.



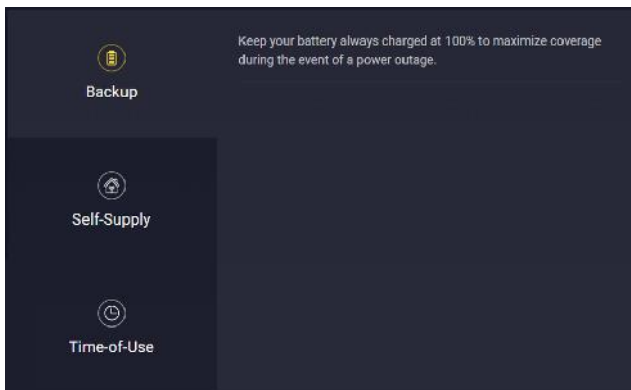
If the battery line is below the x-axis, it is charging. If it's above the x-axis, it's discharging. If the grid line is below the x-axis, the grid is importing. If it's above the x-axis, it's exporting.



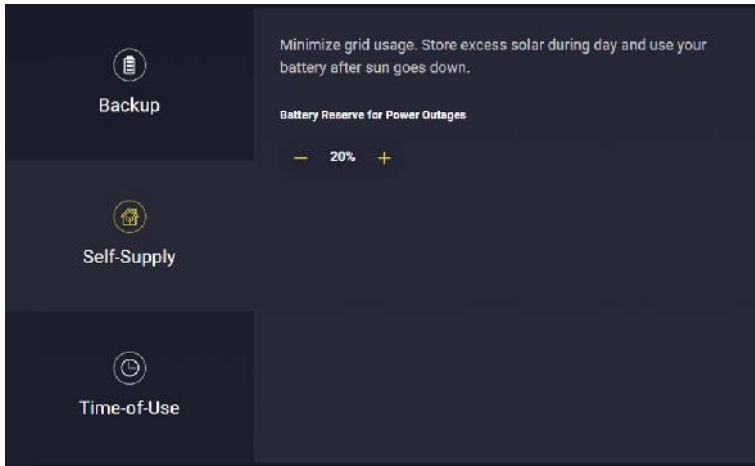
4.2.3. SYSTEM

Depending on the selected mode of operation, the PowerPod 2 will optimize your energy for Backup, Self-Supply, or Time-of-Use.

Backup Mode is for resiliency and keeps your battery charged at 100%, so you're always prepared should a power outage occur. Notice how the battery reserve slider is automatically set to 100%. This ensures all of your battery is charged at all times.



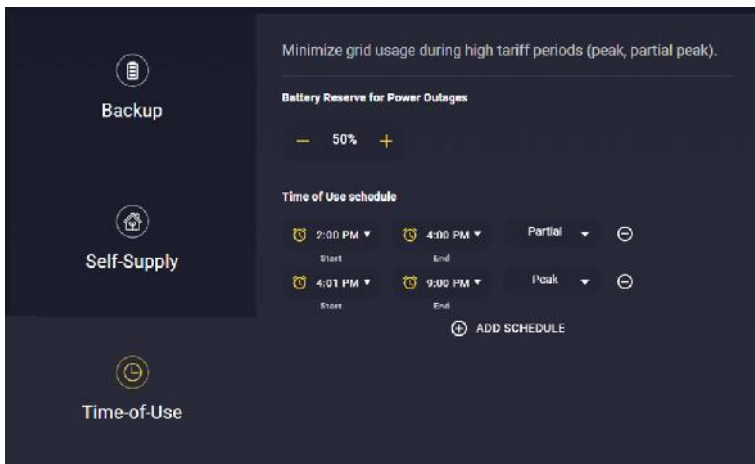
Self-Supply Mode is for sustainability and minimizes or eliminates your need for grid power at all. The slider below allows you to adjust the battery reserve level. Moving the slider to 20%, means 80% of your battery will be available for self-supply, and 20% will always be reserved for backup power.



TOU Mode optimizes your system for energy affordability by switching to solar or battery power when grid energy costs are highest.

Note 1, Partial act like Self-Supply and Peak discharges the battery to Battery Reserve.

Note 2, for best results set only one Peak period and if you use Partial it must precede the Peak period.



5. APPENDIX

5.1. WHAT'S IN THE BOX

Before installing the battery enclosures, make sure nothing inside the package is damaged.

3 - DC Energy Storage Systems

EP-PP-GW-DC-CATL-10kWh, White, Verizon, US 100-1001

EP-PP-GW-DC-CATL-15kWh, White, Verizon, US 100-1002

EP-PP-GW-DC-CATL-20kWh, White, Verizon, US 100-1003

3 - AC Energy Storage Systems

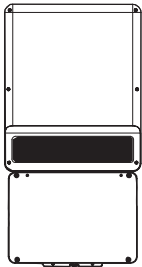
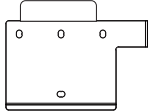
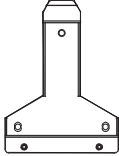
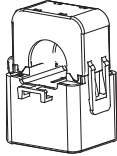

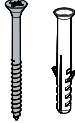

EP-PP-GW-AC-CATL-10kWh, White, Verizon, US 100-1004

EP-PP-GW-AC-CATL-15kWh, White, Verizon, US 100-1005

EP-PP-GW-AC-CATL-20kWh, White, Verizon, US 100-1006

All Box Descriptions

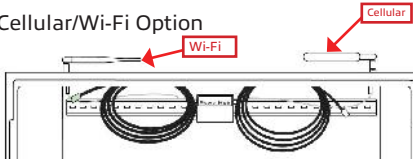
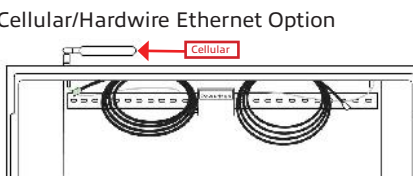
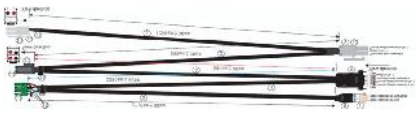


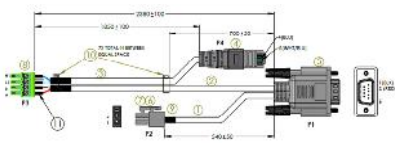
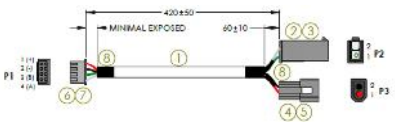
1. Inverter Box with Accessory Kit
 2. Auto-Transformer Box with Accessory Kit
 3. 10 kWh Enclosure Box with 10/20 kWh Accessory Kit
 4. 5/15 kWh Enclosure Box with 15 kWh Accessory Kit
 5. 5/20 kWh Enclosure Box with 20 kWh Accessory Kit
 6. BMS Box
 7. Battery Box
- Note, for Rev. B Univ Cable items 4 and 5 above are identical.*
- Note, for Rev. C Cable items 4 and 5 are identical.*

Description	PN or Image
1. Inverter Box	200-1001 / 200-1008
Inverter	
Upper Wall-Mounting Bracket	
Lower Wall-Mounting Bracket	
2 - CTs with connecting wire connected to a 4 pin connector	
Mounting Bracket Template	
Accessory Kit (inverter box)	
7 - Flat Head Screws, 2 3/4" #10 7 - Plastic Anchor Fasten inverter mounting bracket to wall.	
3 - Screws Secure upper and lower wall brackets. 5mm x 12mm, torque min. 2.1 max. 2.5 Nm (min. 1.5 max. 1.8 ft lb)	


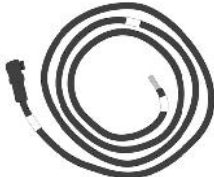





Description	PN or Image
Tool, knockout plug removal	

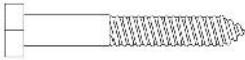

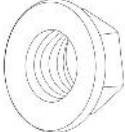
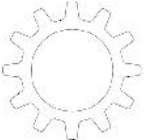

Description	PN or Image
2. Auto-Transformer Box	200-1007
Auto-Transformer (Neutral Forming Transformer, NTF). <i>Torque 4mm x 18mm, torque min. 1.6 max. 1.9 Nm (min. 1.2 max. 1.4 ft lb).</i>	
Wall-mount Bracket	



Accessory Kit (Auto-transformer box)	
NTC Cable between auto-transformer and inverter	
4 - Flat Head Screws, 2 3/4" #10 4 - Plastic Anchor	
1 - Screw Secure Auto-Transformer to wall bracket. <i>5mm x 12mm, torque min. 2.1 max. 2.5 Nm (min. 1.5 max. 1.8 ft lb)</i>	

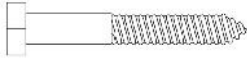
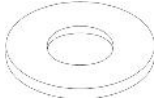
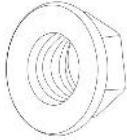

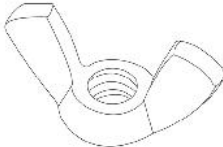
Description	PN or Image
<p>3. 10 kWh Enclosure Box for AC and DC System</p>	<p>For PNs see Appendix 5.2 "System Part Numbers"</p>
<p>Harness, Communication (PH/ Display/Inverter/BMS) 3 Pieces Note, On Rev. 01, one PN is for all three pieces</p>	<p>For PNs see Rev. 01 and 02 items below</p> <p>Cellular/Wi-Fi Option</p>  <p>Cellular/Hardwire Ethernet Option</p> 
<p>Rev. 01 PN: 400-1008 Harness, Comms, Main Orig</p>	
<p>Rev. 01 PN: 400-1008 Harness, Power & Comms for LED board Orig</p>	
<p>Rev. 01 PN: 400-1008 Harness, Power for PH Orig</p>	
<p>Rev. 02 PN: 400-1071 Harness, Comms, Main</p>	
<p>Rev. 02 PN: 400-1072 Harness, Power & Comms for LED Board</p>	



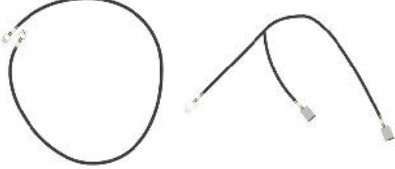

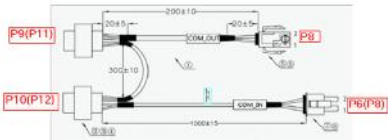
Description	PN or Image
Rev. 02 PN: 400-1073 Harness, Power for PH	
Accessory Kit (10 kWh Enclosure)	Included with Enclosure Assembly. For PNs see Appendix 5.2 "System Part Numbers"
Rev. A Orig Harness, BMS (10 kWh) for Rev. A BMS and Batteries Only Rev. A Orig Connector Ref. Des.: S4, D1, D2, D3, D4, PA1, PA2 and Backup 24V ID Label: 001.005.0147	400-1001
Rev. B Harness, BMS (10 kWh) for Rev. A BMS and Batteries Only Rev. B Univ Connector Ref. Des.: S4, D1, D2, D3, D4, PA1, PA2 and Backup 24V ID: UNIV CABLE 001.005.1062	400-1021
Rev. C Harness, COM BMS and Batteries (10kWh) for Rev. B BMS and Batteries Only Rev. C Connector Rev. Des.: 12Vdc, Connect to BMS module, To expansion module ID: Master Module_COM Cable 161605508	400-1108
3 - Cable, BATT, Power, Red Cable, Black to Orange, 12" (300mm)	



Description	PN or Image
Cable, BATT-BMS, Power, Black, Black to Black, 75" (1905mm)	
Cable, INV-BMS, Power, black, Black to 22 mm Ferrule 72" (1829mm)	
Cable, INV-BMS, Power, red, Orange to 22 mm Ferrule 72" (1829mm)	
Installation Manual	
Cable, BATT-BMS, Power, Red Cable, Orange to Orange, 16" (400mm)	
Cable, PE Grounding (Enclosure to inverter) 84" (2134mm) (10AWG)	
Cable, PE Grounding (Enclosure to front panel) 24" (610mm) (10AWG)	

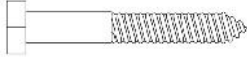

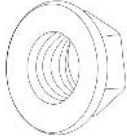
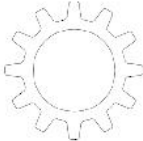
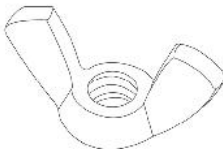
Description	PN or Image
4 - 91478A595, Hex Head Screw for Wood, Zinc-Plated Steel, 5/16" Size, 3" Long	
4 - 98023A030, Zinc Yellow-Chromate Plated Grade 8 Steel Washer for 5/16" Screw Size, 0.344" ID, 0.688" OD"	
24 - Nut, Class 8, M6 x 1.00mm, Medium-Strength Zinc-Plated Steel Flange. <i>Torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb).</i>	
28 - Tooth Lock Washers, 10mm	
3 - Wing Nut, M6. <i>Torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb)</i>	

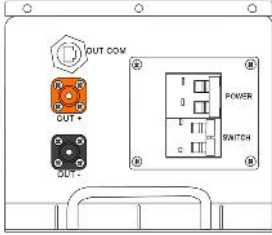
Description	PN or Image
Cable, PE Grounding (Enclosure to inverter) 48" (1220mm) (10AWG)	
Cable, PE Grounding (Enclosure to front panel) 24" (610mm) (10AWG)	

Description	PN or Image
4 - 91478A595, Hex Head Screw for Wood, Zinc-Plated Steel, 5/16" Size, 3" Long	
4 - 98023A030, Zinc Yellow-Chromate Plated Grade 8 Steel Washer for 5/16" Screw Size, 0.344" ID, 0.688" OD	
24 - Nut, Class 8, M6 x 1.00mm, Medium-Strength Zinc-Plated Steel Flange. <i>Torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb).</i>	
28 - Tooth Lock Washers, 10mm	
4 - Wing Nut, M6. <i>Torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb)</i>	


Description	PN or Image
<p>5. 5/20 kWh Enclosure</p>	<p>For PNs see Appendix 5.2 "System Part Numbers"</p>
<p>Accessory Kit (15 kWh Enclosure)</p>	
<p>Cable, BATT, Power, Red, Black to Orange, 12" (300mm)</p>	
<p>Cable, BATT, Power, Red, Black to Orange, 55" (1400mm)</p>	
<p>Rev. A Orig Harness, COM BMS and Batteries (5 kWh add-on for 20 kWh Batt) (Left) SA2 - SA5 ID 001.005.1051 (Right) D7, D8, PA5 ID: 001.005.1049</p>	<p style="text-align: center;">400-1019</p> 
<p>Rev. B Univ Harness, COM BMS and Batteries (5 kWh add-on for 15/20 kWh Batt) (Top) SA1(SA2) - PA4(PA5) ID 001.005.1088 (Bottom) D5(D7), D6(D8), SA4(SA5) ID: 001.005.1087</p>	<p style="text-align: center;">400-1022-B & 400-1022-A</p> 
<p>Rev. C Harness, COM BMS Batteries (5 kWh add-on for 15 kWh and 20 kWh Batt) COM_IN, COM_OUT ID: Extention Module_COM Cable 161605507</p>	<p style="text-align: center;">400-1104</p> 

Description	PN or Image
Cable, PE Grounding (Enclosure to inverter) 48" (1220mm) (10AWG)	
Cable, PE Grounding (Enclosure to front panel) 24" (610mm) (10AWG)	

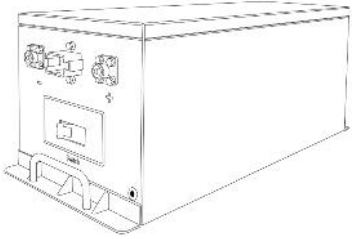
Description	PN or Image
4 - 91478A595, Hex Head Screw for Wood, Zinc-Plated Steel, 5/16" Size, 3" Long	
4 - 98023A030, Zinc Yellow-Chromate Plated Grade 8 Steel Washer for 5/16" Screw Size, 0.344" ID, 0.688" OD	
24 - Nut, Class 8, M6 x 1.00mm, Medium-Strength Zinc-Plated Steel Flange. <i>Torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb).</i>	
28 - Tooth Lock Washers, 10mm	
2 - Wing Nut, M6. <i>Torque min. 3.3 max. 4.0 Nm (min. 2.4 max. 3.0 ft lb)</i>	

Description	PN or Image
6. BMS Box	
6.1 Rev. A BMS Box	<p style="text-align: center;">200-1004</p> 


Control Box Model	LCB200050A Control Box
Rated Voltage	100/153/204.8VDC
Rated Current	50A
Operating Voltage Range	44.8V~230.4V
Working Temperature	-20°C~55°C
Storage Temperature	-20°C~55°C
Protection Level	IP20
Insulation	100MΩ
Withstand Voltage	500V DC
Serial Number	ZNSBBA0016420010001

Description	PN or Image
6.2 Rev. B BMS Box	200-1033 

Control Box Model	TB205100F-Control Box_UL
Control Box Number	
Rated Voltage	103V/154/205VDC
Rated Current	50A
Operating Voltage Range	86.4~230.4V
Working Temperature	-20°C~55°C
Storage Temperature	-10°C~35°C
Protection Level	IP20
Insulation	100MΩ
Withstand Voltage	500V DC
Serial Number	

Description	PN or Image
7. Battery Box	
7.1 Rev. A Battery Box	200-1003
4 - Rev. A, 2.5kWh Batteries	

Cell	CATL_LFP100Ah
Module Model	LBM025100A
Electricity Box Model	LBB025100A Electricity Box
Nominal Capacity	100 Ah
Nominal Voltage	25.6V
Rated Energy	2.56kwh
Operating Voltage Range	22.4V~28.8V
Available SOC Range	10%~100%
Charging Temperature	0°C~55°C
Discharge Temperature	-20°C~55°C
Storage Temperature	-20°C~55°C
Standard Charging Current	0.5C
Maximum Charging Continuous Current	0.5C
Standard Discharge Current	0.5C
Maximum Discharge Continuous Current	0.7C
Maximum Discharge Pulse Current	1C(3min,SOC≥40%)
Serial Number	ZNBBA0010820450001

Description	PN or Image
<p>7.2 Rev. B Battery Box</p> <p>4 - Rev. B, 2.5kWh Batteries</p>	<p>200-1032</p> 

Cell Model	TB-032173195-Fe-100Ah
Module Model	TB25100F-T105A_Module_UL
Battery Box Number	
Nominal Capacity	100 Ah
Nominal Voltage	25.6V
Rated Energy	2.56kwh
Operating Voltage Range	21.6~28.8V
Available SOC Range	10%~100%
Charging Temperature	0°C~50°C
Discharge Temperature	-20°C~55°C
Storage Temperature	-10°C~35°C
Standard Charging Current	0.5C
Maximum Charging Continuous Current	0.5C
Standard Discharge Current	0.5C
Maximum Discharge Continuous Current	0.5C
Maximum Discharge Pulse Current	1C (3s, SOC>40%)
<p>Serial Number & Firmware Version:</p>	

5.2. SYSTEM PART NUMBERS

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1001	EP-PP-ZN-GW-DC-10kWh, WV1, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1000	Enclosure Assembly, 10kWh, WV1, White, VZ, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1002	EP-PP-ZN-GW-DC-15kWh, WV1, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1000	Enclosure Assembly, 10kWh, WV1, White, VZ, EP	1
		350-0500	Enclosure, Sub Assembly, 5kWh, WV1, White, Verizon, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1003	EP-PP-ZN-GW-DC-20kWh, WV1, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1000	Enclosure Assembly, 10kWh, WV1, White, VZ, EP	1
		350-0500	Enclosure Assembly, 5kWh for 15, WV1, White, Verizon, EP	1
		350-0502	Enclosure, Assembly, 5kWh for 20, WV1, White, Verizon, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1004	EP-PP-ZN-GW-AC-10kWh, WV1, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1000	Enclosure Assembly, 10kWh, WV1, White, VZ, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1005	EP-PP-ZN-GW-AC-15kWh, WV1, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT	1
		350-1000	Enclosure Assembly, 10kWh, WV1, White, VZ, EP	1
		350-0500	Enclosure Assembly, 5kWh for 15, WV1, White, Verizon, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1006	EP-PP-ZN-GW-AC-20kWh, WV1, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT	1
		350-1000	Enclosure Assembly, 10kWh, WV1, White, VZ, EP	1
		350-0500	Enclosure Assembly, 5kWh, WV1, White, Verizon, EP	1
		350-0502	Enclosure, Assembly, 5kWh for 20, WV1, White, Verizon, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1013	EP-PP-ZN-GW-DC-10kWh, White, ATT			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1003	Enclosure Assembly, 10kWh, UVC, White, ATT, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1014	EP-PP-ZN-GW-DC-15kWh, White, ATT			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1003	Enclosure Assembly, 10kWh, UVC, White, ATT, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1015	EP-PP-ZN-GW-DC-20kWh, White, ATT			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1003	Enclosure Assembly, 10kWh, UVC, White, ATT, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1016	EP-PP-ZN-GW-AC-10kWh, White, ATT			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1003	Enclosure Assembly, 10kWh, UVC, White, ATT, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1017	EP-PP-ZN-GW-AC-15kWh, White, ATT			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1003	Enclosure Assembly, 10kWh, UVC, White, ATT, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1018	EP-PP-ZN-GW-AC-20kWh, White, ATT			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1003	Enclosure Assembly, 10kWh, UVC, White, ATT, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1025	EP-PP-ZN-GW-DC-10kWh, White, Rogers			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1004	Enclosure Assembly, 10kWh, UVC, White, RGR, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1026	EP-PP-ZN-GW-DC-15kWh, White, Rogers			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1004	Enclosure Assembly, 10kWh, UVC, White, RGR, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1027	EP-PP-ZN-GW-DC-20kWh, White, Rogers			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1004	Enclosure Assembly, 10kWh, UVC, White, RGR, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1028	EP-PP-ZN-GW-AC-10kWh, White, Rogers			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1004	Enclosure Assembly, 10kWh, UVC, White, RGR, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1029	EP-PP-ZN-GW-AC-15kWh, White, Rogers			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1004	Enclosure Assembly, 10kWh, UVC, White, RGR, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1030	EP-PP-ZN-GW-AC-20kWh, White, Rogers			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1004	Enclosure Assembly, 10kWh, UVC, White, RGR, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1037	EP-PP-ZN-GW-DC-10kWh, White, WiFi			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1005	Enclosure Assembly, 10kWh, UVC, White, WiFi, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1038	EP-PP-ZN-GW-DC-15kWh, White, WiFi			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1005	Enclosure Assembly, 10kWh, UVC, White, WiFi, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1039	EP-PP-ZN-GW-DC-20kWh, White, WiFi			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1005	Enclosure Assembly, 10kWh, UVC, White, WiFi, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1040	EP-PP-ZN-GW-AC-10kWh, White, WiFi			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1005	Enclosure Assembly, 10kWh, UVC, White, WiFi, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1041	EP-PP-ZN-GW-AC-15kWh, White, WiFi			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1005	Enclosure Assembly, 10kWh, UVC, White, WiFi, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1042	EP-PP-ZN-GW-AC-20kWh, White, WiFi			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1005	Enclosure Assembly, 10kWh, UVC, White, WiFi, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1049	EP-PP-ZN-GW-DC-10kWh, White, VZLTE			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1006	Enclosure Assembly, 10kWh, UVC, White, LTE, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1050	EP-PP-ZN-GW-DC-15kWh, White, VZLTE			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1006	Enclosure Assembly, 10kWh, UVC, White, LTE, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1051	EP-PP-ZN-GW-DC-20kWh, White, VZLTE			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1006	Enclosure Assembly, 10kWh, UVC, White, LTE, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1052	EP-PP-ZN-GW-AC-10kWh, White, VZLTE			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1006	Enclosure Assembly, 10kWh, UVC, White, LTE, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1053	EP-PP-ZN-GW-AC-15kWh, White, VZLTE			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1006	Enclosure Assembly, 10kWh, UVC, White, LTE, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1054	EP-PP-ZN-GW-AC-20kWh, White, VZLTE			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1006	Enclosure Assembly, 10kWh, UVC, White, LTE, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1055	EP-PP-TB-GW-DC-10kWh, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1007	Enclosure Assembly, 10kWh, TB, White, VZ, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1056	EP-PP-TB-GW-DC-15kWh, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1007	Enclosure Assembly, 10kWh, TB, White, VZ, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1057	EP-PP-TB-GW-DC-20kWh, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1007	Enclosure Assembly, 10kWh, TB, White, VZ, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1058	EP-PP-TB-GW-AC-10kWh, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1007	Enclosure Assembly, 10kWh, TB, White, VZ, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1059	EP-PP-TB-GW-AC-15kWh, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1007	Enclosure Assembly, 10kWh, TB, White, VZ, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1060	EP-PP-TB-GW-AC-20kWh, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1007	Enclosure Assembly, 10kWh, TB, White, VZ, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1067	EP-PP-TB-GW-DC-10kWh, White, ATT			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1008	Enclosure Assembly, 10kWh, TB, White, ATT, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1068	EP-PP-TB-GW-DC-15kWh, White, ATT			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1008	Enclosure Assembly, 10kWh, TB, White, ATT, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1069	EP-PP-TB-GW-DC-20kWh, White, ATT			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1008	Enclosure Assembly, 10kWh, TB, White, ATT, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1070	EP-PP-TB-GW-AC-10kWh, White, ATT			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1008	Enclosure Assembly, 10kWh, TB, White, ATT, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1071	EP-PP-TB-GW-AC-15kWh, White, ATT			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1008	Enclosure Assembly, 10kWh, TB, White, ATT, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1072	EP-PP-TB-GW-AC-20kWh, White, ATT			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1008	Enclosure Assembly, 10kWh, TB, White, ATT, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1079	EP-PP-TB-GW-DC-10kWh, White, Rogers			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1009	Enclosure Assembly, 10kWh, TB, White, RGR, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1080	EP-PP-TB-GW-DC-15kWh, White, Rogers			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1009	Enclosure Assembly, 10kWh, TB, White, RGR, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1081	EP-PP-TB-GW-DC-20kWh, White, Rogers			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1009	Enclosure Assembly, 10kWh, TB, White, RGR, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1082	EP-PP-TB-GW-AC-10kWh, White, Rogers			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1009	Enclosure Assembly, 10kWh, TB, White, RGR, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1083	EP-PP-TB-GW-AC-15kWh, White, Rogers			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1009	Enclosure Assembly, 10kWh, TB, White, RGR, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1084	EP-PP-TB-GW-AC-20kWh, White, Rogers			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1009	Enclosure Assembly, 10kWh, TB, White, RGR, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1091	EP-PP-TB-GW-DC-10kWh, White, WiFi			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100A	Enclosure Assembly, 10kWh, TB, White, Wifi, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1092	EP-PP-TB-GW-DC-15kWh, White, WiFi			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100A	Enclosure Assembly, 10kWh, TB, White, Wifi, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1093	EP-PP-TB-GW-DC-20kWh, White, WiFi			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100A	Enclosure Assembly, 10kWh, TB, White, Wifi, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1094	EP-PP-TB-GW-AC-10kWh, White, WiFi			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100A	Enclosure Assembly, 10kWh, TB, White, Wifi, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1095	EP-PP-TB-GW-AC-15kWh, White, WiFi			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100A	Enclosure Assembly, 10kWh, TB, White, Wifi, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1096	EP-PP-TB-GW-AC-20kWh, White, WiFi			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100A	Enclosure Assembly, 10kWh, TB, White, Wifi, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1103	EP-PP-TB-GW-DC-10kWh, White, VZLTE			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100B	Enclosure Assembly, 10kWh, TB, White, LTE, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1104	EP-PP-TB-GW-DC-15kWh, White, VZLTE			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100B	Enclosure Assembly, 10kWh, TB, White, LTE, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1105	EP-PP-TB-GW-DC-20kWh, White, VZLTE			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100B	Enclosure Assembly, 10kWh, TB, White, LTE, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

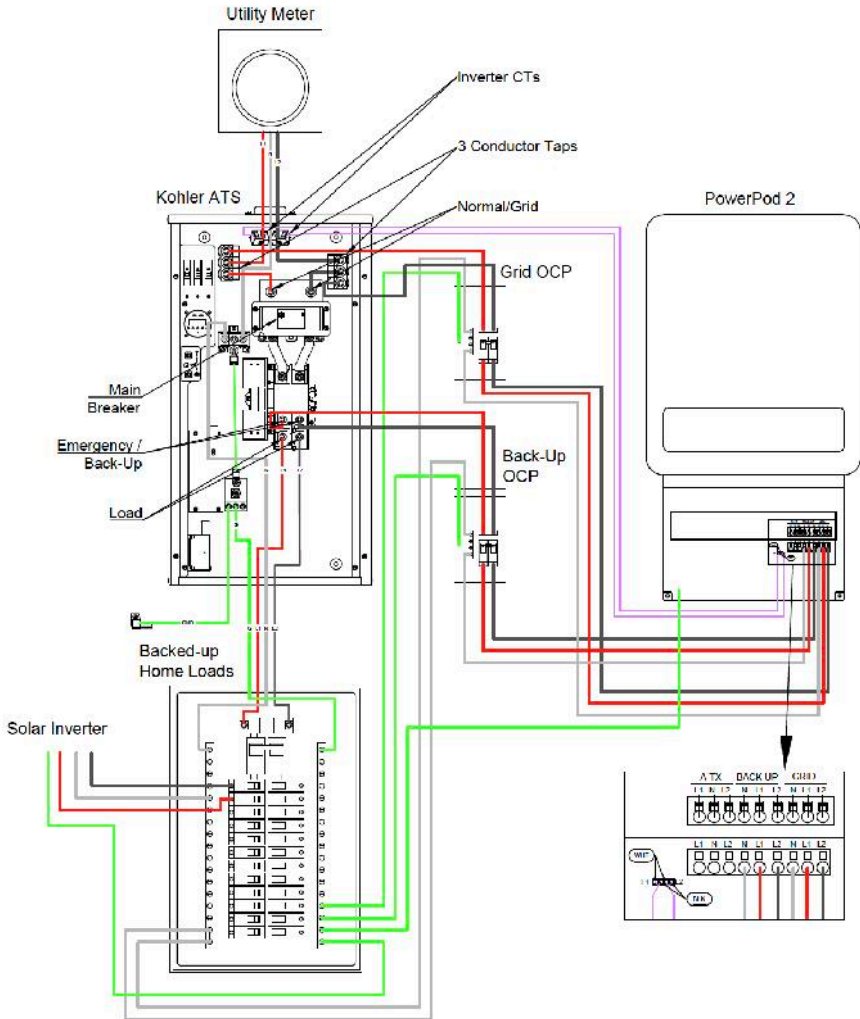
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1106	EP-PP-TB-GW-AC-10kWh, White, VZLTE			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100B	Enclosure Assembly, 10kWh, TB, White, LTE, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	4
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1107	EP-PP-TB-GW-AC-15kWh, White, VZLTE			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100B	Enclosure Assembly, 10kWh, TB, White, LTE, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	1
		200-1032	Battery, 2.5kWh, TB, EP	6
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1108	EP-PP-TB-GW-AC-20kWh, White, VZLTE			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-100B	Enclosure Assembly, 10kWh, TB, White, LTE, EP	1
		350-0505	Enclosure Assembly, 5kWh, TB, White, EP	2
		200-1032	Battery, 2.5kWh, TB, EP	8
		200-1033	BMS, TB, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1121	EP-PP-ZN-GW-DC-10kWh, UVC, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1002	Enclosure Assembly, 10kWh, UVC, White, VZ, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1122	EP-PP-ZN-GW-DC-15kWh, UVC, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1002	Enclosure Assembly, 10kWh, UVC, White, VZ, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1123	EP-PP-ZN-GW-DC-20kWh, UVC, White, VZ			
		200-1001	Inverter, DC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1002	Enclosure Assembly, 10kWh, UVC, White, VZ, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1124	EP-PP-ZN-GW-AC-10kWh, UVC, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT, EP	1
		350-1002	Enclosure Assembly, 10kWh, UVC, White, VZ, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	4
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1125	EP-PP-ZN-GW-AC-15kWh, UVC, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT	1
		350-1002	Enclosure Assembly, 10kWh, UVC, White, VZ, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	1
		200-1003	Battery, 2.5kWh, ZN, EP	6
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1
Sales Kit SKU	Display Name	Component SKU	Component Description	Qty
100-1126	EP-PP-ZN-GW-AC-20kWh, UVC, White, VZ			
		200-1008	Inverter, AC, GW, EP	1
		200-1007	Transformer, NFT	1
		350-1002	Enclosure Assembly, 10kWh, UVC, White, VZ, EP	1
		350-0504	Enclosure Assembly, 5kWh, UVC, White, EP	2
		200-1003	Battery, 2.5kWh, ZN, EP	8
		200-1004	BMS, ZN, EP	1
		210-1001	Instruction Manual, English, PP2-EP	1

5.3. POWERPOD 2 WIRING DIAGRAM WITH ATS

Whole Home Backup with Standalone Meter, Kohler ATS and no Heavy Loads



Heavy loads cannot be supported by PowerPod 2.
Revision: 1.05

5.4. INVERTER OVERLOAD

Overload

PowerPod 2 series hybrid inverters are able to supply overload output at its backup. For details refer to the technical specifications section. Note, the inverter has self-protection derating at high ambient temperatures

Overload Operation

Inverter will restart itself if overload protection happens. The preparation time for restarting will be longer and longer (max one hour) if overload protection repeats. Take the following steps to stop the inverter from turning off from overload.

Reset Overload Protection

- Decrease backup load power within max limitation.

5.5. TECHNICAL SPECIFICATIONS (AC-COUPLED)

Product Model	PP2- AC-10/15/20-9600	PP2- AC-10/15/20-8600	PP2- AC-10/15/20-7600	PP2- AC-10/15/20-7000	PP2- AC-10/15/20-6000	PP2- AC-10/15/20-5000
Configuration	4/6/8 Batteries in Series					
AC INPUT 1 / GRIDTIE	Per UL 1741SA					
Utility Compatibility	Per UL 1741SA					
AC OUTPUT / GRID						
Rated AC Power Output (To Grid, From Battery) 75% DOD @ 25°C	5000/7500/9600 VA	5000/7500/8600 VA	5000/7500/7600 VA	5000/7000/7000 VA	5000/6000/6000 VA	5000/5000/5000 VA
Rated AC Power Output (To Grid, From Battery) 75% DOD @ 40°C	5000/7500/9600 VA	5000/7500/8600 VA	5000/7500/7600 VA	5000/7000/7000 VA	5000/6000/6000 VA	5000/5000/5000 VA
AC Grid Voltage	L-L: 211 to 264V, 1Ø					
AC Frequency 60Hz	59.3 to 60.5Hz ± 0.05Hz					
Maximum Continuous Output Current	0 to 40 A (@240 V)	0 to 35.8 A (@240 V)	0 to 31.7 A (@240 V)	0 to 29.2 A (@240 V)	0 to 25 A (@240 V)	0 to 20.8 A (@240 V)
AC Circuit Breaker (grid)	No					
Ground-Fault Isolation Detection	Integrated Detection Included					
Charge Battery from AC	Yes					
THD (current)	< 5 %					
Operating (Standby) Power Consumption	<40 W					
Operation Temperature Range	-20 to 55°C (power derated above 40°C)					
Operation Humidity	10% to 90% Non-condensing					
Thermal Management	Forced convection					
Noise Level, Maximum	< 45 dBA					
Output (AC) / BACKUP LOAD						
AC Backup Power Output From Battery (DOD 95%)	4500/6750/9000 VA	4500/6750/8600 VA	4500/6750/7600 VA	4500/6750/7000 VA	4500/6000/6000 VA	4500/5000/5000 VA
Maximum Overload 60 s @25°C From Battery (DOD 95%)	5400/8100/10,800 VA	5400/8100/10,320 VA	5400/8100/9120 VA	5400/8100/8400 VA	5400/7200/7200 VA	5400/6000/6000 VA
AC Backup Power Output From Battery (SOC 60 to 100%)	5350/7900/9600 VA	5350/7900/8600 VA	5350/7600/7600 VA	5350/7000/7000 VA	5350/6000/6000 VA	5000/5000/5000 VA
Maximum Overload 60 s @25°C From Battery (SOC 60 to 100%)	6400/9500/11,520 VA	6400/9500/11,320 VA	6400/9120/9120 VA	6400/8400/8400 VA	6400/7200/7200 VA	6000/6000/6000 VA
AC Backup Output Voltage	120/240 VAC					
AC Frequency	60Hz					
Ground-Fault Isolation Detection	Integrated Detection Included					
AC Circuit Breaker (inverter)	No					
AC Circuit Breaker (inverter bypass, grid connect)	No					
THD (voltage)	< 3 %					
Power Factor	> 99%					
Automatic Switchover Time	< 1sec					

Product Model	PP2-AC-10/15/20-9600	PP2-AC-10/15/20-8600	PP2-AC-10/15/20-7600	PP2-AC-10/15/20-7000	PP2-AC-10/15/20-6000	PP2-AC-10/15/20-5000
DC INPUT / BATTERY						
Rated Charge / Discharge	50 A / 50 A					
Maximum Charge / Discharge	50 A / 50 A					
DC Voltage Range	80-495					
Battery Capacity (Range)	10 to 20 kWh					
Battery Types Supported	Lithium-ion (LFP)					
DC Circuit Breaker	Yes					
DC Fuse on Plus Terminal	Internal Fuse, not field replaceable					
EFFICIENCY						
Battery Charge/discharge to AC Max. Efficiency	96.6%					
CEC Efficiency	96.1%					
OPERATIONAL FEATURES AND MODES						
Islanding	Neutral Forming Transformer					
Back-up (default)	Yes					
Self Consumption	Yes					
Prioritized Charging from Renewables	Yes					
Grid Support - Zero Export	Yes					
Time-Of-Use Grid Export	Yes					
Genset Integration	No					
Grid Support/Demand Response	Yes					
Home current monitoring (L1 & L2 CTs)	Yes					
Over Current Protection	Yes					
Short Protection	Yes					
Over Voltage Protection	Yes					
Battery Reverse Polarity Protection	Yes					
ADDITIONAL AND OPTIONAL FEATURES						
Supported Communication Interfaces	WiFi & Cellular					
System Monitoring and Network Communications	Cloud-Based Dashboard					
Interface Protocol	Proprietary					
Loads Disconnect Isolation	Yes					
Inverter Bypass Switch	Automatic					
Rapid Shutdown functionality for NEC 2014 690.12	External option					
Arc Fault Protection (Type 1) for NEC 2011 690.11 compliance	Yes					
Insulation Resistance Detection	Yes					
Revenue Grade Data, ANSI C12.	Optional					
NEMA 3R Enclosure	Standard					

Product Model	PP2. AC-10/15/20-9600	PP2. AC-10/15/20-8600	PP2. AC-10/15/20-7600	PP2. AC-10/15/20-7000	PP2. AC-10/15/20-6000	PP2. AC-10/15/20-5000
Dimensions (W / H / D) (inverter)	16.3in x 31.1in x 6.9in (415mm x 791mm x 175mm)					
Dimensions (W / H / D) (auto-transformer)	13.6in x 10.9in x 6.9in (345mm x 280mm x 175mm)					
Weight (inverter)	70.5lb (32kg)					
Weight (auto-transformer)	50lb (22kg)					
Warranty Inverter	10 years					
STANDARD COMPLIANCE						
Safety	UL9540, UL1973, UL1741SA, CSA 22.2					
Grid Connection Standards	IEEE 1547A, IEEE 1547.1					
Emissions	FCC part15 class B					
Standards	Rule 21, HECO					
Standards in progress	Hawaii TrOV2, FVRT					
Battery Model						
Battery type	Lithium-ion					
Chemistry	LFP - Lithium iron phosphate					
Number of 2.5 kWh Modules	4/6/8 in Series					
Nameplate Capacity	10/15/20 kWh					
Battery Layout	1 parallel 32/48/64 series					
Voltage, Nominal	102.4 VDC (89.6 – 115.2 VDC)/ 153.6 VDC (134.4 – 172.8 VDC)/ 204.8 VDC (179.2 – 230.4 VDC)					
Continuous Charge Current	50 ADC					
Continuous Discharge Current	50 ADC					
Maximum Charge Current	60 ADC					
Maximum Discharge Current	60 ADC					
Continuous Charge Power (Nominal)	5120/7700/9600 W	5120/7700/8600 W	5120/7600/7600 W	5120/7000/7000 W	5120/6000/6000 W	5000/5000/5000 W
Continuous Discharge Power (Nominal)	5120/7700/9600 W	5120/7700/8600 W	5120/7600/7600 W	5120/7000/7000 W	5120/6000/6000 W	5000/5000/5000 W
Maximum Charge Power (Nominal)	6150/7700/10,240 W	6150/7700/10,240 W	6150/7700/9120 W	6150/7700/8400 W	6150/7200/7200 W	6000/6000/6000 W
Maximum Discharge Power (Nominal)	6150/7700/10,240 W	6150/7700/10,240 W	6150/7700/9120 W	6150/7700/8400 W	6150/7200/7200 W	6000/6000/6000 W
Optimum Operating Temperature Range	0° C to 30° C (32°F to 86° F). See detailed temperature guidelines below. Do not install outdoors in climates where the temperature drops below 0° C (32°F) for extended periods. Do not install in direct sunlight.					
Charge Temperature	(0 °C to 55 °C)					
Discharge Temperature	(-20 °C to 55 °C)					
Communication Interface	RJ-45 RS-485					
Power Switch, ON / OFF	Yes					
Cycles	For Daily Cycle Applications					
Service Life (40% Capacity Reduction)	10 Years					
Altitude	2000 m					

Product Model	PP2- AC-10/15/20-9600	PP2- AC-10/15/20-8600	PP2- AC-10/15/20-7600	PP2- AC-10/15/20-7000	PP2- AC-10/15/20-6000	PP2- AC-10/15/20-5000
Dimensions (W / H / D) (BMS & battery module)	17.5" x 7.5" x 8.9" / 445mm x 190mm x 226mm					
Dimensions (W / H / D) 10 kWh assembled battery enclosure	27.5" x 50" x 9" / 700mm x 1270mm x 230mm					
Dimensions (W / H / D) 5 kWh assembled battery enclosure	27.5" x 50" x 9" / 700mm x 1270mm x 230mm					
Weight BMS	33 lb. / 15 kg					
Weight (battery only, 1 module)	62 lb. / 28 kg					
Weight (Total batteries)	400 lb. (180 kg) / 535 lb. (240 kg) / 705 lb. (320 kg)					
Warranty Battery	10 years					

5.6. TECHNICAL SPECIFICATIONS (DC-COUPLED)

Product Model	PP2-DC-10/15/20-9600	PP2-DC-10/15/20-8600	PP2-DC-10/15/20-7600	PP2-DC-10/15/20-7000	PP2-DC-10/15/20-6000	PP2-DC-10/15/20-5000
Configuration	4/6/8 Batteries in Series					
Utility Compatibility	Per UL 1741SA					
AC OUTPUT / GRID						
Rated AC Power Output (To Grid, From Solar) @ 25°C	9600/9600/9600 VA	8600/8600/8600 VA	7600/7600/7600 VA	7000/7000/7000 VA	6000/6000/6000 VA	5000/5000/5000 VA
Rated AC Power Output (To Grid, From Solar) @ 40°C	9600/9600/9600 VA	8600/8600/8600 VA	7600/7600/7600 VA	7000/7000/7000 VA	6000/6000/6000 VA	5000/5000/5000 VA
Rated AC Power Output (To Grid, From Battery) 75% DOD @ 25°C	5000/7500/9600 VA	5000/7500/8600 VA	5000/7500/7600 VA	5000/7000/7000 VA	5000/6000/6000 VA	5000/5000/5000 VA
Rated AC Power Output (To Grid, From Battery) 75% DOD @ 40°C	5000/7500/9600 VA	5000/7500/8600 VA	5000/7500/7600 VA	5000/7000/7000 VA	5000/6000/6000 VA	5000/5000/5000 VA
AC Grid Voltage	L-L: 211 to 264V, 1Ø					
AC Frequency 60Hz	59.3 to 60.5Hz ± 0.05Hz					
Maximum Continuous Output Current	0 to 40 A (@240 V)	0 to 35.8 A (@240 V)	0 to 31.7 A (@240 V)	0 to 29.2 A (@240 V)	0 to 25 A (@240 V)	0 to 20.8 A (@240 V)
AC Circuit Breaker (grid)	No					
Ground-Fault Isolation Detection	Integrated Detection Included					
Charge Battery from AC	Yes					
THD (current)	< 5 %					
Operating (Standby) Power Consumption	<40 W					
Operation Temperature Range	-20 to 55°C (power derated above 40°C)					
Operation Humidity	10% to 90% Non-condensing					
Thermal Management	Forced convection					
Noise Level, Maximum	< 45 dBA					
Output (AC) / BACKUP LOAD						
Rated AC Backup Power Output @25°C From Solar	9600 VA	8600 VA	7600 VA	7000 VA	6000 VA	5000 VA
Maximum Overload 60 s @25°C & 240 V From Solar	11,520 VA	10,320 VA	9120 VA	8400 VA	7200 VA	6000 VA
Rated Output Current From Solar (120 V unbalanced/240 V balance)	40/40 A (@120 and 240 V)	40/35.8 A (@120 and 240 V)	40/31.7 A (@120 and 240 V)	40/29.2 A (@120 and 240 V)	40/25 A (@120 and 240 V)	40/20.8 A (@120 and 240 V)
AC Backup Power Output From Battery (DOD 95%)	4500/6750/9000 VA	4500/6750/8600 VA	4500/6750/7600 VA	4500 VA	4500 VA	4500 VA
Maximum Overload 60 s @25°C From Battery (DOD 95%)	5400/8100/10,800 VA	5400/8100/10,320 VA	5400/8100/9120 VA	5400 VA	5400 VA	5400 VA
AC Backup Power Output From Battery (SOC 60 to 100%)	5350/7900/9600 VA	5350/7900/8600 VA	5350/7600/7600 VA	5350 VA	5350 VA	5000 VA
Maximum Overload 60 s @25°C From Battery (SOC 60 to 100%)	6400/9500/11,520 VA	6400/9500/11,320 VA	6400/9120/9120 VA	6400 VA	6400 VA	6000 VA
AC Backup Output Voltage	120/240 VAC					
AC Frequency	60Hz					

Product Model	PP2-DC-10/15/20-9600	PP2-DC-10/15/20-8600	PP2-DC-10/15/20-7600	PP2-DC-10/15/20-7000	PP2-DC-10/15/20-6000	PP2-DC-10/15/20-5000
Ground-Fault Isolation Detection	Integrated Detection Included					
AC Circuit Breaker (inverter)	No					
AC Circuit Breaker (inverter bypass, grid connect)	No					
THD (voltage)	< 3 %					
Power Factor	> 99%					
Automatic Switchover Time	< 1sec					
DC INPUT / PV / String Inputs	4		4	4	2	2
Maximum Power (EA MPPT/Total)	6000/15,000 W	6000/12,900 W	6000/11,400 W	6000/10,500 W	6000/9000 W	6000/7500 W
Operation Voltage Range	80-550 VDC					
MPPT Voltage Range	300 to 500 VDC					
Minimum Start Voltage	95 VDC					
Maximum Input Current	12.5 / 12.5 / 12.5 / 12.5 A				12.5 / 12.5 A	
Maximum PV Panel I(sc) Allowed	15.2 / 15.2 / 15.2 / 15.2 A				15.2 / 15.2 A	
PV Switch	Yes, 8P					
Reverse-Polarity Protection	Yes					
Ground-Fault Isolation Detection	Integrated detection included					
DC INPUT / BATTERY						
Rated Charge / Discharge	50 A / 50 A					
Maximum Charge / Discharge	50 A / 50 A					
DC Voltage Range	80-495					
Battery Capacity (Range)	10 to 20 kWh					
Battery Types Supported	Lithium-ion (LFP)					
DC Circuit Breaker	Yes					
DC Fuse on Plus Terminal	Internal Fuse, not field replaceable					
EFFICIENCY						
PV Max. Efficiency	97.6%					
PV CEC Eciency	97.2%					
Battery Charged By PV Max. Efficiency	98.1%					
Battery Charge/Discharge to AC Max. Efficiency	96.6%					
CEC Efficiency	96.1%					
OPERATIONAL FEATURES AND MODES						
Islanding	Neutral Forming Transformer					
Back-up (default)	Yes					
Self Consumption	Yes					
Prioritized Charging from Renewables	Yes					
Grid Support - Zero Export	Yes					
Time-Of-Use Grid Export	Yes					
Genset Integration	No					

Product Model	PP2-DC-10/15/20-9600	PP2-DC-10/15/20-8600	PP2-DC-10/15/20-7600	PP2-DC-10/15/20-7000	PP2-DC-10/15/20-6000	PP2-DC-10/15/20-5000
Grid Support/Demand Response	Yes					
Home current monitoring (L1 & L2 CTs)	Yes					
Over Current Protection	Yes					
Short Protection	Yes					
Over Voltage Protection	Yes					
Battery Reverse Polarity Protection	Yes					
ADDITIONAL AND OPTIONAL FEATURES						
Supported Communication Interfaces	WiFi & Cellular					
System Monitoring and Network Communications	Cloud-Based Dashboard					
Interface Protocol	Proprietary					
Loads Disconnect Isolation	Yes					
Inverter Bypass Switch	Automatic					
Rapid Shutdown functionality for NEC 2014 690.12	External option					
Arc Fault Protection (Type 1) for NEC 2011 690.11 compliance	Yes					
Insulation Resistance Detection	Yes					
Revenue Grade Data, ANSI C12.	Optional					
NEMA 3R Enclosure	Standard					
Dimensions (W / H / D) (inverter)	16.3in x 31.1in x 6.9in (415mm x 791mm x 175mm)					
Dimensions (W / H / D) (auto-transformer)	13.6in x 10.9in x 6.9in (345mm x 280mm x 175mm)					
Weight (inverter)	70.5lb (32kg)					
Weight (auto-transformer)	50lb (22kg)					
Warranty Inverter	10 years					
STANDARD COMPLIANCE						
Safety	UL9540, UL1973, UL1741SA, CSA 22.2					
Grid Connection Standards	IEEE 1547A, IEEE 1547.1					
Emissions	FCC part15 class B					
Standards	Rule 21, HECO					
Standards in progress	Hawaii TrOV2, FVRT					
Battery Model	PP2-10/15/20 KWH					
Battery type	Lithium-ion					
Chemistry	LFP - Lithium iron phosphate					
Number of 2.5 kWh Modules	4/6/8 in Series					
Nameplate Capacity	10/15/20 kWh					
Battery Layout	1 parallel 32/48/64 series					

Product Model	PP2-DC-10/15/20-9600	PP2-DC-10/15/20-8600	PP2-DC-10/15/20-7600	PP2-DC-10/15/20-7000	PP2-DC-10/15/20-6000	PP2-DC-10/15/20-5000
Voltage, Nominal	102.4 VDC (89.6 – 115.2 VDC) / 153.6 VDC (134.4 – 172.8 VDC) / 204.8 VDC (179.2 – 230.4 VDC)					
Continuous Charge Current	50 ADC					
Continuous Discharge Current	50 ADC					
Maximum Charge Current	60 ADC					
Maximum Discharge Current	60 ADC					
Continuous Charge Power (Nominal)	5120/7700/9600 W	5120/7700/8600 W	5120/7600/7600 W	5120/7000/7000 W	5120/6000/6000 W	5000/5000/5000 W
Continuous Discharge Power (Nominal)	5120/7700/9600 W	5120/7700/8600 W	5120/7600/7600 W	5120/7000/7000 W	5120/6000/6000 W	5000/5000/5000 W
Maximum Charge Power (Nominal)	6150/7700/10,240 W	6150/7700/10,240 W	6150/7700/9120 W	6150/7700/8400 W	6150/7200/7200 W	6000/6000/6000 W
Maximum Discharge Power (Nominal)	6150/7700/10,240 W	6150/7700/10,240 W	6150/7700/9120 W	6150/7700/8400 W	6150/7200/7200 W	6000/6000/6000 W
Optimum Operating Temperature Range	0° C to 30° C (32° F to 86° F) See detailed temperature guidelines below. Do not install outdoors in climates where the temperature drops below 0° C (32° F) for extended periods. Do not install in direct sunlight.					
Charge Temperature	(0 °C to 55 °C)					
Discharge Temperature	(-20 °C to 55 °C)					
Communication Interface	RJ-45 RS-485					
Power Switch, ON / OFF	Yes					
Cycles	For Daily Cycle Applications					
Service Life (40% Capacity Reduction)	10 Years					
Altitude	2000 m					
Dimensions (W / H / D) (BMS & battery module)	17.5" x 7.5" x 8.9" / 445mm x 190mm x 226mm					
Dimensions (W / H / D) 10 kWh assembled battery enclosure	27.5" x 50" x 9" / 700mm x 1270mm x 230mm					
Dimensions (W / H / D) 5 kWh assembled battery enclosure	27.5" x 50" x 9" / 700mm x 1270mm x 230mm					
Weight BMS	33 lb. / 15 kg					
Weight (battery only, 1 module)	62 lb. / 28 kg					
Weight (Total batteries)	400 lb. (180 kg) / 535 lb. (240 kg) / 705 lb. (320 kg)					
Warranty Battery	10 years					

SOC	Charge/Discharge Rate
>80%	Charge rate will gradually slow down until SOC reaches 100%
0% to 100%	Charge rate is derated when temperature is below 10° C (i.e. 50° F)
0% to 100%	Charging will stop when cell temperature goes below or at 0° C (32° F)
0% to 100%	Discharging will stop when cell temperature goes below -20° C (-4° F).

5.7. GRID PARAMETER SETTINGS

For parameter, which used in grid support and protection function, adjustable requirement of CA Rule 21, HECO 14H and IEEE1547, the relevant explanations and setting methods can obtain by reading, <Parameter Adjustable Method of Grid Support Utility Interactive Inverter>, the document can be obtained by contacting the after-sales.

Time frame	Steady-state Measurements			Transient Measurements		
Parameter	Minimum measurement accuracy	Measurement window	Range	Minimum measurement accuracy	Measurement window	Range
Voltage, RMS	(+ 1% V_{nom})	10 cycles	0.5 p.u. to 1.2 p.u.	(+ 2% V_{nom})	5 cycles	0.5 p.u. to 1.2 p.u.
Frequency ^b	10 mHz	60 cycles	50 Hz to 66 Hz	100 mHz	5 cycles	50 Hz to 66 Hz
Active Power	(+ 5% S_{rated})	10 cycles	0.2 p.u. < P < 1.0 p.u.	Not required	N/A	N/A
Reactive Power	(+ 5% S_{rated})	10 cycles	0.2 p.u. < Q < 1.0 p.u.	Not required	N/A	N/A
Time	1% of measured duration	N/A	5s to 600s	2 cycles	N/A	100 ms < 5 s

^a Measurement accuracy requirements specified in this table are applicable for voltage THD < 2.5% and individual voltage harmonics < 1.5%.

^b Accuracy requirements for frequency are applicable only when the fundamental voltage is greater than 30% of the nominal voltage.

5.8. DECOMMISSIONING

1. Decommission the system by following the instructions on service shut down warning located in section 2. "SAFETY WARNINGS."
2. Contact Electriq Power Customer Support at support@electriqpower.com

5.9. MARKS OF CONFORMITY

NAME	MANUFACTURER	MODEL	TECHNICAL DESCRIPTION	MARK(s) OF CONFORMITY
Battery, BMS & Main Enclosure	ZHONGNENG (Configurations 1 & 2)	LBS102100A-B02	Battery, LFP, 102.4VDC, 100Ah with BMS and Enclosure	cETLus
Battery & Add-on Enclosure	ZHONGNENG (Configurations 1 & 2)	200-1006	Battery, LFP, 51.2VDC, 100Ah with Enclosure	cETLus
Battery, BMS & Main Enclosure	TOPBAND (Configuration 3)	TB103100F-T105A_UL	Battery, LFP, 102.4VDC, 100Ah with BMS and Enclosure	cETLus
Battery & Add-on Enclosure	TOPBAND (Configuration 3)	350-0505	Battery, LFP, 51.2VDC, 100Ah with Enclosure	cETLus
GoodWe Inverter (GW7600A-ES) (includes NFT & mounting hardware)	GoodWe	GW7600A-ES	Hybrid Inverter, 120/240 VAC, 32 AAC, 60 HZ, PV DC Coupled-260 to 500 VDC, 12.5/12.5/12.5/12.5 ADC	cSAus
GoodWe Inverter (GW7600A-BP) (includes NFT & mounting hardware)	GoodWe	GW7600A-BP	Hybrid Inverter, 120/240 VAC, 32 AAC, 60 HZ, PV AC Coupled-240 VAC	cSAus
Auto-Transformer	GoodWe	GW9600A-TX	Auto-Transformer, 120/240 VAC, 40 AAC, 60 HZ	cSAus
IoT Gateway, FX30 Sierra Wireless with EP Branding	Sierra Wireless	1104771 : FX30S-LTEM1_1104087	4.75 to 32 VDC Input, RS-485, LTE Cellular, Wi-Fi IoT Gateway	cULus

We are committed to quality and constant improvement. All specifications and descriptions contained in this document are verified to be accurate at the time of printing. However, we reserve the right to make modifications at any time that may result in a change of specification without notice in our pursuit of quality. If you find any inconsistencies or errors in this document, notify us at:

support@electricpower.com or call (833) GO-BATTERIES

Check the resources page at www.electricpower.com for the latest specifications and manuals.

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5.10. POWERPOD 2 LIMITED WARRANTY

The following terms and conditions control Electriq Power, Inc.'s ("Electriq") Limited Warranty for manufacturing defects and energy capacity (the "Warranty") that accompanies the PowerPod 2 Energy Storage System ("PowerPod 2"). THIS LIMITED WARRANTY CONTAINS IMPORTANT INFORMATION ABOUT YOUR RIGHTS AND OBLIGATIONS, AS WELL AS LIMITATIONS AND EXCLUSIONS THAT MAY APPLY TO YOU.

Limited Warranty: Ten Year Manufacturer's Defect Coverage

Electriq warrants that the PowerPod 2 will be free from manufacturing defects, and be able to operate according to manufacturer's specifications in its intended capacity as an integrated Energy Storage System ("ESS"), including the ability to manage, store and output electricity, for ten years following the earlier of 1) its initial installation date, or 2) four (4) months following shipment by Electriq. This warranty specifically covers the following components shipped with the PowerPod 2:

- Battery Enclosure and Packs (includes models: LBS102100A, LBS153100A, LBS205100A)
- Inverter (includes models: GW7600A-ES, GW7600 A-BP)
- PowerHub (includes model: PowerHub 2)

Limited Warranty: Ten Year Energy Capacity Coverage

Electriq warrants that the PowerPod 2's energy capacity (as measured at the DC terminals) will: 1) be at least 2.56kWh/pack at the time the Warranty begins (the "Initial Capacity"); and 2) remain at least 70% of the Initial Capacity during the first 10 years of operations, or until the PowerPod 2 reaches an aggregated throughput of 7.5 MWh/pack, whichever occurs first.

Both the Manufacturer's Defect and Energy Capacity limited warranties are intended to provide you confidence in the ESS. However, this Warranty, and any claims made against it, depend on the terms and conditions contained in the Warranty being followed. Failure to follow these terms and conditions may result in additional limits on, or the complete voiding of, the coverages this Warranty is intended to provide. Other general and express limits on the Warranty are detailed below. Read this Warranty carefully to ensure your Warranty is maintained.

Remedies:

To make a claim under this Warranty, follow the procedure set forth in the "Claims Process" section, below. If Electriq determines the

Warranty applies, we will, in our sole discretion, either 1) replace the part or parts causing the Warranty claim, or replace the entire ESS with a new or refurbished ESS, including shipping but excluding installation, sufficient to return the ESS to a status at least equal to its state prior to the cause of the Warranty claim being made (but not “as new”), or 2) replace your PowerPod 2 with an equivalent or improved product (new or refurbished) if PowerPod 2 parts or replacements is not available at the time of the claim. This is your sole and exclusive remedy for breach of this Warranty.

The remainder of the original Warranty period will apply to the repaired or replacement product.

Terms and Conditions:

For the purposes of maintaining this Warranty certain terms and conditions apply. Failure to comply with these terms and conditions may, in Electricq’s sole determination, void or limit your rights under this Warranty.

- **Installation** must be by an appropriately licensed installer who is also appropriately certified and trained by Electricq to install the PowerPod 2. The installation must follow the manual, conform to all local, state and other applicable building and safety codes, be completed with a permit issued by the local authority having jurisdiction, and be successfully commissioned. For a list of certified installers contact us.
- **Temperature and Environment.** Although the ESS is designed to be rugged, it contains electronics, chemistries, and other components that must be maintained within their certified limits. The ESS may be installed inside or outside but:
 - Ambient temperature above 122F/50C and below 32F/0C may damage the ESS and void this Warranty. Prolonged exposure to direct sunlight (E.G. an unshaded south facing wall) may cause internal temperature damage to the ESS and may void the warranty.
 - Marine conditions (salty air or condensing humidity) may cause corrosion or short circuits and shall void the Warranty.
 - Installation above 6,562 feet or 2000 meters may void this Warranty.
- **Data Connection:** Your ESS requires an internet connection to properly operate. This connection is required for: 1) safety, diagnostic and data reporting to Electricq about the state of the ESS; 2) over-the-air software updates to keep your ESS operating in its best capacity; and 3) for normal management and operations of your ESS. If your ESS fails to connect to the internet for a period

of longer than 90 days, such lack of a connection may limit the Warranty. A lack of data connection for more than four years will void the Warranty. If you believe your ESS will be without an internet connection for more than one month, contact us.

- **Operations:** The PowerPod 2 can be operated in several modes that manage when, and how much, energy is consumed or discharged from and to the grid. Modifications to these modes other than through the Electricq-provided software will void this Warranty, as well as indicate potential IP violations. Operations must comply with local and state rules and regulations. Operations outside these limits, be they civil or criminal, shall void the Warranty.
- **Initial Location.** The Warranty applies to the PowerPod 2 where it was initially installed and commissioned. If it is moved from its initial installation location without prior authorization by Electricq, the Warranty shall be voided.
- **Personal/Domestic Use.** The PowerPod 2 is intended for “personal/domestic use”, meaning typical energy consumption associated with day-to-day activity and ordinary electrical use in a home, as served by a utility via a “domestic tariff”. If you believe your use at your home may be for a more dedicated business purpose, or your utility provides you power under a “commercial tariff,” contact us for further clarification. Use of the PowerPod 2 for other than personal/domestic use shall void this Warranty.
- **Abuse, Misuse, or Modification.** If Electricq identifies abuse or misuse that is the basis for the claim, the Warranty may be limited or voided. Further, material modifications to the software or equipment, including alterations to the cases, cables, or mounting equipment, even if cosmetic, shall be a basis for voiding or reducing coverages provided in the Warranty.
- **Registration.** Your PowerPod 2 should have been registered with Electricq at the time it was commissioned. Failure to register the PowerPod 2, even if through no fault of your own, voids this Warranty. Access to Electricq’s “dashboard” or other software used to monitor and operate the PowerPod 2 indicates successful registration. If at any time you would like to verify the registration of the PowerPod 2 with Electricq you shall do so by logging into your dashboard.
- **Theft or Loss.** No claim may be made under a basis of theft or other criminal loss.

THE FOLLOWING ARE EXCLUDED AND NOT COVERED UNDER THE WARRANTY:

1. Force Majeure events, including earthquakes, fires, flood, lighting or utility related power-surges, breakdowns, fluctuations, or interruptions in electric power or the telecommunications network,

- or other events over which Electricq has no control;
2. Normal wear and tear or cosmetic deterioration;
 3. Superficial or non-structural defects that do not impact the performance of the PowerPod 2;
 4. Claims caused by or related to minor vibrations or noise associated with the normal operations of the PowerPod 2;
 5. Claims made after the Warranty has expired;
 6. Shipping damage or damage caused by mishandling by the freight carrier;
 7. Equipment, materials, supplies or components which are separate from the PowerPod 2, whether or not supplied by Electricq (unless specifically listed herein);
 8. Abuse, misuse, modifications, alterations, tampering, or improper maintenance of the PowerPod 2;
 9. Claims due to handling, storage, installation, testing, or use not in accordance with the PowerPod 2 user's guide;
 10. Consumable parts;
 11. Any claim arising out of improper installation or repairs of the PowerPod 2.

OTHER LIMITATIONS AND DISCLAIMERS:

THIS LIMITED WARRANTY IS THE ONLY EXPRESS WARRANTY MADE IN CONNECTION WITH YOUR POWERPOD 2. ANY OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, STATUTORY, EXPRESS OR IMPLIED (INCLUDING ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE, PATENT WARRANTIES, AND ANY WARRANTIES AGAINST LATENT OR HIDDEN DEFECTS) ARE EXPRESSLY DISCLAIMED. IF SUCH WARRANTIES CANNOT BE DISCLAIMED, ELECTRIQ LIMITS THE DURATION OF AND REMEDIES FOR SUCH WARRANTIES TO THE DURATIONS AND REMEDIES DESCRIBED IN THIS LIMITED WARRANTY.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER LEGAL RIGHTS, WHICH VARY FROM STATE TO STATE. FOR EXAMPLE, SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, MEANING THE LIMITATIONS IN THE "LIMITATIONS AND DISCLAIMER" SECTION ABOVE MAY NOT APPLY TO YOU. THE TERMS OF THIS LIMITED WARRANTY WILL APPLY TO THE EXTENT PERMITTED BY APPLICABLE LAW. FOR A FULL DESCRIPTION OF YOUR LEGAL RIGHTS YOU SHOULD REFER TO THE LAWS APPLICABLE IN YOUR JURISDICTION.

THE POWERPOD 2 IS NOT INTENDED TO BE USED AS A LIFE-SAVING DEVICE. ELECTRIQ DISCLAIMS ANY LIABILITY FOR LOSS, INCLUDING

BODILY INJURY OR PROPERTY DAMAGE, ARISING OUT OF SUCH USE.

LIMITATION OF REMEDIES

IN ADDITION TO THE ABOVE WARRANTY DISCLAIMERS, IN NO EVENT WILL ELECTRIQ BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, EXEMPLARY, SPECIAL, OR PUNITIVE DAMAGES, INCLUDING DAMAGES FOR LOST DATA OR LOST PROFITS, ARISING OUT OF OR RELATING TO THIS LIMITED WARRANTY OR THE POWERPOD 2. ELECTRIQ'S TOTAL CUMULATIVE LIABILITY ARISING OUT OF OR RELATED TO THIS LIMITED WARRANTY OR THE POWERPOD 2 WILL NOT EXCEED THE AMOUNT ACTUALLY PAID FOR THE POWERPOD 2 BY THE ORIGINAL PURCHASER.

Who Can Make a Claim

Limited Warranty claims can be made by or on behalf of the end user who initially had the PowerPod 2 installed. Claims may also be made by subsequent owners who can show title to the PowerPod 2.

Claims Process

To make a claim under this Warranty, you must follow the link under "warranty" at the Electricq website (<https://electricqpower.com/warranty/>) and provide the required information.

To expedite your claim be prepared to provide:

- A description of the problem you are experiencing and when you first noticed it;
- Pictures of the installation and any other data you have about the PowerPod 2;
- Your contact information including preferred phone and email; your address and your utility; proof of transfer of ownership if you were not the initial owner; and
- The contract for the installation.

Once a claim is submitted Electricq will process it within seven business days and reply with a determination of coverage. Electricq will either approve, deny or request additional information about your claim.

- If your claim is denied: Electricq will provide the basis for this decision and you may submit additional information for the claim to be reconsidered.
- If your claim is approved: Electricq will instruct you on next steps which may include selecting and / or scheduling a visit from an authorized installer or technical resource.

- If more information is requested: If more information is requested to process your claim, you will be contacted to arrange for its provision.

In some cases your claim may require us, or our representative, to visit the installation. Failure to provide commercially reasonable access to your site may result in the claim being denied or this Warranty being voided. Every reasonable effort will be made to schedule a visit to minimize impact on the use or enjoyment of the home or disruption to your electricity supply.

Agreement to Arbitrate

Read this provision carefully. In the event of a concern or dispute between us, contact Electricq at legal@electricpower.com describing the nature of the dispute and the relief sought. If it is not resolved within 90 days, you agree that any dispute arising out of or relating to any aspect of the relationship between us will not be decided by a judge or jury but instead by a single arbitrator in an arbitration administered by the American Arbitration Association (AAA).

This includes claims arising before this Warranty, such as claims related to statements about our products, as well as claims arising after the Warranty has expired. Alternatively, you may opt out of arbitration as further described below. The AAA Consumer Arbitration Rules will apply. We will pay all AAA fees for any arbitration, but, if we prevail in the arbitration, we may seek arbitration costs from you. The arbitration will be held in a location most convenient to your residence. To learn more about the Rules and how to begin an arbitration, you may call any AAA office or go to www.adr.org.

The arbitrator may only resolve disputes between us on an individual basis, and for no other parties. The arbitrator cannot award relief for anyone who is not a party and may not consolidate claims. In other words, you may bring claims against Electricq only in your individual capacity and not as a plaintiff or class member in any class or representative action. If a court or arbitrator decides that any of this section's limitations cannot be enforced as to a particular claim for relief, then that claim (and only that claim) must be severed from the arbitration and may be brought in court.

If you prefer, you may instead take your individual dispute to small claims court.

You may opt out within 30 days after accepting the terms of this Limited Warranty by sending a letter to Electricq Power Inc. via email

warranty@electriqpower.com.

Right To Modify:

Electriq reserves the right to modify this Warranty, from time to time and on a case by case basis, without any liability or obligation to other warranty holders.



Assembled by
Electriq Power, Inc.
1937 Davis St., Unit A1
San Leandro, CA 94577
+1 (833) GO-BATTERIES

For more information
www.electriqpower.com

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