FIMER

Solar Inverter PowerUNO and PowerTRIO

Commissioning Quick Installation Guide

In addition to what is explained in this quick installation guide, the safety and installation information provided in the product manual must be read and followed. The technical documentation for the product is available at the website.
The device must be used in the manner described in the manual. If this is not the case the safety devices guaranteed by the inverter might be ineffective.

APPLY HERE THE COMMUNICATION IDENTIFICATION LABEL

1. Inverter commissioning

⚠ **QUALIFIED PERSON REQUIRED –** Inverter commissioning is the process of configuring and starting up the inverter after installation to ensure it operates correctly according to specifications. It involves checking connections, configuring parameters, and performing tests to ensure the inverter runs efficiently and safely.

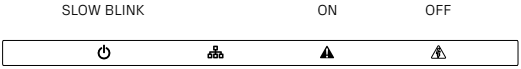
⚠ **WARNING –** Inverter operations cannot start without commissioning it.

Commissioning is done via a wireless connection to the inverter's internal web interface, using smartphone or a notebook. The configuration wizard has 5 simple steps, some optional.

⚠ **WARNING –** Do not place objects on the inverter during operation! Avoid touching the heat sink, as some parts may be very hot and cause burns.

After completing installation and checks, switch ON in order: 1. the PowerX battery DC switch (if present); 2. the inverter DC switch; 3. the inverter line AC circuit breaker.

Once supplied, the inverter may take a few minutes to be ready. The LED STRIP shows that the inverter is ready; in the pre-commissioned state the led are as follow:



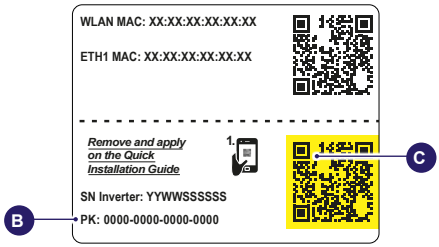
Green is slow flashing
Blue might be flashing or not, depending on status of the LAN connection

Yellow is ON (Alarm)

Red is OFF (GFI)

2. Connection to the inverter AP Wi-Fi network

To establish a direct connection via WLAN with the inverter, you need the **communication identification label** that is on the left side of the inverter. It can be detached and stuck on the QIG, then stored in a safe and accessible location after the commissioning.



The inverter has an embedded Wi-Fi module that creates a wireless network named FIMER-YYWWSSSSSS, where YYWWSSSSSS is the serial number (SN) found on the Communication Identification Label. For example, FIMER-202401000001.

2.1 With a smartphone

- Once the inverter is ready, launch a QR reader for mobile and scan the QR code (C) on the Communication Identification Label.
- Connect to inverter wireless network tapping connect.
- Then, wait 10 seconds to allow the Wi-Fi connection.

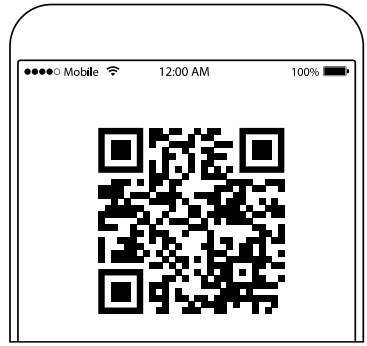
2.2 With a smartphone or a notebook

- Enable the wireless connection on the laptop which is being used for the board setup and connect it to the Access Point created by the inverter system.
- When prompted, type the product key (B). Include the dashes, for example 1234-1234-1234-1234.

3. Accesing the Web User Interface

3.1 With a smartphone

- SCAN the following QR code (it is also reported in the Quick installation guide and in the pre-commissioning flyer inside the box of the inverter):

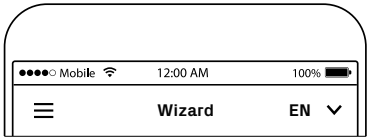


3.2 With a notebook

• Open an internet browser (recommended browser: Chrome versions from v.55, Firefox versions from v.50) and enter the pre-set IP address http://192.168.117.1 to access the inverter user interface.

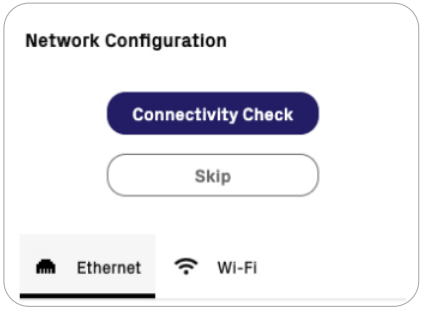
4. Commissioning Wizard

The language of the wizard could be changed by clicking on the upper status bar.



4.1 STEP 1: Setting up the inverter connectivity (Ethernet and Wi-Fi)

The inverter is equipped with an Ethernet LAN port and an embedded Wi-Fi module. In this step, you can configure both.



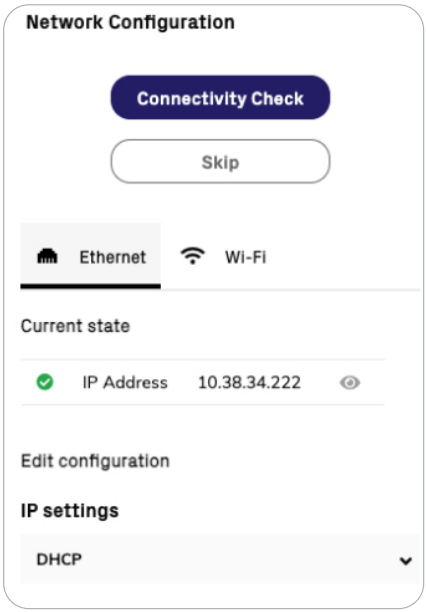
NOTE – This step can be skipped and performed later though the WEB UI.

NOTE – It is highly recommended to connect the inverter to the internet to benefit from advanced monitoring and service features, such **Aurora Vision®**, and **Energy Viewer.** Energy Viewer is a smart App that allows solar power plant owners to monitor their system's output and home's consumption easily and remotely, keeping their energy use and savings in check, with or without an energy storage system installed

NOTE – To connect the inverter to the Internet, its wireless station network must be configured to link with the home or business wireless network. Alternatively, an Ethernet cable can be used to establish a LAN connection.

4.1.1 Ethernet configuration tab

The Ethernet tab allows you to configure the LAN port. To complete this step, it is necessary to know the LAN configuration. If not known, contact the network administrator for information.



DHCP IP settings

Select DHCP mode if there is a DHCP server present. In this mode, If the Ethernet cable is connected, the IP address of the interface and its settings will be displayed.

• If you select the DHCP function (default setup) the router will automatically assign a dynamic IP address to the inverter whenever it tries to connect to the user network.

Static IP settings

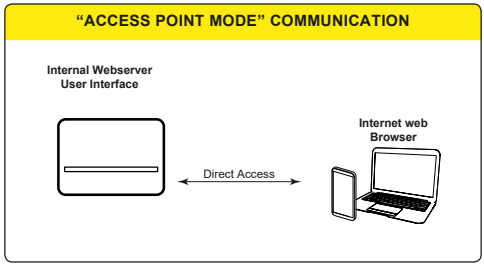
Choose STATIC mode if you wish to assign a static IP address to the interface.

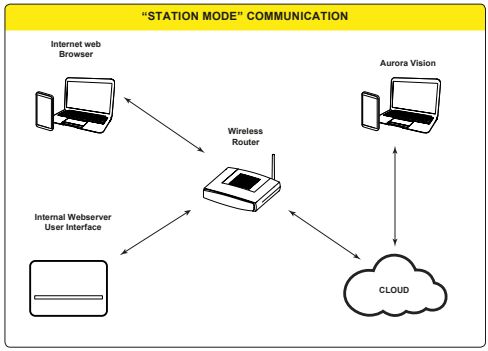
• If you choose the Static option, you can assign a fixed IP address to the system. The fields needed for static IP address assignment will appear. Complete the additional fields; all fields are mandatory except for the secondary DNS server.

WI-FI configuration tab

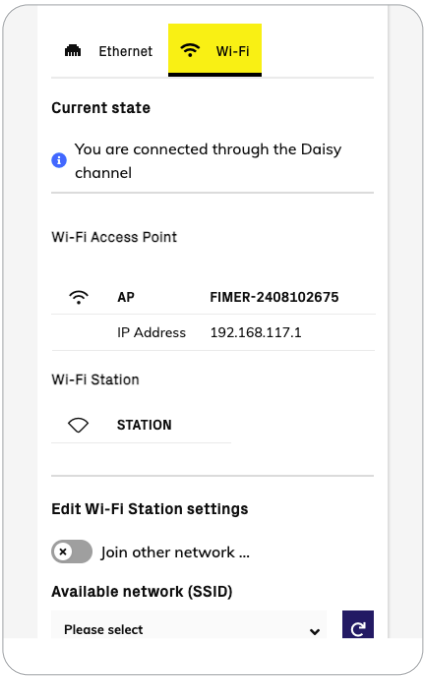
The inverter Wi-Fi module can run both operating modes:

1. **AP:** This mode enables only local communication. The Wi-Fi module acts as an access point, creating a wireless network that allows the user to connect locally and access the inverter's WEB UI for monitoring and configuration.
2. **STATION MODE:** accessing a wireless LAN connected to the Internet, this mode enables remote monitoring through the Aurora Vision® cloud platform or the Energy Viewer App.





NOTE – Where possible, connecting the inverter in "Station Mode" is always preferable. Thanks to the internet connection, this mode ensures better operation.



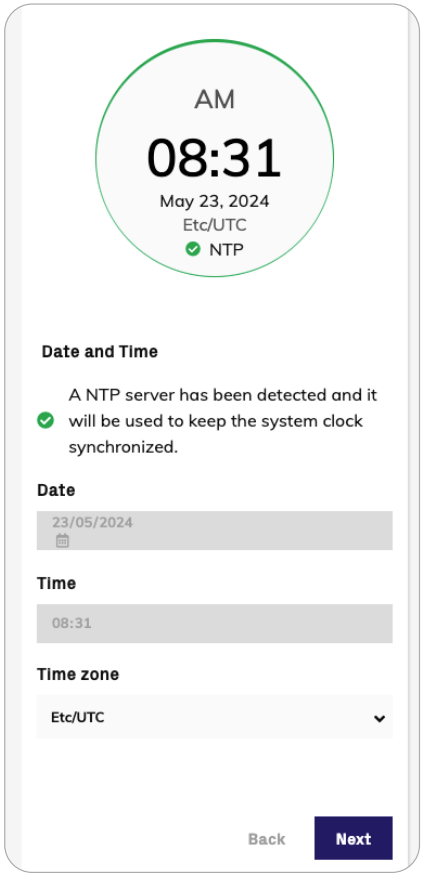
To configure the station mode, follow these steps:

- Available networks (**SSID**): identify and select your own (home) wireless network from all those shown in the SSID field. You can perform a new search for detectable networks by pressing the [**Update**] button. Select the desired network and confirm your choice.
- **Password**: Wireless network password: enter the password for the destination network (if necessary) and start the connection attempt (it will take a few seconds).
- Click on [**CONNECT**] button to connect the inverter to the home wireless network.
- Click on [**NEXT**] button to continue the configuration wizard.

4.2 STEP 2: setting up date, time and time zone

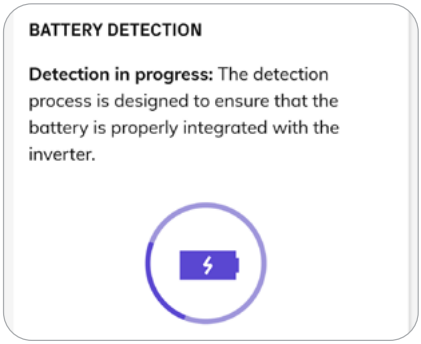
ATTENTION – Configuring time, date and TIME ZONE is important.

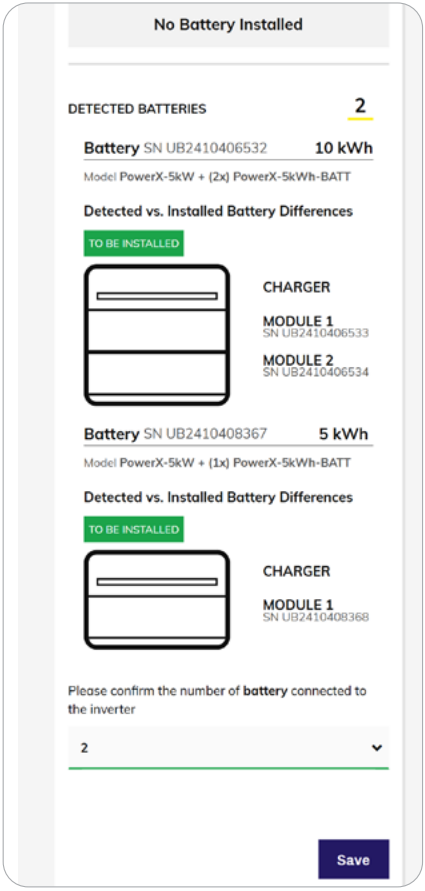
- Set the Date and Time. The inverter will automatically populate these fields when the net time protocol (NTP server) is available.
- If the inverter is unable to reach the NTP server, Date and Time must be entered manually.
- Set the Time zone of the location where the inverter is installed.
- Click on [**NEXT**] button to continue the configuration wizard.



4.3 STEP 3: setting up batteries

- In this step, the inverter checks if up to two PowerX batteries are connected to the it.
- If battery devices are properly connected and the detection is successful, the UI will display the batteries models and their composition.
- Validate the number of battery devices selecting the “expected number of battery devices”.
- Click on [**NEXT**] button to complete the configuration wizard.





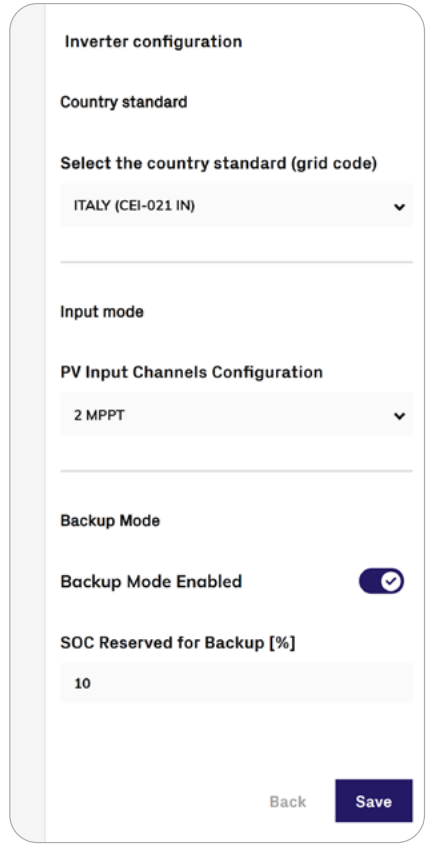
NOTE – The PowerUNO/PowerTRIO inverter can be paired with 0, 1 or 2 PowerX **battery devices**, each including a charger (Genius Box) and the up to 3 battery modules. For example, if you have 2 battery devices with 1 and 2 modules each, you must confirm 2 batteries.

ATTENTION – If the system has detected a different number of batteries than what you configured. To resolve the issue, please follow these steps:
1. Switch off the inverter and the batteries.
2. Check the power and signal connections.
3. Switch on the inverter and the batteries.
4. Restart the setup wizard.

4.4 STEP 4: inverter configuration

- **Country Standard (**choice of grid standard): Set the grid standard of the country in which the inverter is installed.
- **PV Input Channels Configuration:** Choose 1 MPPT if your input channels are connected in parallel. Choose 2 MPPT if your input channels are independent.
- **Backup Mode:** In this step of the wizard, if the inverter has battery devices, it is possible to enable/disable the backup mode. If you choose to enable the backup, and you can assign a minimum state of charge (SOC) percentage to reserve for backup purposes.
- Click on [**SAVE**] button to complete the Inverter configuration step.

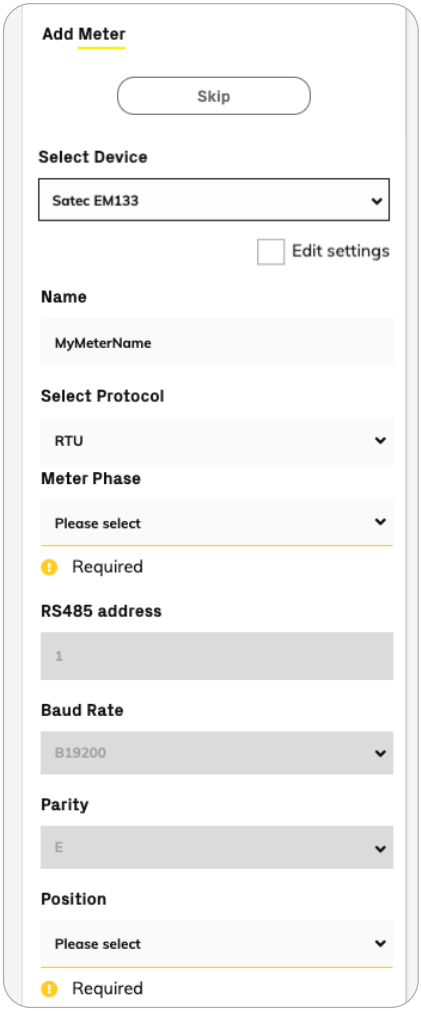
ATTENTION – At the end of the inverter configuration wizard, the inverter will store the settings and reboot to apply the configuration. This process will take a few minutes. Do not turn off the inverter and wait for the operation to complete.

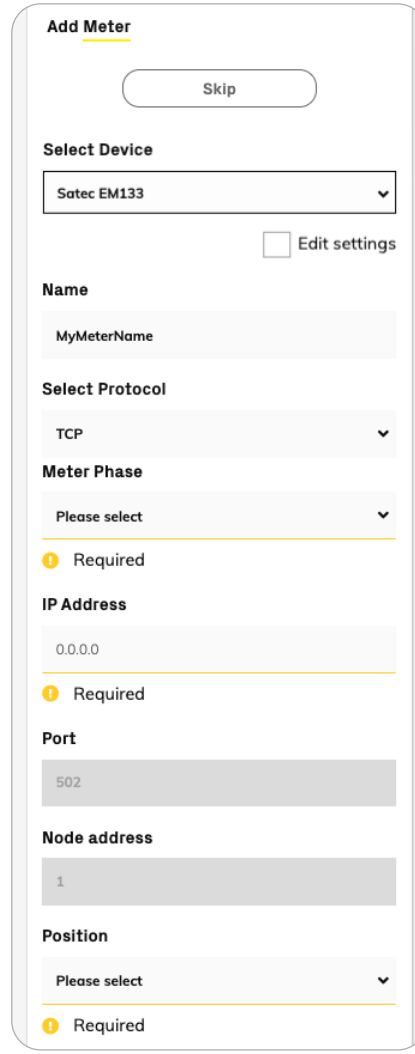


NOTE – After the reboot, the inverter is ready for operation and may connect to the electrical grid, regardless of whether the next configuration step involving the addition of a meter has been completed.

4.5 STEP 5: additing a meter

- In this last step, if the installation includes a METER dedicated to managing energy policies.



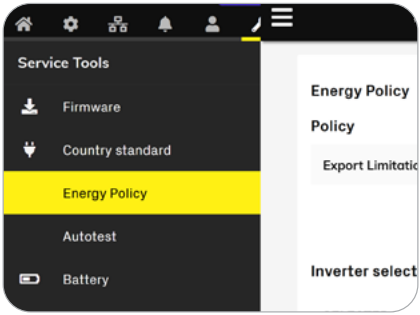


- Select the type of meter installed from the available options in the drop-down menu.
- To edit the disabled fields, check the "**Edit settings**" box.
- Click on [**SAVE**] button to complete the configuration wizard.

4.6 Wizard finalization

- A notification will confirm that the wizard is completed. Clicking the [Finish] button will display the UI login page.

5. Configuring the energy policy



NOTE – If a meter is installed, after completing the wizard, access the WEB User Interface as ADMIN (default password is 0010) to configure the chosen policy. The available options are Self-consumption or Export-limitation. You can download the "**Power platform Energy Policy overview"** application note from the FIMER website.

6. Updating the firmware

NOTE – To address any issues that may arise in the initial stages of system operation, and to keep the inverter running at its best with the latest features and improvements, check for firmware updates in the "SERVICE TOOLS" section of the web user interface.

For more information please contact your local MA Solar Italy representative or visit:

fimer.com