

GATEWAY VOLTA S-WEB



EN

USER AND INSTALLER'S MANUAL

MODEL:

SERVICE CONTACT:

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1. General information



- To obtain the most performance from your VOLTA S-WEB GATEWAY device, we recommend that you read this manual carefully before you use it.
- Keep this manual for future reference.

Thank you for purchasing an VOLTA HEAT PUMPS product. This manual contains information about the overall operation of the unit and on how to use its different functionalities. The user can also find information on how to deal with anomalous performance and some of the most common malfunctions that you can solve yourself.

This manual contains two different types of warnings that should be heeded, as shown below.



NOTE

- Indicates a situation that may cause material damage or equipment malfunction. This may also be used to indicate practices that are recommended or not recommended for the equipment.



DANGER!

- **W**arning of imminent or potential danger which, if not avoided, may result in injury or even death. This may also be used to warn of unsafe practices.

The VOLTA S-WEB GATEWAY has been designed to monitor and remotely access the different VOLTA HEAT PUMPS products via a web interface. The manufacturer is not responsible for any material damage and/or personal injury resulting from improper use or incorrect installation of the equipment.

The device must be installed by a licensed installer in accordance with applicable local regulations and in accordance with the instructions described in the installation manual.

1.1. Safety considerations

The detailed instructions in this section cover important safety aspects and must therefore be strictly complied with.



DANGER!

- **A**ll installation and maintenance work must be carried out by an authorised technician following local regulations and according to the instructions described in this manual.
- **I**mproper installation or use of the equipment could cause electrocution, short circuits, fire or other personal injuries and/or material damage.
- **K**ep the plastic bags included in the packaging out of the reach of children, as improper use could result in injury caused by asphyxia.
- **T**his equipment should not be handled by people with physical, sensory or psychological disabilities, children and people with no suitable experience or knowledge, unless it is under the supervision or direction of a person responsible for their safety.
- **I**f equipment malfunction is detected, contact your technical service to solve any problems that may have appeared.
- **D**o not touch any of the internal components when the device is operating, as this may result in personal injury and/or property damage.

1.2. Recycling



- This device should not be treated as household waste.
- At the end of its life it should be disposed of as common municipal waste, in an environmentally friendly manner and in accordance with local regulations.

2. Description

2.1. VOLTA S-WEB GATEWAY device

The VOLTA S-WEB GATEWAY has been designed to establish different connection paths between your VOLTA HEAT PUMPS device and any type of device that has a web browser, such as a mobile phone, a tablet, a PC, etc. Through the VOLTA S-WEB GATEWAY you can access your VOLTA HEAT PUMPS device directly (Direct Access), through your local area network (Local Access) or through the Internet (Remote Access).

VOLTA S-WEB GATEWAY kit components

1. Communication module (CPU).
2. Antenna.
3. Bus connection cable.
4. Power supply connector.
5. User and installer's manual

2.2. VOLTA S-WEB web interface

The VOLTA S-WEB interface is a web server running on the VOLTA S-WEB GATEWAY that will allow you to interact with your VOLTA HEAT PUMPS device in a simple way. When you access the VOLTA S-WEB GATEWAY, it will display the main screen of the VOLTA S-WEB web interface. This lets you view and set up the operating parameters of your VOLTA HEAT PUMPS device in real time. The data shown on the screen vary depending on the VOLTA HEAT PUMPS device that you connect to the VOLTA S-WEB GATEWAY and its settings.

To access the VOLTA S-WEB web interface, you must install the equipment under one of the settings indicated in sections 3 and 4. Different settings are available that will allow you to access the VOLTA S-WEB web interface from your device (mobile phone, tablet, PC, etc.) via a wireless access point, local area or the internet. Once you access the VOLTA S-WEB web interface, you will have to enter your security credentials. This information is available on the label of the GATEWAY VOLTA S-WEB device.

- USERNAME: Device serial number (SN).
- PASSWORD: First 8 characters of the original wireless network (PWD) password.



Figure 2.1. Credentials for access to the VOLTA S-WEB web interface.

If your device has been installed in a configuration that allows access via the internet (see section 4), you can also access the VOLTA S-WEB web interface easily by using your mobile phone to scan the QR code provided on the label of the GATEWAY VOLTA S-WEB device.

3. Installation



- Before installing VOLTA S-WEB GATEWAY, turn off and disconnect the power supply to the VOLTA HEAT PUMPS device you intend to connect. Otherwise, severe injury may result from electrocution.

To install the VOLTA S-WEB GATEWAY, follow the steps below:

- Place the communication module inside the VOLTA HEAT PUMPS device, in a dry place that does not interfere with the normal operation of the device. To make sure that you install the GATEWAY in the right place, please refer to the manual of the VOLTA HEAT PUMPS equipment to which you intend to connect the GATEWAY.
- Connect the bus communication cable to the VOLTA S-WEB GATEWAY serial port as shown in the following figure.
- Connect the bus communication cable to the BMS2 serial port of the VOLTA HEAT PUMPS device controller, as shown in the following figure.

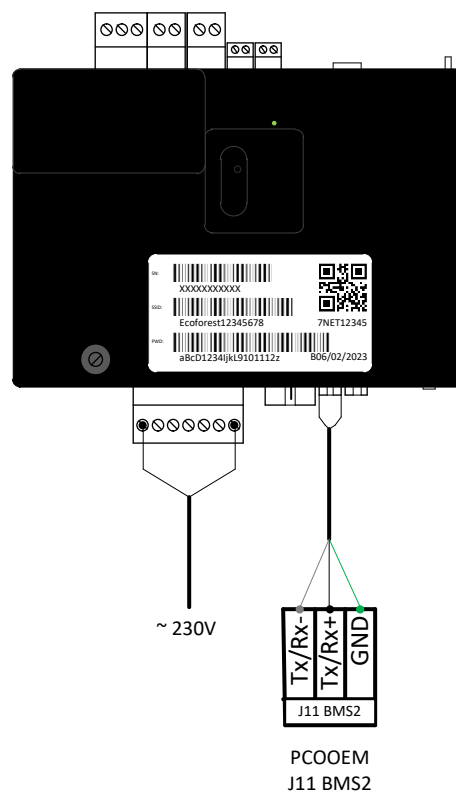


Figure 3.1. Installation of the VOLTA S-WEB GATEWAY to the VOLTA HEAT PUMPS device.

- Connect the antenna to the SMA connector of the VOLTA S-WEB GATEWAY and place it outside of the VOLTA HEAT PUMPS device in a vertical position.
- Check that the BMS2 port of the VOLTA HEAT PUMPS device is set up as follows.
 - Protocol: MB Extended
 - Baud rate: 19200
 - Stop bits: 2
 - Parity: None
 - Address: See the table below.

UNIT	ADDRESS
Heat pump / Block supervisor	17
e-Manager / e-System	16
e-Source	15

Table 3.1. BMS2 communications bus addresses for the different VOLTA HEAT PUMPS device.

6. Check that the VOLTA S-WEB GATEWAY communicates correctly with the VOLTA HEAT PUMPS device. The device has a LED that indicates different connection statuses.

PULSE FREQUENCY	STATUS
Pulse 10s on / 10s off	Establishing communication with VOLTA HEAT PUMPS device
3 pulses on / off of variable duration	Configuring VOLTA S-WEB GATEWAY
Pulse 1s on / 1s off	Device connected to VOLTA HEAT PUMPS device
Continuous on pulse	Communication failure with VOLTA HEAT PUMPS device

Table 3.2. Connection statuses between VOLTA S-WEB GATEWAY and the VOLTA HEAT PUMPS device.



NOTE

- If after 2 minutes the GATEWAY LED remains on continuously, check that points 2 to 5 have been carried out correctly and restart the device. If the problem is not resolved, contact your service representative.

4. Connection modes

There are four connection modes through which you can access the VOLTA S-WEB GATEWAY. These are summarized in the following table.

MODE CONNECTION	ENABLED FACTORY	ACCESS DEVICE NETWORK	ACCESS LOCAL AREA NETWORK	ACCESS REMOTE INTERNET
DIRECT-ETHERNET	✓	✓	--	--
ORIGINAL AP-WIFI / CUSTOM AP-WIFI	--	✓	--	--
LAN-ETHERNET	✓	--	✓	✓
LAN-WIFI	--	--	✓	✓

Table 4.1. VOLTA S-WEB GATEWAY connection modes.

The VOLTA S-WEB GATEWAY is distributed from the factory configured to make connections via an Ethernet cable, either through a direct connection (DIRECT-ETHERNET), or through your local network (LAN-ETHERNET).

4.1. DIRECT-ETHERNET mode

This lets you access the VOLTA HEAT PUMPS device from your PC through a direct connection by Ethernet cable to the VOLTA S-WEB GATEWAY. To make this type of connection, follow the steps below:

1. Connect your PC directly to the VOLTA S-WEB GATEWAY via an Ethernet cable.
2. Set up the TCP/IP protocol of the Ethernet port on your PC with a static IP assignment within the following parameters:
 - IP Address: 192.168.2.X (Where X is a value between 2 and 254, other than 99).
 - Subnet mask: 255.255.255.0

Refer to the help documentation of your PC operating system to identify how to access the TCP/IP protocol settings window.

3. Access the VOLTA S-WEB web interface from your PC with a web browser via <http://192.168.2.99>.

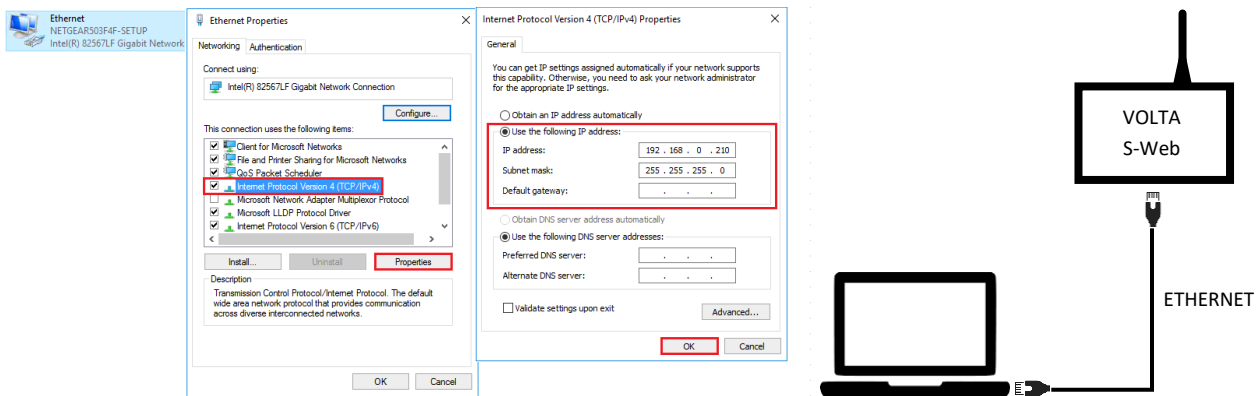


Figure 4.1. DIRECT-ETHERNET mode connection scheme. Direct cable access (example).



- The DIRECT-ETHERNET mode always remains enabled by default.
- This configuration does not allow remote access via the Internet.

4.2. AP-WiFi ORIGINAL / CUSTOM AP-WiFi mode

This lets you access the VOLTA HEAT PUMPS device from your device (mobile phone, tablet, PC, etc.) through a direct connection to the wireless access point generated by the VOLTA S-WEB GATEWAY, without the need to have your own local area network or an internet connection. To make this type of connection, follow the steps below:

1. Make sure that the antenna of the VOLTA S-WEB GATEWAY is correctly connected.
2. Access the VOLTA S-WEB interface connection setup screen using the DIRECT-ETHERNET mode (see section 4.1).
3. Select ORIGINAL AP-WiFi or CUSTOM AP-WiFi.
4. If you have selected ORIGINAL AP-WiFi, save the settings - you don't need to perform the connection test.
5. If you have selected CUSTOM AP-WiFi, enter the name (SSID) and the password you want to use as the wireless access point credentials. Preferably, use alphanumeric characters. Some symbols may not be recognised by the system.
6. Press the TEST button to check that the credentials you have entered are valid.
7. If the test is successful, save the settings and take a note of the credentials you have entered. If the test is unsuccessful, check the credentials you have entered and try again.
8. Disconnect the PC from the VOLTA S-WEB GATEWAY.
9. Connect directly to the wireless access point that VOLTA S-WEB GATEWAY has generated, within your range. To do this, use the original VOLTA HEAT PUMPS credentials (ORIGINAL AP-WiFi) available on the device label, or those entered in point 5 (CUSTOM AP-WiFi).
10. Access the VOLTA S-WEB web interface from your device through a web browser via <http://192.168.3.1>.

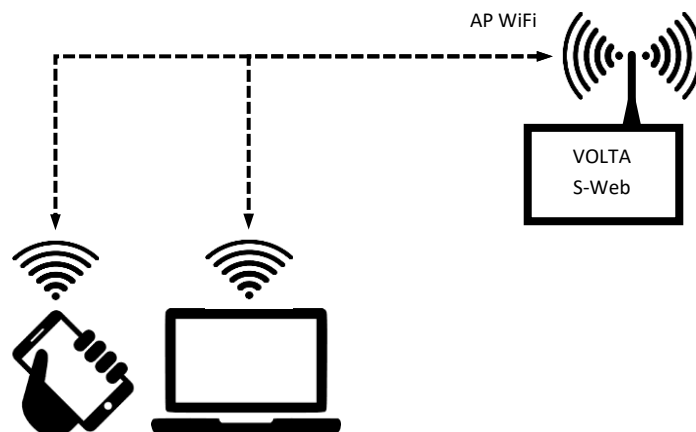


Figure 4.2. AP-WiFi mode connection scheme. Direct access by WiFi (example).



- The wireless network generated by the GATEWAY does not have an internet connection.
- Some devices, such as mobile phones, can block access to networks that do not have an internet connection. Check your device's settings to allow connection to networks that do not have an internet connection.
- Access to the web interface is only possible within the range of the wireless signal generated by the GATEWAY. Approximately 50 meters in an obstacle-free area.

4.3. LAN-ETHERNET mode

This lets you access the VOLTA HEAT PUMPS device from your device (mobile phone, tablet, PC, etc.) by means of a connection through your local area network, using an Ethernet cable connection between your router and the VOLTA S-WEB GATEWAY. To make this type of connection, follow the steps below:

1. Connect the VOLTA S-WEB GATEWAY to your router using an Ethernet cable.
2. Access the VOLTA S-WEB web interface through the smart.voltaheatpumps.com portal from a device that has an Internet connection and select the desired access type. See section 5.

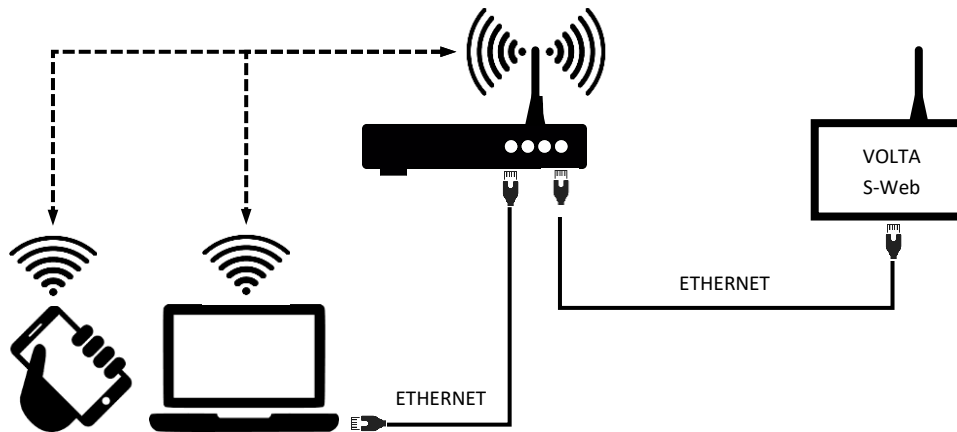


Figure 4.3. LAN-ETHERNET mode connection scheme. Access through the local network (example).

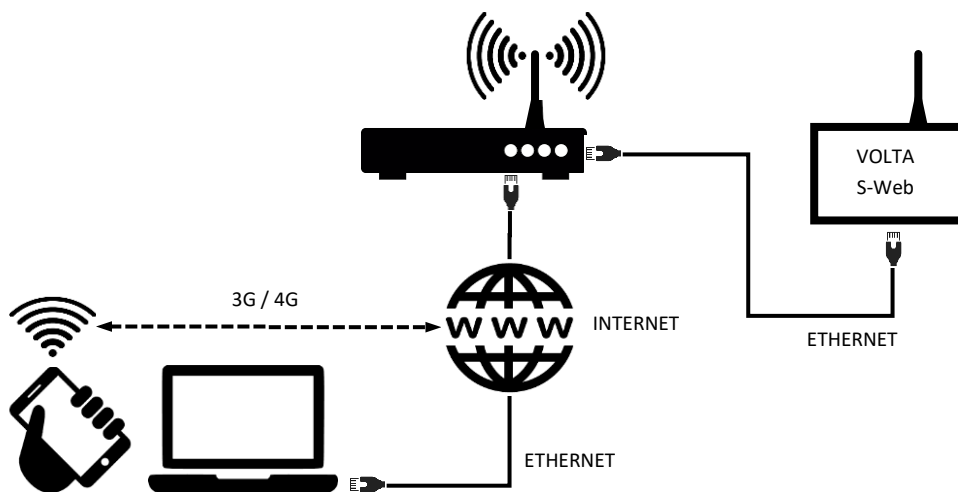


Figure 4.4. LAN-ETHERNET mode connection scheme. Remote access via the Internet (example).



NOTE

- The LAN-ETHERNET settings are enabled at the factory by default. If it has been disabled, try logging in using the current settings to reconfigure it. If this does not work, contact your service representative.
- To remotely access the device in LAN-ETHERNET mode, your local area network must be connected to the Internet and your router must allow data traffic through port 80.

4.4. LAN-WiFi mode

This lets you access the VOLTA HEAT PUMPS device from your device (mobile phone, tablet, PC, etc.) by means of a connection through your local area network, using a wireless connection (WiFi) between your router and the GATEWAY VOLTA S-WEB. To make this type of connection, follow the steps below:

1. Make sure that the antenna of the VOLTA S-WEB GATEWAY is correctly connected and within the area of influence of the wireless network signal generated by your router.
2. Access the VOLTA S-WEB interface connection setup screen using the DIRECT-ETHERNET mode (see section 4.1).
3. Select the LAN-WiFi connection and enter the security credentials of the wireless local area network generated by your router.
4. Press the TEST button to check that the GATEWAY can access the wireless local network and wait for the test result.
5. If the test is successful, save the settings. If the test is not successful, check the installation and try again.
6. Disconnect the PC from the VOLTA S-WEB GATEWAY.
7. Access the VOLTA S-WEB web interface through the smart.voltaheatpumps.com portal from a device that has an internet connection and select the desired access type. See section 5.

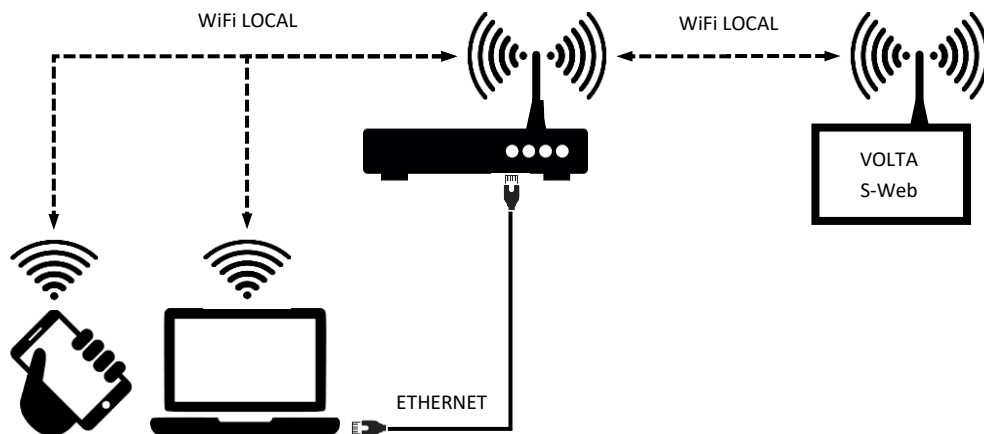


Figure 4.5. LAN-WiFi mode connection scheme. Access through the local network (example).

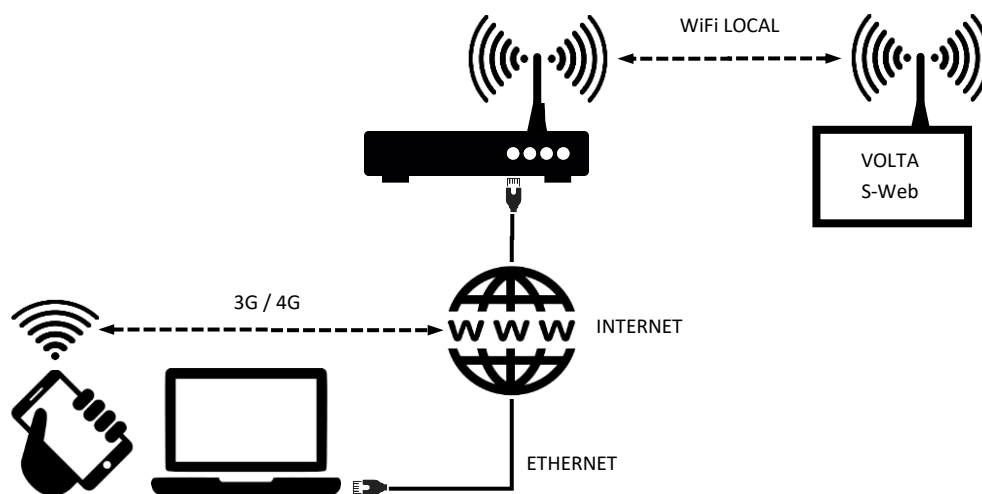


Figure 4.6. LAN-WiFi mode connection scheme. Remote access via the Internet (example).



- If the connection test is unsuccessful, this may be due to the wireless signal generated by the router being too weak. Try to position the VOLTA S-WEB GATEWAY antenna in a more favourable location.
- To remotely access the device in LAN-ETHERNET mode, your local area network must be connected to the Internet and your router must allow data traffic through port 80.
- To access the device in LAN-WiFi mode, the connection must be made within the range of your wireless local network.

4.5. Connection mode settings

To change the settings of the GATEWAY VOLTA S-WEB connection type, follow the steps below:

1. Access the VOLTA S-WEB web interface via one of the enabled connection modes.
2. Access the connection settings screen by following the steps below
3. Select the desired connection mode.
4. Refer to the VOLTA S-WEB web interface access information of the enabled connections.
 - WiFi: Name (SSID) of the enabled wireless local network or wireless access point.
 - PASSWORD: Password of the enabled wireless local network or the enabled wireless access point.
 - WiFi IP: IP for wireless access to GATEWAY.
 - ETHERNET IP: IP for access to GATEWAY by cable.

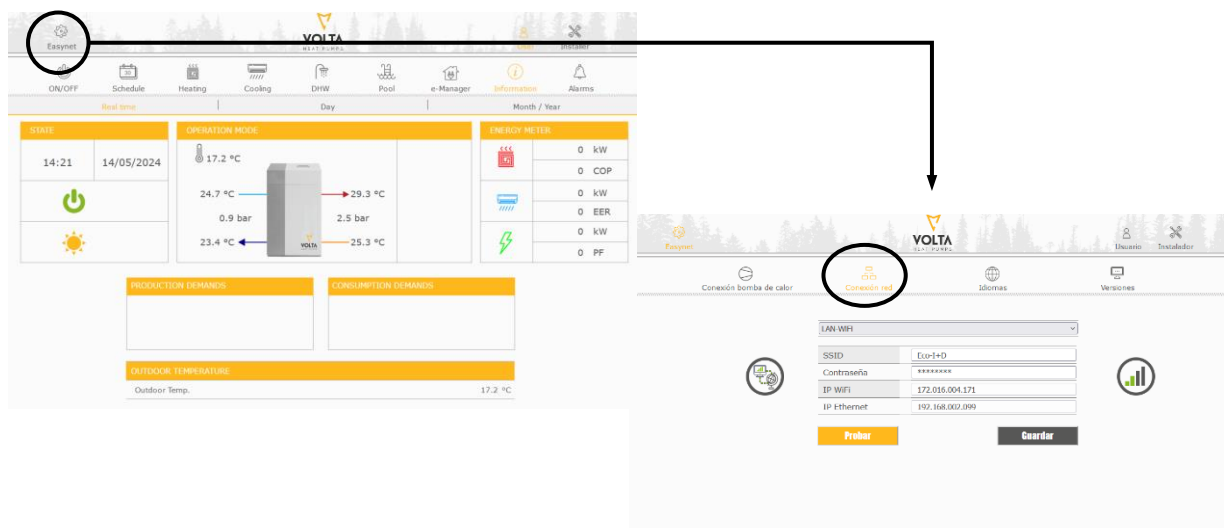


Figure 4.7. Setting up the connection mode.

5. smart.voltaheatpumps.com web portal

You can register your device through the smart.voltaheatpumps.com web portal and access the different functionalities it offers. To do this, the GATEWAY VOLTA S-WEB device must be installed in a configuration that allows you to connect via the internet. This portal will give you centralised access to all your VOLTA HEAT PUMPS equipment and will allow you to access the information contained in their operational logs which are stored in the cloud. On the other hand, it will also provide you with connection links to your equipment's GATEWAY VOLTA S-WEB devices, which means that you will be able to modify their settings or view operational information in real time.



NOTE

- To access the device locally from the web portal link, the connection needs to be within the range of the local wireless network.
- To remotely access the device, your local area network must be connected to the Internet and your router must allow data traffic through port 80.
- The first time you register the VOLTA S-WEB GATEWAY on the web portal, it may take up to a maximum of 15 minutes to assign the access links. The link will be assigned instantaneously for subsequent connections.
- If your local area network does not have an internet connection, the local and remote access links will not be displayed on the web portal. Contact your internet service provider.
- If the remote link is displayed on the web portal but you cannot access the computer remotely, contact your internet service provider.

6. Manufacturer's warranty

VOLTA HEAT PUMPS is liable for lack of conformity of the product or its spare parts, in compliance with the current regulations of the country where the product is purchased. The warranty is only valid in the country where the product is purchased.

Conditions and validity of the warranty

For this warranty to be considered valid the following conditions must be verified.

- VOLTA HEAT PUMPS must allow the product under warranty to be sold in the country where it is going to be installed.
- The product under warranty must be used exclusively for the purpose that it was designed for.
- All installation, start-up, maintenance and repair work carried out on the unit must have been performed by a technical service authorised by VOLTA HEAT PUMPS.
- All replacement of parts must be carried out by a technical service authorised by VOLTA HEAT PUMPS and always with original VOLTA HEAT PUMPS spare parts.
- The purchaser must advise the establishment from which they purchased the unit, in writing, the reason for any lack of conformity, including the serial number of the product and the date of purchase, within no more than 30 (thirty) days from the day on which he or she became aware of said non-conformity.
- For the warranty to be effective, the purchaser must present an invoice that substantiates the date of purchase, duly stamped and signed from the establishment that made the sale.

Disclaimer of warranty

The warranty does not include product non-conformities derived from:

- Weather conditions, chemical agents, improper use and other causes that do not depend directly on the product.
- Installation and/or handling of the equipment by unauthorised personnel.

- Any installation, maintenance or repair that does not follow the procedures set forth in the documentation provided to that end by VOLTA HEAT PUMPS.
- Improper transportation of the product.
- Part wear due to normal equipment operation, unless due to a manufacturing defect.

Request for service under warranty

Any request for service during the term of warranty must be forwarded to the establishment that sold the product, indicating in writing the reason for the non-conformity, the serial number and the date on which you purchased the product.

Product returns will only be accepted if previously accepted in writing by VOLTA HEAT PUMPS.

The product must be returned in its original packaging and with a legal document that supports the date of purchase from the establishment that made the sale.

6.1. Authorised distributors and technical service

VOLTA HEAT PUMPS has an extensive network of authorised companies that distribute and perform the technical service on its products. This network will provide our customers with all the information and technical support they need, anywhere and under any circumstance.

CE



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Gateway VOLTA S-Web Gen2 USER AND INSTALLATION manual Version 03.0X/2024

The manufacturer reserves the right to make any necessary changes to the contents of this manual without prior notice.