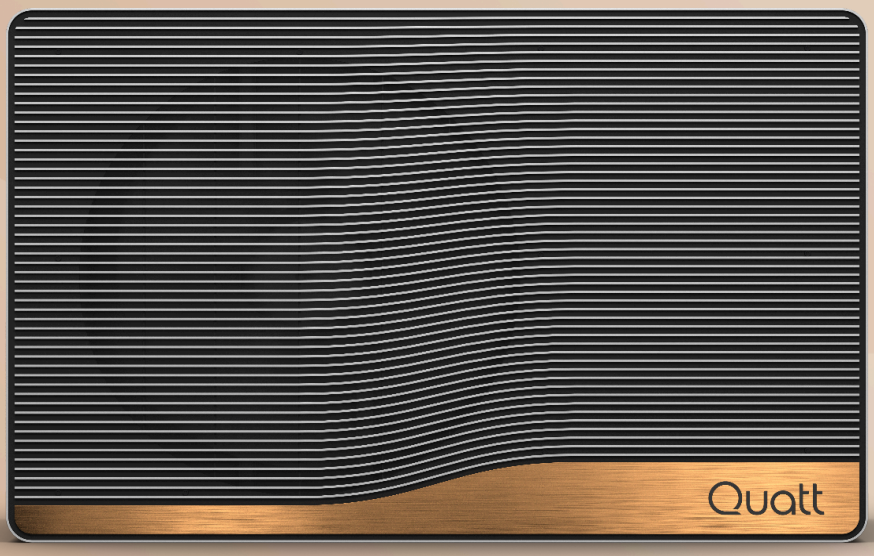
Quatt

Quatt HeatPump

User Manual



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1. Introduction

1.1. General

This user manual is intended for the use of Quatt HeatPump, a propane-based (R290), air-to-water monoblock heat pump.
Read this user manual carefully and follow all safety precautions.

1.2. Disclaimer

GENERAL
This user manual is provided for informational purposes only. Quatt B.V. and its affiliates disclaim all responsibility and liability for damages, losses, or injuries resulting from use of the product that does not strictly adhere to the instructions and safety information provided in this manual.
Quatt B.V. reserves the right to revise this publication at any time without incurring an obligation to notify any person of the revision.
The information provided in this user manual contains general descriptions and technical characteristics of the performance of the products contained herein. It is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
Quatt B.V. and its affiliates are not responsible and liable for misuse of the information that is contained herein.
All applicable country, regional, and local safety regulations must be observed when using this product. For reasons of safety and to help ensure compliance with documented system data, only Quatt or installers certified by Quatt shall perform repairs to components.
Improper use of the product may result in property damage, personal injury, or death, and will void the product warranty.
CUSTOMER SUPPORT
For technical support, warranty claims, or further information, please contact our customer service department. Contact details are provided on our website.

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1.3. Symbols used in this manual

DANGER

Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazard with a moderate level of risk which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazard with a medium level of risk which, if not avoided, could result in minor or moderate injury or damage to the equipment.

NOTE

Indicates information considered important, but not hazard-related.

2. Safety instructions

2.1. General

The product is intended for heat generation for sealed heating installations. Read the following safety instructions carefully before use of the system. Keep this document and other relevant documents available for future reference.
Personal injury or material damage can occur if the product is not assembled and used in the intended manner. Improper use of any kind is prohibited. The intended use includes the following:

- Installation and operation of the product with another Quatt HeatPump (in Duo configuration)
- Installation and operation of the product with a Quatt All-Electric system
- Installation and operation in a fixed and permanent location, known as ‘fixed installation’
- Use of the device according to the instructions in this document only
- Maintenance and inspection according to the instructions in this document only

DANGER

Refrigerant

- The product contains a flammable gas refrigerant R290, which may pose a fire or explosion hazard if heated.
- Work on the refrigerant system must only be carried out by authorised installation personnel.
- Transportation and storage of components that contain refrigerant must be done according to applicable safety regulations.
- Ensure proper ventilation around the product at all times. In the event of a refrigerant leak, poor ventilation may allow a build-up of refrigerant gas, which is highly flammable and poses an explosion risk.

WARNING

General work area and conditions

- Installation, service, and repairs must be performed by trained and authorized personnel in accordance with local regulations. Access to internal components is restricted to authorized personnel only.
- Appropriate personal protective gear (PPE) and tools must be used for transportation,
  installation, service, and repairs.

Electrical hazards

- Before servicing electrical parts, disconnect power for at least 1 minute and confirm voltage is safe before touching components.
- Do not touch any components if a power cord, outlet, or other electrical connection is loose or broken and immediately contact the manufacturer or local distributor.
- Do not touch the power plug with wet hands.
- Do not pull out the power plug by pulling the power cable.
- Do not pour water or other liquids on or into the equipment. This may cause electric shock or damage to the product.

Fire hazards

- Do not install or use in a location with open flame or other sources of ignition. Do not smoke next to the product.
- Inspect the refrigerant circuit for leaks before starting work. Electrostatic discharge and sparks may cause an explosion.
- Make sure that there is sufficient air flow in the work area around the product for the duration of the work.
- The refrigerant in the outdoor unit is clear and odorless making leak detection difficult.

Physical hazards

- Metal parts may cause burns or frostbite on contact with skin. Always wear protective gear.
- Do not insert any objects in the air inlet (grill) or outlet, as this can severely damage both the heat pump and the inserted objects.
- Do not touch the fins of the evaporator, as they are sharp and can also be easily bent.

Damage to product

- There is a tip-over risk during transportation and storage before the products are properly mounted and secured. Use appropriate measures to prevent tipping accidents as it can harm people, property and damage the products. Contact your local distributor if any products or components show damage, have been tipped over, or dropped.
- Do not pierce or burn any components in the system.

Safety of children and individuals requiring assistance

- This product must not be used by children under any circumstances, nor by persons with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they are under continuous supervision by a person responsible for their safety.

Storage

- Store in a well-ventilated area, away from flames or heat sources. (for example: open flames, an operating gas appliance or an operating electric heater).

CAUTION
General

- You must read the complete installation manual before installation, service or repairs.
- Do not use means to accelerate the defrosting process or to clean the product other than those recommended by the manufacturer.
- Avoid stacking items against or on top of the product. This can restrict air intake or cause damage to the unit.
- Do not build a cover around the product that may restrict airflow. This will reduce system efficiency.
- Install the unit in a well-ventilated area and do not block air inlets or outlets.
- Do not use the product in vehicles, such as caravans and mobile homes.
- Installation, service, repairs and disposal must comply with all applicable national and international regulations.

Physical hazards

- Risk of burns! The water outlet and nearby piping may be hot.

Electrical hazards

- All electrical connections must be done by a professional and in accordance with electrical standards.
- You must use a suitable circuit breaker. Make sure the power supply corresponds to product specifications. Not following product specifications may result in product damage.
- It is advised to install a residual current device (RCD) that has a rated residual operating current not exceeding 30 mA.
- The power supply to the product must be earthed.

Transportation and storage

- The product must be stored and transported in an upright position.
- Ensure all products are protected from weather conditions during transportation and storage.
- Check all products for transportation damage and contact your distributor if any damage is discovered.

NOTE

Read all safety instructions and the user manual carefully before use of the product.

2.2. Heating system

CAUTION

Defrosting of the outdoor unit (ODU) does not function if the CiC and/or ODU are out of operation. Ensure both systems are operational to maintain effective frost protection.

CAUTION

Refill water in the heating system if the water pressure is below 0.8 bar. The recommended water pressure is between 1.5 and 2.0 bar.

3. Product information

3.1. General

Quatt HeatPump is a propane-based (R290), air-to-water monoblock heat pump. Quatt HeatPump can be installed as a hybrid installation (to work with existing gas boilers), or as a fully electric installation (when combined with the Quatt All-Electric). Quatt HeatPump can be installed as a single unit, or in a Duo configuration, where it's installed in a cascading configuration. Quatt HeatPump is used to extract ambient heat, and use it to heat up water in the central heating system.

Quatt HeatPump works with the Commander-in-Chief (CiC), an AI controller that determines when and how much heat your home needs. The CiC adjusts the regulation accordingly, finding the most efficient way to meet heating demand. This reduces energy consumption and costs while increasing comfort.

3.2. Operating principle

Quatt HeatPump operates by extracting thermal energy from the outside air and transferring it to water for use in space heating (and domestic hot water systems[1]). It functions as a compact, all-in-one unit that houses both the evaporator and condenser within a single outdoor enclosure. A fan is used to ensure a constant flow of ambient air to pass through the evaporator, where a refrigerant absorbs the heat and evaporates. The

refrigerant is then compressed, increasing its temperature, before releasing the heat into a water circuit via the internal condenser.

The CiC receives information from your thermostat, the outdoor unit (ODU), and the temperature sensor to control the ODU and boiler, finding the optimal way to heat the home. The CiC connects to a cloud environment through an internet connection (via Ethernet or WiFi). It communicates with the Quatt app through the cloud environment.

[1] Only applicable in combination with Quatt All-Electric.

3.3. Types of heating systems

Quatt HeatPump is a versatile home heating solution. It can provide hybrid home heating in combination with a gas boiler, or enable fully electric heating in combination with Quatt All-Electric. It is possible to start using Quatt HeatPump in hybrid mode, then later upgrade the system to be fully electric by replacing the gas boiler with Quatt All-Electric. Quatt HeatPump can be installed as a single unit, or in a Duo configuration for more heating power in both situations.

3.3.1. Gas boiler and Quatt HeatPump

In this type of setup Quatt HeatPump is connected in series to the central heating system and the central heating boiler functions as a post-heater. Quatt HeatPump takes care of the heating of your home as much as possible. As soon as Quatt HeatPump measures that the capacity is insufficient, the central heating boiler is switched on. At that moment, both Quatt HeatPump and the central heating boiler are running. If Quatt HeatPump then measures that no more help is needed, the central heating boiler is switched off and Quatt HeatPump takes over independently again.
The system continuously monitors what the most efficient source of heating is: the central heating boiler or the heat pump, or both at the same time. It does this based on heating demand, energy rates, water temperatures and outside temperature. This ensures that as much heat as possible is supplied by Quatt HeatPump.

3.3.2. Quatt All-Electric and Quatt HeatPump

For a fully electric heating system Quatt All-Electric replaces the gas boiler. The electric system consists of the HeatCharger (HC) and the HeatBattery (HB). The HeatCharger is a small indoor heat pump that can charge and discharge heat from the HeatBattery. The HeatBattery stores energy in the form of hot water. The hot water can be supplied directly

for domestic hot water use, such as showers. The stored heat in the water can also be used for central heating, by discharging via the HeatCharger.

3.3.3. Quatt HeatPump Duo

A Duo configuration consists of two Quatt HeatPumps connected in series. The configuration is intended for large spaces, with increased heating demand. If the heating demand can be covered by one ODU, the CiC may turn one ODU on, then switch to the other after a while. This is to ensure that both units have a similar lifespan.
Duo configurations are compatible with both heating system combinations: Quatt HeatPump with a gas boiler, and Quatt HeatPump with Quatt All-Electric.

3.4. Technical description

		Quatt HeatPump	Quatt HeatPump Duo
Electrical properties	Power supply	220–240 V, 50 Hz, single phase	
	Fuse	16 A, B type	20 A, B type
	Max. amperage	13 A	20 A
	Nom. amperage	7 A	14 A
	Standby consumption	9 W	18 W
Energy class space heating [1]		A+++	
SCOP	Water temperature 35 °C	4.93	
	Water temperature 55 °C	3.82	
IP rating		IPX4	
Operational limits	Outside temperatures	-25 to 45 °C	
	Water temperatures	18 to 70 °C	
Compressor	Type	Twin Rotary	
Max. pressure	High side	3.1 MPa	
	Low side	0.82 MPa	
Refrigerant [2]	Type, weight	R290, 0.48 kg	
	CO2 eq.	0.001 ton	
Sound power [3]	Normal	55 dB(A)	58 dB(A)

	Silent mode	50 dB(A)	53 dB(A)
Sound pressure (at 3 m)	Normal	40.5 dB(A)	43.5 dB(A)
	Silent mode	35.5 dB(A)	38.5 dB(A)
Condenser [2]	Type	Plate heat exchanger	
	Nom. resistance	20 kPa	
	Connection	G1"	
Water flow rate	Nominal	800 l/h	
Delivery head		60 kPa	100 kPa
Physical properties [2]	Dimensions (L×D×H)	70 cm x 38 cm x 105 cm	
	Weight	82,5 kg	

[1] Water temperature at 35 °C and 55 °C
[2] For one ODU
[3] Tested according to EN12102

	CiC
Dimensions (L×D×H)	17,5 cm x 17,5 cm x 4 cm
Weight	0,5 kg
Communication standards	LTE Cat-M WiFi 802.11b/g/n Ethernet
Power supply	230 VAC

3.5. Freeze protection

During winter, outside temperatures can drop low enough to freeze water. To prevent the central heating water flowing through the ODU from freezing, Quatt HeatPump includes anti-freeze protection. This feature maintains the water temperature above freezing as long as the unit is powered on. Therefore, it's crucial to keep the CiC and Quatt HeatPump always powered.
In case of a prolonged power outage during winter, a backup anti-freeze valve provides additional security. This valve opens when the water temperature nears 0 °C, draining all the water to prevent freezing within the ODU. For instructions on powering off the system, see 7. Power off procedure.

CAUTION

Make sure that the anti-freeze valve remains clear of vegetation or other obstructions. Blocking the valve can cause the ODU to retain water at freezing temperatures, potentially damaging the unit.

When activated, the anti-freeze valve discharges the water from your central heating system, which will need replenishing. The valve automatically closes once the central heating water temperature rises to 7 °C.

3.6. Placement considerations

It is important to ensure the ODU is installed in an adequate environment. Potential challenges to ensure optimal performance and longevity of the system must be assessed. When sold and installed by Quatt, the exact location of the ODU is always discussed with you before installation and is part of the customer-specific 'Placement Plan'. Topics such as noise, piping, and accessibility are taken into account by the Quatt Technical Account Manager, and agreed on with you, the customer. The following must be considered prior to installation:

- The ODU may be installed in an open space, corridor, balcony or roof.
- The ODU must not be installed in the vicinity of volatile, corrosive or flammable material.
- When installing the ODU in harsh climate conditions, such as sub-zero temperatures, heavy snow, or very high humidity, it is recommended to raise the ODU approximately 50 cm above the ground.
- When installing the ODU in coastal regions, the salty environment may impact its appearance. This is considered normal wear and tear for the ODU.
- The drainage system must be properly installed. This is to ensure adequate drainage of the water produced during the defrost phase.
- The ODU must be installed at a distance from exhaust gases, such as those from a kitchen extractor or areas with heavy dust. Oily or dusty air can affect the lifespan and performance of the unit.

3.7. Supported thermostats

To calculate the correct power demand, the thermostat must communicate both the measured room temperature and the desired room temperature. These temperatures are

shared with the CiC via an OpenTherm thermostat. The thermostat's input is used to adjust the power demand. If heating your home takes too long, the CiC will request more power from the ODU.
Many OpenTherm thermostats also share a requested water temperature with the CiC. Typically, the system does not use this information, so the actual water temperature in your system may not match the temperature requested by the thermostat. The CiC only uses the requested water temperature from the thermostat if the thermostat does not send the current or desired room temperature. This situation occurs with systems like the Honeywell EvoHome zoning system and the Google Nest thermostat. In these cases, the CiC uses the requested water temperature to estimate the required heat. A different configuration is necessary when using an EvoHome or Nest system. If you want to switch to or from such a system, please contact Quatt Support to activate the correct configuration in your CiC. For an overview of compatible thermostats, see What thermostats are supported?.

4. Usage and settings

After the installation is complete, the system is ready for configuration. Use the QR code from the welcome card to install the app. If you need to install the app on a new mobile device, the steps are the same.

NOTE

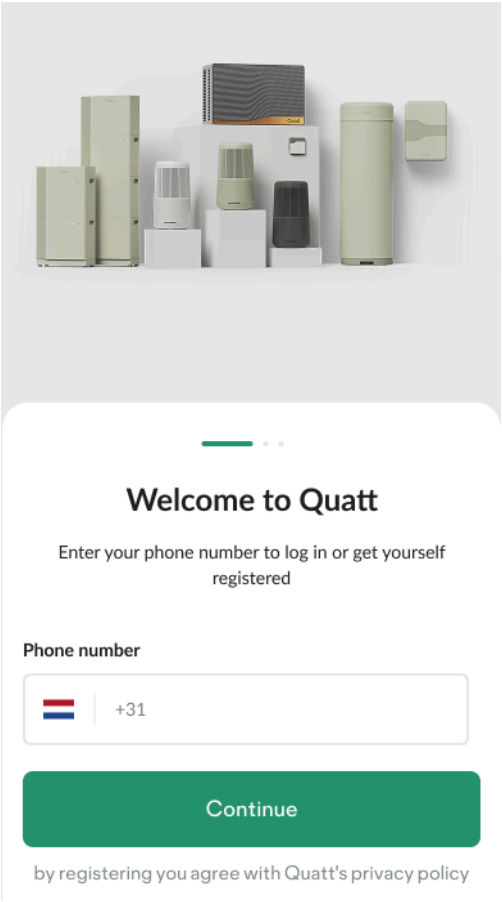
You must install the Quatt app to monitor and configure the Quatt system.

You can monitor and configure the Quatt system (including the ODU) through the Quatt app. The app communicates with the CiC through the Cloud. For this interaction, both the CiC and the mobile device require an active internet connection.

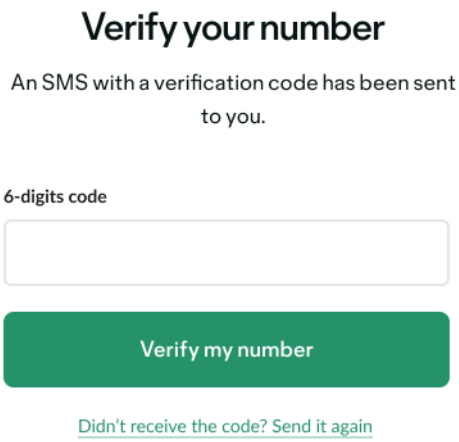
4.1. Set up Quatt app

To use the Quatt app, you must register your phone number and link your CiC. In the app, do the following:

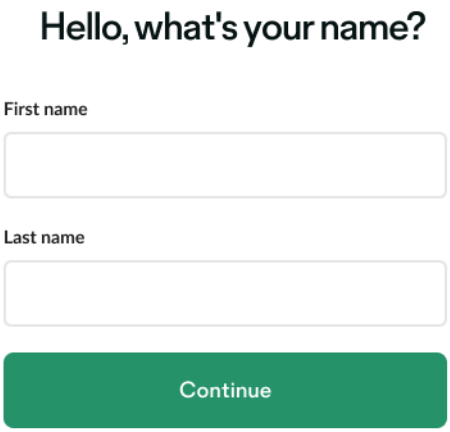
1. Enter your phone number.
2. Select Continue.



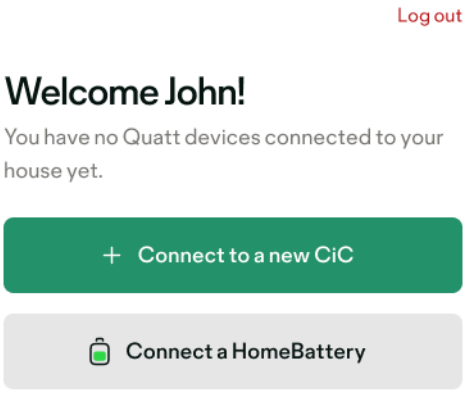
3. Enter the 6-digit verification code sent via SMS to your mobile device.

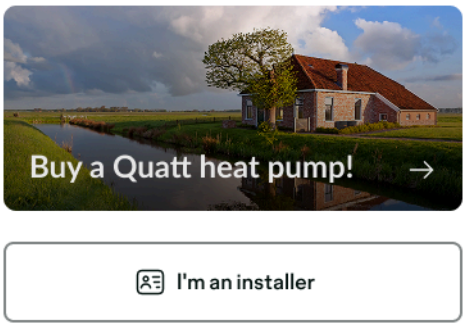


4. Enter your first and last name.

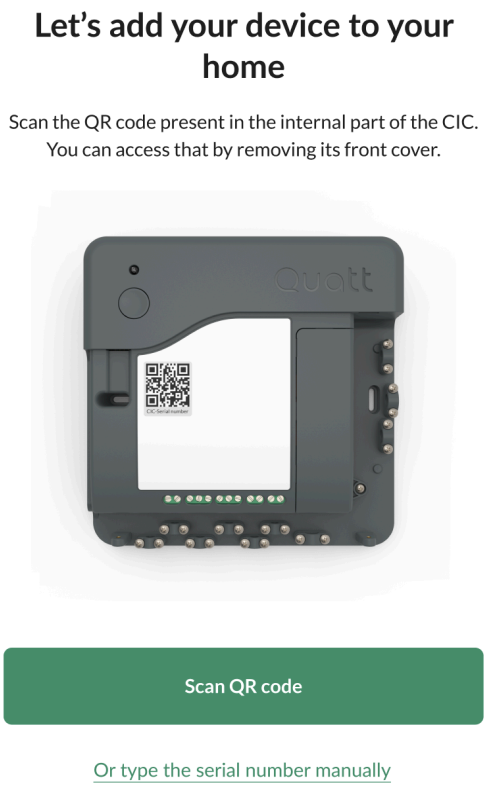


5. Select + Connect to a new CiC.



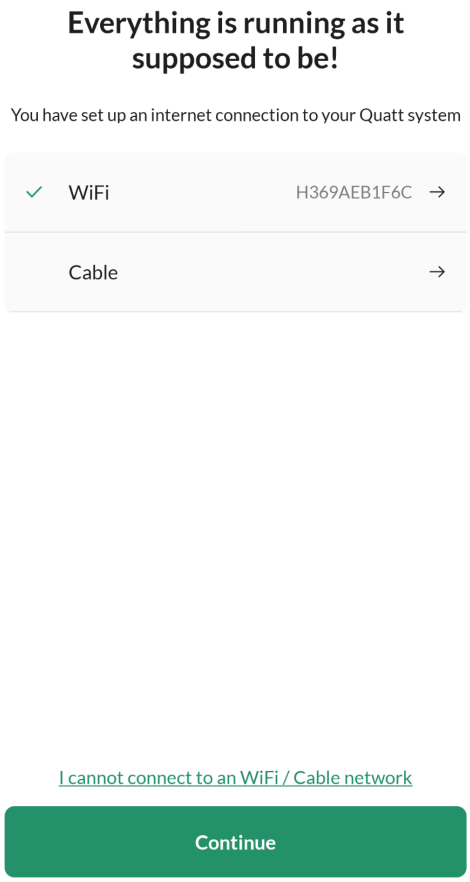


6. Remove the front cover of the CiC.
7. Scan the QR code of the CiC. If you cannot scan the QR code, enter the serial number of the CiC manually.



8. Push the button on the CiC, next to the LED.

9. Confirm the type of internet connection set up by the installer.



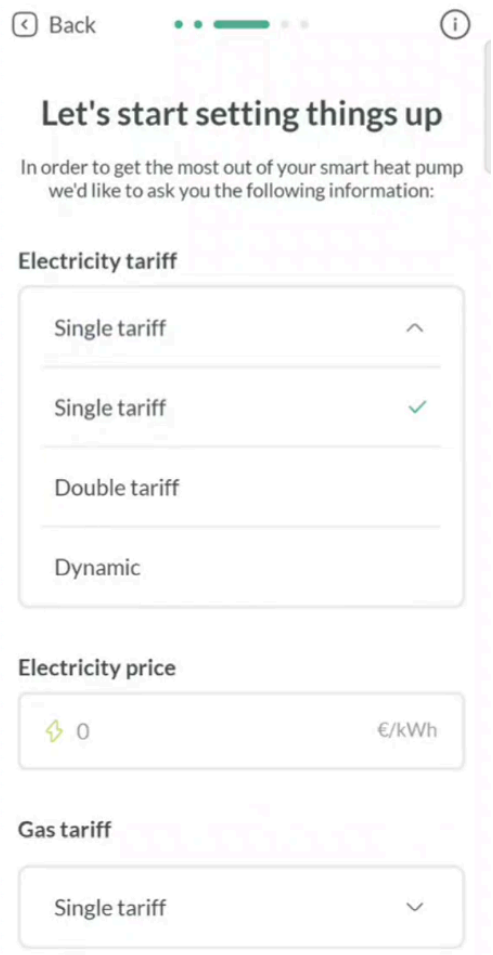
CAUTION

Do not change the type of internet connection (WiFi or Cable) that has been set up for the CiC by the installer. If you want to switch to a different connection method, contact Quatt Support.

10. Set up your electricity and gas rates.
    a. Choose your tariff type (Single, Double or Dynamic). For more information on tariffs, see Electricity / gas tariffs.
    b. If you selected Single or Double tariff:
        i. Enter your Electricity price (per kWh).
        ii. Enter your Gas price (per m^3).
        The system will optimize gas and electricity consumption based on your input.

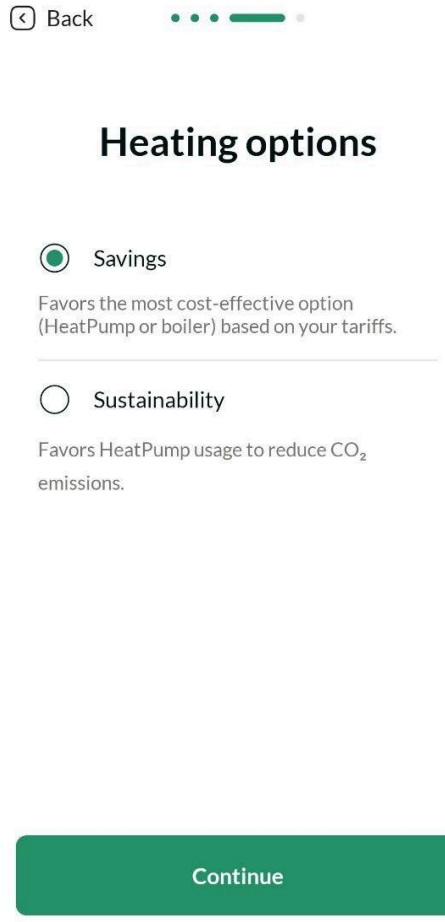
NOTE

You can skip this step or disable the optimization at a later time.



11. Select a heating option. For more information, see Heating options.
    a. Savings - prioritizes the most cost-effective option (HeatPump or boiler)
    b. Sustainability - favors HeatPump usage

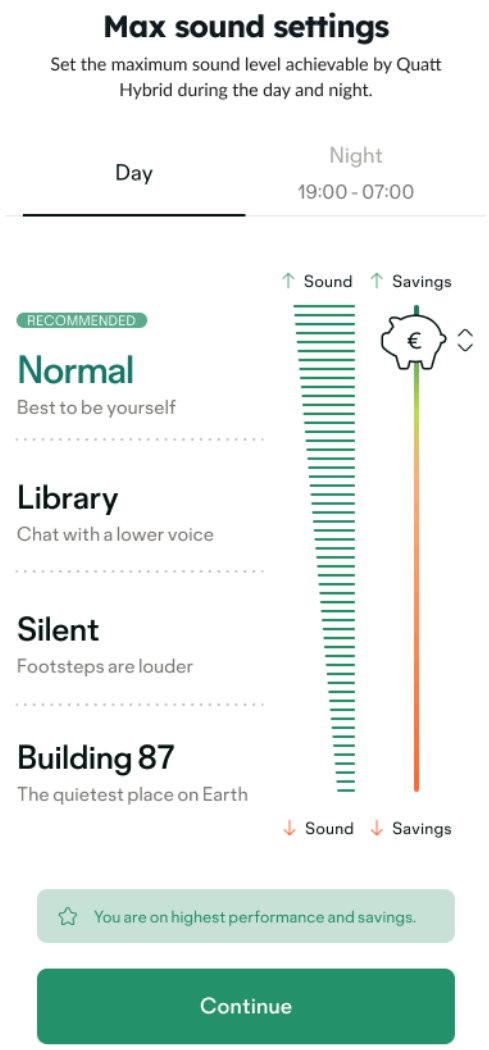
> **NOTE**
>
> You can change this setting at a later time.



12. Select what level of sound you are comfortable with. You may choose different settings for day (07:00 to 19:00) and night (19:00 to 07:00). The following options are possible:
    a. Normal - the ODU runs at a nominal sound level, allowing it to run at maximum efficiency.
    b. Library - the ODU runs at a slightly lower sound level, with slightly lower efficiency.
    c. Silent - the ODU runs at a lower sound level, with lower efficiency.
    d. Building 87 - the ODU runs at the lowest sound level, with the lowest efficiency.

NOTE

Whenever the ODU operates outside of Normal mode, it will produce less noise but will also run less efficiently. This reduced efficiency leads to lower energy savings.



4.2. Quatt app tabs

4.2.1. Home screen

The home screen of the app shows a visual representation of the installed Quatt products, accompanied by relevant data that provides insights into the system's current status:

- Heat generated by the ODU
- Electricity being consumed by the ODU, and if the ODU is running in silent mode
- Boiler ON/OFF, and if Optimize Savings mode is turned ON
- Outdoor temperature (measured by the ODU)
- House heating status (current temperature, setpoint), from thermostat

If you manage multiple CiC devices in the Quatt app (for example, Quatt systems at several properties) or have a HomeBattery installed, you can switch between them using the dropdown menu at the top of the screen—look for the system name (e.g., 'Home sweet home' as shown in the image).

In the upper right section of the interface, you can find a pair of distinct icons, each serving a unique and practical function:

- ⓘ - The first icon opens the help pages, where you can find support and information.
- 🎁 - The second icon takes you to the referral program, offering you an opportunity to explore benefits and incentives for referring new customers.

The icons at the bottom of the screen take the user to other portions of the app:

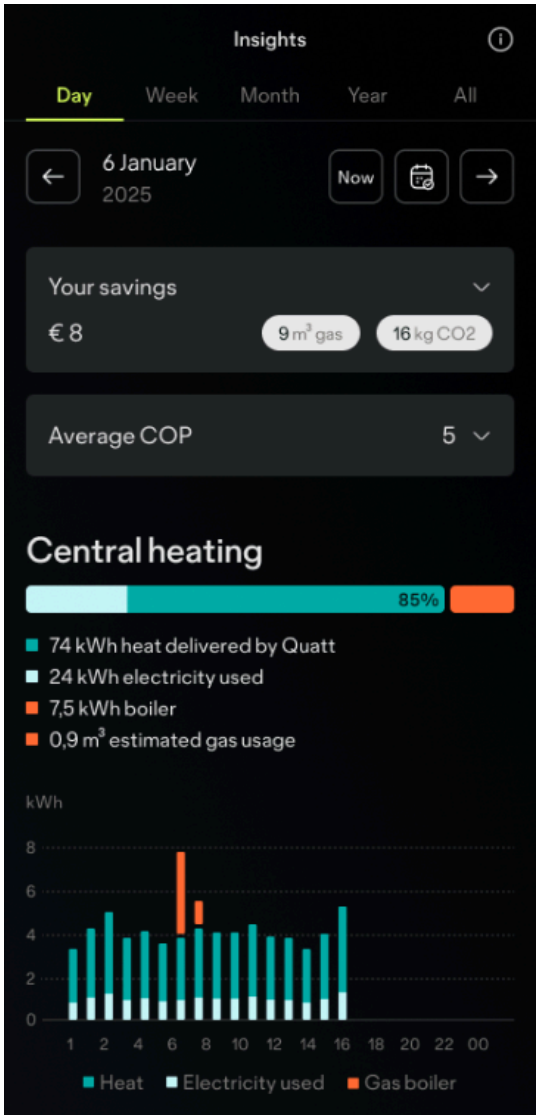
1. Home screen
2. Insights

3. My Quatt
4. Settings

For more information on the home screen, go to Home screen.
If you have Quatt All-Electric installed, you will also see a droplet icon which navigates to the HeatBattery's status.

4.2.2. Insights

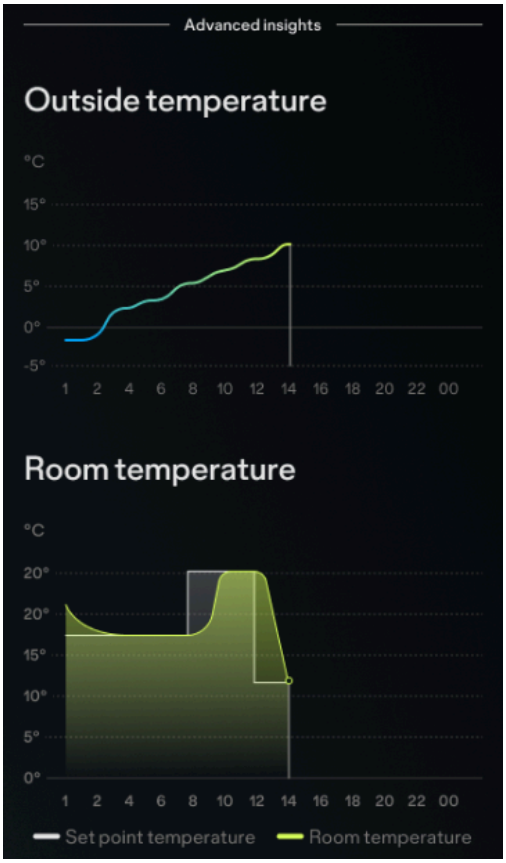
On the second tab, access system insights with historical data for an overview of system performance and generated savings.View performance over various periods: day, week, month, year, or all time. Monitor energy consumption and heat production, and check total consumption.



Additionally, turn on Advanced insights to view historical data on external factors such as outside temperature, room temperature, and water temperature. For more information, go to Insights screen.

NOTE

The outside temperature reading may vary slightly due to direct sunlight or when the ODU is in idle mode. These deviations are minimized when the fan is active, as airflow improves sensor accuracy. Temperature variations do not affect system performance.

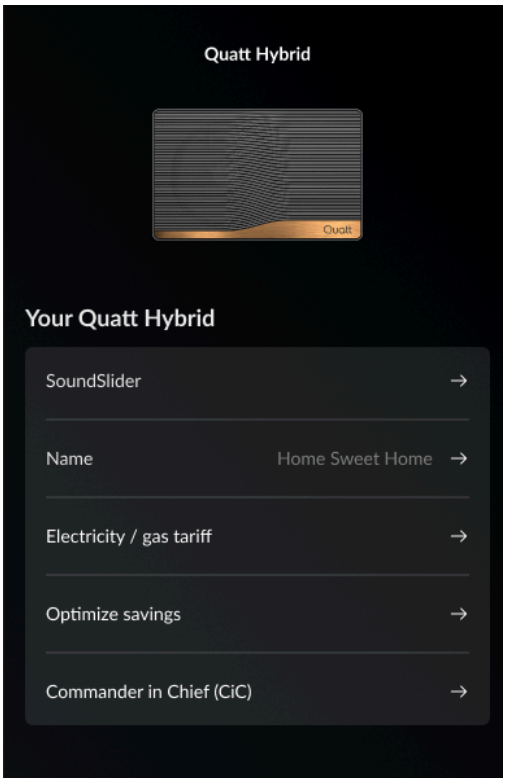


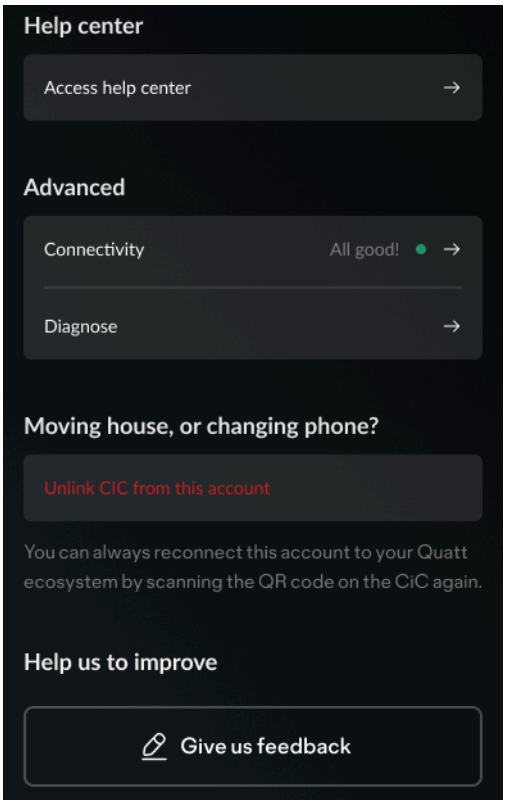
NOTE

Configure the electricity tariffs within the app for accurate savings data. Select *My Quatt* tab, then select *Electricity / gas tariffs* to update.

4.2.3. My Quatt

The third tab of the app includes a variety of system related settings like the *SoundSlider*, adding/editing gas and electricity tariffs, and the *Optimize savings* toggle.





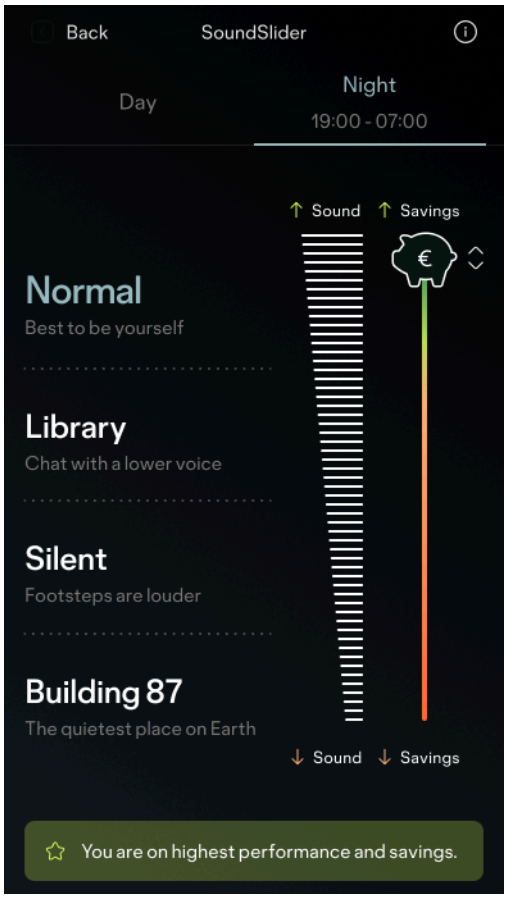
Name

Select *Name* to change the name of your home system.

SoundSlider

Use *SoundSlider* to adjust the system's noise levels, setting different levels for day and night (19:00 to 07:00). Note that sound levels affect system power: quieter settings may limit heating power for your home and water, impacting efficiency and electricity savings.

For optimal performance and savings, keep the sound setting at its highest if the noise is not an issue.

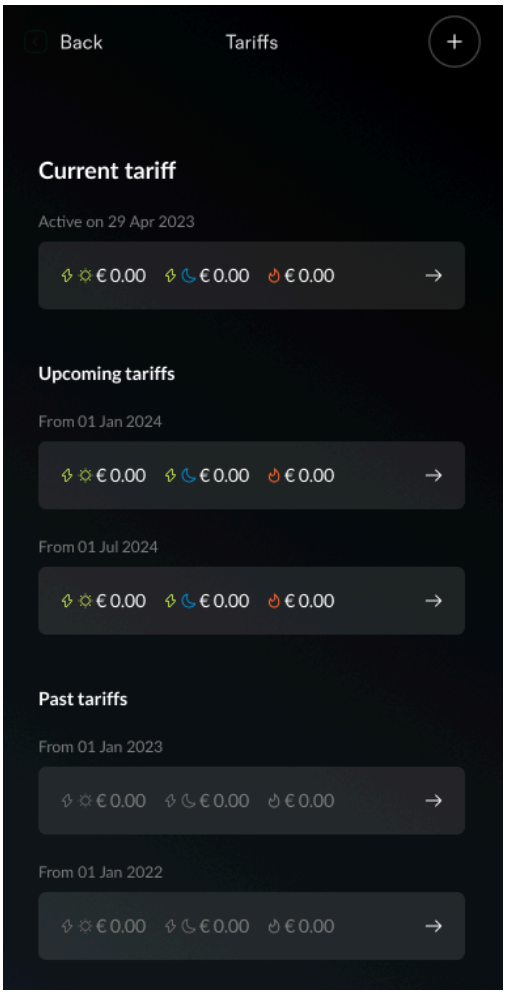


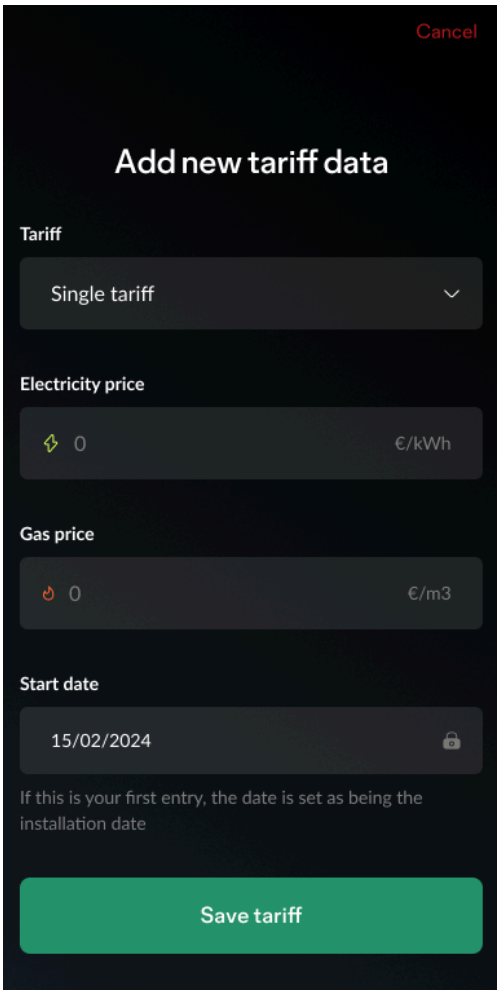
Electricity / gas tariffs

To ensure the most accurate savings and consumption information, input your electricity and gas tariff data into the app. To add a new tariff, include the following details:

- Electricity tariff type:
  - Single tariff - one price for the entire day
  - Double tariff - two prices for different times of the day
  - Dynamic - the price changes every 15 minutes
- Electricity price per kWh in Euros (for Single or Double tariff)
- Gas tariff type:
  - Single tariff - fixed price
  - Dynamic - the price changes every day
- Gas price per m^3 in Euros (for Single tariff)
- Start date

You can select any tariff to edit its information, allowing you to add or modify current, past, or upcoming tariffs.

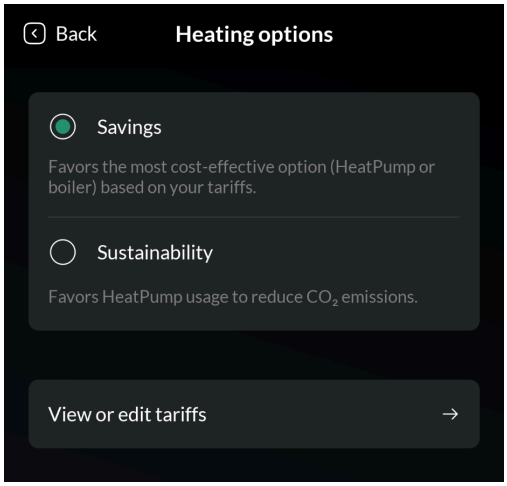




Heating options

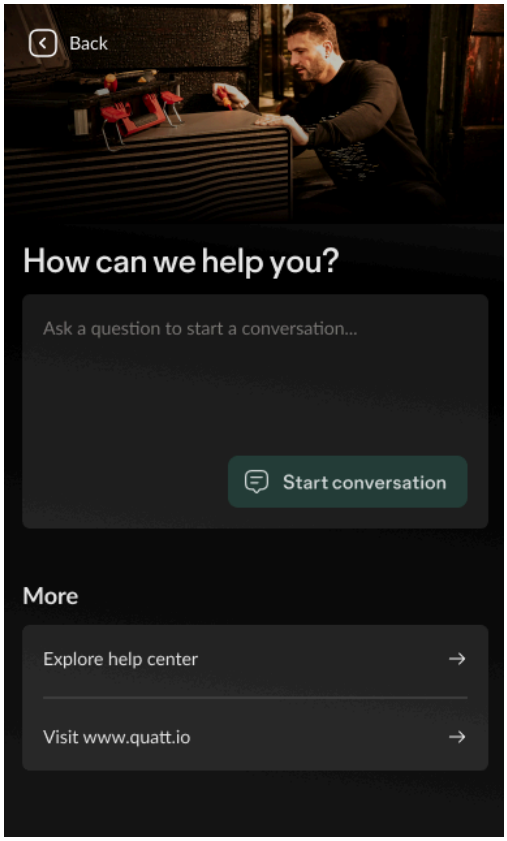
Choose between two modes:

- Sustainability - always running the ODU when possible. This option prioritizes the reduction of CO_2 emission.
- Savings - maximizing savings by running the cheapest option available (either the boiler or the ODU). The ODU will run less frequently if your gas tariff is low.



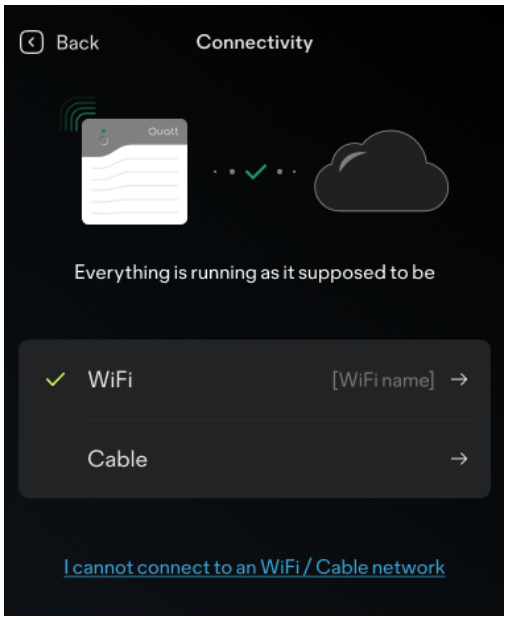
Help center

The Help center offers multiple ways to get support for your Quatt system. You can contact Support by typing a question into the conversation box, explore support articles, or request help on our online Support page.



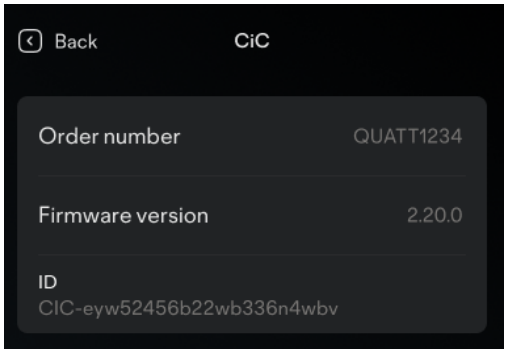
Advanced

View information regarding your CiC. Select *Connectivity* to check the connection status between the CiC and the Cloud.



Select *Commander in Chief (CiC)* to view:

- Order number
- Firmware version
- ID



Moving house, or changing phone?

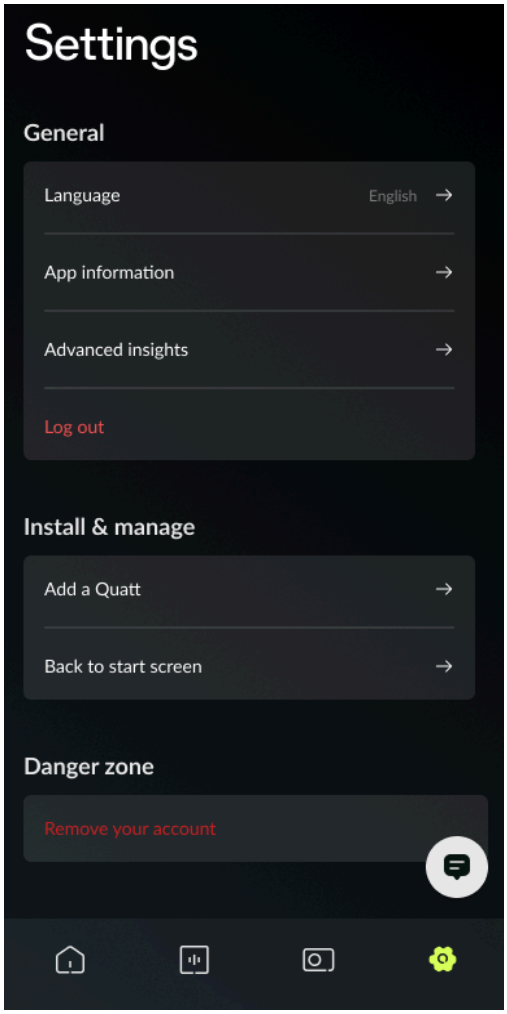
Select *Unlink CiC* from this account to remove the CiC device. You can always reconnect this account to your Quatt ecosystem by scanning the QR code on the CiC again.

Help us to improve

Select *Give us feedback* to let Quatt know your thoughts.

4.2.4. Settings

The fourth tab contains general app settings, such as *Language*, *App information*, and *Advanced insights*. Enabling *Advanced insights* shows historical data for room temperature, outside temperature, and central heating water temperature.



4.3. Heating

To comfortably heat your home, simply set your desired central heating temperature—there's nothing else you need to do or worry about. Quatt HeatPump automatically adjusts its power consumption and heat output based on the conditions in your home. If more heat is suddenly needed or if heating takes longer than expected, the CiC instructs the ODU to increase power. On the other hand, if the CiC determines that heating is progressing efficiently, it reduces the heat demand.
You might notice the ODU operating even after the desired central heating temperature has been reached. This occurs because the CiC may have determined that a constant, low level of heat output is necessary to maintain the set temperature.

5. Maintenance

5.1. General

Cleaning

CAUTION

Clean the ODU only as described in this manual. Failure to follow these instructions may damage the device and void the warranty.

- Do not use cleaning agents, soap, or chemicals.
- Do not power wash or use high-pressure water.
- Do not use brooms, brushes, or bristles on the evaporator.

- Use a damp cloth to clean the external covers.
- Remove dirt and leaves from the evaporator to ensure good air flow through the evaporator.

5.2. Filling the system

You must periodically check the water pressure in the heating system. The recommended water pressure is between 1.5 and 2.0 bar. Refill water if the pressure is below 0.8 bar.

5.3. Draining the system

If maintenance or renovation work is required on your home's central heating distribution system, such as installing new radiators, you must properly drain the HeatPump. To drain the system, do the following:

1. Make sure to power off the system correctly, see 7. Power off procedure.
2. Locate the water outlet, usually under the boiler. If the water outlet is not situated for easy drainage, connect the outlet to a hose and direct the other end of the hose to a suitable drainage area or container.
3. Open the water outlet valve and drain the system.
4. Do the maintenance and renovation work.
5. Close the water outlet valve.
6. Fill the system to 1.8 bar.

7. Bleed on all possible locations in the distribution system.
8. Power on the system.
9. Bleed the system again after 15 minutes.
10. Check the pressure and for any leakage.
11. Refill if needed.
12. Check the pressure the next day.
13. Refill if needed.

5.4. Deaeration

Deaerating helps maintain the efficiency, performance, and longevity of the heating system, ensuring it operates smoothly and effectively. To deaerate the system, do the following:

1. Fill the system to 1.8 bar.
2. Bleed on all possible locations in the distribution system.
3. Turn on the thermostat to generate heat demand.
4. Bleed the system again after 15 minutes.
5. Check the pressure and for any leakage.
6. Refill if needed.

6. Troubleshooting

The system continuously monitors sensor readings, usage patterns, and various performance indicators. Should any issues arise or be anticipated, Quatt will promptly notify you and guide you through the necessary steps.

If you experience an issue contact Quatt Support via the website.

CAUTION

Do not touch or change any of the cables connected to the CiC. Tampering with the cables may cause damage and void the warranty.

7. Power off procedure

Quatt HeatPump and CiC require constant electricity to stay up-to-date, provide protection against freezing and prevent the circulation pump from seizing.

CAUTION

Do not power off the Quatt HeatPump or the CiC, unless for safety or maintenance purposes. Powering off the products for longer periods may cause damage and void the warranty. Notify Quatt Customer Support if the devices are not powered for longer than 1 hour.

To shut down the system completely, do the following:

1. Turn off the heating demand on the thermostat by either turning off the thermostat or lowering the requested room temperature to several degrees below the room temperature.
2. Wait 2 minutes after the system stops working.
3. Unplug the power connector of the CiC from the socket.
4. Unplug/turn off the power to the ODUs.

8. Disposal and recycling

Do not dispose of this product in general household waste. It must be collected separately and processed in accordance with the WEEE Directive 2012/19/EU.

Return used equipment to one of the following:

- An authorized installation partner
- Your local municipal e-waste collection point
- Return channels organized via Stichting OPEN

9. Standards and certification

CE	The product has been CE-certified by the manufacturer and bears the CE logo. The relevant declaration of conformity may be obtained from the manufacturer.

	Do not dispose of this device as unsorted municipal waste. It must be collected separately and processed in accordance with the WEEE Directive 2012/19/EU.

The product has been designed and tested according to the following standards:
EN 60335-2-40:2003 + A11:2004 + A12:2005 + A1:2006 + A2:2009 + A13:2012
EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019 + A15:2021 + A16:2023
EN 62233:2008
EN 378-2:2016
EN 14825:2022
EN 14511-3:2022
EN 12102-1:2022
EN 55014-1:2021
EN 55014-2:2021
EN 61000-3-2:2019 + A1 + A2
EN 61000-3-3:2013 + A1 + A2

The product complies with the applicable requirements of the following EU directives and regulations:
2014/35/EU Low Voltage Directive
2014/30/EU EMC Directive
2009/125/EG “Ecodesign” Directive
2006/42/EC Machinery Directive
2014/68/EU Pressure Equipment Directive
2011/65/EU RoHS Directive
2015/863/EU RoHS Directive Amendment
2000/14/EC Outdoor Noise Directive
(EU) 2024/1781 ESPR - Ecodesign for Sustainable Products Regulation
(EC) No 1907/2006 REACH
(EU) 2019/1021 Persistent Organic Pollutants
(EU) 2024/573 Fluorinated Greenhouse Gases (F-gases)
(EU) 2013/813 Ecodesign requirements for space heaters and combination heaters
(EU) 2017/1369 Energy Labeling Regulation
(EU) 2013/811 Energy labelling of space heaters, combination heaters, etc.

10. Appendix

10.1. Glossary

Abbreviation	Meaning
CH	Central heating
CiC	Commander in Chief
COP	Coefficient of performance
DHW	Domestic hot water
HB	HeatBattery
HC	HeatCharger
ODU	Outdoor unit
SCOP	Seasonal coefficient of performance

10.2. CiC Cybersecurity settings

The following is a description of network services running on the CiC:

Software update services
The CiC accesses the following external services on TCP port 443 (HTTPS) for secure over-the-air software updates via the Mender update system:

- hosted.mender.io - Mender management server for update orchestration and device authentication
- hosted-mender-artifacts.s3.amazonaws.com - Amazon S3 storage for downloading software update packages

Cloud communication services
The CiC connects to Quatt's cloud infrastructure for operational management (AWS endpoints: *.amazonaws.com):

Server type / service	Port / protocol	Description
AWS MQTT Broker	TCP ports 8883 and 443 (MQTT-TLS/HTTPS)	Secure messaging for device telemetry, commands, and real-time communication
Axiom Logging Service	TCP port 443 (HTTPS)	Diagnostic log collection and application monitoring

Network infrastructure services

The CiC uses standard network infrastructure services for basic connectivity and operation:

Server type	Port / protocol	Description
DHCP Server	UDP ports 67/68	Automatic IP address assignment and network configuration
DNS Servers	UDP port 53	Domain name resolution of network services
NTP Servers	UDP port 123	Network time synchronization for accurate system clock

Local network services

The CiC provides local network services for customer access and system management, these services are only accessible within the customer's local network:

Server type / service	Port / protocol	Description
Local Web Interface	TCP port 8080	Read-only JSON API providing heating system operational status (home automation integration)
SSH Management	TCP port 22	Secure terminal access for Quatt support engineers in case of support inquiries
Network Monitoring	ICMP protocol	Network interface analysis and management

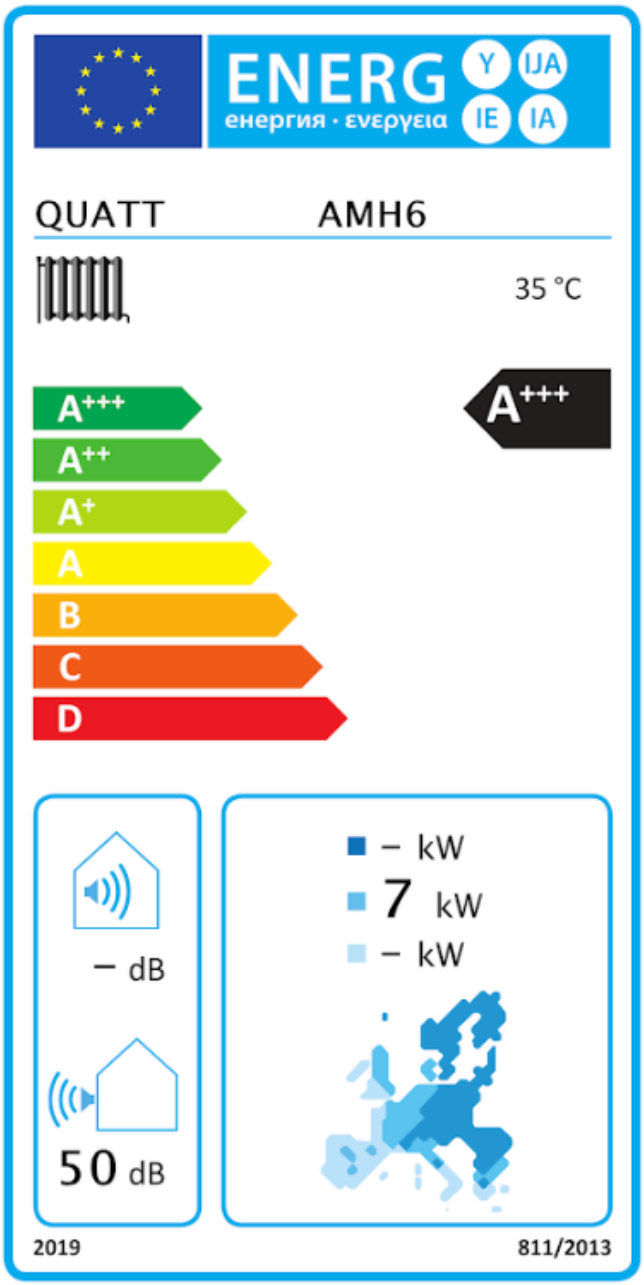
Device-to-device communication

Depending on the ecosystem, the CiC may communicate with additional Quatt equipment using wireless networking.

The following settings apply to Quatt Chill:

Protocol	Port	Description
CoAP Protocol	UDP port 5683	Device coordination and communication

10.3. Energy label and product card



Product fiche

Delegated Regulation (EU) 811/2013

Supplier name or trademark	**QUATT**
Model identifier	**AMH6**
Seasonal space heating energy efficiency class (average climate conditions - Low-temperature)	**A+++**
Rated heat output (average climate conditions - Low-temperature)	**7 kW**
Seasonal space heating energy efficiency (average climate conditions - Low-temperature)	**193 %**
Annual energy consumption - final energy (average climate conditions - Low-temperature)	**3 233 kWh**
Annual energy consumption - GCV (average climate conditions - Low-temperature)	**- GJ**
Sound power level (Indoors)	**- dB**
Specific precautions	**-**
Additional information	
Rated heat output (colder climate conditions - Low-temperature)	**- kW**
Rated heat output (warmer climate conditions - Low-temperature)	**- kW**
Seasonal space heating energy efficiency (colder climate conditions - Low-temperature)	**- %**
Seasonal space heating energy efficiency (warmer climate conditions - Low-temperature)	**- %**
Annual energy consumption - final energy (colder climate conditions - Low-temperature)	**- kWh**
Annual energy consumption - GCV (colder climate conditions - Low-temperature)	**- GJ**
Annual energy consumption - final energy (warmer climate conditions - Low-temperature)	**- kWh**
Annual energy consumption- GCV (warmer climate conditions - Low-temperature)	**- GJ**
Sound power level (Outdoors)	**50 dB**

Model placed on the Union market from 06/05/2025.

EPREL registration number: 2279157

https://eprel.ec.europa.eu/qr/2279157

Supplier: Quatt B.V. (Manufacturer)

Website: https://www.quatt.io/

Customer care service:

Name: Quatt Support

Website: https://www.quatt.io/

Email: info@quatt.io

Phone: +31202615227

Address:
Kon. Wilhelminaplein 33
1062 HG Amsterdam
Netherlands

10.4. Product label

Quatt HeatPump

Article number:	9003
Model number:	AMH6
Input voltage:	220-240V~, 50Hz
Rated current:	13 A
Min. Breaker size:	16 A
Heating A7/W35:	2,0 - 7,0 kW
Max pressure low side:	0,82 MPa
Max pressure high side:	3,1 MPa
Max allowable pressure:	3,2 MPa
Refrigerant:	R290 / 480g
IP Class:	IPX4
Electrical shockproof:	Class I
Net weight:	82 kg

CE

For outdoor use only. Installation & service by licensed installer only

Contains flammable natural refrigerant

GWP: 0,02 0,0000096 tonnes CO2 eq.

QUATT B.V.
Koningin Wilhelminaplein 29, 1062 HJ,Amsterdam
Netherlands

Hermetically sealed

AMH6-25-XXXX-XXXXX

Quatt

Quatt B.V.

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support.quatt.io
085-1300622

V3 - October 2025