User manual

CTC EcoAir C100

Modulating air-to-water heat pump
Model C106 / C108 / C112 / C116
400V 3N~ / 230V 1N~

Translation of the original instructions.
Keep for future use.
Read carefully before use.

162 905 71-1 P93786 2026-02-13

Table of Contents

Important information

For the latest version of the product's documentation, see ctc.se.

Installation data

Product	CTC EcoAir C100
Serial number	
Installation date	
Installer	

Accessories	

Serial number must always be given.

Certification that the installation is carried out according to instructions in the accompanying installer manual and applicable regulations.

Date _____ Signed _____

Symbols

Explanation of symbols that may be present in this manual.

CAUTION!

This symbol indicates danger to person or machine.

NOTE!

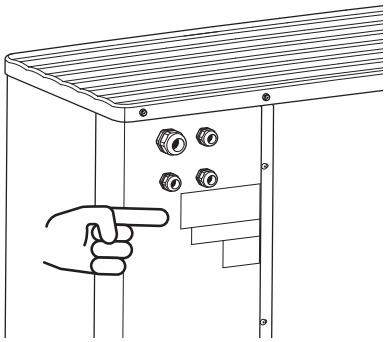
This symbol indicates important information to consider when maintaining the installation.

TIP!

This symbol indicates tips on how to facilitate using the product.

Serial number

The serial number can be found at the top left on the rear of CTC EcoAir C100 on the type plate.



NOTE!

You need the product's serial number for servicing and support.

Country specific information

SVERIGE

Register your installation for the warranty

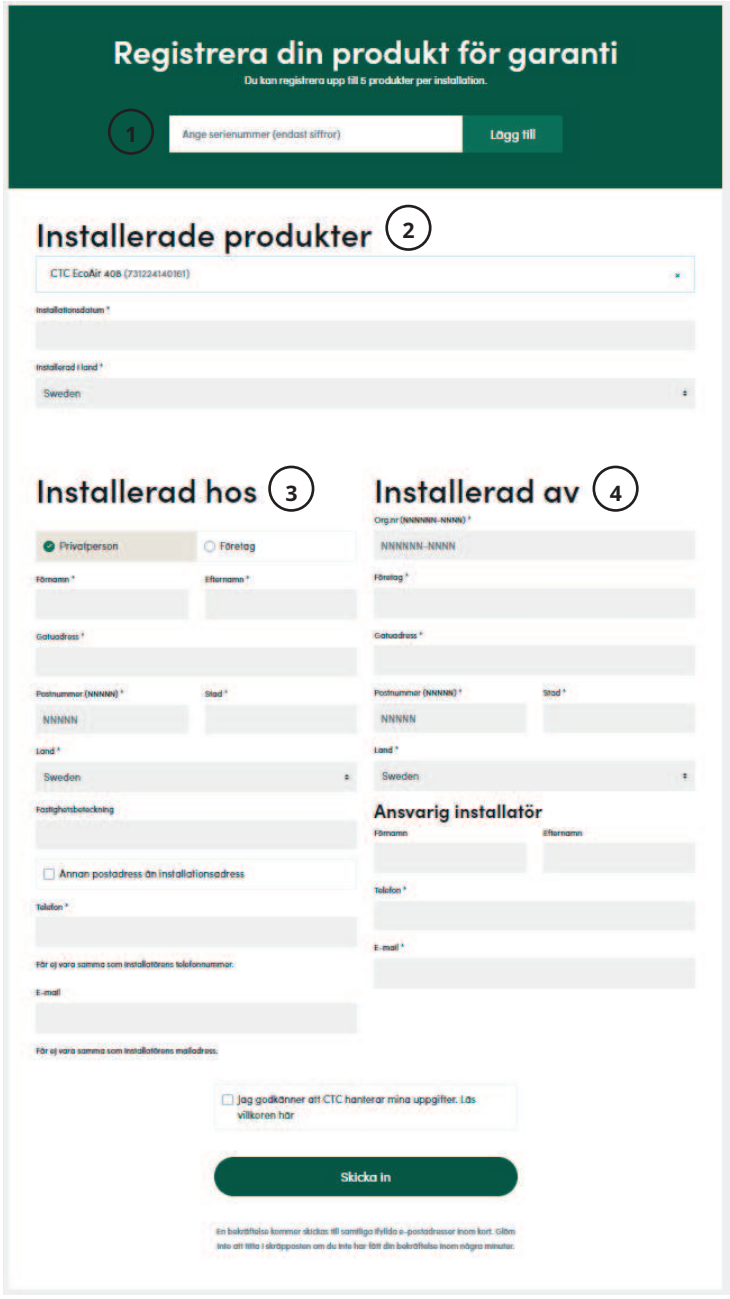
When you purchase a new product from CTC, it comes with a three-year warranty; our heat pumps come with an additional three years of warranty insurance, giving you a total of six years of security. For further information, see CTC Security.

The product must be registered no later than six months after purchase to activate the warranty. You must also have valid insurance for your home that includes machine damage, in order to benefit from the warranty insurance.

Register your product at ctc.se. Fill in the form and press the send button (confirmation of the warranty registration will be sent to all e-mail addresses entered).

After registration, an insurance certificate from Arctic will be sent to your home.

www.ctc.se/garantiregistrering



1. Serial number: e.g. 731224140161
2. Installed products: Installation date
3. Installed at: Name and address of the product owner
4. Installed by: Name and address of the installer

Warranty provisions

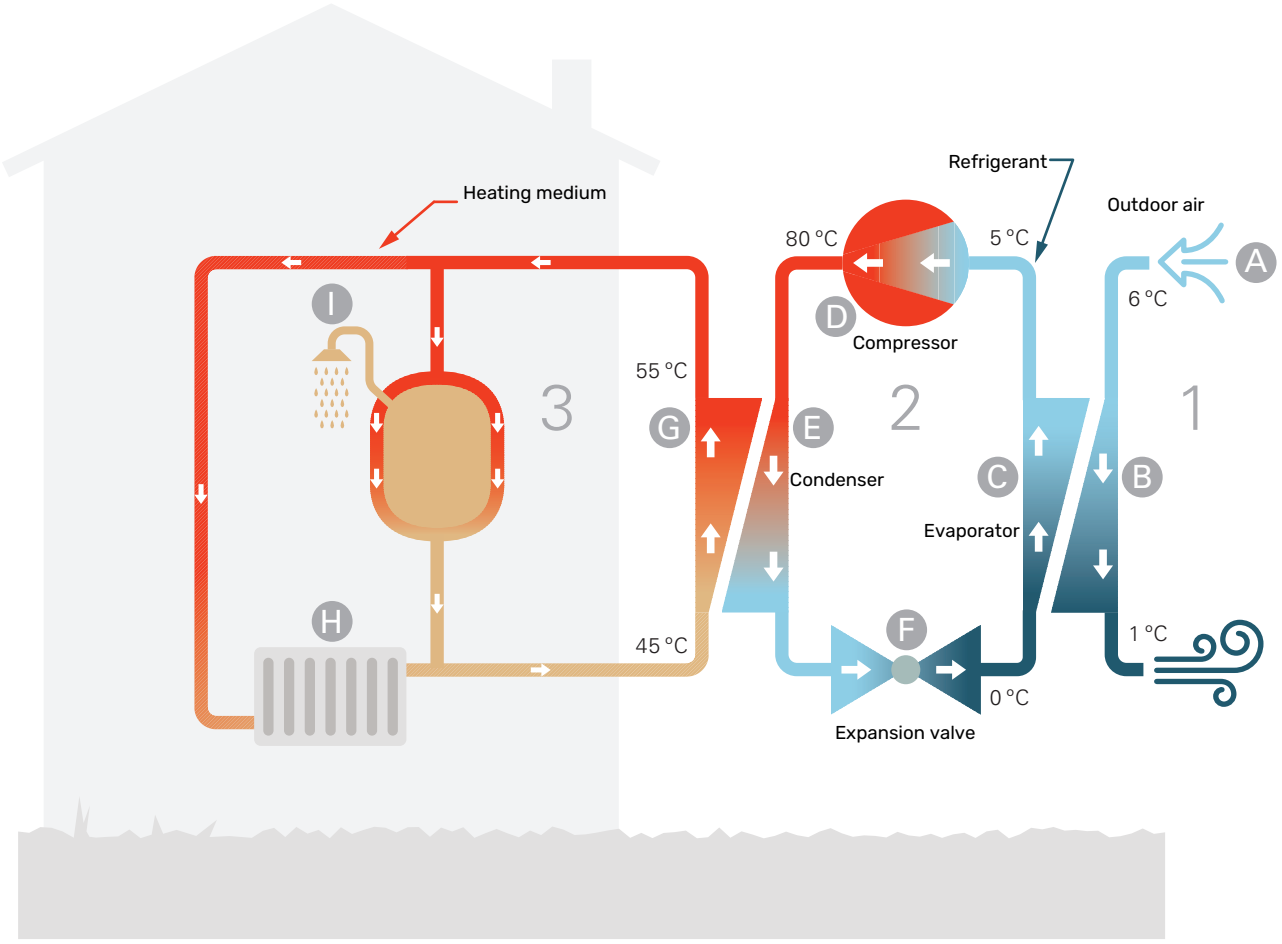
This is a compilation of CTC's warranty provisions that apply together with AA VVS (General delivery provisions regarding HVAC and plumbing materials for professional operations in Sweden. The provisions have been drawn up and supplied by VVS-Fabrikanternas Råd).

Failure to follow the instructions in this document will result in CTC's obligations under these provisions not being binding. Due to the rapid pace of developments, CTC reserves the right to amend specifications and components.

1. All products and accessories marketed by CTC are provided with a warranty regarding design, manufacturing or material defects for 3 years from the date of installation, provided that the product is installed in Sweden and is installed within 18 months following CTC's date of manufacture. (For spare parts, a period of 2 years from the date of purchase applies.)
2. CTC undertakes to remedy any defects arising during this time, either through repairs or by replacing the product. In connection with these measures, CTC is also liable for transport costs and other obligations under AA VVS.
3. If the purchaser wishes to rectify any fault himself, the product must be inspected by us or a person appointed by us before this work is carried out. A separate agreement must be reached regarding repairs and costs.
4. Faults constitute deviations from normal standards, in the opinion of a professional. Faults or deficiencies that have arisen through abnormal impacts, both mechanical and environmental, should not be regarded as a warranty cases.
5. CTC is therefore not liable if the fault is due to water of abnormal or varying quality, such as hard or aggressive water, variations in electrical voltage or other electrical interference.
6. CTC is also not responsible for faults if the installation and/or maintenance instructions have not been followed.
7. On receipt of the product, it should be carefully examined. If faults are discovered, a complaint must be submitted before the product is used. In other cases, faults must be reported immediately.
8. CTC is not liable for faults where no complaint has been submitted within the applicable warranty period.
9. CTC is not liable for indirect damage, i.e. damage to property other than the product, personal injury or material damage, such as loss of business or loss due to operational stoppages or similar.
10. In addition, CTC's liability does not include compensation for any increased energy consumption caused by faults in the product or installation. It is therefore important that the purchaser continually checks the energy consumption following installation. If there is any doubt, contact the installer in the first instance. Otherwise, the provisions under AA VVS apply.
11. In the event an overhaul or servicing is required that has to be performed by a professional, consult your installer. The installer is responsible for making the necessary adjustments in the first instance.
12. If a fault is reported, the installer/dealer must be contacted with information about the nature of the problem, the product's manufacturing number and the installation date. They will then contact CTC.

Installation function

An air/water heat pump installation uses the outdoor air to heat a home. The conversion of the outdoor air's energy into residential heating occurs in three different circuits. The heat energy is transferred from the outdoor air (1) to the refrigerant circuit in the heat pump (2), where the refrigerant achieves a higher temperature due to increased pressure from the heat pump's compressor. The heat is then transferred to the heating medium circuit (3), which distributes it into the house.



The temperatures are only examples and may vary between different installations and time of year.

Outdoor air

A The outdoor air is drawn into the outdoor unit.

B The fan then routes the air to the outdoor unit's evaporator. Here, the air releases thermal energy to the refrigerant and the air's temperature drops. The cold air is then blown out of the outdoor unit.

Refrigerant circuit

C In a closed system in the outdoor unit, a gas (a refrigerant) circulates, which also passes the evaporator. The refrigerant has a very low boiling point. In the evaporator, the refrigerant collects the heat energy from the outdoor air and starts to boil.

D The gas that is produced during boiling is routed into an electrically powered compressor. When the gas is compressed, the pressure increases and the gas's temperature increases considerably, from 0 °C to approx 80 °C.

E From the compressor, gas is forced into a heat exchanger, condenser, where it releases heat energy to the indoor module, whereupon the gas is cooled and condenses to a liquid form again.

F As the pressure is still high, the refrigerant can pass an expansion valve, where the pressure drops so that the refrigerant returns to its original temperature. The refrigerant has now completed a full cycle. It is routed to the evaporator again and the process is repeated.

Heat medium circuit

G The heat energy that the refrigerant produces in the condenser is retrieved by the indoor unit's heating medium, water, which is heated to approx. 55 °C (supply temperature).

H The heating medium circulates in a closed system and transports the heated water's heat energy to the house radiators/heating coils.

I The indoor module's hot water.

Control of CTC EcoAir C100

CTC EcoAir C100 is controlled in different ways, depending on your system. You control the heat pump via your indoor module or control module.
See the Installer Manual for the indoor module/control module.

During installation, the installation engineer adjusts the necessary settings for the heat pump in the indoor module or control module, so that the heat pump works optimally in your system.

Maintenance of CTC EcoAir C100

Regular checks

When your heat pump is located outdoors some external maintenance is required.

> **CAUTION!**
>
> Insufficient maintenance can cause serious damage to CTC EcoAir C100, which is not covered by the guarantee.

CHECKING GRILLES AND BOTTOM PANEL ON CTC ECOAIR C100

Check regularly throughout the year that the grille is not clogged by leaves, snow or anything else.

You should be particularly vigilant during windy conditions and/or in the event of snow, as the grille can become blocked.

Check that the back is free from dirt and leaves.

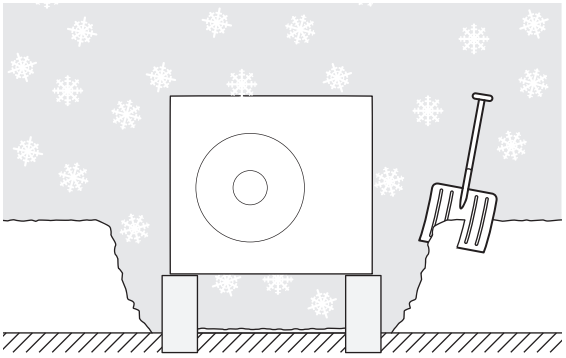
Also check that the drain holes in the bottom panel are free from dirt and leaves.

Regularly check that condensation is routed away correctly through the condensation pipe. Ask your installer for assistance if required.

Keep free of snow and ice

Prevent snow building up and covering the grille on CTC Eco-Air C100.

Keep free of snow and/or ice.



CLEANING THE OUTER CASING

If necessary the outer casing can be cleaned using a damp cloth.

Care must be exercised so that the heat pump is not scratched during cleaning. Avoid spraying water into the grilles or on the sides so that water penetrates into CTC EcoAir C100. Prevent CTC EcoAir C100 coming into contact with alkaline cleaning agents.

In event of long power cuts

In the event of prolonged power failures it is recommended that the part of the heating system located outdoors is drained. This is made easier if shut-off and draining valves are installed. Ask your installer if you are uncertain.

Silent operation

The heat pump can be set to "silent operation", which reduces the heat pump's noise level. The function is useful when CTC EcoAir C100 must be placed in noise-sensitive areas. The function should only be used for limited periods, because CTC EcoAir C100 might not reach its dimensioned power.

Updating the software

For information about updates and display settings, see the manual for the controlling product.

Disturbances in comfort

In most cases, the indoor module / control module notes a malfunction and indicates this with alarms and presents action instructions in the display.

> **CAUTION!**
>
> Work behind covers secured by screws may only be carried out by, or under the supervision of, a qualified installation engineer.

Troubleshooting

If the operational interference is not shown in the display the following tips can be used:

BASIC ACTIONS

- Group and main fuses of the building.
- The building's earth circuit breaker.
- Make sure that the air flow to CTC EcoAir C100 is not blocked by foreign objects.
- Check that CTC EcoAir C100 does not have any external damage.

ICE BUILD-UP IN THE FAN, GRILLE AND/OR FAN CONE

If problems arise, contact your installer.

WATER BELOW CTC ECOAIR C100 (LARGER AMOUNT)

- Fit accessory KVR to divert condensation from the air/water heat pump.
- Check that the water drainage via the condensation pipe (KVR) is working.

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