

Air/water heat pump

NIBE F2120



Table of Contents

1	Important information _____	4
	Installation data _____	4
	Symbols _____	5
	Serial number _____	5
2	Installation function _____	6
3	Control of F2120 _____	8
4	Maintenance of F2120 _____	9
	Regular checks _____	9
	In event of long power cuts _____	9
	Silent mode _____	10
	Fan de-icing _____	10
	Updating the software _____	10
5	Disturbances in comfort _____	11
	Troubleshooting _____	11
	Contact information _____	15

Important information

Installation data

Product	F2120
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.



NOTE

This symbol indicates danger to person or machine.



Caution

This symbol indicates important information about what you should observe when maintaining your installation.

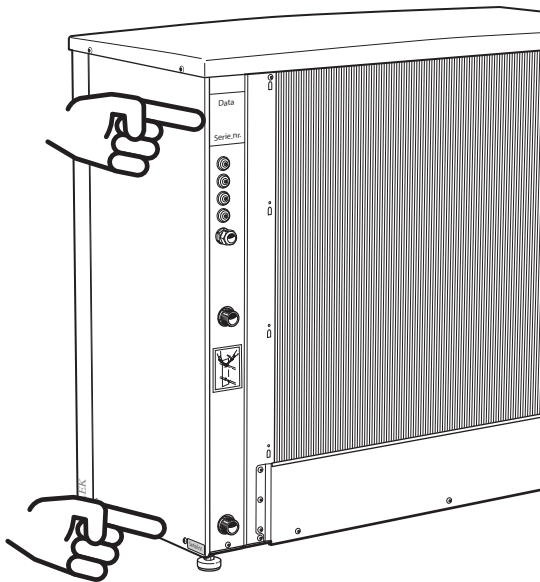


TIP

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 cover and at the bottom on the side.



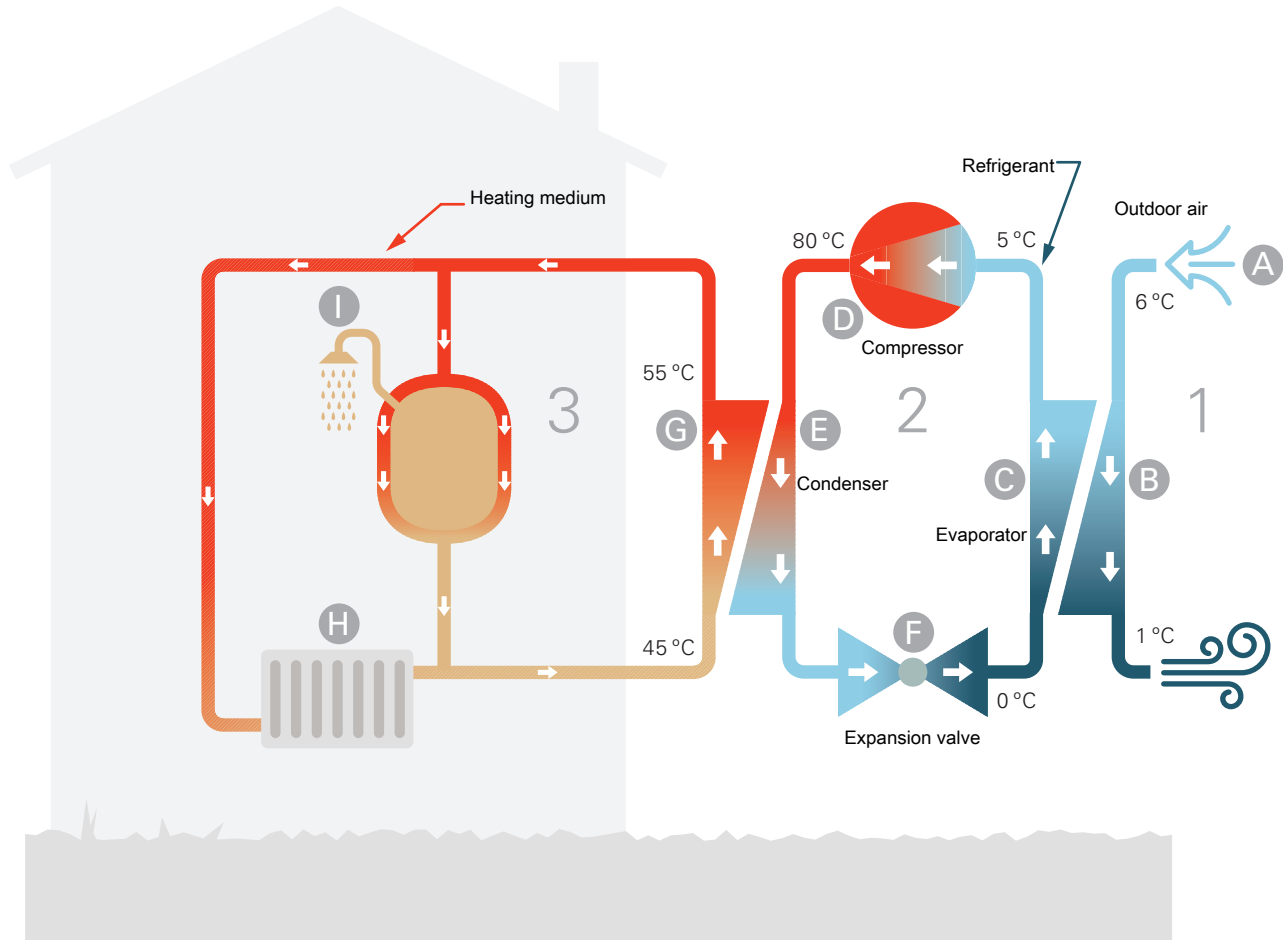
Caution

You need the product's (14 digit) serial number for servicing and support.

Installation function

An air/water heat pump installation uses the outdoor air to heat up a home. The conversion of the outdoor air's energy into residential heating occurs in three different circuits. From the outdoor air, (1), free heat energy is retrieved and

transported to the heat pump. The heat pump increases the retrieved heat's low temperature to a high temperature in the refrigerant circuit, (2). The heat is distributed around the building in the heating medium circuit, (3).



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

Outdoor air

- A** The outdoor air is sucked into the heat pump.
- B** The fan then routes the air to the heat pump's evaporator. Here, the air releases the heating energy to the refrigerant and the air's temperature drops. The cold air is then blown out of the heat pump.

Refrigerant circuit

- C** A gas circulates in a closed system in the heat pump, a refrigerant, which also passes the evaporator. The refrigerant has a very low boiling point. In the evaporator the refrigerant receives 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 module's water, the heating medium, which is heated to 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 integrated charge coil is placed in the boiler section. The water in the coil heats up the surrounding domestic hot water.

Control of F2120

F2120 is controlled in different ways depending on your system. You control the heat pump via your indoor module (VVM) or control module (SMO).

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 F2120

Regular checks

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



NOTE

Insufficient maintenance can cause serious damage to F2120, which is not covered by the guarantee.

CHECKING GRILLES AND BOTTOM PANEL ON F2120

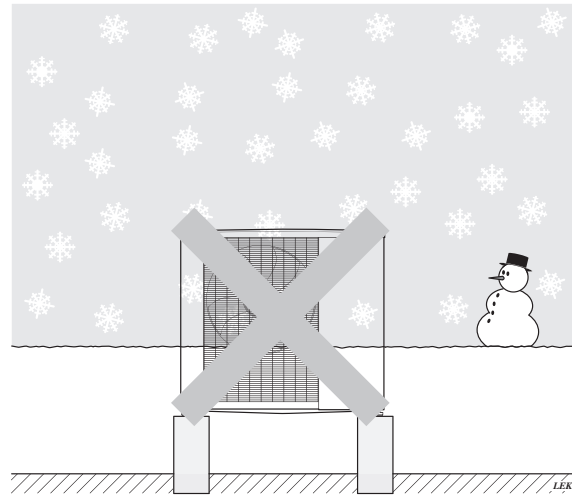
Check regularly throughout the year that the grille is not clogged by leaves, snow or anything else.

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

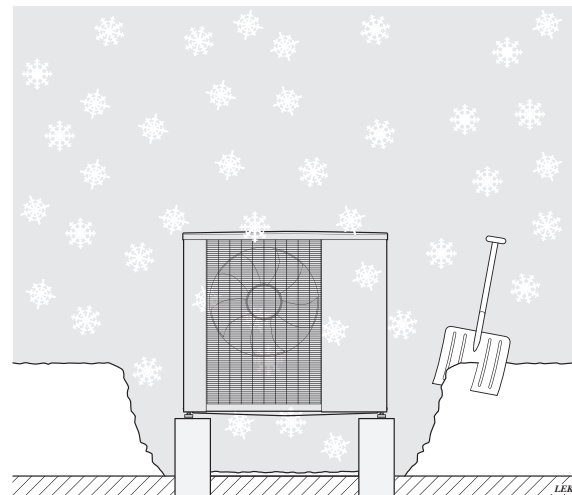
Also check that the drain holes in the bottom panel are free from dirt and leaves.

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 from building up and covering the grilles and drain holes on F2120.



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 when cleaning. Avoid spraying water into the grilles or the sides so that water penetrates into F2120. Prevent F2120 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. Your installer has installed a shut off and drain valve to facilitate this. Call and ask your installer if you are unsure.

Silent mode

The heat pump can be set to "Silent mode", which reduces the heat pump's noise level. This function is useful when F2120 must be placed in noise-sensitive areas. The function should only be used for limited periods, because F2120 might not reach its dimensioned power.

Fan de-icing

S-SERIES - VVM S / SMO S

Menu 4.11.3 - Fan de-icing

F-SERIES - VVM / SMO

Menu 4.9.7 - tools

FAN DE-ICING

Setting range: off/on

CONTINUOUS FAN DE-ICING

Setting range: off/on

Fan de-icing: Here, you set whether the "fan de-icing" function will be activated during the next "active defrosting". This can be activated if ice/snow sticks to the fan, grille or fan cone, which may be noticed due to abnormal fan noise from F2120.

"Fan de-icing" means that the fan, grille and fan cone are heated using hot air from the evaporator (EP1).

Continuous fan de-icing: There is the option to set recurring de-icing. In this case, every tenth defrosting will be "Fan de-icing". (This can increase annual energy consumption.)

Updating the software

Information about updating software can be found in the Installer Manual for your indoor module or control module.

Disturbances in comfort

In most cases, the indoor module/control module notes a malfunction (a malfunction can lead to disturbance in comfort) and indicates this with alarms and action instructions in the display.



NOTE

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

Start by checking the following:

- All supply cables to the heat pump are connected.
- Group and main fuses of the accommodation.
- The property's earth circuit breaker.
- The heat pump's fuse / automatic protection.
- The indoor module's/control module's fuses.
- The indoor module's/control module's temperature limiters.
- That F2120 does not have any external damage.

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

Set the "Fan de-icing" function in the indoor module/control module. For more information, see the section "Control – Heat pump EB101" in the Installer Manual.

If problems arise, contact your installer.

WATER BELOW F2120 (LARGER AMOUNT)

- Fit an accessory KVR 11 to divert condensation from the air/water heat pump.
- Check that the water drainage via the condensation pipe (KVR 11) is working.

Contact information

AUSTRIA

KNV Energietechnik GmbH
Gahberggasse 11, 4861 Schörfling
Tel: +43 (0)7662 8963-0
mail@knv.at
knv.at

FINLAND

NIBE Energy Systems Oy
Juurakkotie 3, 01510 Vantaa
Tel: +358 (0)9 274 6970
info@nibe.fi
nibe.fi

GREAT BRITAIN

NIBE Energy Systems Ltd
3C Broom Business Park,
Bridge Way, S41 9QG Chesterfield
Tel: +44 (0)330 311 2201
info@nibe.co.uk
nibe.co.uk

POLAND

NIBE-BIAWAR Sp. z o.o.
Al. Jana Pawla II 57, 15-703 Bialystok
Tel: +48 (0)85 66 28 490
biawar.com.pl

SWITZERLAND

NIBE Wärmetechnik c/o ait Schweiz AG
Industriepark, CH-6246 Altishofen
Tel. +41 (0)58 252 21 00
info@nibe.ch
nibe.ch

CZECH REPUBLIC

Družstevní závody Dražice - strojírna
s.r.o.
Dražice 69, 29471 Benátky n. Jiz.
Tel: +420 326 373 801
nibe@nibe.cz
nibe.cz

FRANCE

NIBE Energy Systems France SAS
Zone industrielle RD 28
Rue du Pou du Ciel, 01600 Reyrieux
Tél: 04 74 00 92 92
info@nibe.fr
nibe.fr

NETHERLANDS

NIBE Energietechnik B.V.
Energieweg 31, 4906 CG Oosterhout
Tel: +31 (0)168 47 77 22
info@nibenl.nl
nibenl.nl

RUSSIA

EVAN
bld. 8, Yuliusa Fuchika str.
603024 Nizhny Novgorod
Tel: +7 831 288 85 55
info@evan.ru
nibe-evan.ru

DENMARK

Vølund Varmeteknik A/S
Industrivej Nord 7B, 7400 Herning
Tel: +45 97 17 20 33
info@volundvt.dk
volundvt.dk

GERMANY

NIBE Systemtechnik GmbH
Am Reiherpfahl 3, 29223 Celle
Tel: +49 (0)5141 75 46 -0
info@nibe.de
nibe.de

NORWAY

ABK-Qviller AS
Brobekkeveien 80, 0582 Oslo
Tel: (+47) 23 17 05 20
post@abkqviller.no
nibe.no

SWEDEN

NIBE Energy Systems
Box 14
Hannabadsvägen 5, 285 21 Markaryd
Tel: +46 (0)433-27 3000
info@nibe.se
nibe.se

For countries not mentioned in this list, contact NIBE Sweden or check nibe.eu for more information.

NIBE Energy Systems
Hannabadsvägen 5
Box 14
SE-285 21 Markaryd
info@nibe.se
nibe.eu

UHB EN 2214-1 631997

This is a publication from NIBE Energy Systems. All product illustrations, facts and data are based on the available information at the time of the publication's approval.

NIBE Energy Systems makes reservations for any factual or printing errors in this publication.

©2022 NIBE ENERGY SYSTEMS

