



EcoNordic WH4/W4



INSTRUCTIONS TRANSLATED FROM ORIGINAL LANGUAGE

ART.NO. 800501, 800502

EN

ASSEMBLY INSTRUCTIONS

Indoor Climate Central



**INSTALLATION
INSTRUCTIONS**

Contents

1.	General	5
1.1.	Disclaimer	5
1.2.	Warranty	5
1.3.	Manufacturer	5
1.4.	Service and support	5
1.5.	Disposal	5
1.6.	Validation	5
2.	Safety	6
2.1.	Symbols and stickers	6
2.2.	Warnings in the manual	6
2.3.	General safety rules	7
3.	Transport	9
3.1.	Components included	9
3.1.1.	Supplied in tank module	10
3.1.2.	Supplied in chassis module	10
3.1.3.	Supplied in ventilation module	10
3.1.4.	Supplied in heat pump module	10
4.	Before assembly	11
4.1.	Checklist	11
4.2.	System overview W4	12
4.3.	System overview WH4	13
4.4.	Overview/diagrams for electricity	14
4.5.	Overview/diagrams for water	15
4.6.	Overview/diagrams for ventilation	16
5.	Assembly	17
5.1.	Space requirements for heat pump	17
5.2.	Assembly of modules	18
5.2.1.	Prerequisites	18
5.2.2.	Instructions	18
5.3.	Assembly of ventilation ducts	25
5.3.1.	Prerequisites	25
5.3.2.	Instructions	25
5.4.	Electrical installation	26
5.4.1.	Before you start	26
5.4.2.	Internet access	26
5.4.3.	If accessories are used	26
5.4.4.	Circuit diagram and conversion, electricity	26
5.4.5.	Prerequisites	27
5.4.6.	Control and accessories	27
5.4.7.	Connection of a frost protection damper	29
5.4.8.	Voltage supply	29
5.5.	Water and pipe work	30
5.5.1.	Domestic Hot Water Recirculation System	30
5.5.2.	Incoming water	30
5.5.3.	Water quality	30
5.5.4.	Water connections	30
5.5.5.	Drainage	31
5.6.	Connecting the heating system WH4	31
5.6.1.	Installation	31
5.6.2.	Dimensioning	32

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6.	Commissioning.....	33
6.1.	Prior to commissioning.....	33
6.2.	Connection	34
6.2.1.	No network available.....	34
6.2.2.	Network available	34
6.3.	Connect to the product.....	36
6.4.	Start-up Guide.....	38
7.	Adjustment.....	40
7.1.	System differences between Android and iOS	40
7.2.	Initial adjustment, ventilation	40
7.3.	Settings, heating	43
8.	Final check.....	44
9.	Technical data.....	45
9.1.	Air capacity and sound data.....	46
9.1.1.	Air intake side.....	46
9.1.2.	Air outlet side	46
9.1.3.	Correction factor for Lw.....	47
9.2.	Pump capacity, heating system	48
9.3.	Nipple location.....	48
10.	Dimensions	49
10.1.	Tank module	50
10.2.	Chassis module.....	50
10.3.	Ventilation module	51
10.4.	Heat pump module	51
11.	EU Declaration of Conformity for CE marking.....	52

1. General

Read these instructions carefully before using the unit. Keep the instructions for future use.

1.1. Disclaimer



NB

In order for the warranty to be valid, these instructions must be followed.

FLEXIT's products are subject to ongoing development and we therefore reserve the right to modify components, specifications and the contents of these instructions without prior notice.

FLEXIT is not responsible or bound by warranty if these instructions are not followed during installation, operation or servicing.

FLEXIT guarantees the correct functioning of the unit only with original or specified components.

We are not responsible for any typographical errors that may arise.

1.2. Warranty

The product must be assembled exactly as instructed, otherwise the warranty will not be valid.

1.3. Manufacturer

Flexit AS, Televeien 15, N-1870 Ørje, Norway
www.flexit.com

1.4. Service and support

For questions concerning support, contact Flexit.

1.5. Disposal

The product is covered by warranty as stated in the current conditions of sale, provided that the product has been used and maintained correctly. Filters are consumable material.



The symbol on the product indicates that it must not be treated as household waste. Instead, it should be taken to a recycling centre that accepts electrical and electronic equipment. By disposing of the product correctly, you contribute to preventing the negative consequences to health and the environment that may result from incorrect treatment. For further information concerning the recycling of the product, contact your local authority, recycling centre or place of purchase.

Claims arising from faulty or inadequate installation should be made to the installation company responsible. The warranty may be invalidated by incorrect use or gross negligence in the maintenance of the unit.

1.6. Validation

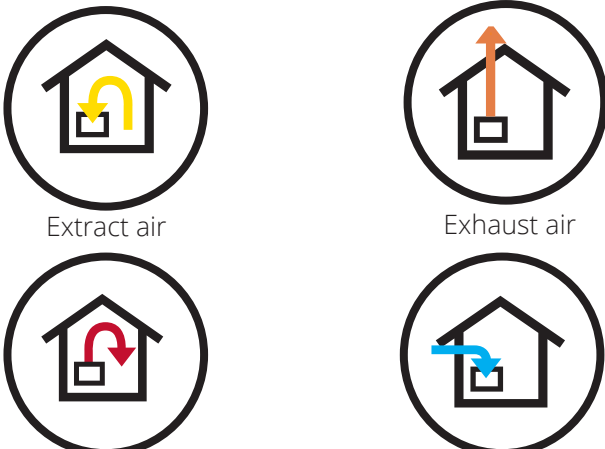
This user manual applies to EcoNordic WH4 and W4.

2. Safety

2.1. Symbols and stickers

A number of symbols are used for these products. They are used both for labelling the product itself and in the installation and user documentation.

Symbols on the product



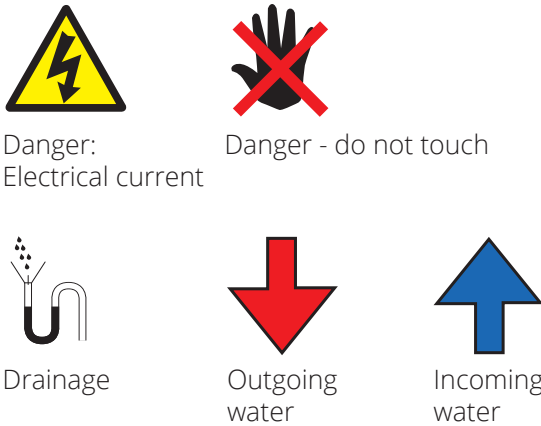
Extract air

Exhaust air

Supply air

Outdoor air

Stickers in the product



Danger: Electrical current

Danger - do not touch


Drainage

Outgoing water


Incoming water

2.2. Warnings in the manual

The following types of instruction are used in the user manual.




DANGER
A text field with this colour means that life-threatening or serious injury may result if the instructions are not observed.



CAUTION
A text field with this colour means that poor efficiency or operational problems with the product may result if the instructions are not observed.




WARNING
A text field with this colour means that damage may result if the instructions are not observed.




NB
A text field with this colour means that it contains important information.

2.3. General safety rules


These safety rules must be followed when you use and maintain the system. Failure to follow them may result in injury, death or damage to the equipment.



DANGER
It is the responsibility of the installer to carry out a comprehensive safety and function check of the unit.



DANGER
All electrical connections must be carried out by a qualified electrician.




DANGER
The product must not be used for the extraction of combustible or flammable gases.




WARNING
All pipe installation work must be done by a qualified plumber.



WARNING
The product should be placed in a room with a drain.



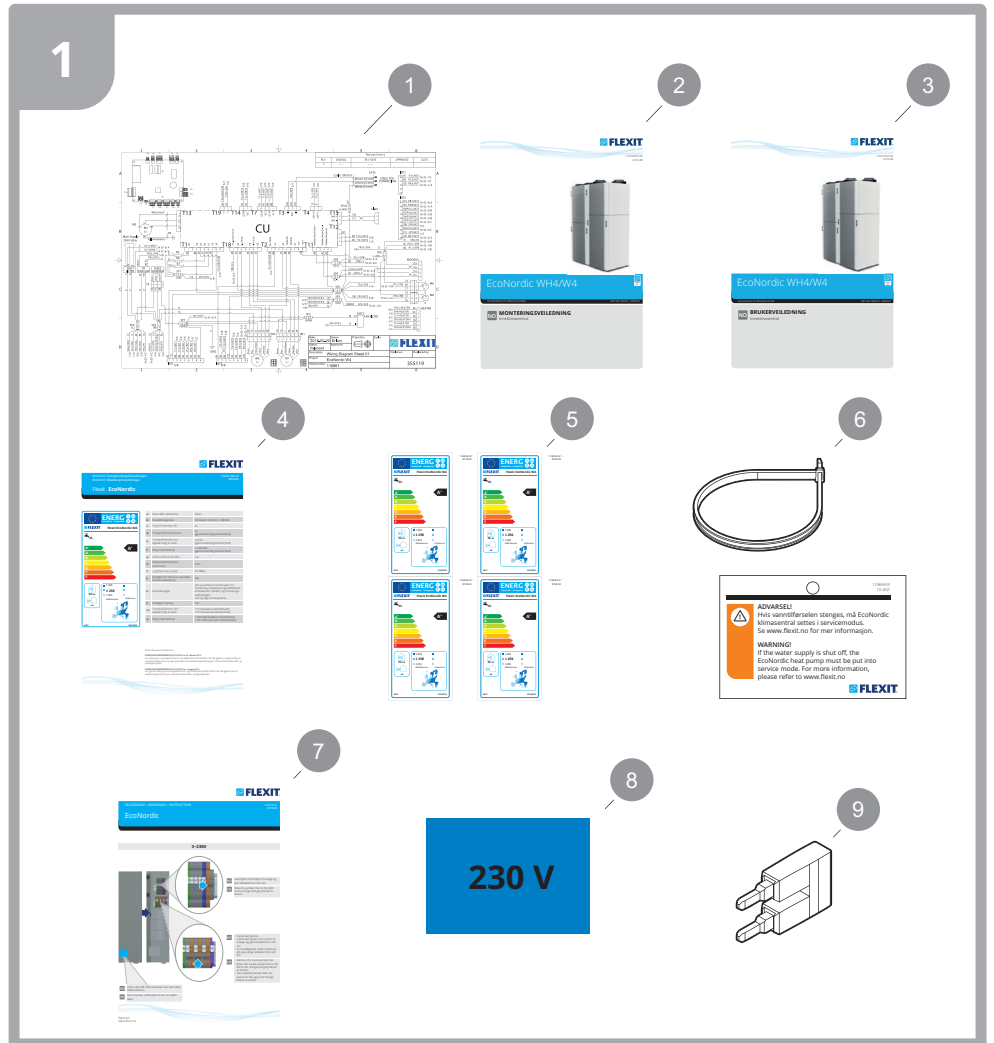
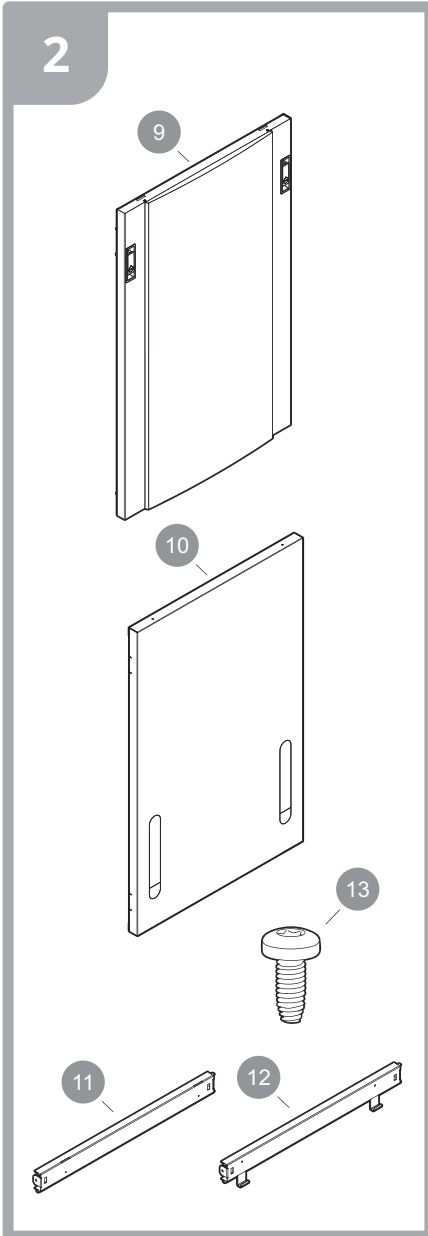
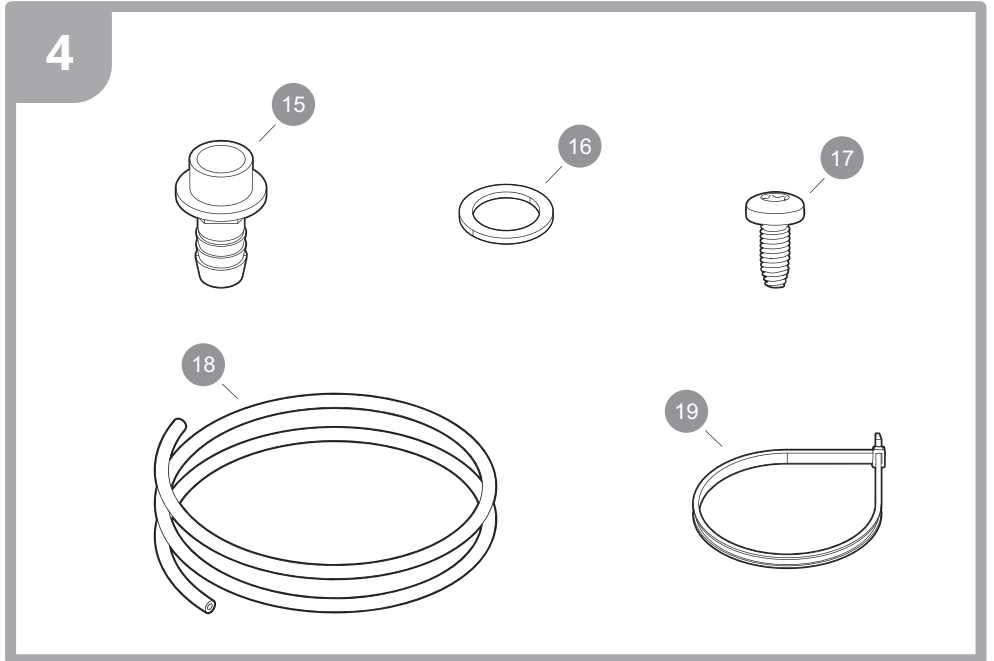
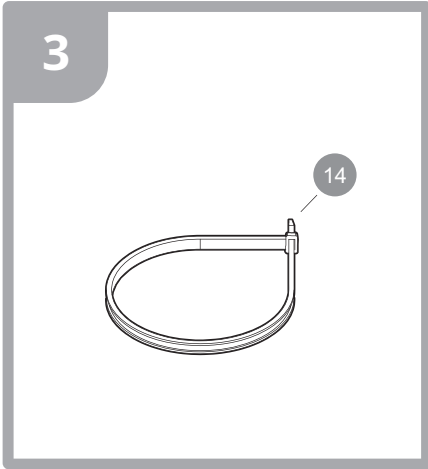
WARNING
The incoming water pressure should not exceed 0.45/4.5 MPa/ bar. If the water pressure exceeds 0.45/4.5 MPa/bar, a pressure reduction valve (with check valve) must be installed.



CAUTION
Tumble driers must not be connected to the unit.

3. Transport

3.1. Components included



3.1.1. Supplied in tank module

Item	Description	Number
1	Circuit diagram, electricity	1
2	Assembly instructions	1
3	User manual	1
4	Eco design document	1
5	Eco design label	1
6	Label with cable tie	1
7	Conversion 3N~400 V-3~230V	1
8	Label 230V	1
9	Jumper	1

3.1.2. Supplied in chassis module

Item	Description	Number
9	Door	1
10	Side wall	1
11	U-profile	3
12	U-profile with door latch	1
13	Self-tapping screw	17

3.1.3. Supplied in ventilation module

Item	Description	Number
14	Cable tie	4

3.1.4. Supplied in heat pump module

Item	Description	Number
15	Drainage plug	1
16	Gasket	1
17	Self-tapping screws	5
18	Venting hose	1
19	Cable tie	2

4. Before assembly

4.1. Checklist

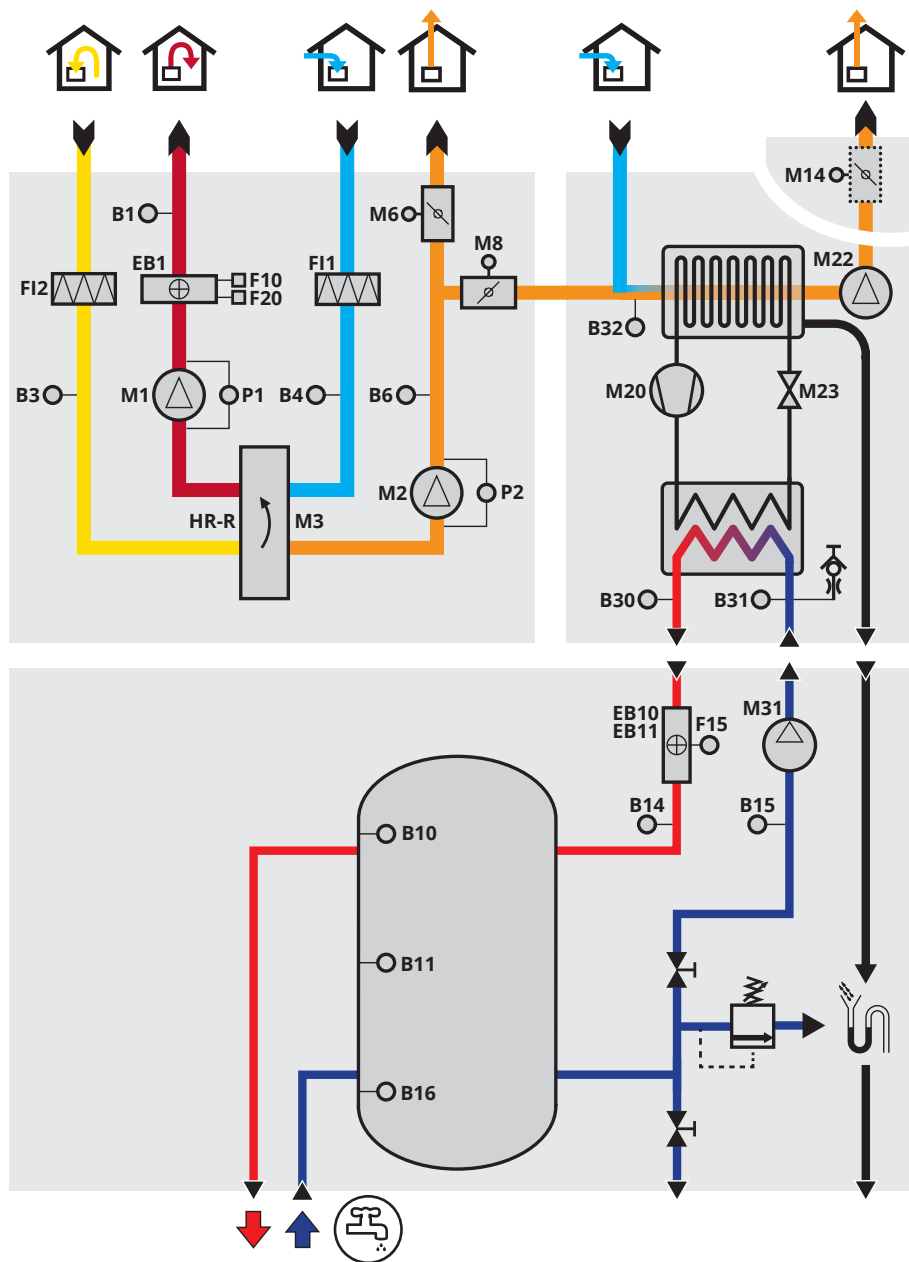
The following list contains the conditions necessary for mounting and installation. Use the checklist to ensure quality.

For further information, see manual:
Planning and preparatory work.

Checklist for installation	
Explanation	Check
Are all modules in place? Tank module, ventilation module, ventilation chassis and heat pump	
Is there sufficient space around the product to allow it to be assembled? See kap.5. Assembly.	
Has the location of all external electrical connections been decided?	
Have all ventilation ducts been laid to the product?	
Has an external damper been fitted to the drainage or outdoor air duct to the heat pump?	
Has cabling for the damper been laid to the product?	
Is there a drain available in the same room as the product?	
If not, is there a drain in an adjacent room that can be used?	
Have you checked with the project manager that all applicable installation requirements have been met?	
Addition for WH4:	
Is there room to install the heating circuit in the product's installation room or on the exterior of the product?	

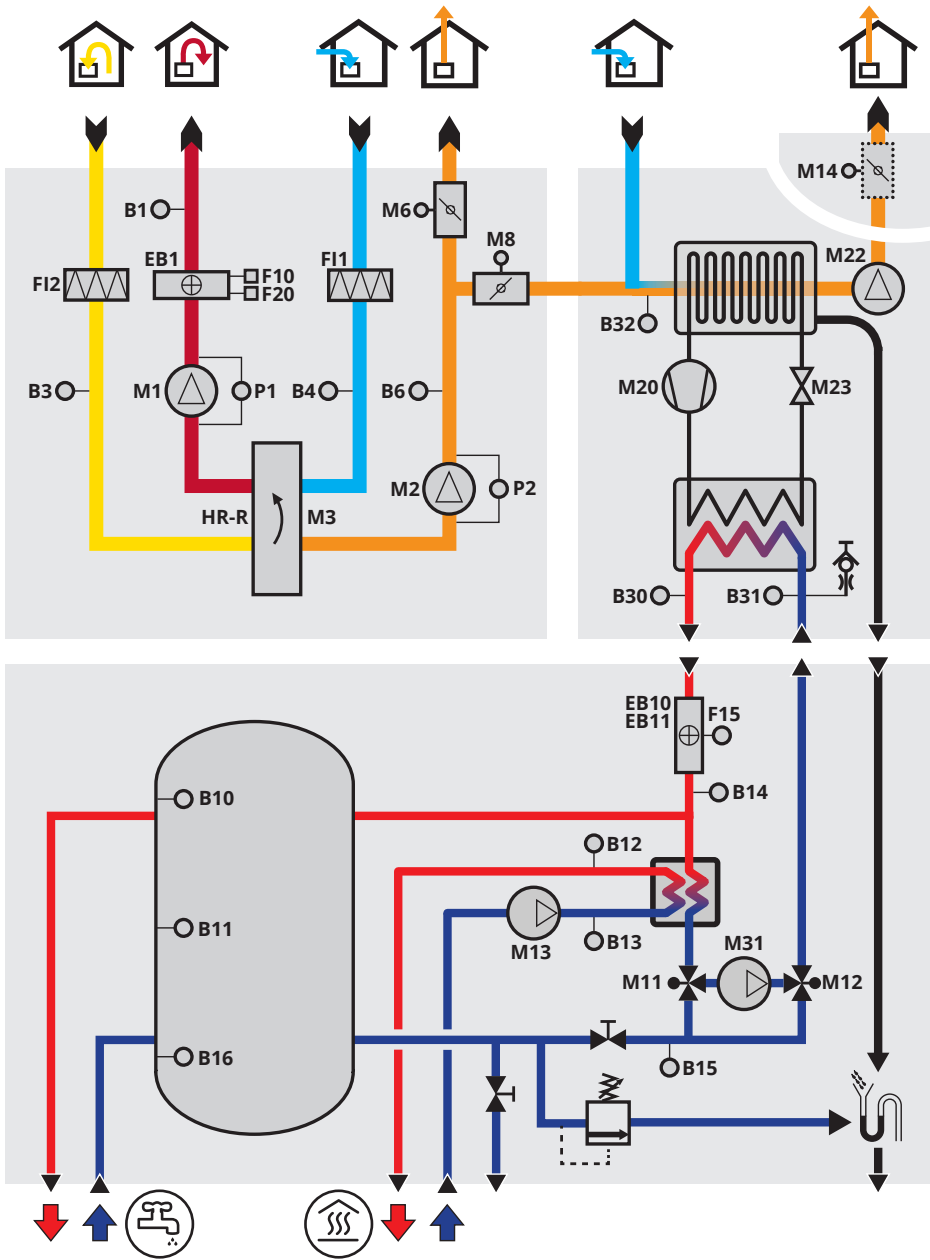
Installation notes

4.2. System overview W4

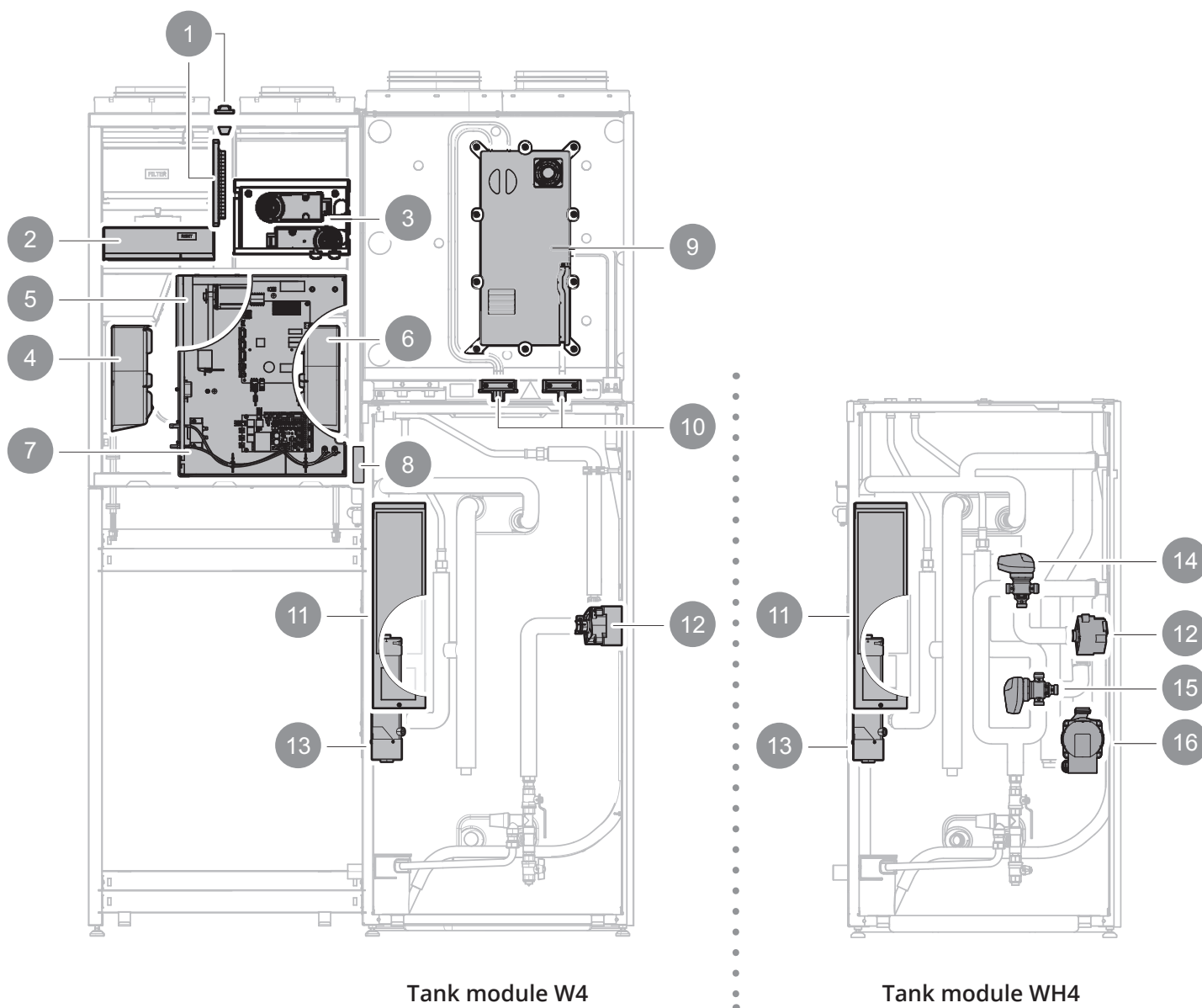


Pos.	Beskrivelse
B1	Temperature sensor, supply air
B3	Temperature sensor, extract air
B4	Temperature sensor, outdoor air
B6	Temperature sensor, exhaust air
B10	Temperature sensor, upper part of tank
B11	Temperature sensor, middle of tank
B12	(WH4) Temperature sensor, heating system feed
B13	(WH4) Temperature sensor, heating system return
B14	Temperature sensor, electric heating battery (FTH)
B15	Temperature sensor, from tank to heat pump
B16	Temperature sensor, lower part of tank
B30	Temperature sensor, HP water outlet
B31	Temperature sensor, HP water inlet
B32	Temperature sensor, HP air inlet
M1	Supply air fan
M2	Extract air fan
M3	Rotor motor
M6	Exhaust air damper
M8	Heat pump damper
M11	(WH4) Regulating valve DHW / heating system
M12	(WH4) Shuttle valve tank / heat pump
M13	(WH4) Circulation pump heating system
M14	Frost protection damper
M20	Compressor
M22	Fan HP
M23	Expansion valve HP
M31	Circulation pump primary circuit
F10	Overheating thermostat EB1
F15	Overheating thermostat electric element (FTH), manual reset
F20	Overheating thermostat EB1
EB	Heating battery, electric
EB10/EB11	Water heater, electric
F11	Outdoor air filter
F12	Extract air filter
P1	Pressure sensor, supply air
P2	Pressure sensor, extract air
HR-R	Rotary wheel-type heat exchanger

4.3. System overview WH4



4.4. Overview/diagrams for electricity



Tank module W4

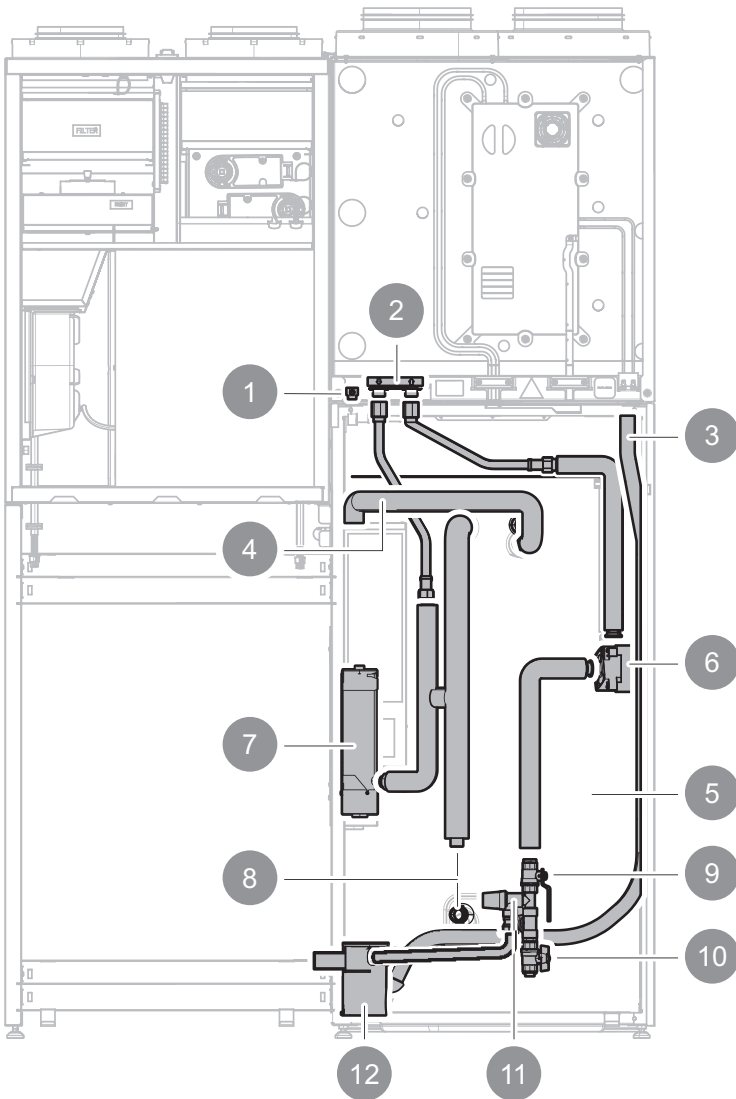
Tank module WH4

The unit can be converted for 230 V, 3-phase

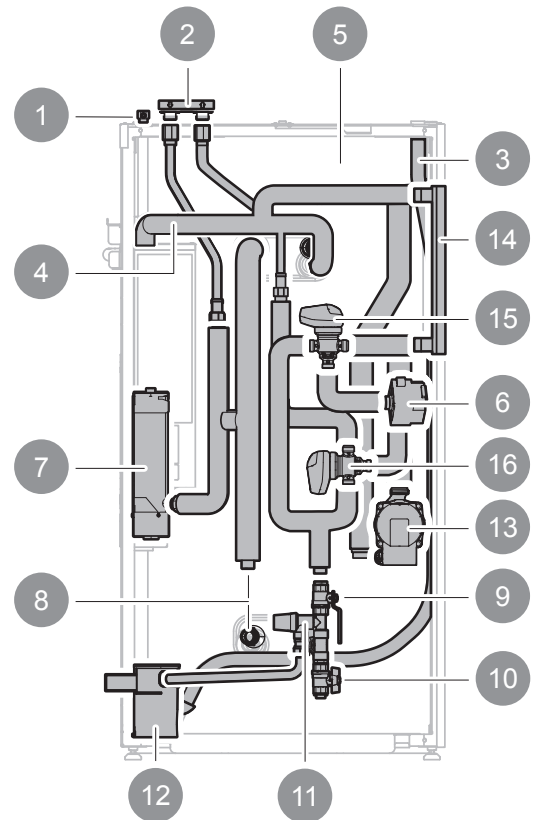
Item	Designation
1	Connection for external control etc.
2	Battery
3	Damper motors
4	Air intake fan
5	Rotor
6	Air outlet fan
7	Control centre for ventilation and water
8	Connection box for module connection

Item	Designation
9	Control unit for heat pump
10	Electrical connections for heat pump
11	Voltage connection / control unit
12	Circulation pump primary circuit
13	Flow through heater
14	Regulating valve DHW / heating system
15	Shuttle valve tank / heat pump
16	Circulation pump heating system

4.5. Overview/diagrams for water



Tank module W4

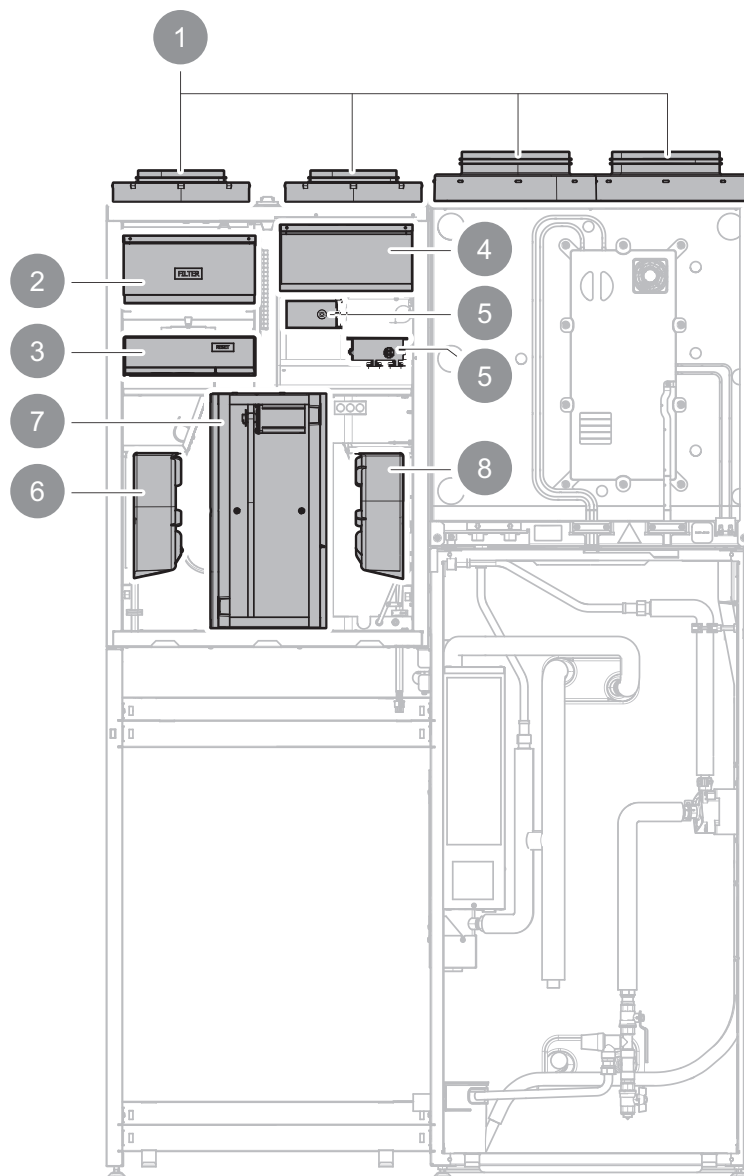


Tank module WH4

Item	Designation
1	Air extraction
2	Water connection for heat pump
3	Connection for drainage hose
4	Pipe system
5	Hot water tank
6	Circulation pump
7	Electric water heater
8	External water connections

Item	Designation
9	Shut-off valve
10	Draw-off valve
11	Safety valve
12	Drainage cup for draining and safety valve
13	Circulation pump heating system
14	Plate heat exchanger
15	Regulating valve DHW / heating system
16	Shuttle valve tank / heat pump

4.6. Overview/diagrams for ventilation

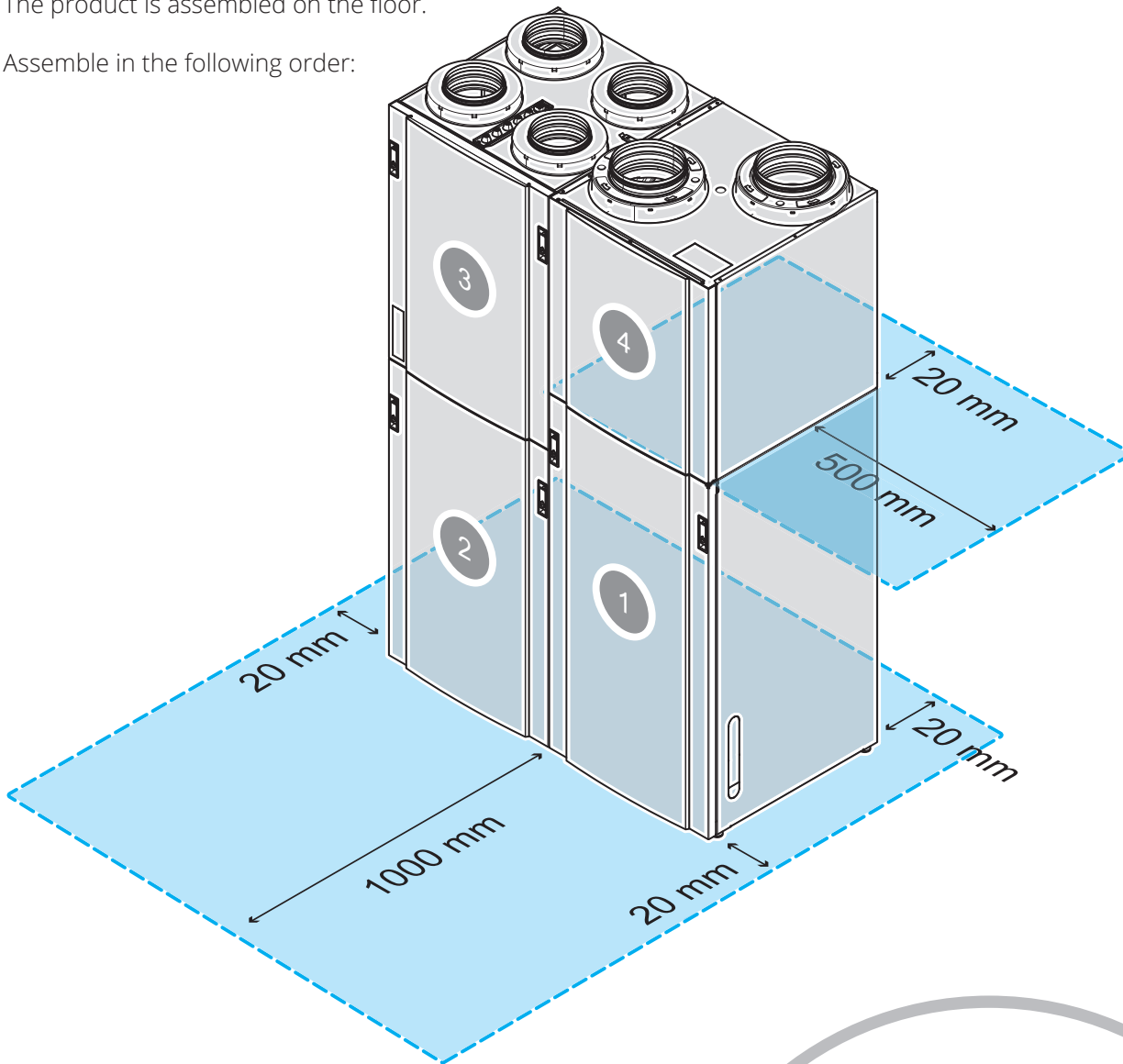


Item	Designation
1	Air connections
2	Extract air filter
3	Post-heating battery
4	Supply air filter
5	Damper
6	Air intake fan
7	Rotor
8	Air outlet fan

5. Assembly

The product is assembled on the floor.

Assemble in the following order:



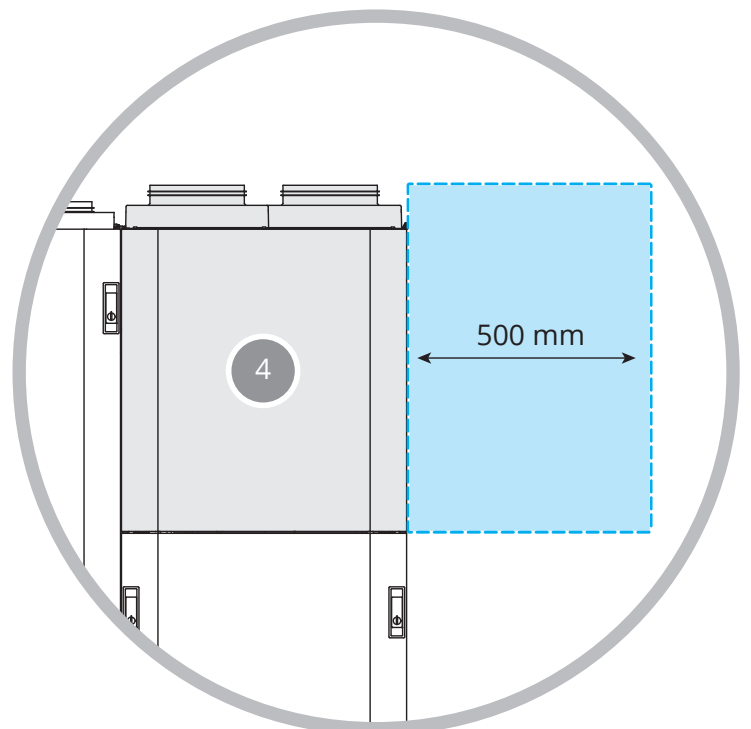
5.1. Space requirements for heat pump



INFO When installing Econordic it is important to follow the Flexit installation instructions.

If it becomes necessary to replace the fan, service personnel will require space to carry out the work.

Any additional costs arising from this will not be covered by Flexit.



5.2. Assembly of modules



WARNING

Risk of cuts.
Wear protective gloves during assembly.



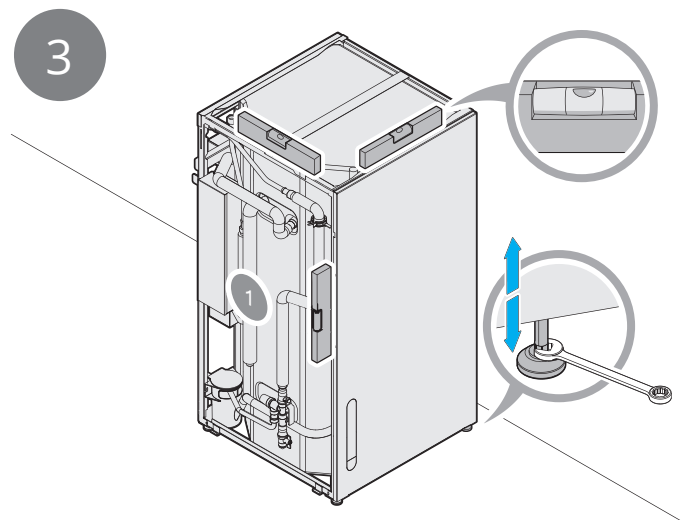
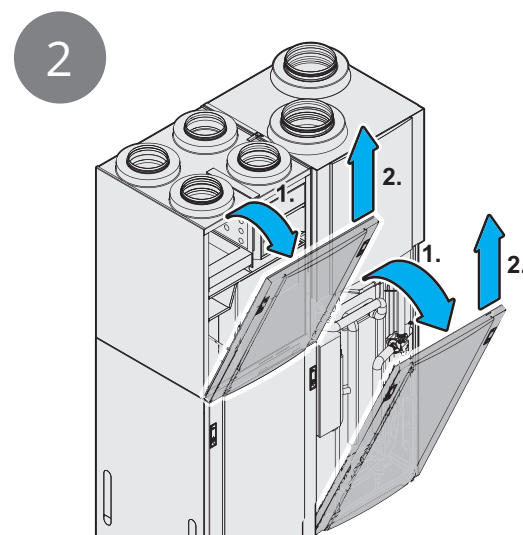
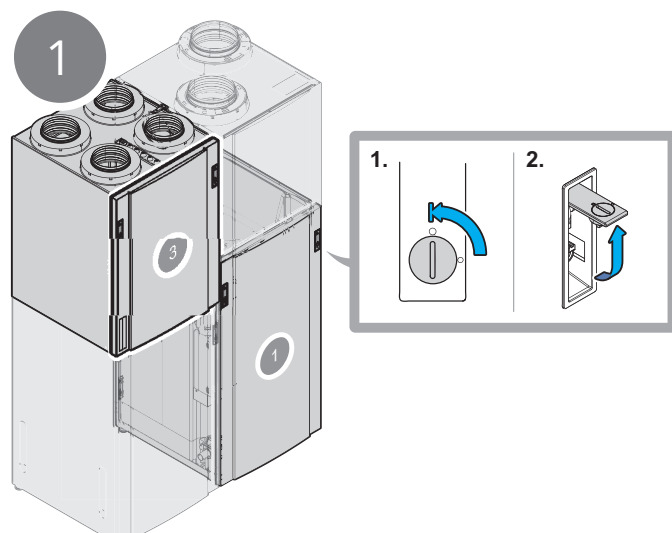
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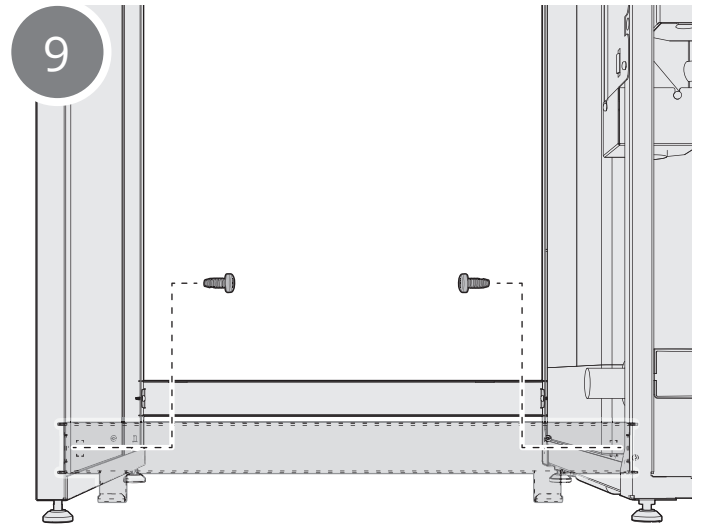
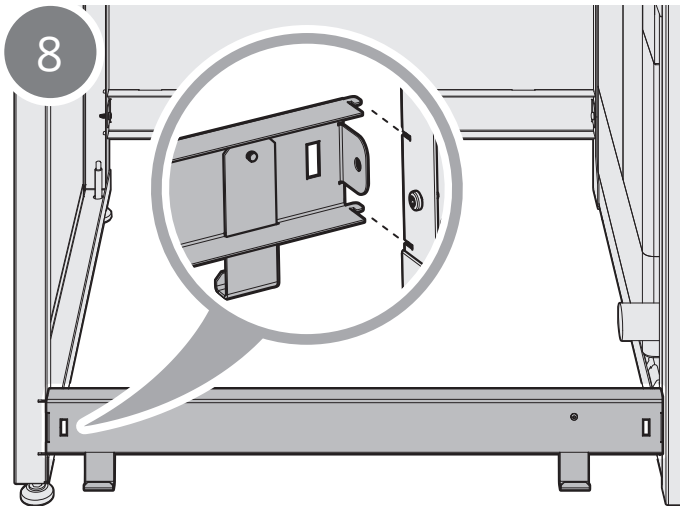
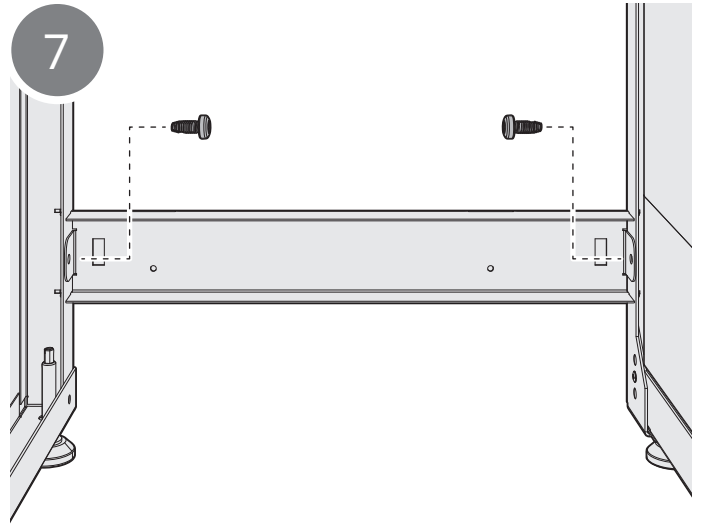
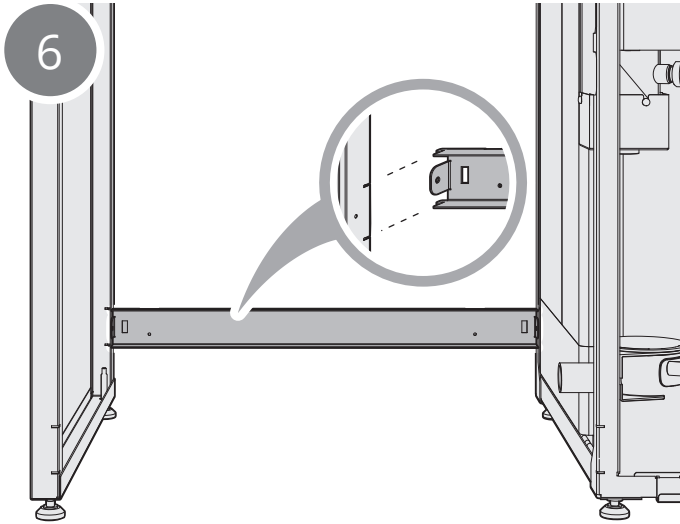
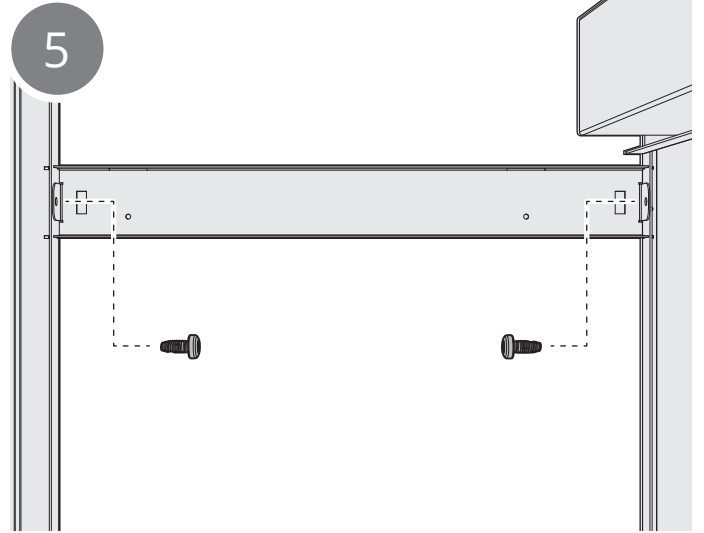
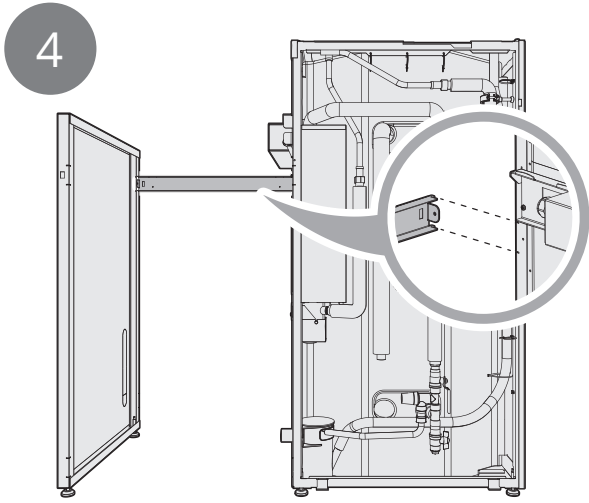
Before beginning assembly, make sure that the doors on module 1 and module 3 have been removed.

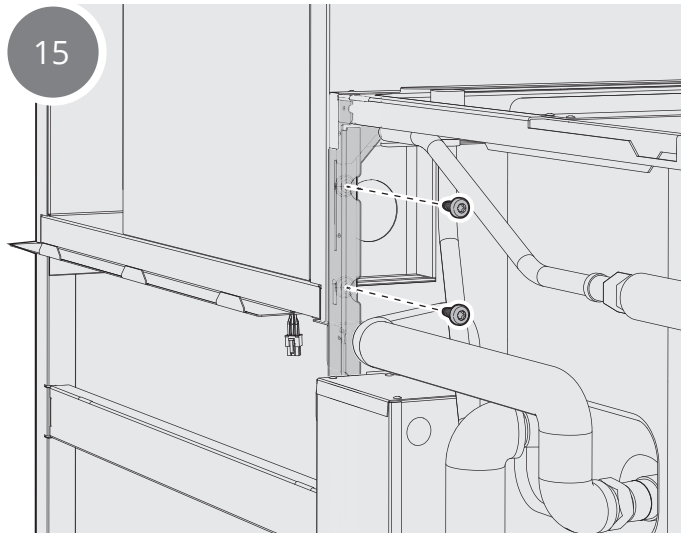
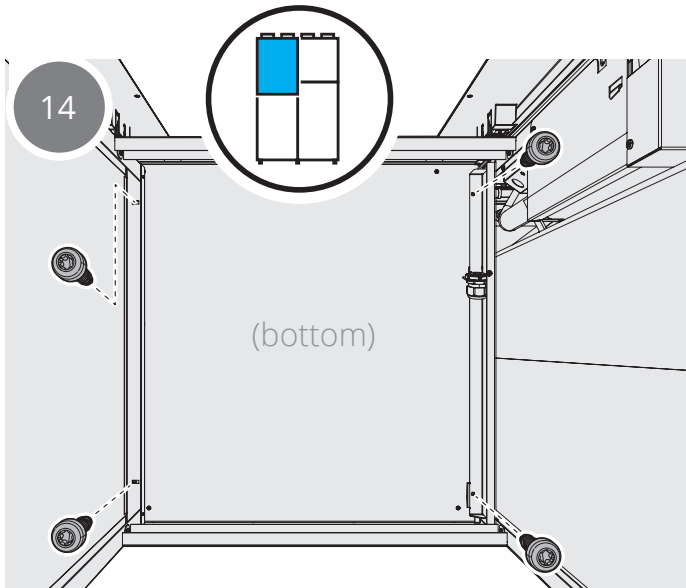
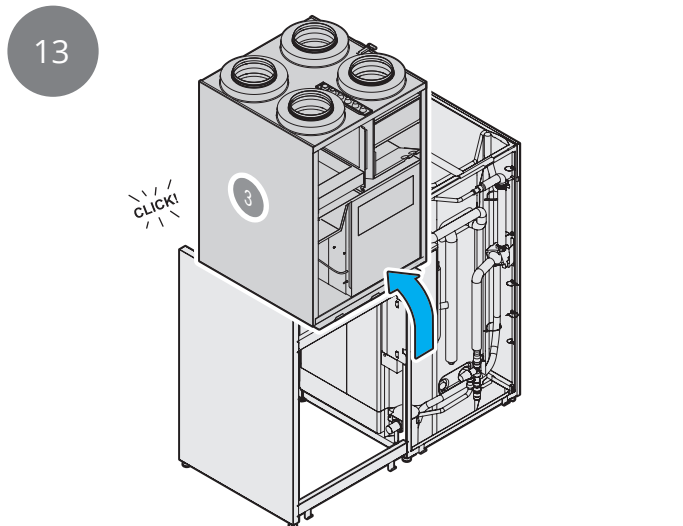
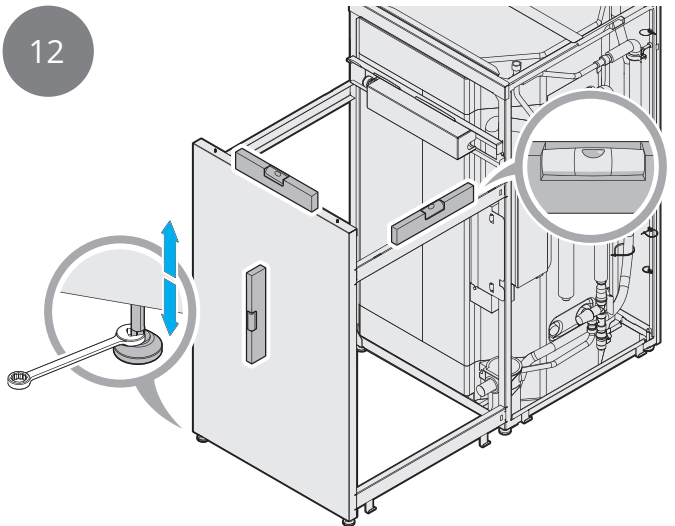
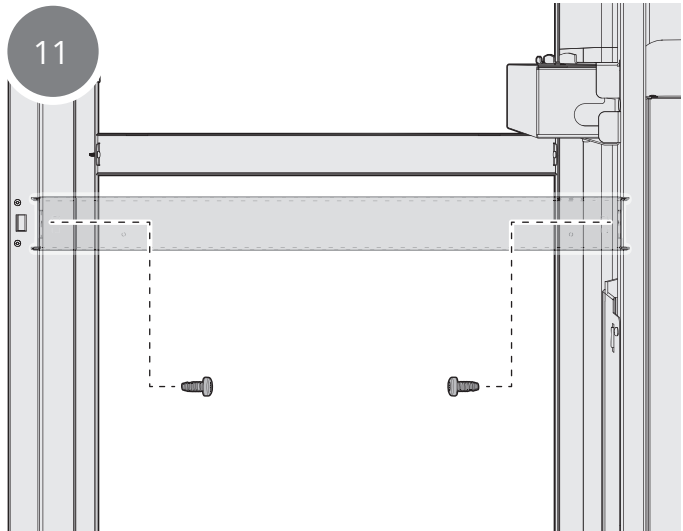
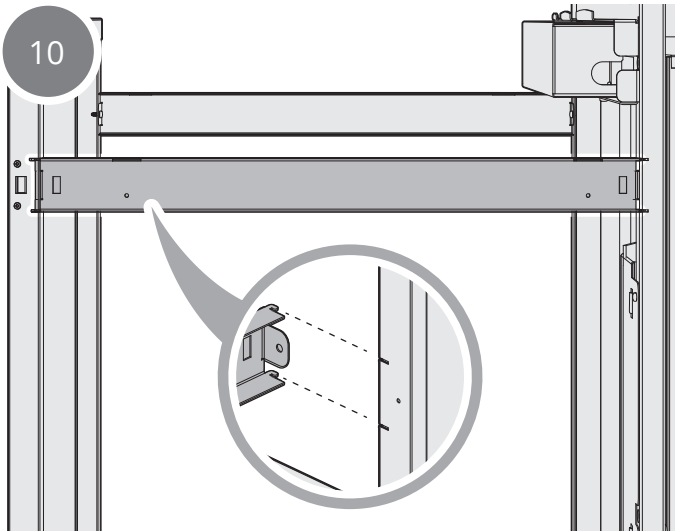
5.2.1. Prerequisites

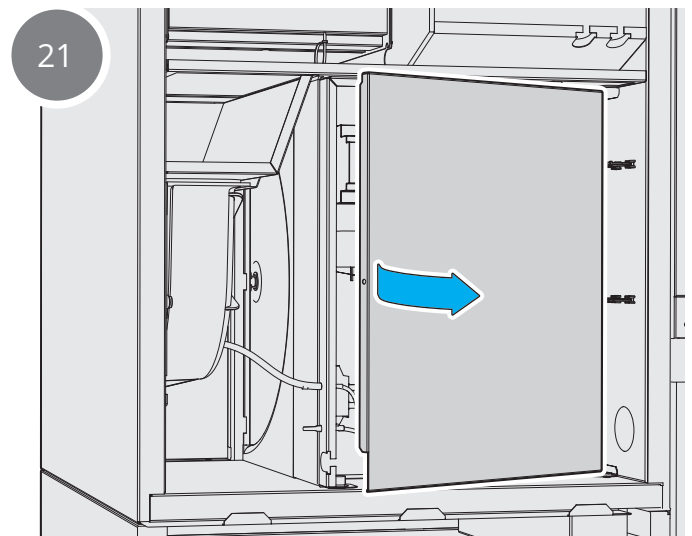
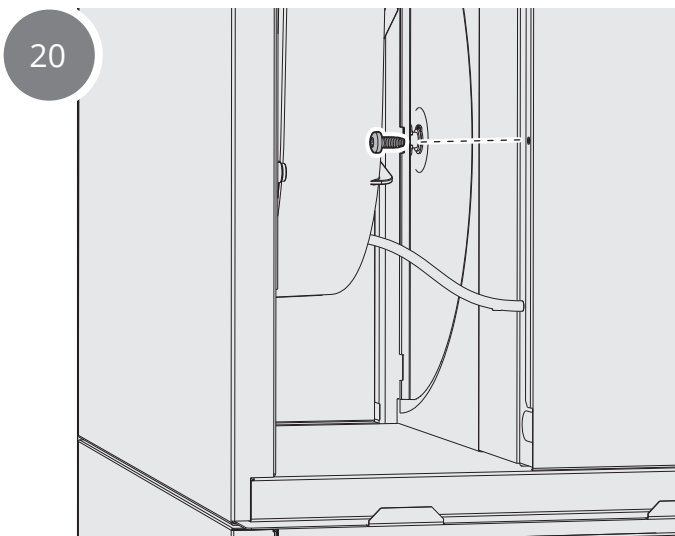
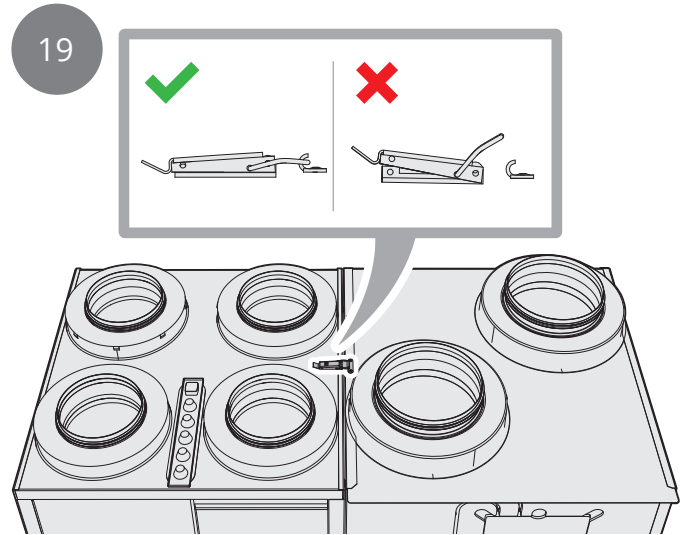
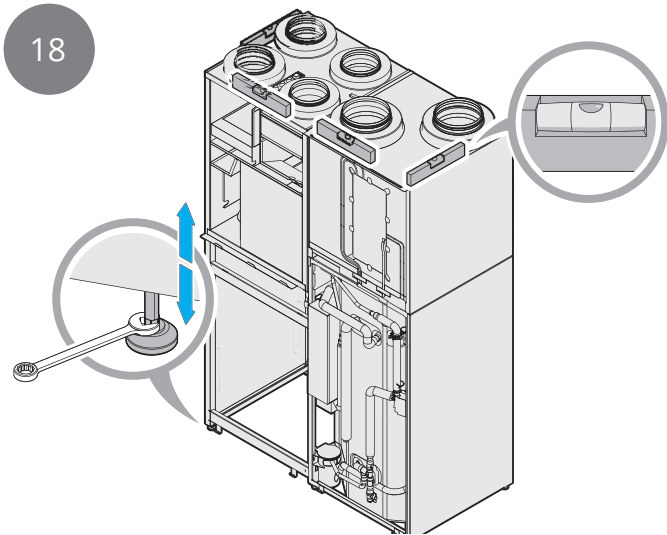
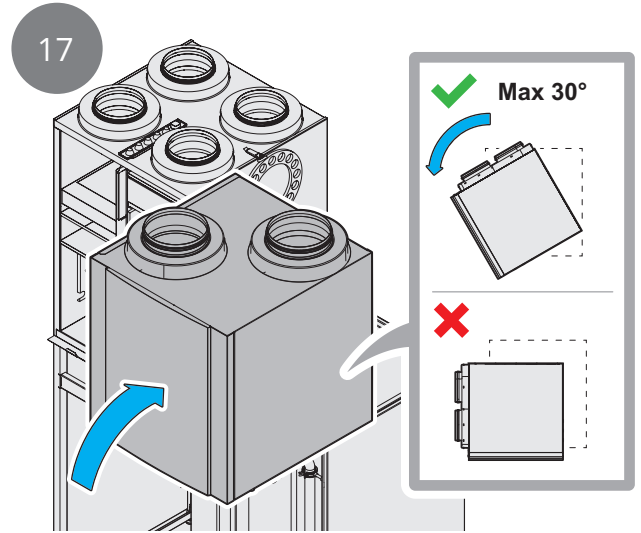
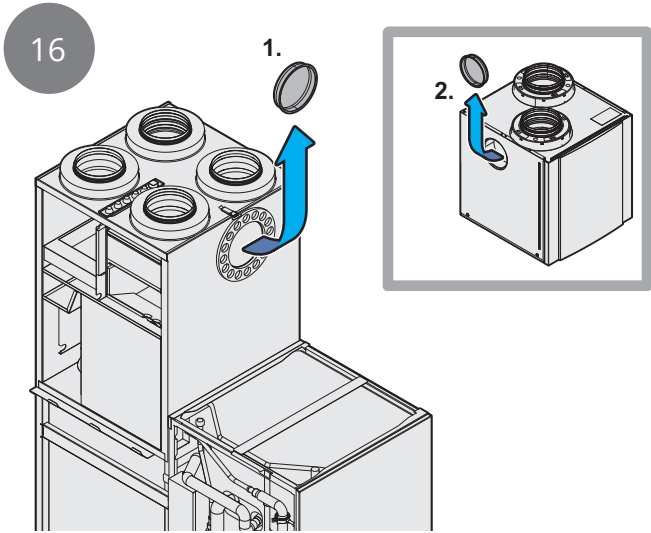
Number of persons	2
Time	45 min.
Tools	
	Screwdriver and TX20 bits
	Wrench, 24 mm
	Wrench, 8 mm
	Spirit level

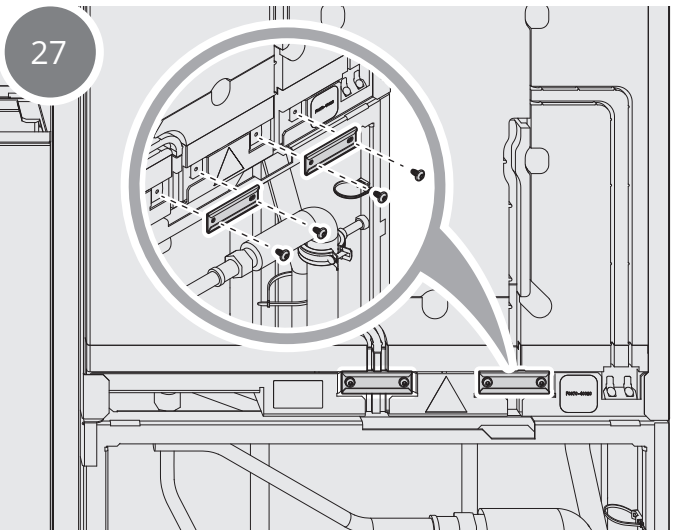
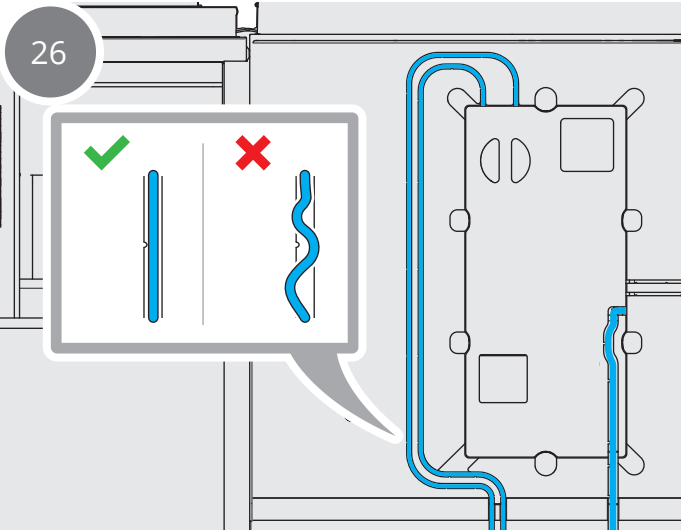
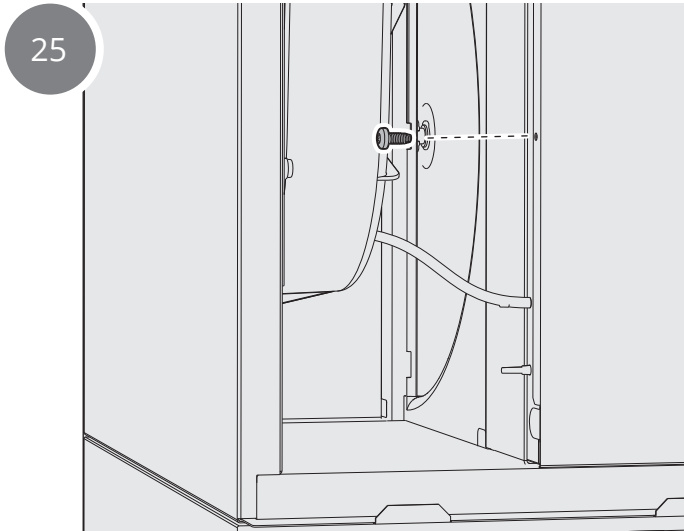
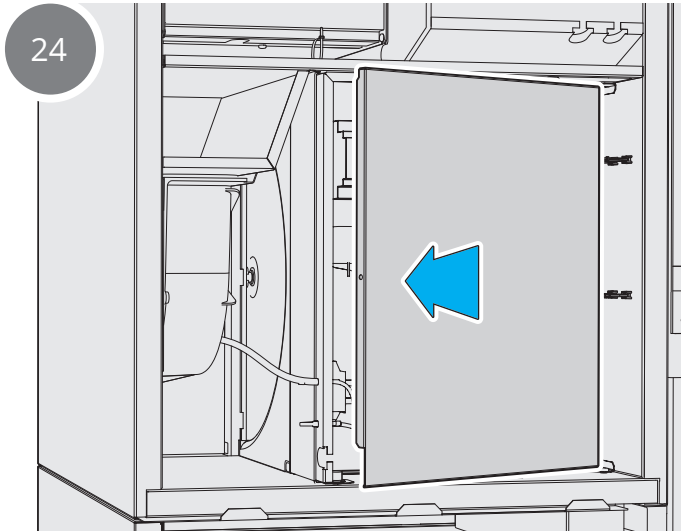
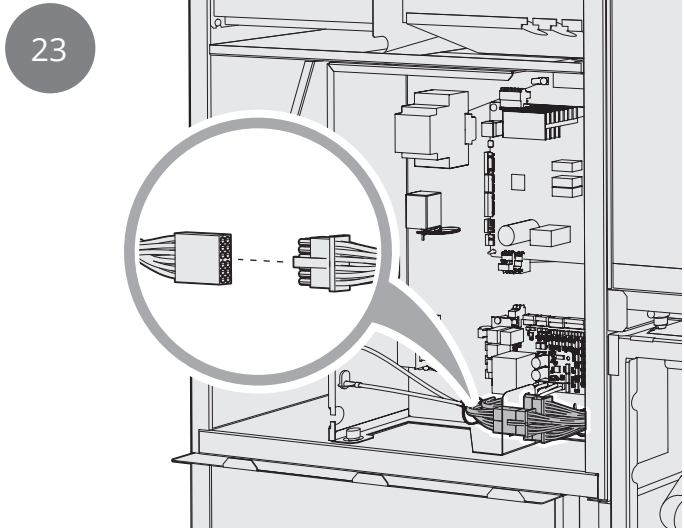
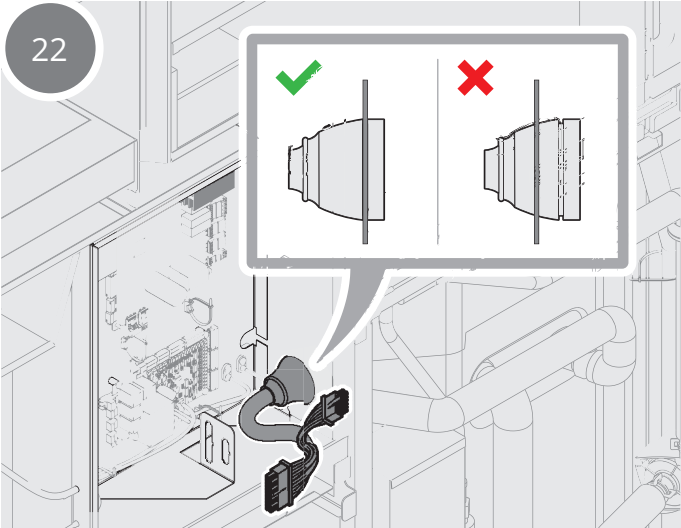
5.2.2. Instructions

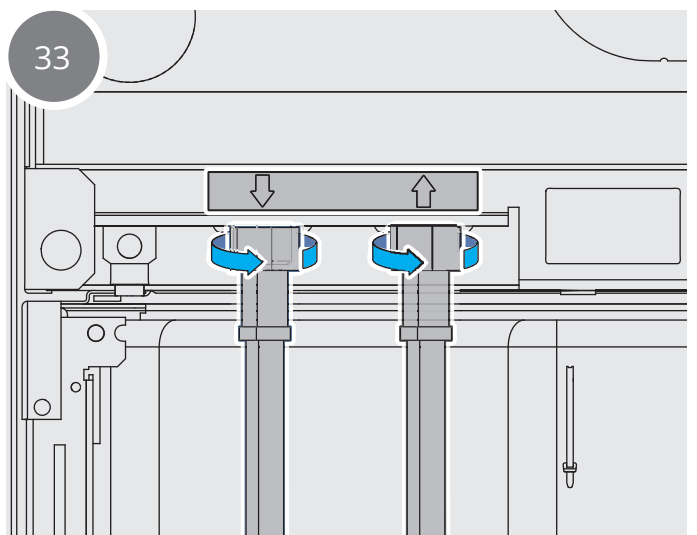
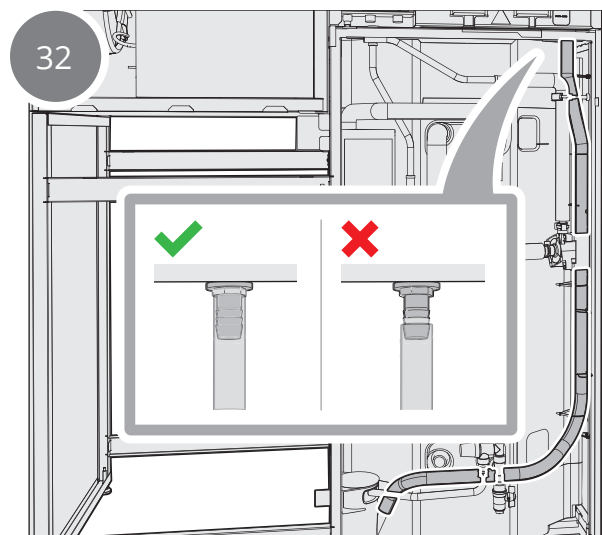
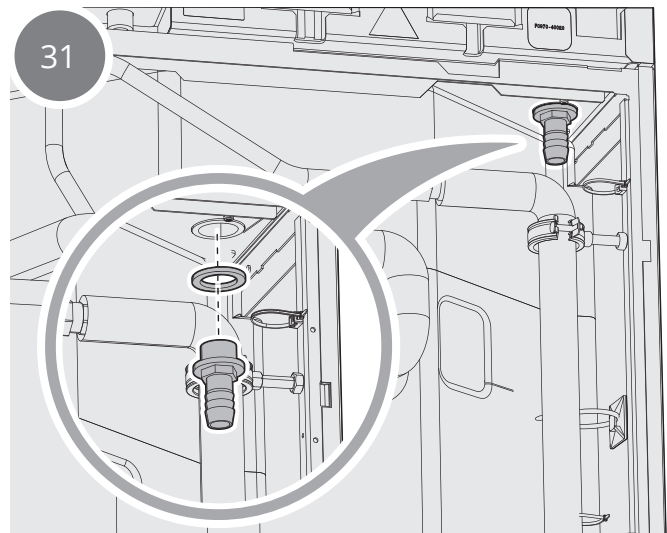
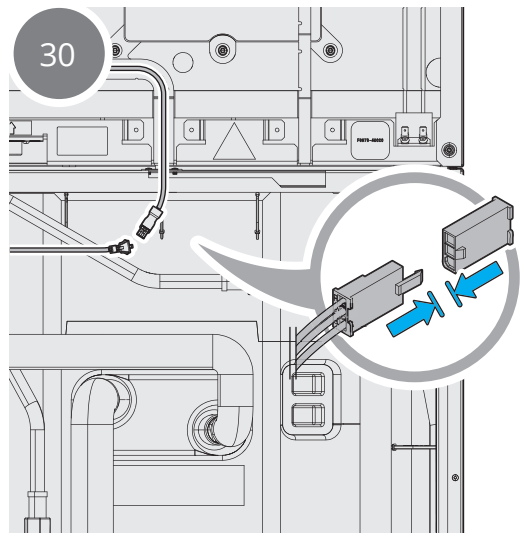
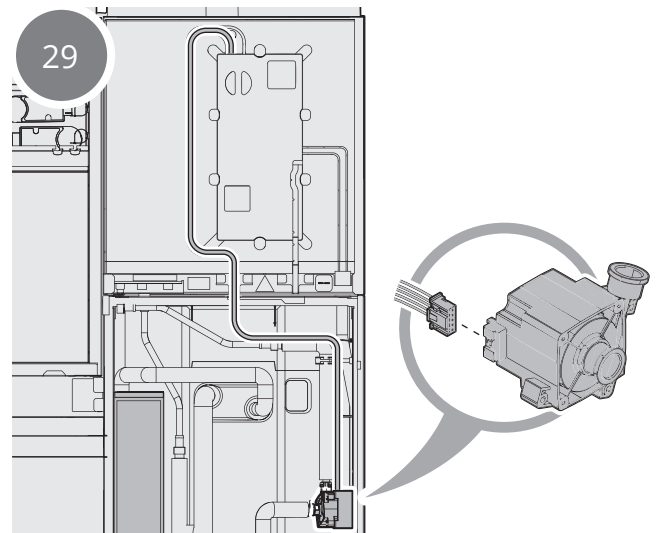
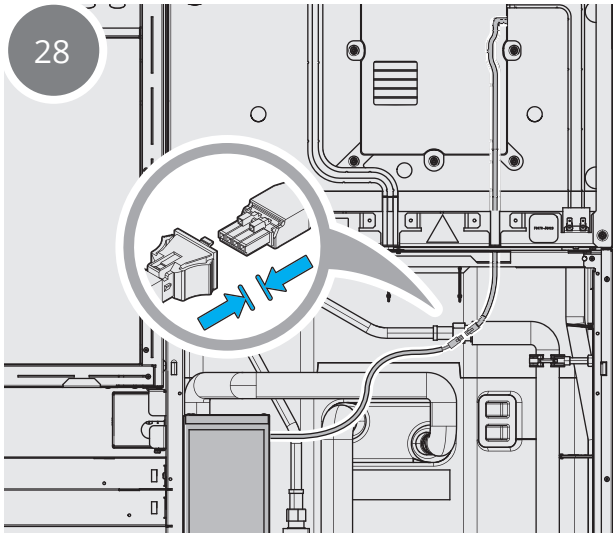


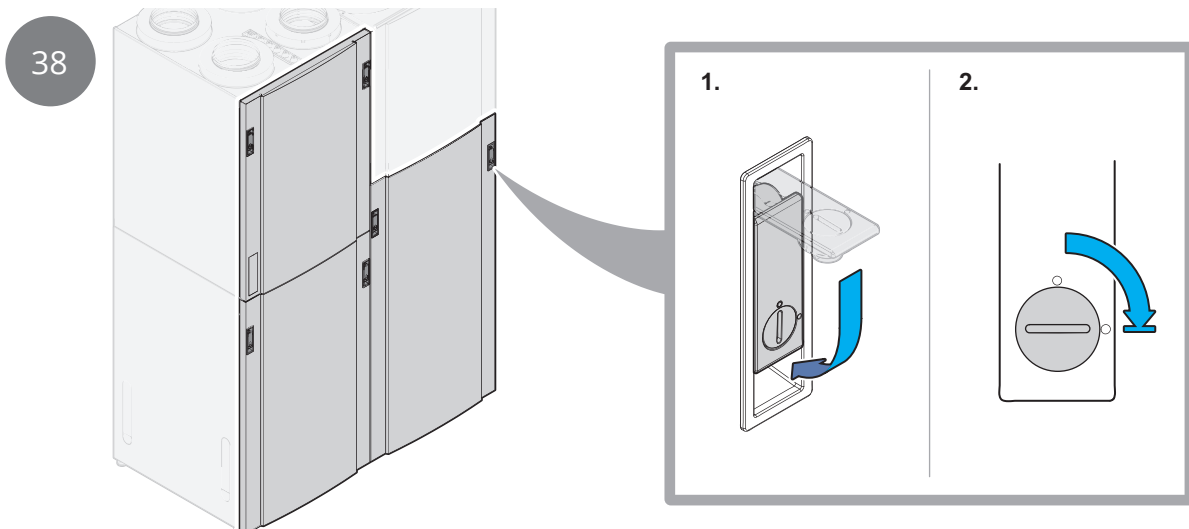
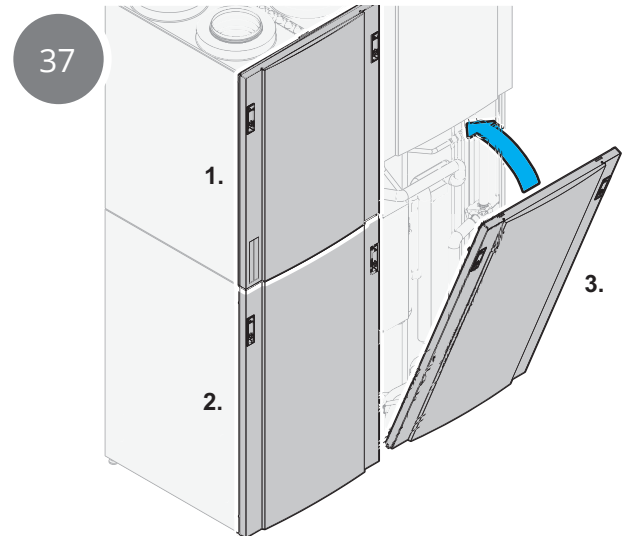
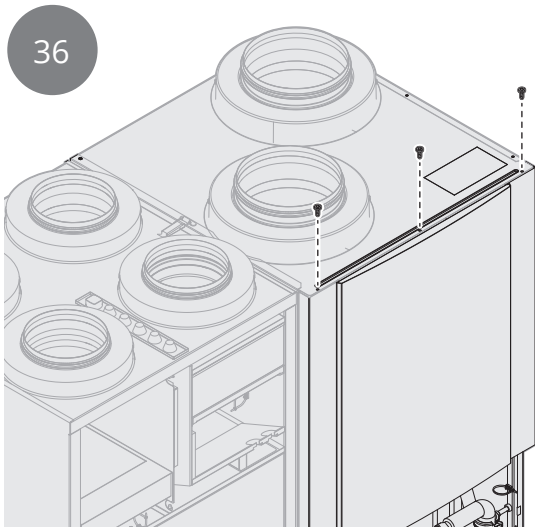
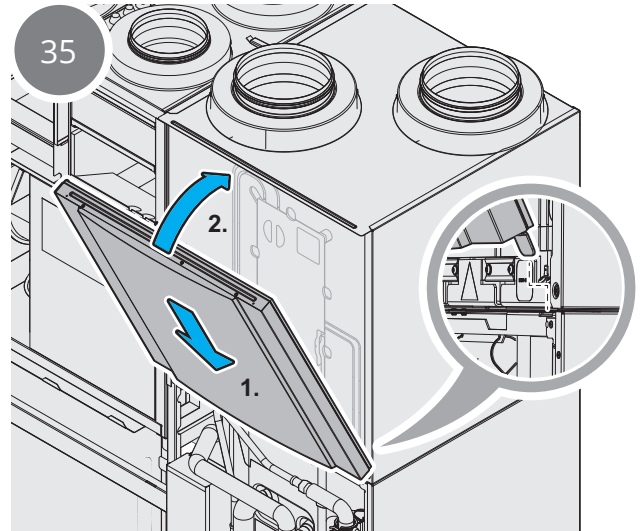
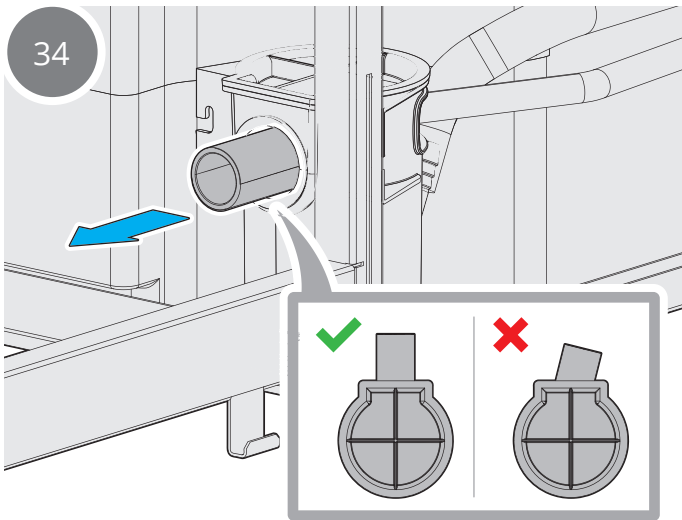












5.3. Assembly of ventilation ducts



CAUTION

Outdoor air to the heat pump and outdoor air to the ventilation must not be connected together.



CAUTION!

With duct enclosures, it must be possible to open or remove the front and right-hand panel.



NB

The exhaust air ducts from the heat pump and ventilation may be connected together.



NB

The exhaust air duct is laid at a slight gradient to the exhaust air hood, so that any water that has entered can run out again.



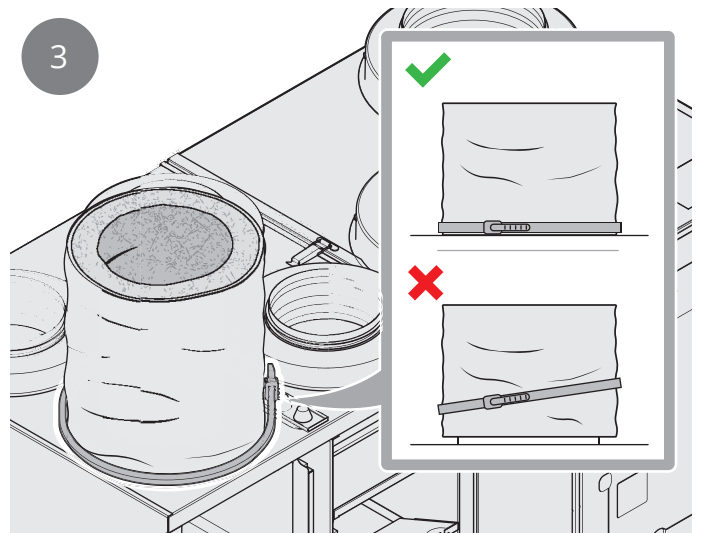
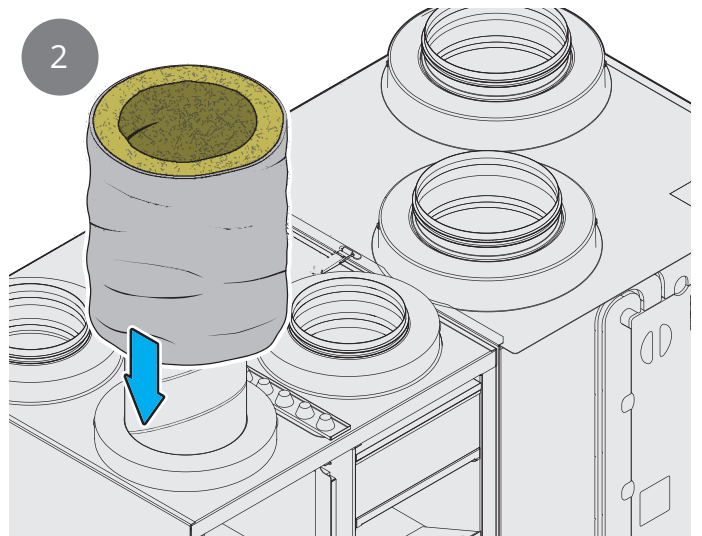
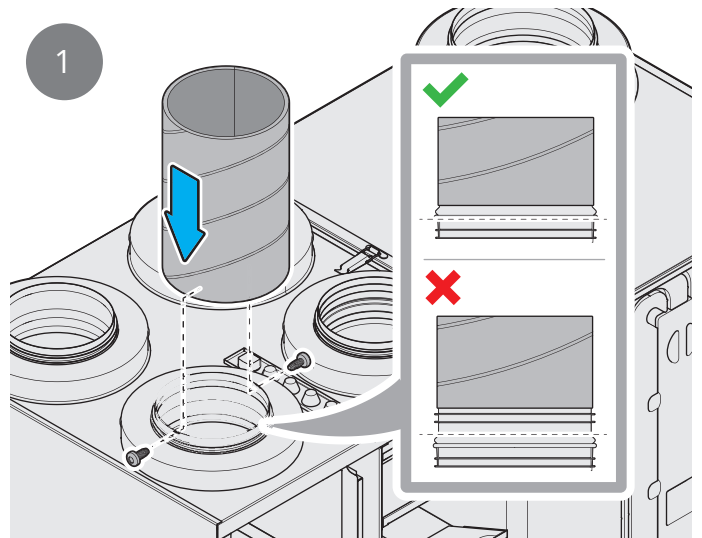
NB

Silencers should be installed on the main trunk to reduce fan noise to the rest of the duct system.

5.3.1. Prerequisites

Number of persons	1
Time	30 min.
Tools	Adhesive tape Screwdriver
Materials	50 mm insulation with insulation grade equivalent to $\lambda = 0.035 \text{ W/m}^2\text{°C}$ or better

5.3.2. Instructions



5.4. Electrical installation

The product may be converted to 230V~3.
The necessary equipment is supplied. See separate conversion instructions and wiring diagram.



DANGER

All electrical connections must be carried out by a qualified electrician.



DANGER

The product should be connected to 400 V, 3-phase+N, 16 A with an earth leakage switch and all-pole circuit breaker. Earth leakage switch must be type B.



NB

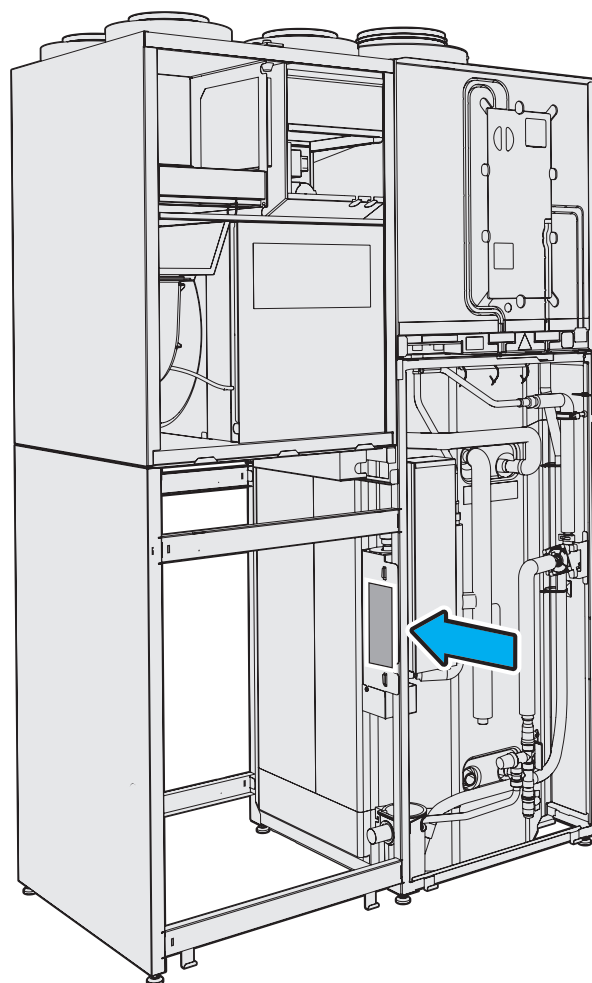
The location should be selected in accordance with national legal requirements concerning electrical safety. Check which regulations apply in your country.



NB

The PG nipples for the power cable and control cable must be tightened to at least 2.0 Nm.

5.4.4. Circuit diagram and conversion, electricity



The circuit diagram is on the left-hand side of the tank module.

5.4.1. Before you start

Check that all electrical connections between the modules have been made.

5.4.2. Internet access

The unit should be connected to the internet. A cable duct with at least Ø20 mm for the network cable should be laid between the unit and the home router.

5.4.3. If accessories are used

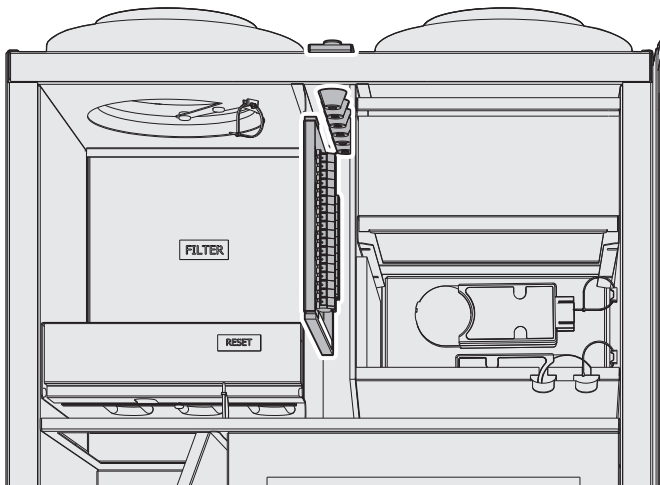
Lay a Ø16 mm duct between the unit and the intended location of the accessory (kitchen fan, pressure monitor etc.).

See the user manual of the accessory for further information.

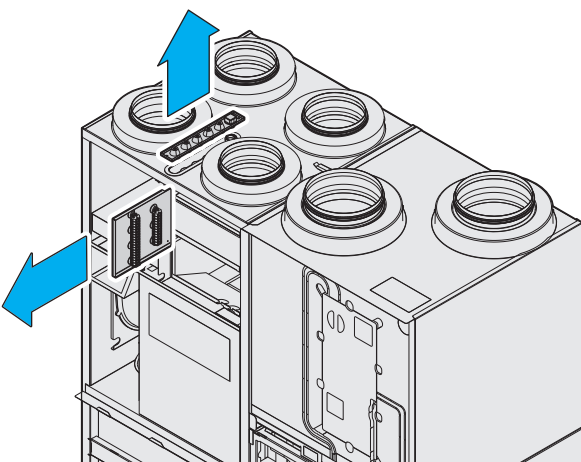
5.4.5. Prerequisites

Number of persons	1
Time	60 min.
Tools	Screwdriver Descaler

5.4.6. Control and accessories



Pull out the panel with connection terminals so that the connections are accessible. The panel with seals right at the top may be loosened for easier access.



Connection table

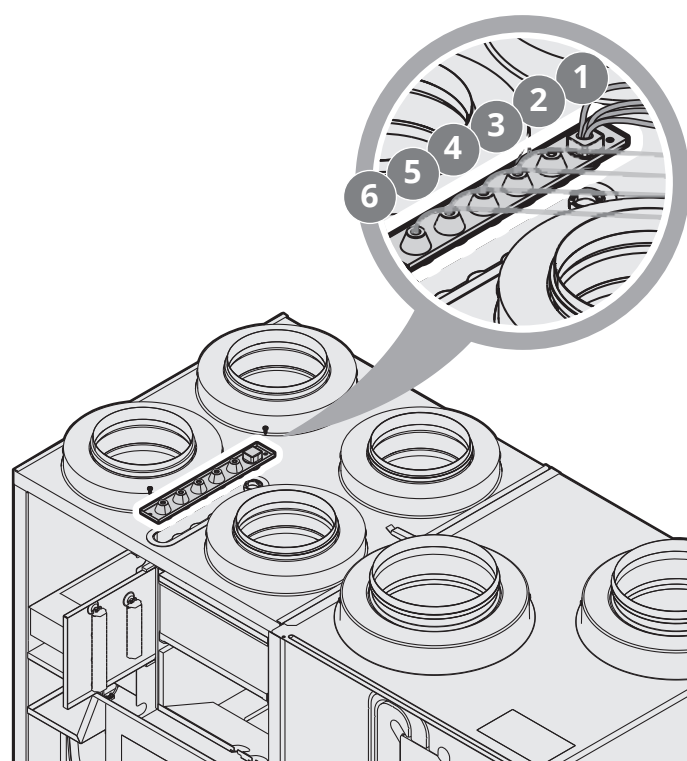
1	X8*	Digital input X8 The following choices are available: None Home <u>Away</u> Emergency stop CO ₂ detector Smoke detector—extract air Smoke detector—supply air Smoke detector—off Smoke detector—max. Fire damper feedback			
		2 G0	Signal ground		
		3 Q1 C**	Supply, digital output 1		
4	Q1 NO*	Digital output 1 normally open The following choices are available: None <u>Outdoor air damper</u> Fire damper Common alarm/maintenance indication Alarm indication Maintenance indication Operating indication Bypass damper Cooling pump			
		5 Q2 C**	Supply, digital output 2		
		6	Q2 NO*	Digital output 2 normally open The following choices are available: None Outdoor air damper Fire damper <u>Common alarm/maintenance indication</u> Alarm indication Maintenance indication Operating indication Bypass damper Cooling pump	
				7 L (230 V)	L 230 V
				8 N (230 V)	N 230V
9 GND	PE				
10	M14 C	Frost protection damper, heat pump C (230VAC)			
11	M14 NO	Frost protection damper, heat pump NO (230VAC)			
12	Cooling	0-10 V Water cooling valve			

* Inputs/outputs that may have different functions, depending on the configuration selected via Flexit GO. The choice underlined is the default setting.

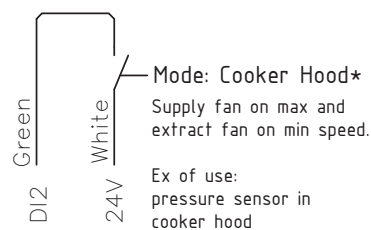
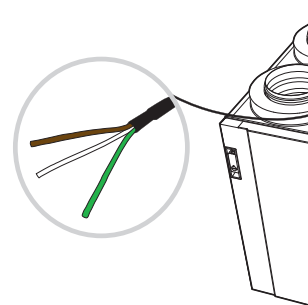
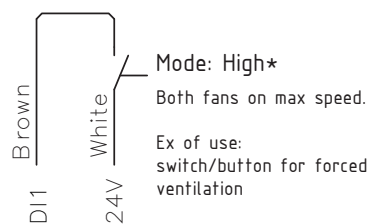
** Max. voltage 230 V AC, max. current 2 A resistive load.

Location of penetrations for electric cables

	Cable type
1	Network cable
	Control panel cable (CI-70)
	3-core cable (e.g. for kitchen fan) (D11&D12)
	Accessory cable (Accessories)
2	Spare (accessories)
3	Spare (accessories)
4	Spare (accessories)
5	Spare (accessories)
6	Spare (accessories)



Example how to connect D11 & D12 cable



* default config

I/O	Selection	Comment
Selection for D11 (input)	None Cooker hood Fireplace *Fire damper feedback High Stop Home Away	This is where to select the function of digital input D11. The available alternatives are the various ventilation positions. *If you have configured the fire damper, feedback will also be an alternative.
Selection for D12 (input)	None Cooker hood Fireplace *Fire damper feedback High Stop Home Away	This is where to select the function of digital input D12. The available alternatives are the various ventilation positions. *If you have configured the fire damper, feedback will also be an alternative.

5.4.7. Connection of a frost protection damper



CAUTION!

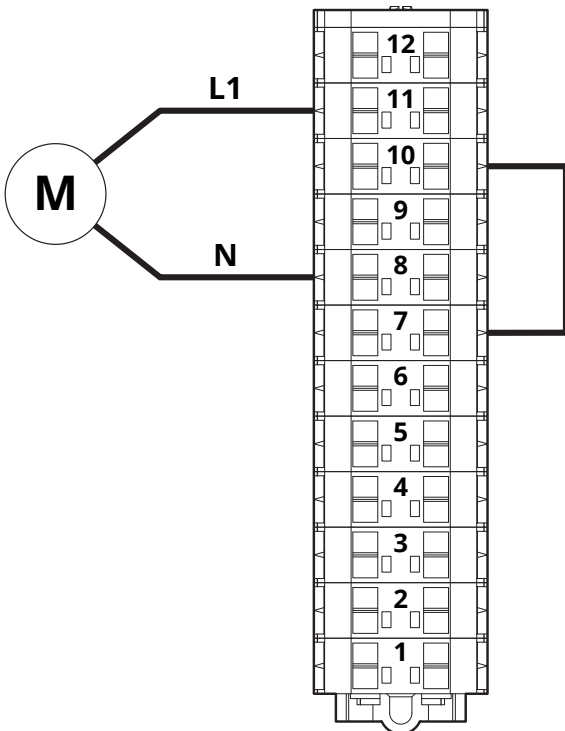
A frost protection damper must be connected to prevent the heat pump's water circuit from freezing in the event of a power cut.

The damper must be a 2-core 230 V damper with mechanical spring return to the closed position in dead state. Flexit product 14481 (Ø200) or 14485 (Ø250) can be used.

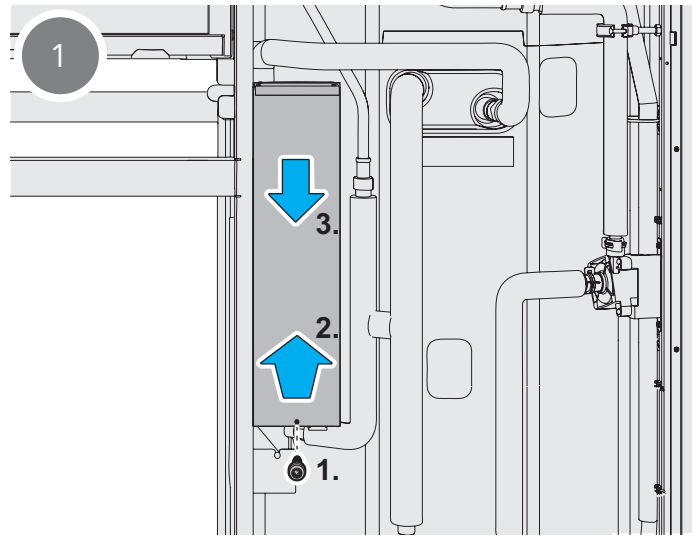
Electrical connection

NB! Remember to bridge between outputs 7 and 10. See the table in section 5.4.6 for a description of inputs and outputs.

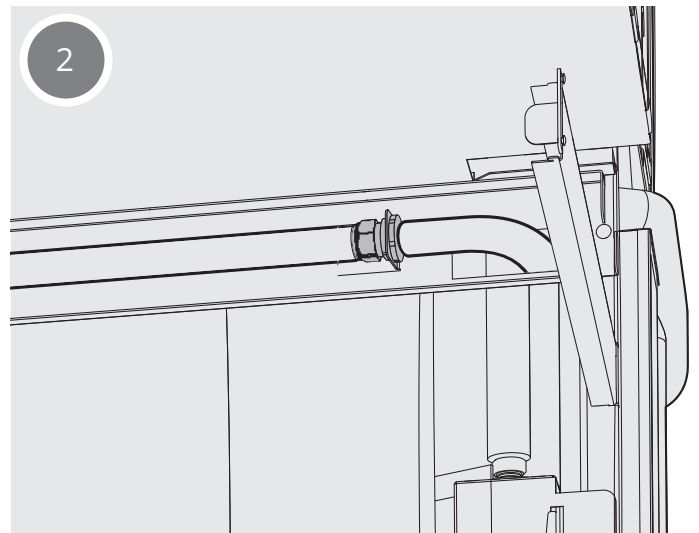
As from ventilation modules with art. no. 800480-000036 & 800481-000168, the bridge is factory-fitted.



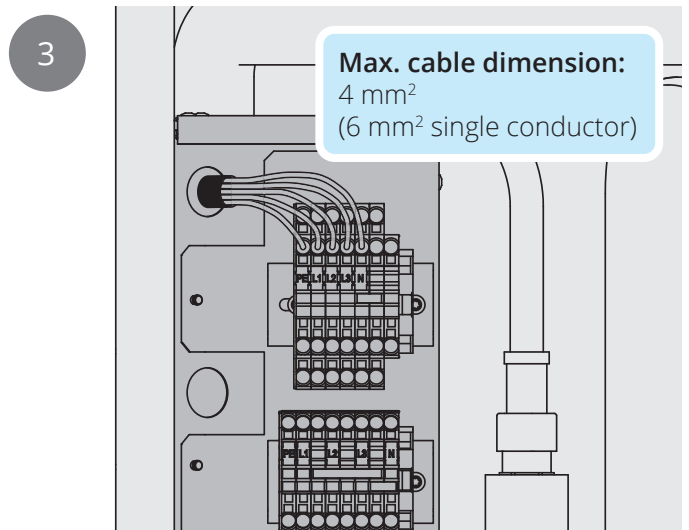
5.4.8. Voltage supply



Loosen the screws to the lid over the electricity box and remove the lid.



Tighten the nipple to 2 Nm.



5.5. Water and pipe work

Piping should be laid, without clamping, in the inner wall adjoining the bedrooms and living room. This is in order to avoid any transmission of noise and vibration.

CAUTION
No soldering is to be carried out on the product's connections.

NB Ensure that a dirt filter is installed in the incoming cold water supply so that no unnecessary particles enter the product.

5.5.1. Domestic Hot Water Recirculation System

The use of extra Domestic Hot Water recirculation pump is not recommended.

5.5.2. Incoming water

The incoming water pressure should not exceed 0.45/4.5 MPa/bar. If the water pressure exceeds 0.45/4.5 MPa/bar a pressure reduction valve (with check valve) must be installed.

Fix the label to the incoming water pipe to ensure that incoming water is not turned off while the product is in operation.



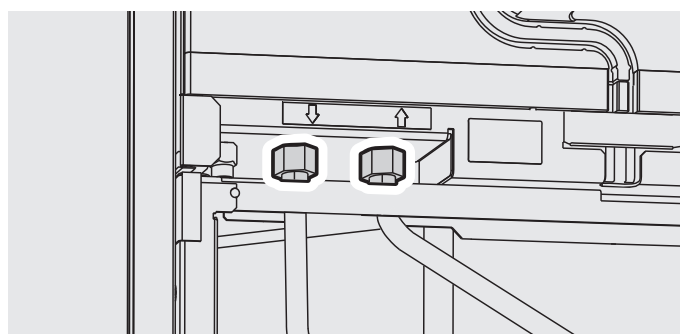
Label

5.5.3. Water quality

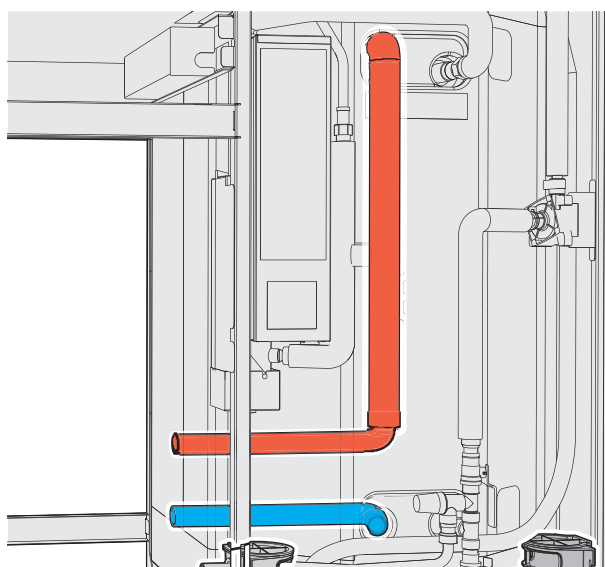
If the drinking water has a higher dH (German hardness) than indicated below, a softening filter must be installed. This is to safeguard the heat pump's function.

pH value:	Min. 7
Calcium content:	Max. 50 mg/l = 7 °dH
Magnesium content:	Max. 10 mg/l
Carbon dioxide (free):	Max. 5 mg/l
Chloride content:	Max. 250 mg/l
Sulphate content:	Max. 250 mg/l
Combined chloride and sulphate content:	Max. 250 mg/l

5.5.4. Water connections



Check the connections to the heat pump. Tightening torque 30 Nm.

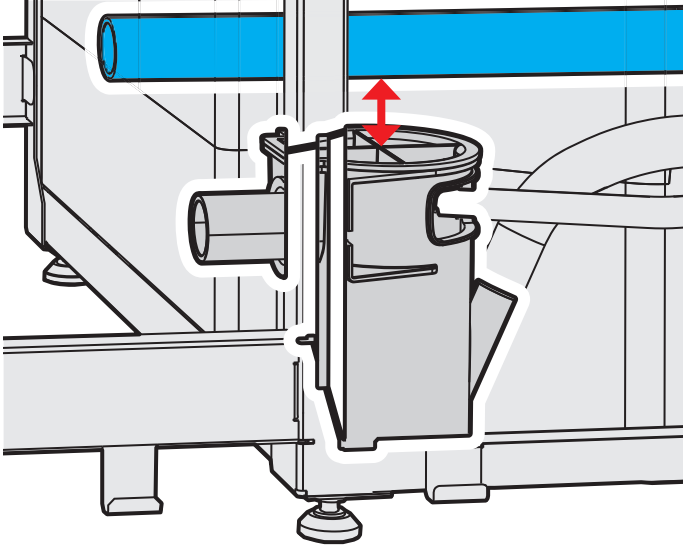


Hot water connection Ø22 mm, flat end.
Cold water connection G3/4".
Normal piping is shown.

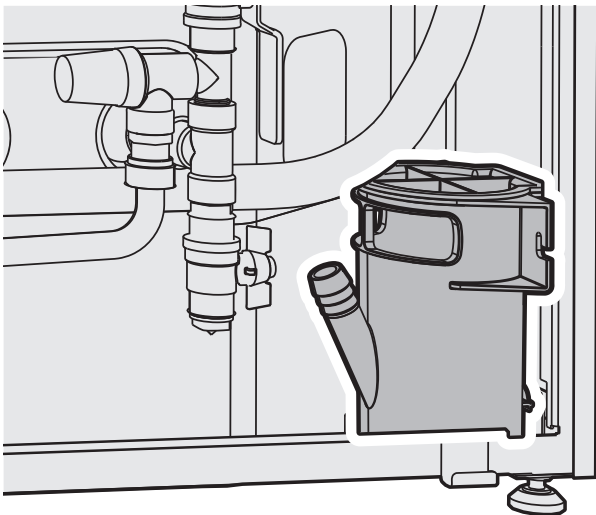
5.5.5. Drainage

Drainage water from the evaporator and safety valve are led via a non-pressurised pipe to the drainage cup and on to the drainage gully. Check that the drain pipe has a downward fall all the way to the floor gully.

The drainage cup dimension for further connections is dia. 32 mm.



CAUTION! Make sure there is good access to the drainage cup, allowing this to be cleaned when necessary.

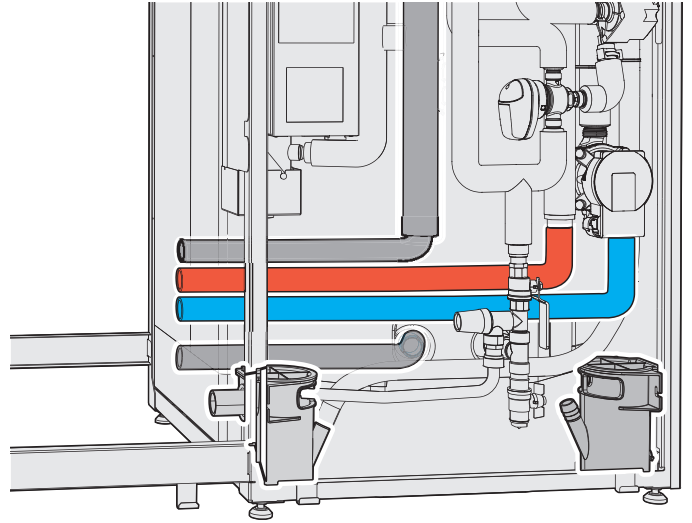


Alternative exit for hot and cold water pipes.
Alternative location for drainage cup.

The drainage hose can be cut and moved.
A hole can be made in the side wall where indicated.

5.6. Connecting the heating system WH4

For domestic water connections, see chap. 5.5.4.



G1" connections for heating system.
Normal pipe route shown

5.6.1. Installation

CAUTION! The pipe system must be flushed clean before connecting the heat pump to avoid any contamination in the pipes damaging the components in the product.

A suitable filter must be inserted on the return water side to extend the service life of the components.

5.6.2. Dimensioning

**NB**

The safety valve must have an opening pressure of max. 0.3/3 MPa/bar and be mounted on the heating medium's return side.

The feed temperature must normally be set between 25°C and 45°C. Check the recommendations for the floors in the specific home.

**CAUTION!**

Be especially aware of the max. and min. temperatures when making the initial settings, as incorrect values could damage the floor. Check the recommendations for the specific home.

Highest permitted return temperature: 50°C

Water quality

Ordinary tap water may be used in the heating medium circuit.

Particularly hard or corrosive water should be avoided .

6. Commissioning

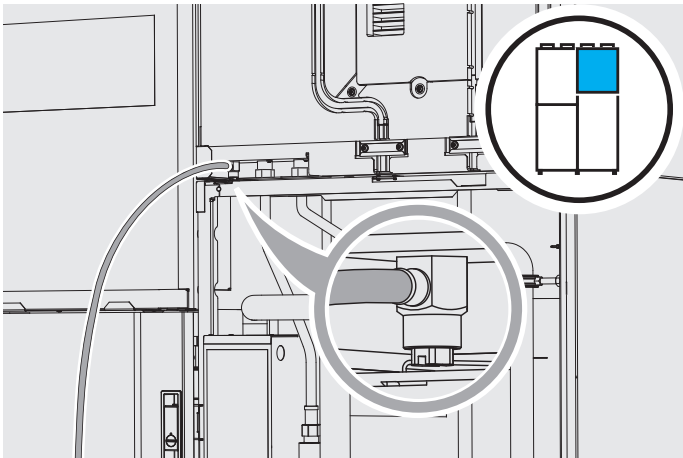
6.1. Prior to commissioning

**CAUTION!**

Prior to commissioning, the following instructions must be followed to avoid damaging the product.

NB! Important points before connecting the product to the power supply.

- 1 All water connections on the primary and heating medium side must be connected as indicated in the previous chapters.
- 2 Tank/primary circuit must be filled with water. Remember to open the cut-off valve when filling the tank. This must always be open when the product is in operation and only closed for servicing the primary circuit. Open a valve during filling to ensure that most of the air is vented from the system.
- 3 Water supply must be opened.



- 4 Connect the venting hose as shown. Lead the hose to a container to avoid water spillage on the product.
- 5 The heating medium circuit (WH4) must be filled before startup.

Electric power may now be applied.

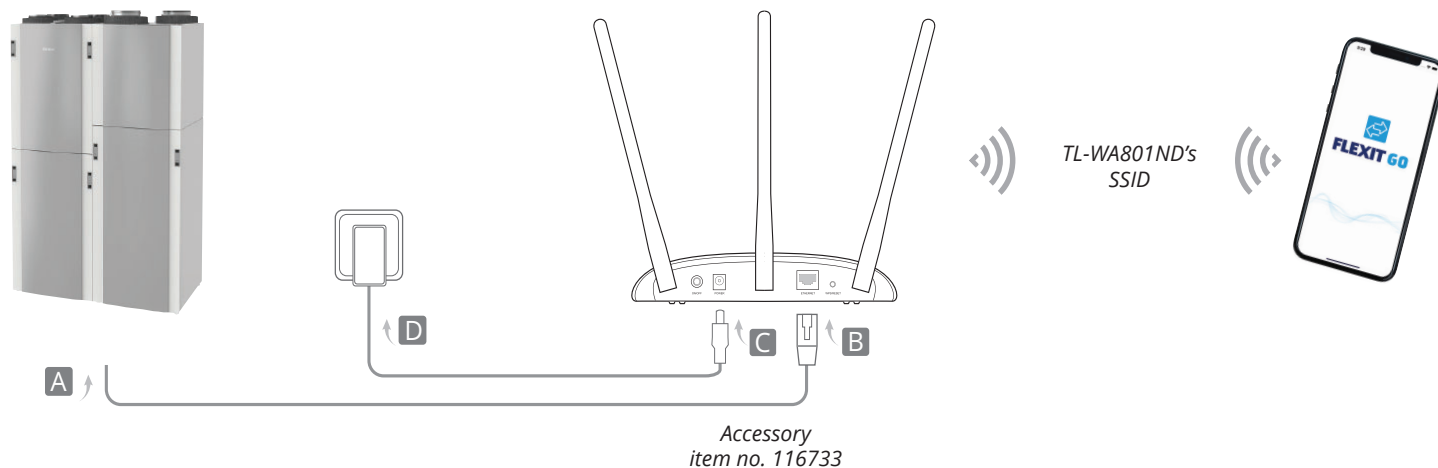
On connecting electric power, the circulation pump in WH4 will start up. Venting of the heating medium circuit may now be completed.

6.2. Connection

Depending on whether or not there is a network available, follow the appropriate instructions below.

6.2.1. No network available

Connect the product to the access point (accessory item no. 116733).

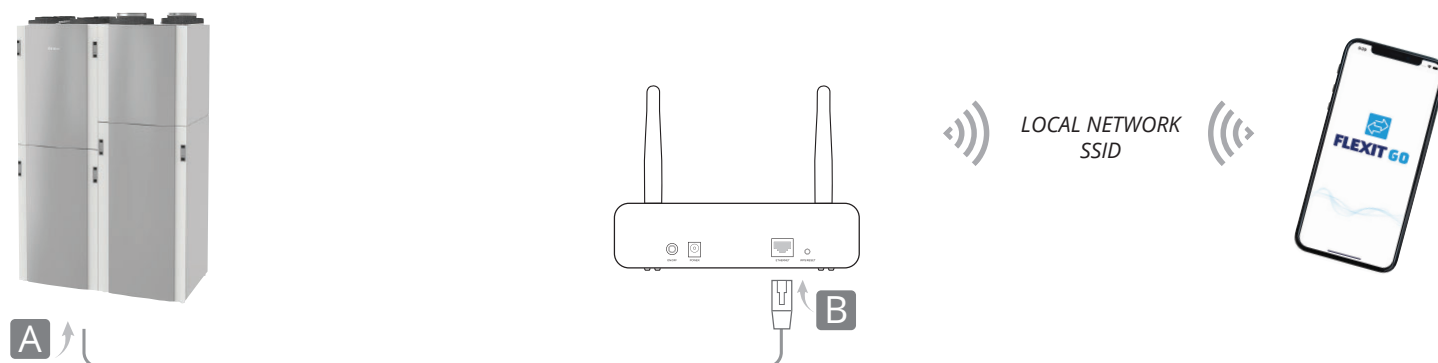


- 1 Connect a network cable from the product to the access point (A to B).
- 2 Connect the mains adapter to the access point (C till D).
- 3 Switch on the access point and wait until the LEDs for current (🔌) and wireless (📶) are illuminated continuously.

6.2.2. Network available

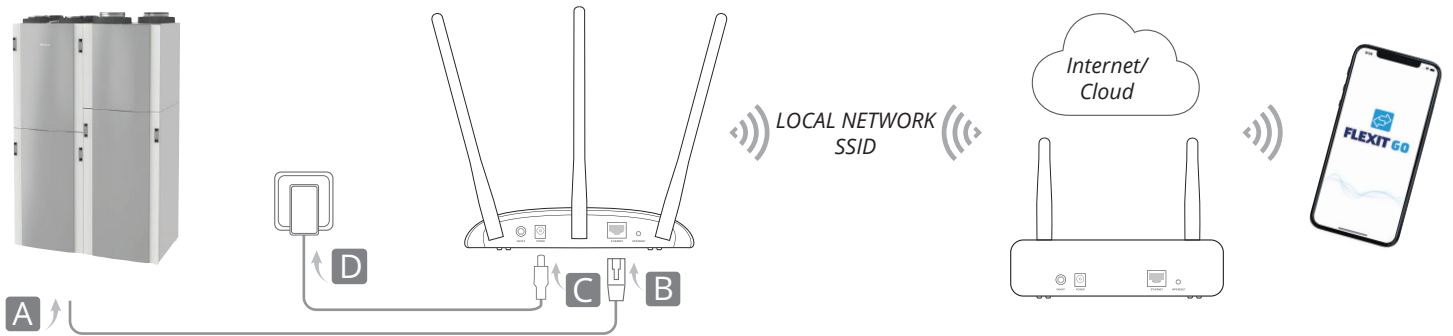
If there is a network available, the product can be connected in two ways: with a network cable or with Wi-Fi using accessory item no. 116733.

Connect the product to the home router with a network cable.



- 1 Connect a network cable from the product to the home router (A to B).

Connect the product to the home router via Wi-Fi
(accessory item no. 116733).



- 1 Connect a network cable from the product to the access point (A to B).
- 2 Connect the mains adapter to the access point (C till D).
- 3 Switch on the access point and wait until the LEDs for current (⏻) and wireless (📶) are illuminated continuously.
- 4 Connect to the accessory's Wi-Fi network by using a standard SSID and the password (printed on the label of the access point).
- 5 Open a web browser and enter 192.168.0.254
- 6 Log in with **admin** (lower case) as both user name and password.
- 7 Press 'Quick installation' and press 'Next'.
- 8 If you wish, change the login password and press 'Next'.
- 9 Select client mode and press 'Next'.
- 10 Follow the instructions to complete the configuration.

6.3. Connect to the product



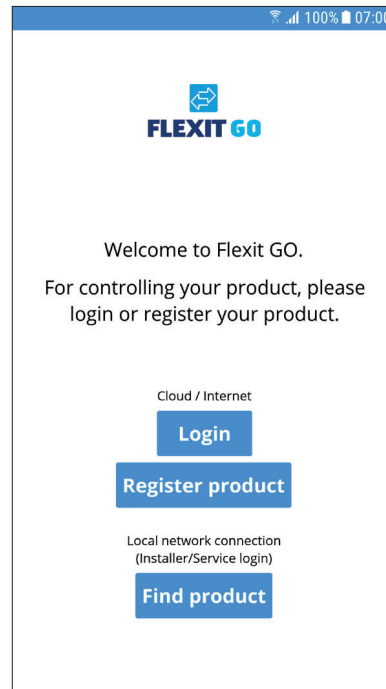
NB

The product is commissioned by means of a direct wireless connection between the product and a mobile telephone or tablet with the Flexit GO app installed.

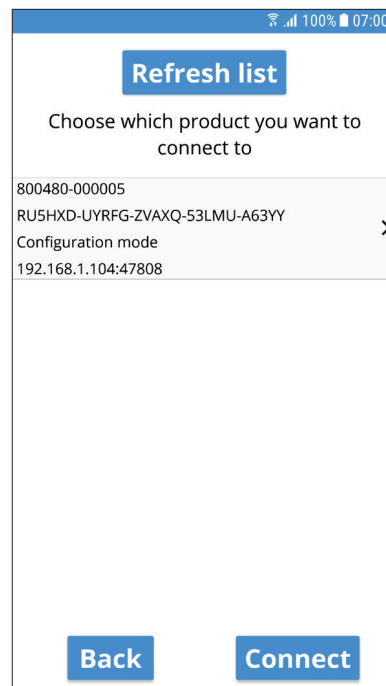
- 1 Download the Flexit GO application to your mobile device.



- 2 Switch on the product and access point (accessory item no. 116733) if you have not already done so.
- 3 Wait three minutes.
- 4 Go to the mobile device's settings for wireless networks.
- 5 Connect to router or access point.
If using the access point: Connect to the access point's wireless network. The SSID and password are printed on a label underneath the access point.
- 6 Start Flexit GO on your mobile device.



- 7 Press 'Find product'.

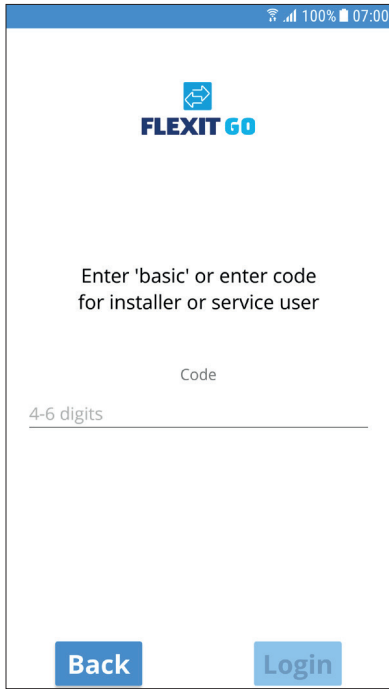


- 8 Press the unit which you wish to connect to from the list.
- 9 Press "Connect"

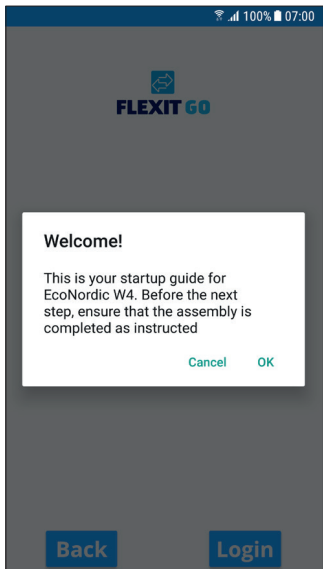


NB

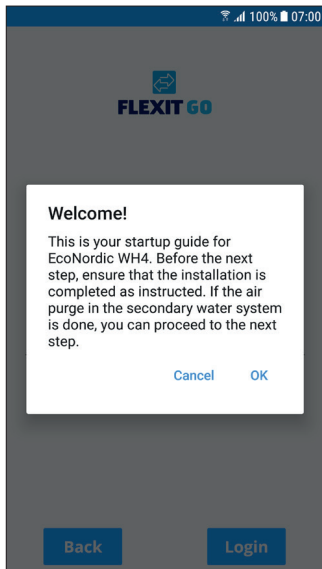
In order for the start-up guide to start, the product must be in configuration mode.



10 Enter the code '1000' to log in as installer.



W4



WH4

11 If everything is ready for the air purge to start, press 'OK' to open the Start-up Guide. If not, press 'Cancel'.

6.4. Start-up Guide



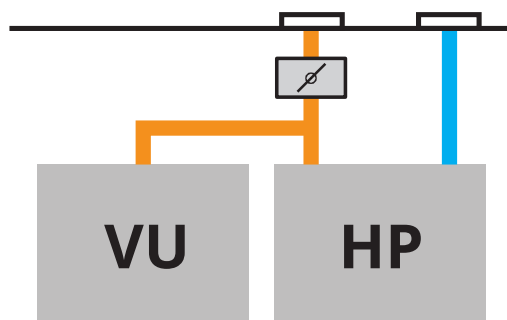
WARNING

If a correct adjustment of the unit is not carried out, its functioning may be affected and cause damage to the building.

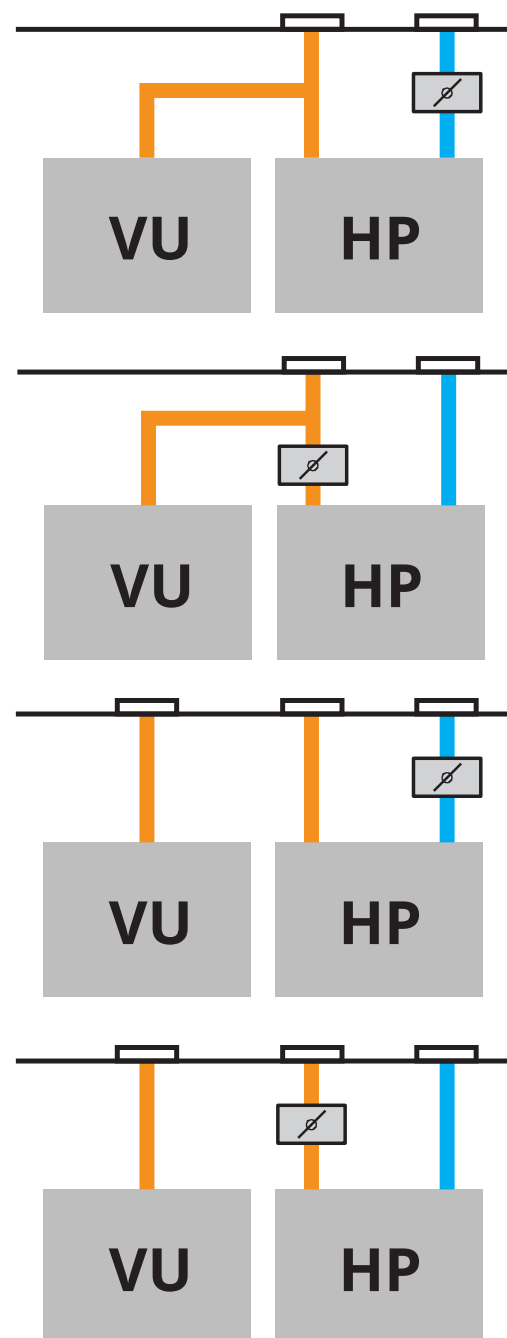
Startup Guide EcoNordic WH4/W4	
Is the frost protection damper mounted on a common exhaust air duct from the heat pump and ventilation?	
Selection	Yes >
Power electric heating	
Selection	3kW >
Cancel	Next

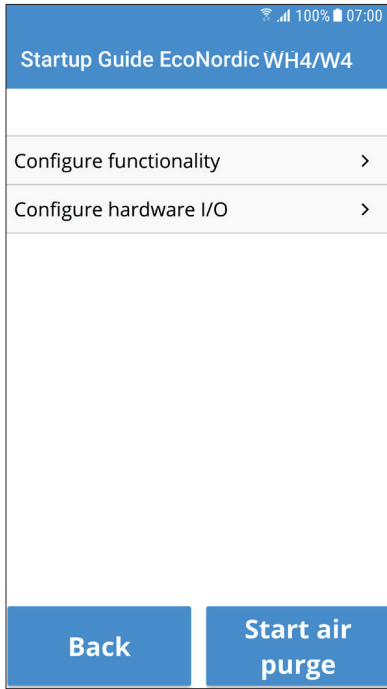
- 1 Select whether the frost protection damper is mounted on a common exhaust duct from the heat pump and ventilation system.
 - 1.1 Press "Select"
 - 1.2 Press "Yes" or "No".
 - 1.3 Press "OK"
- 2 Select between 1 kW or 3 kW electric element:
 - 2.1 Under Electric element output, press "Select".
 - 2.2 Press "1 kW" or "3 kW".
 - 2.3 Press "OK"
 - 2.4 Press "Next"

Select "common exhaust":

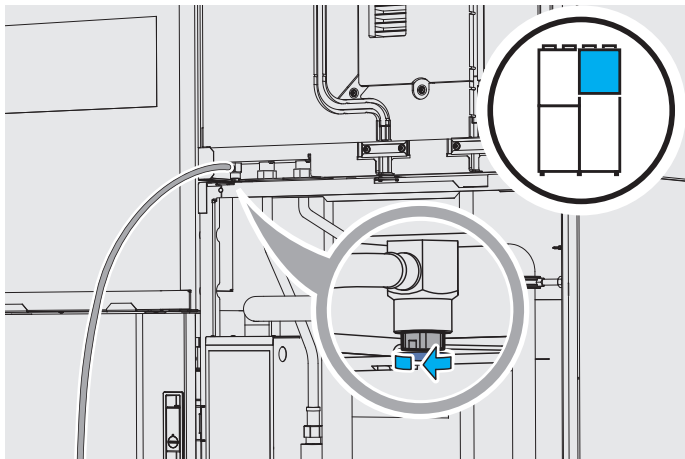


Select "separate exhaust":

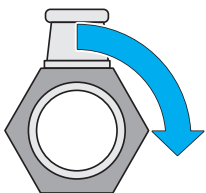




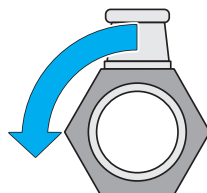
- 3 Are there any accessories connected which, according to their instructions, require configuration?
 Yes: press 'Configure functionality'.
 No: press 'Start air purge'.



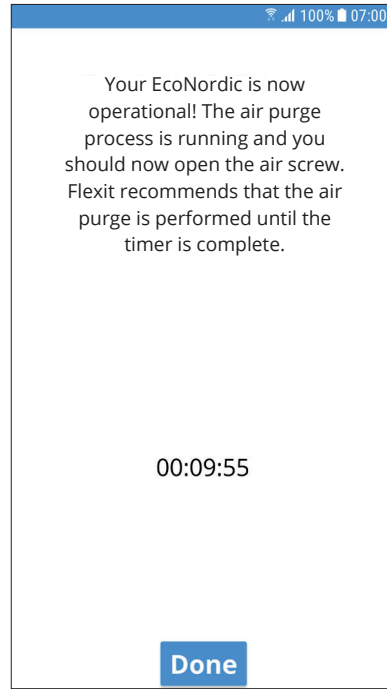
Use a 10 mm spanner to close and open the bleed nipple.



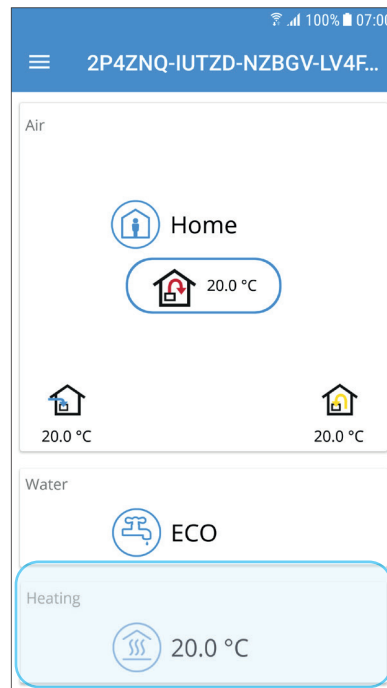
To close, screw to the right.



To open, screw to the left.



- 4 If you think the air purge has finished ahead of time, press "Ready".
 5 Press "OK" to stop the air purge.

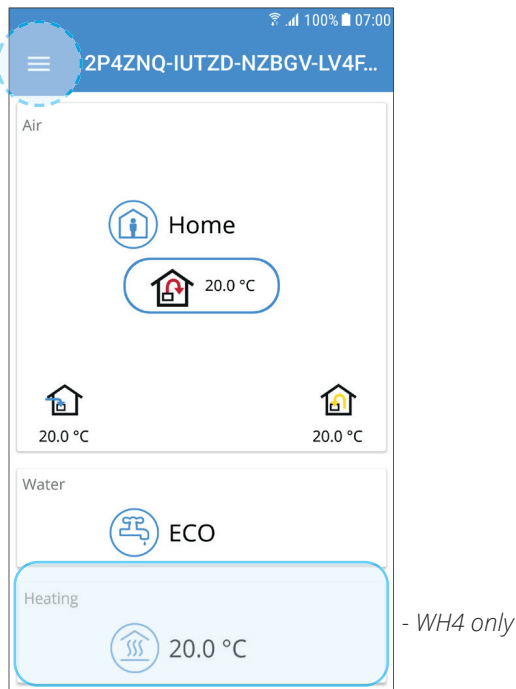


- 6 When you have finished the the air purge operation, you will return to the home page.

7. Adjustment

7.1. System differences between Android and iOS

The start screen will look differently depending on whether the mobile unit you are using is for the Android or iOS system. The most important difference is that Android has the menus as an option at the upper left of the start screen, while iOS has menu choice icons at the bottom of the screen.

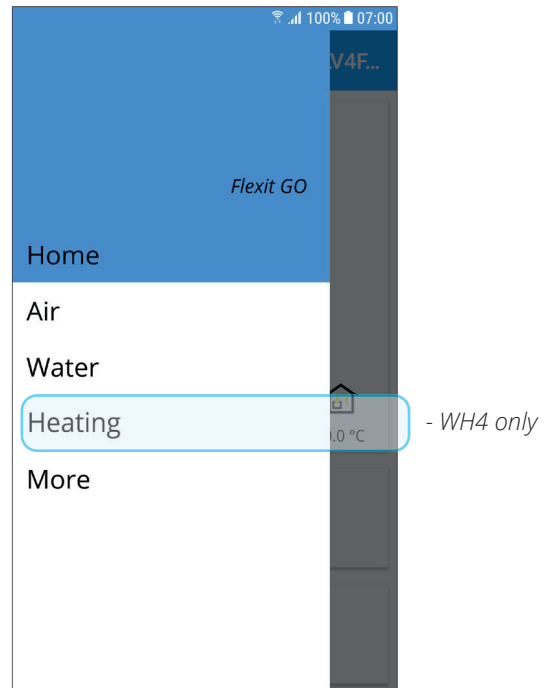


7.2. Initial adjustment, ventilation

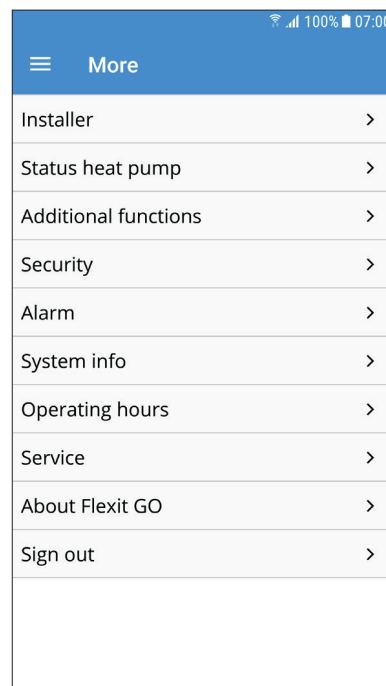


WARNING

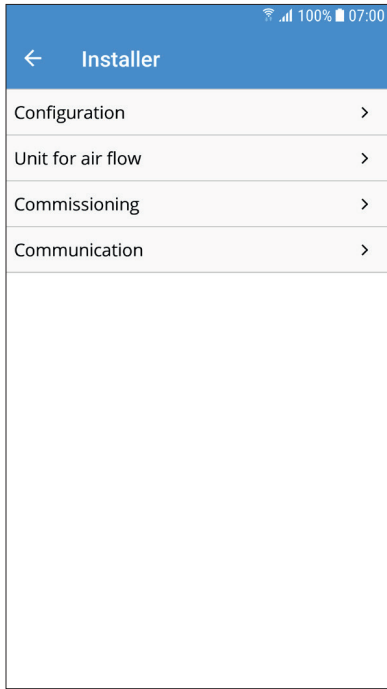
If adjustment of the product is not carried out correctly, its functioning may be affected and cause damage to the building.



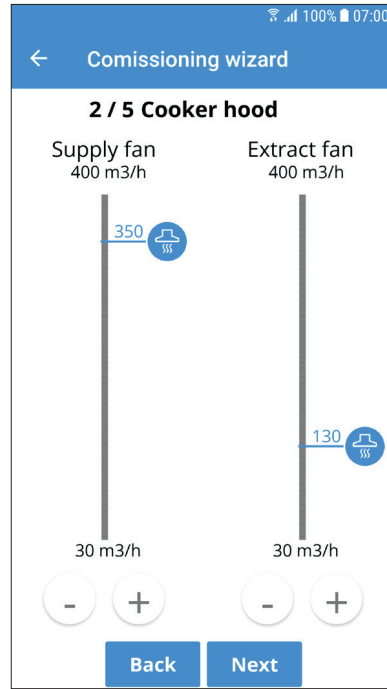
1 Press the menu selection 'More'.



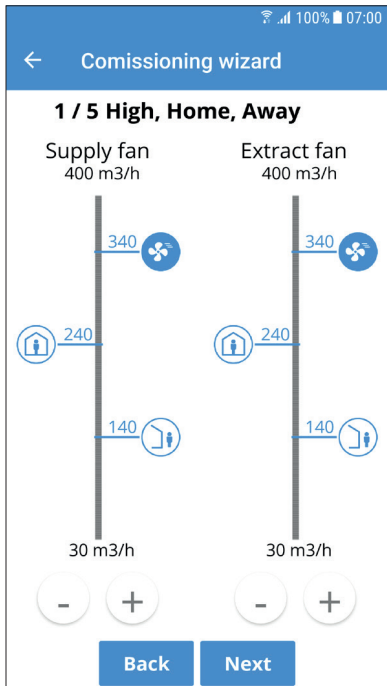
2 Press 'Installer'.



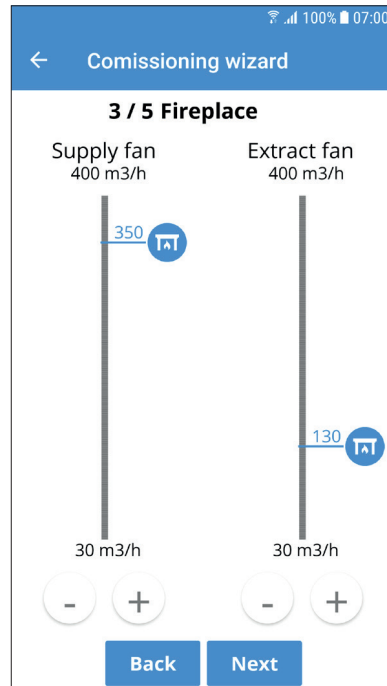
3 Press 'Commissioning'. Follow the guide and adjust the values as necessary.



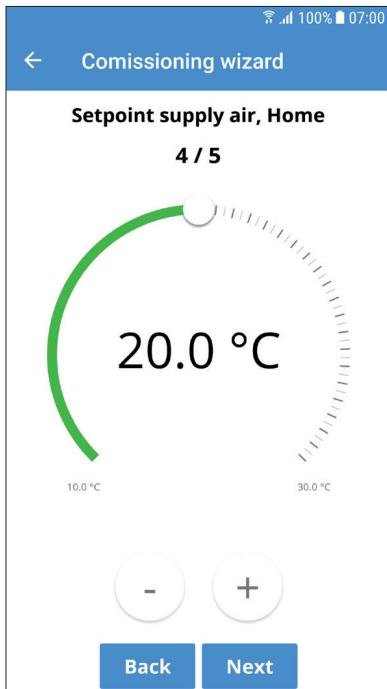
5 Adjust value if necessary. Press 'Next' to continue.



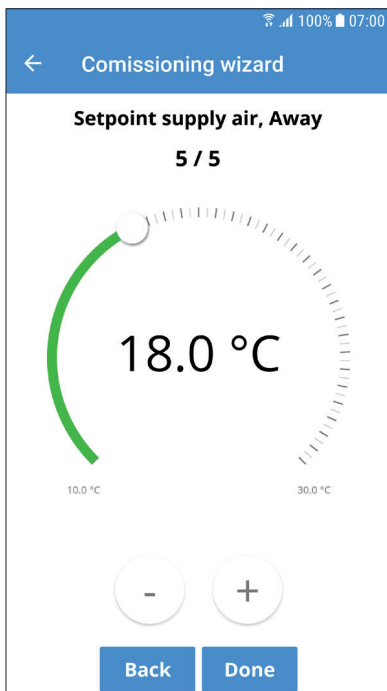
4 Adjust value if necessary. Press 'Next' to continue.



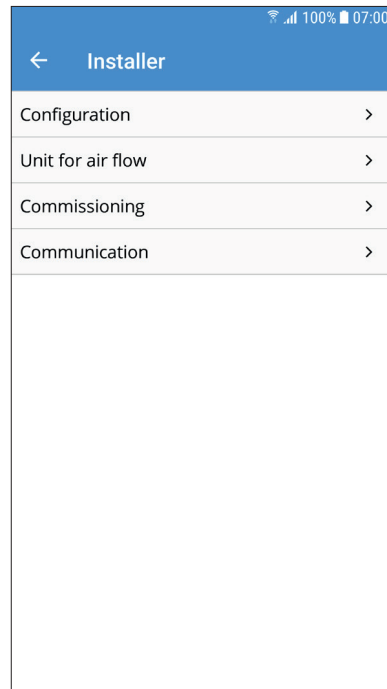
6 Adjust value if necessary. Press 'Next' to continue.



7 Adjust value if necessary. Press 'Next' to continue.



8 Adjust value if necessary. Press 'Done'.



The product is now ready to use.

7.3. Settings, heating

If you wish to adjust the heating settings, go to the main menu → “Heating” → “Advanced settings”

Heating, advanced	
Heating Curve settings	>
Floor drying function	>
If the temperature in the housing differs from the set value, you can use parallel shift to shift the entire heating curve.	
Set value	20.0 °C
Parallel shift	0.0 K >
Outdoor temperature limit for activation of space heating	
Limit	18 °C >
Outdoor temperature range where space heating needs between 1.5kW - 2.5kW	
Upper limit	10 °C >
Lower limit	-5 °C >
Outdoor temperature limit that allows electric heater to assist space heating	
Limit	-8 °C >
Limits for flow temperature	
Min	20 °C >
Max	45 °C >
Delta between flow and return	
Delta	5.0 K >
Hysteresis (on/off)	
On	2.0 K >
Off	2.0 K >

- The heat curve is adjusted here.
- Can be used in case of new production and to regulate feed temperature to a specific profile.
- Desired indoor temperature. These changes will not appear when viewing the heat curve, but will be added to or subtracted from the current target value.
- Parallel displacement of heat curve. Used if it is too hot or cold indoors, regardless of outdoor air temperature. These changes will not appear when viewing the heat curve, but will be added to or subtracted from the current target value.
- When the outdoor air temperature is below the indicated value, the circulation pump in the secondary circuit will start up. If the value is higher, heat regulation will be in standby mode.
- Working range when both the accumulation function from the tank and compressor operation are used alternately. For optimum operation, the output requirement in the home must be between 1.5 - 2.5 kW.
- When the outdoor air temperature is below the indicated value, the electric element can start up if heat is needed.
- Limits to heat curve target value. Should be adjusted in the case of underfloor heating.
- The desired delta between your feed and the return from your heating circuit is regulated by use of the secondary circulation pump.
- Regulation of heating requirement. If the difference between the actual and target value is greater than indicated, Power on or Power off will be activated. Before Power off is applied to the heating requirement, a 30 minute timer function must have been active.

To adjust the heating curve settings, go to “Heating curve settings”.

Heating curve	
Here you can adjust the flow temperature for each point in the heating curve	
Outside air: 15 °C	22.1 °C >
Outside air: 5 °C	27.8 °C >
Outside air: 0 °C	31.2 °C >
Outside air: -5 °C	32.6 °C >
Outside air: -10 °C	34.5 °C >
Outside air: -20 °C	38.4 °C >
Outside air: -30 °C	41.7 °C >

8. Final check

Check the following points:

Description	Chapter	Done <input checked="" type="checkbox"/>
Ducts have been insulated in accordance with instructions and technical documentation	3	<input type="checkbox"/>
Ducts have been connected with the correct nipples.	8	<input type="checkbox"/>
There is an inspection hatch for enclosed ducts and electrical connection	-	<input type="checkbox"/>
Water supply and outgoing hot water have been connected correctly and in accordance with legal requirements	-	<input type="checkbox"/>
The drainage outlet has been connected to the drain	-	<input type="checkbox"/>
The pipe circuit, water connections and drainage are leak-free	-	<input type="checkbox"/>
Label fixed to incoming water pipe	5	<input type="checkbox"/>
All electrical connections for voltage, control and any accessories are connected correctly and in accordance with legal requirements	-	<input type="checkbox"/>
Assembly and installation have been carried out in accordance with the instructions	-	<input type="checkbox"/>
Adjustment has been carried out in accordance with instructions and design documentation	-	<input type="checkbox"/>
The unit operates normally at every stage	-	<input type="checkbox"/>
The product produces hot water	-	<input type="checkbox"/>
The property owner has been instructed in, and informed about, the basic functions of the product	-	<input type="checkbox"/>
The doors are closed and the door locks turned to the horizontal position	-	<input type="checkbox"/>
(WH4) The product is producing heat and maintaining delta as shown	-	<input type="checkbox"/>

9. Technical data

		W4	WH4
		400 V~3N	400 V~3N
PERFORMANCE	Tap water profile (EN 16147)	XL	XL
	COP, tap water (EN 16147)	3.2	3.2
	Outgoing compressor capacity	3 kW	up to 4 kW
	Sound level (EN 12102)	52 dB(A)	52 dB(A)
	IP code	IP21	IP21
	Max. air quantity	370 m ³ /h @ 100 Pa	370 m ³ /h @ 100 Pa
	Operating point	240 m ³ /h @ 100 Pa	240 m ³ /h @ 100 Pa
	SFP	1,5 @ 240 m ³ /h	1,5 @ 240 m ³ /h
	Component efficiency	84 %	84 %
	Temperature efficiency	90 % <	90 % <
	SCOP (EN 14825)		3,08
CURRENT	Rated voltage	400 V~3N	400 V~3N
	Continuous flow through heater, capacity	3 kW (1 kW)	3 kW (1 kW)
	Fuse size	3x16 A (3x10 A)	3x16 A (3x10 A)
	Total rated current	14.3 A (10,0 A)	14.3 A (10.0 A)
	Total rated power	6.4 kW (4.4 kW)	6.4 kW (4.4 kW)
VENTILATION	Fan type	B-wheel	B-wheel
	Fan motor control	0-10 V	0-10 V
	Fan speed	3,750 rpm, max.	3,750 rpm, max.
	Control system, standard	Flexit GO	Flexit GO
	Filter type (IN/OUT)	ePM1 55% (F7)	ePM1 55% (F7)
	Duct connection	Dia. 160 mm	Dia. 160 mm
HOT WATER	Heater volume	197 L	197 L
	Nominal operating pressure	0.45/4.5 MPa/bar	0.45/4.5 MPa/bar
	Max. operating pressure	0.7/7 MPa/bar	0.7/7 MPa/bar
	Water temperature	5-65°C (Legionella: 75°C)	5-65°C (Legionella: 75°C)
	Minimum distance to combustible surfaces	no requirement	no requirement
HEAT PUMP	Refrigerant	CO ₂ (0.5 kg)	CO ₂ (0.5 kg)
	GWP	1	1
	Duct connection	Dia. 200 mm	Dia. 200 mm
	Max operating pressure	14/140 MPa/bar	14/140 MPa/bar
	Outdoor air temperature	Min. -25°C	Min. -25°C
	Inverter control	Yes	Yes
DIMENSIONS	Height	1,900 mm	1,900 mm
	Width	1,198 mm	1,198 mm
	Depth	650 mm	650 mm
WEIGHT	Total, excluding water	232 kg	238 kg
	Tank module	65 kg 59 kg (weight without door)	71 kg 65 kg (weight without door)
	Ventilation module	84 kg 76 kg (weight without door)	84 kg 76 kg (weight without door)
	Heat pump	71 kg 65 kg (weight without door)	71 kg 65 kg (weight without door)
	Ventilation chassis	12 kg	12 kg
INSTALLATION	Position	Technical room/cupboard	Technical room/cupboard
	Room temperature	Min. 3°C	Min. 3°C

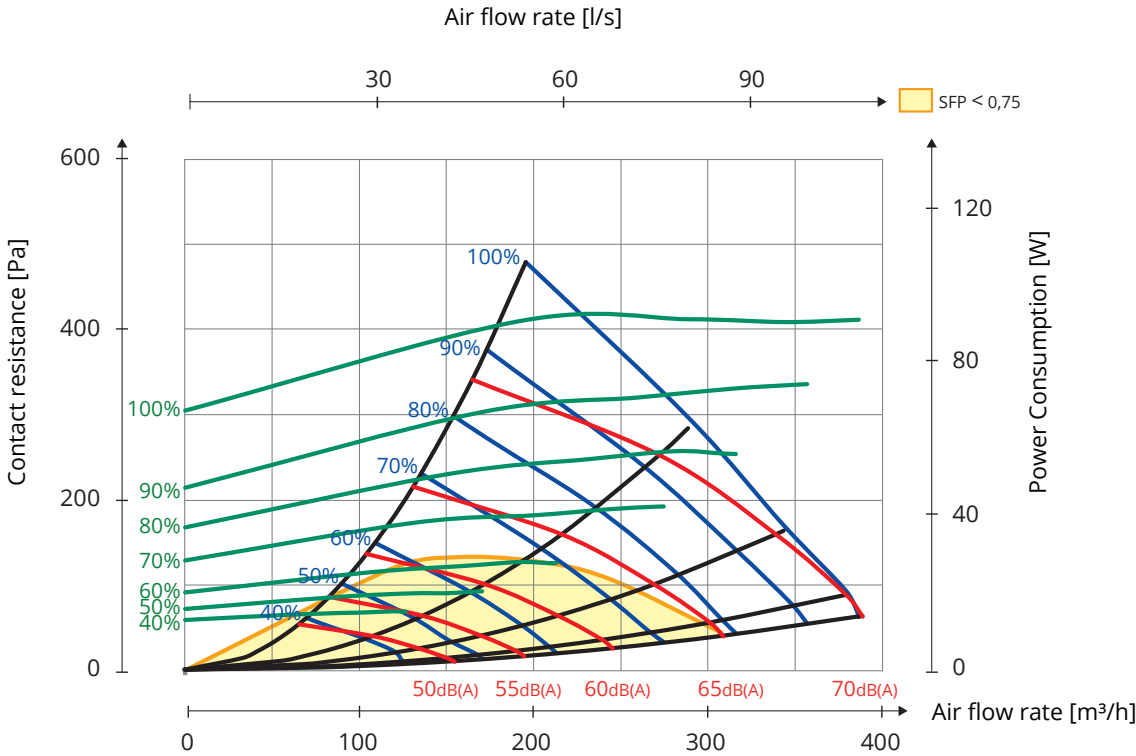
Energy class:



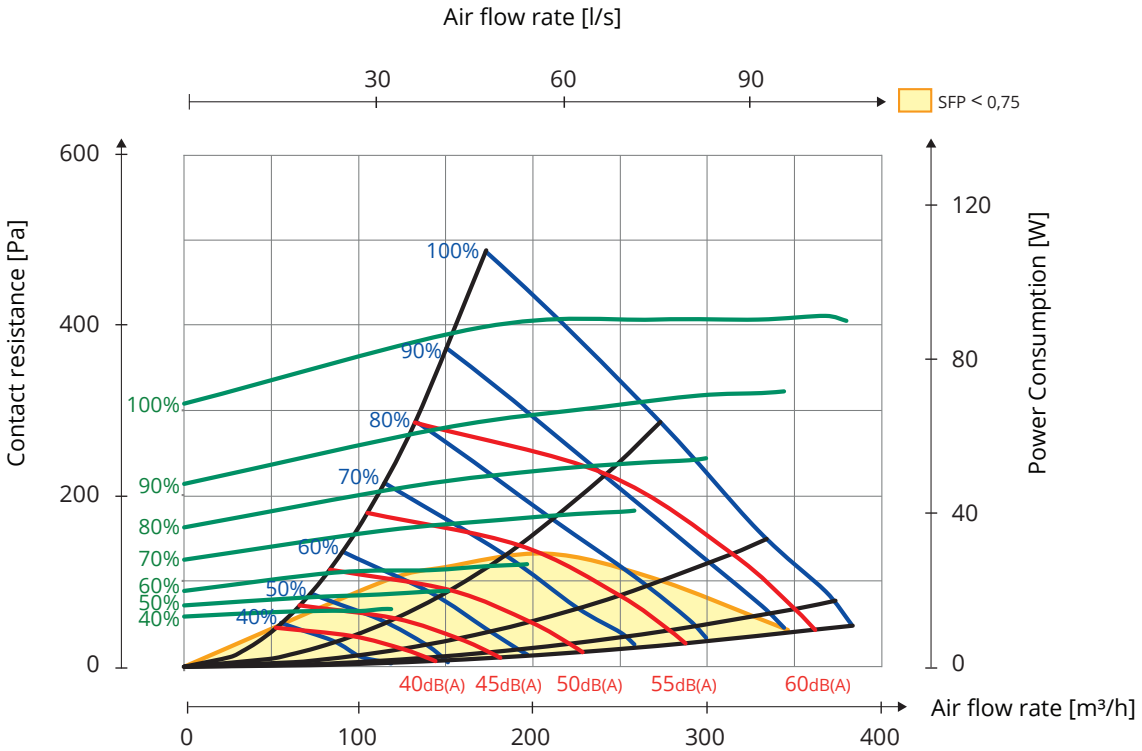
(average climatic conditions)

9.1. Air capacity and sound data

9.1.1. Air intake side



9.1.2. Air outlet side



Explanation of diagram:

Sound data is specified as sound power level LwA in the capacity diagrams. (This is sound to duct.)

These values can be corrected by means of the table for the different octave bands in order to look at Lw (without adaptation to A band).

The correction table for the various octaves is stated in Lw, which means that the Lw values are after conversion of each octave for supply air and extract air.

Radiated sound from the unit must be calculated from the supply air diagram.

Data for supply air is measured in accordance with ISO 5136, the "In-duct method".

Radiated noise is measured in accordance with ISO 9614-2. Bruel & Kjaer measuring equipment, type 2260.

9.1.3. Correction factor for Lw

Hz	63 Lw(dB)	125 Lw(dB)	250 Lw(dB)	500 Lw(dB)	1000 Lw(dB)	2000 Lw(dB)	4000 Lw(dB)	8000 Lw(dB)	LwA (dBA)
Supply air	5	3	2	-2	-12	-9	-15	-20	
Extract air	5	3	2	-2	-12	-9	-15	-20	
Radiated sound	-31	-19	-14	-15	-16	-20	-26	-35	-12

Working point 240 m³/h against 100 Pa.

> EXAMPLE 1

Sound to duct in the various octaves is stated in Lw

The working point gives 60 dBA from the capacity diagram for supply air. I am interested in what this is specifically in the 250 Hz range.

60 dBA+2= 62 dB which is an Lw value (sound power level without adaptation to the ear's A band)

> EXAMPLE 2

Radiated sound in Lw per octave

If a reading of 60 dBA at the working point is taken from the supply air capacity diagram (which indicates sound to duct) in order to arrive at a subsequent Lw value for the various octaves, a deduction is then made from the value for the relevant octave for the row with radiated sound.

60 dBA-15 (for 500 Hz) = 45 dB, which is an Lw value and indicates the radiated sound from the unit in this octave.

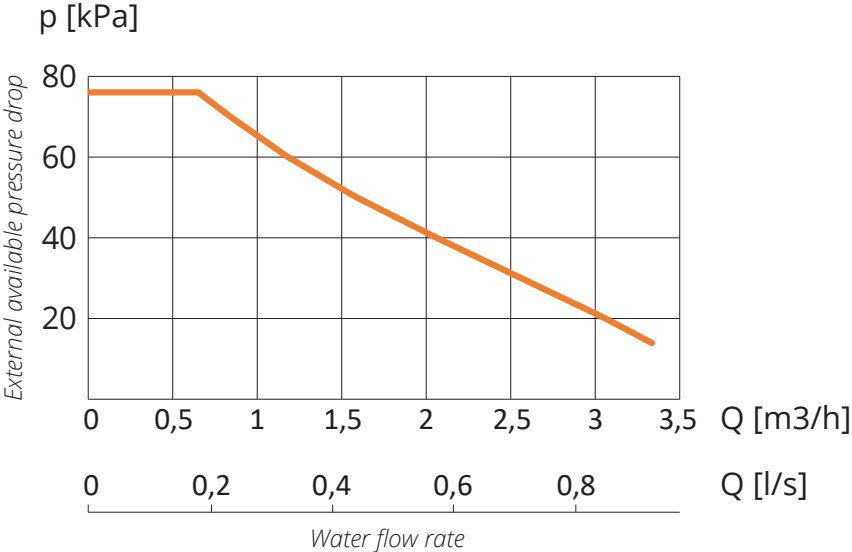
> EXAMPLE 3

Radiated sound in total from the unit in LwA

At the bottom right of the table, a total value for radiated sound from the unit is stated in LwA. This is an aggregate value. The values for the radiated sound for the different octaves have been totalled up and then corrected for A band.

This is used as follows:
The LwA value is read from the supply air capacity diagram, in our example 60 dBA, and this is then subtracted from the total value (this is also an LwA value).
LwA 60 dBA-12 dBA = 48 dBA (which is then stated in LwA, the sound power level adapted to the ear's A band).

9.2. Pump capacity, heating system

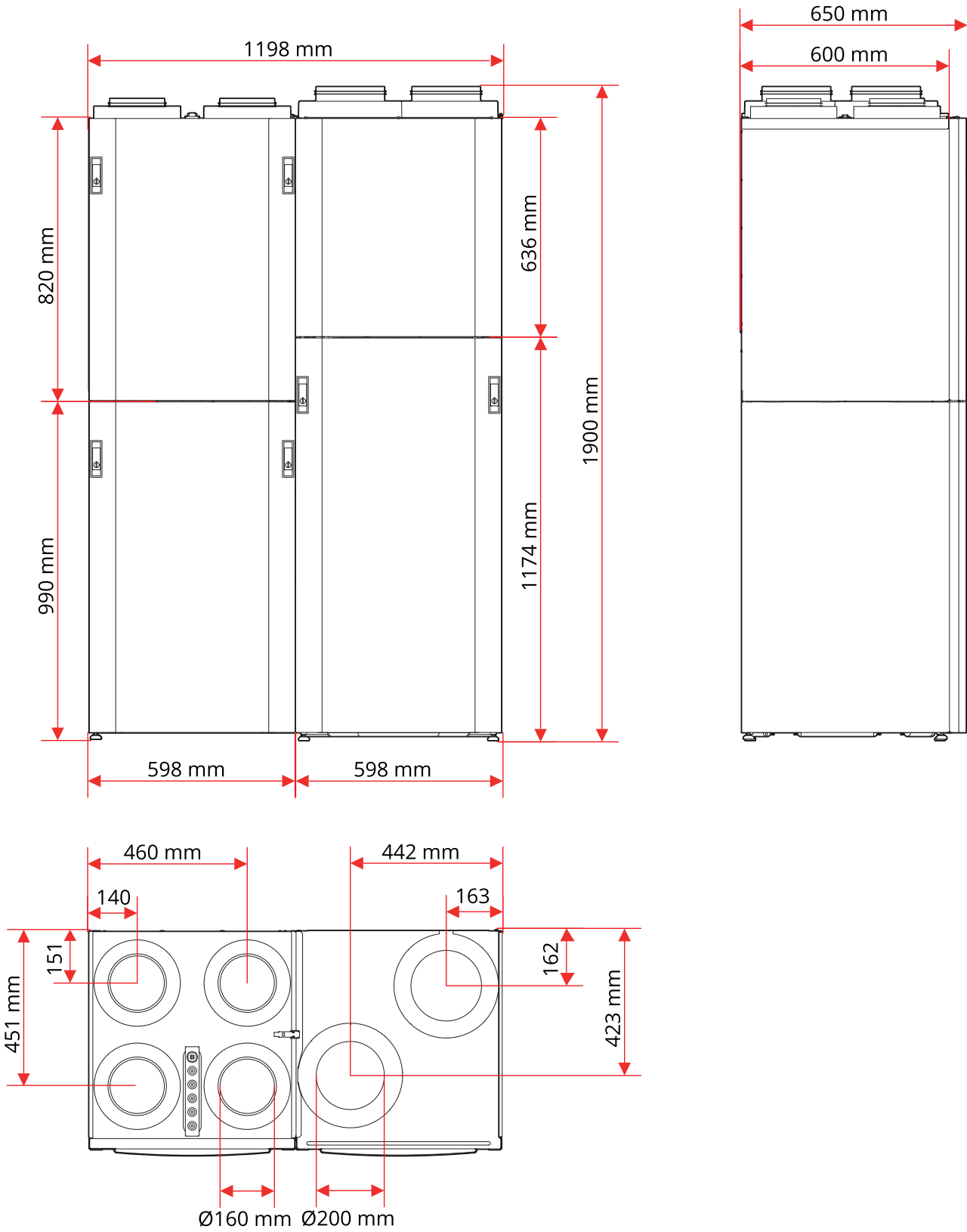


Shows the circulation pump capacity in the heating system.

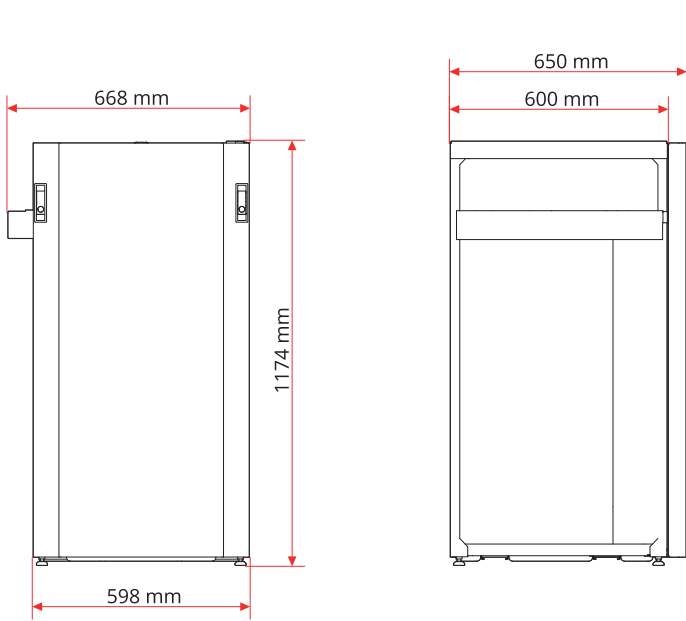
9.3. Nipple location



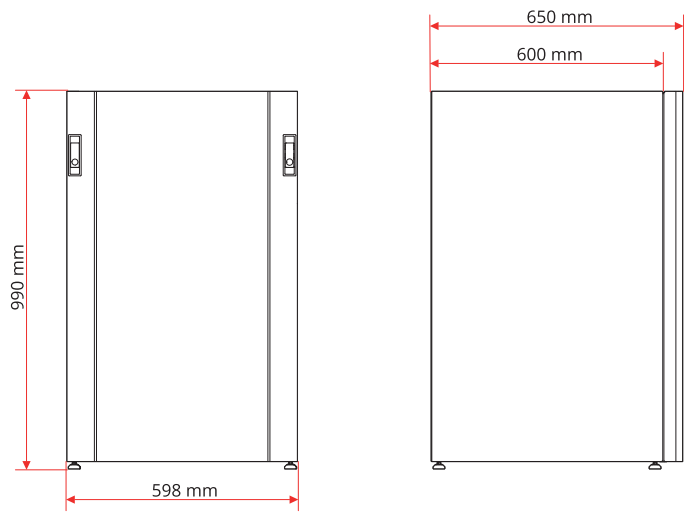
10. Dimensions



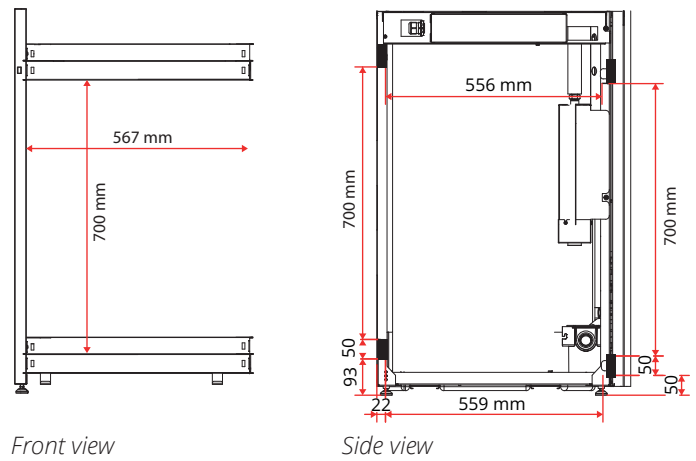
10.1. Tank module



10.2. Chassis module

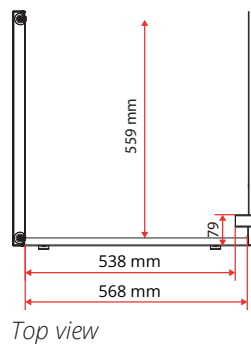


Internal dimensions:



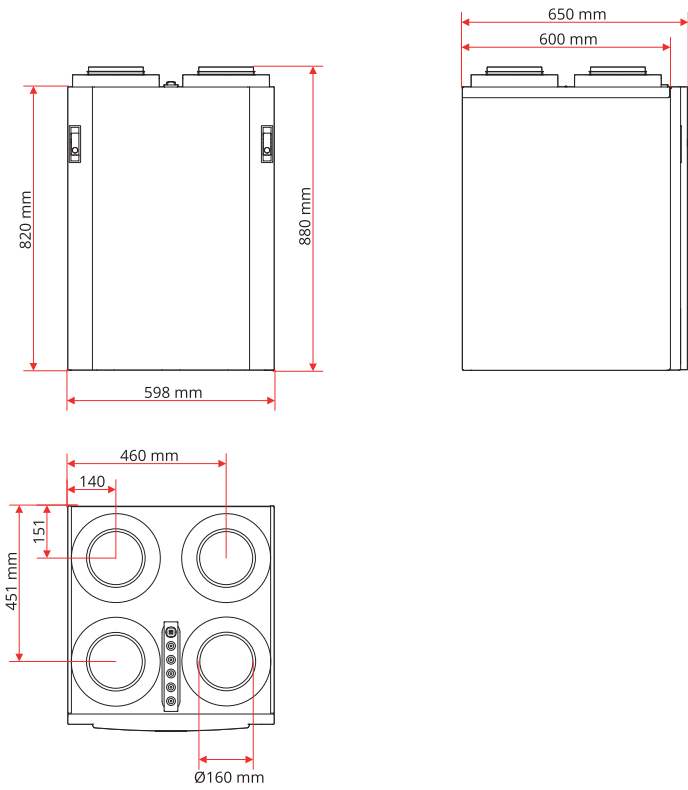
Front view

Side view

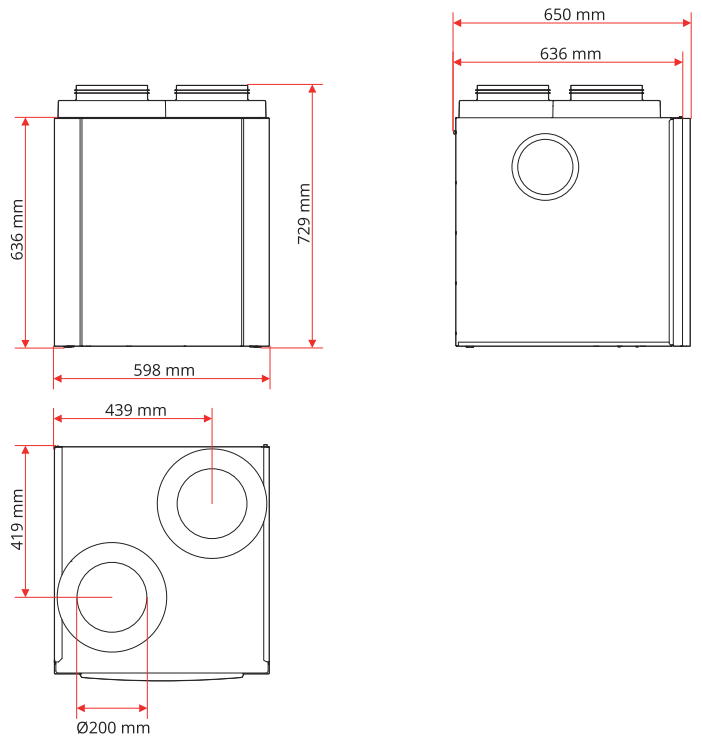


Top view

10.3. Ventilation module



10.4. Heat pump module



11. EU Declaration of Conformity for CE marking

This declaration of conformity confirms that the products meet the requirements in the following directives and standards:

Electromagnetic Compatibility (EMC)	2014/30/EU
Low Voltage Directive (LVD)	2014/35/EU
Pressure equipment	2014/68/EU
RoHS 2	2011/65/EU
Energy-efficient design directive	812/2013/EC
Energy labelling directive	814/2014/EC
Safety standards	EN 60335-1:2012 + A11:2014 + A13:2017 EN 60335-2-40:2003 + A11:2004 + A12:2005 + A1:2006 + A2:2009 + A13:2012 EN 60335-2-21:2003 + A1:2005 + A2:2008 EN 60335-2-35:2016
Standard for electromagnetic fields	EN 62233:2008
EMC standard	EN 55014-1:2017 + A11:2020 EN 55014-2:2015 EN IEC 61000-3-2:2019 EN 61000-3-3:2013 + A1:2019

Our products are tested in accordance with the whole or parts of the following standards:

Multi-functional heat pumps, performance	EN 16573:2017
Heat pumps for domestic hot water, performance	EN 16147:2017 Tested at RISE (SP)
Sound data	EN 12102:2017
WH4:	
Heat pumps for space heating, performance	EN 14511:2018
Heat pumps for space heating, seasonal performance	EN 14825:2016

Producer: FLEXIT AS, Televeien 15, 1870 Ørje, Norway

Type:
EcoNordic WH4 Indoor Climate Central
EcoNordic W4 Indoor Climate Central

The product is CE-labelled: 2018

FLEXIT AS 2018



Knut Skogstad
CEO

The product is listed in the
database for building products
that can be used in
Nordic Swan
Ecolabelled buildings.



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