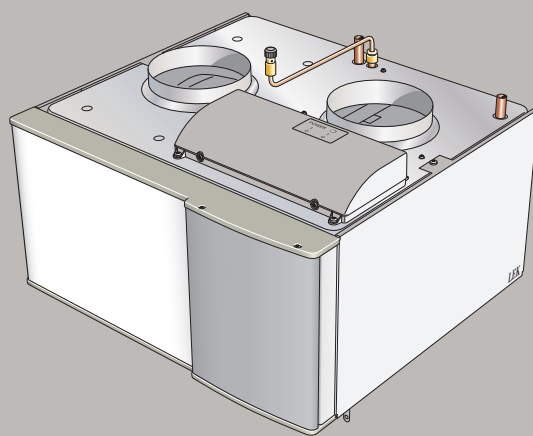


Exhaust air module NIBE FLM



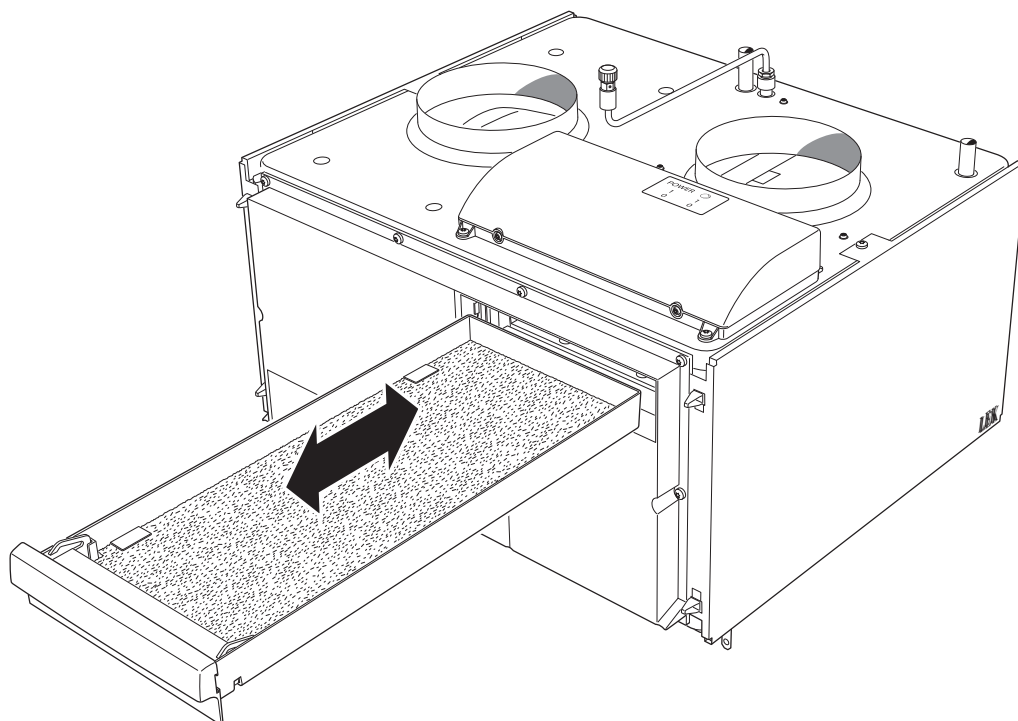
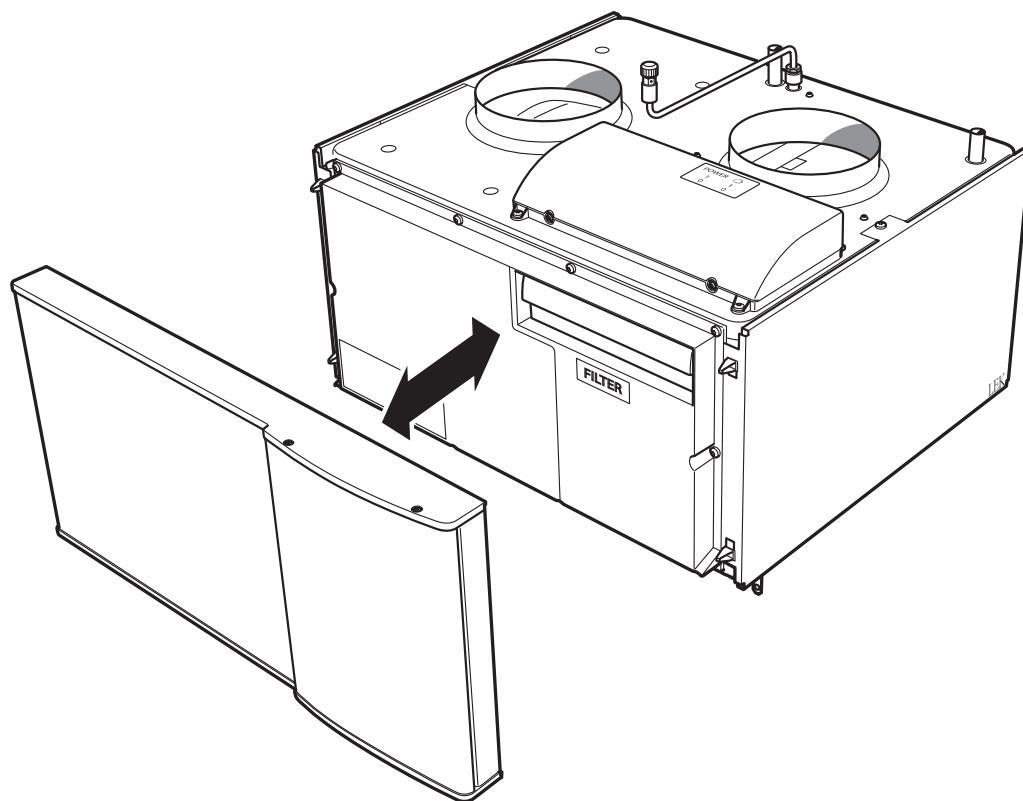


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1 Important information

Safety information

This manual describes installation and service procedures for implementation by specialists.

The manual must be left with the customer.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

This is an original manual. It may not be translated without the approval of NIBE.

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If the supply cable is damaged, only NIBE, its service representative or similar authorised person may replace it to prevent any danger and damage.

SYMBOLS



NOTE

This symbol indicates danger to person or machine.



Caution

This symbol indicates important information about what you should consider when installing or servicing the installation.

MARKING

CE

The CE mark is obligatory for most products sold in the EU, regardless of where they are made.

IP21

Classification of enclosure of electro-technical equipment.



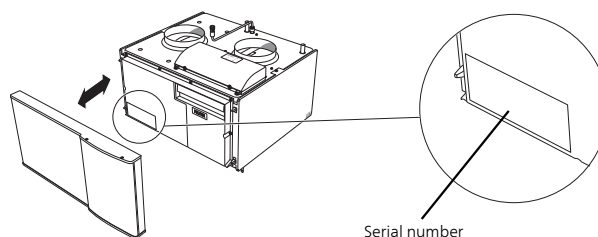
Danger to person or machine.



Read the User Manual.

SERIAL NUMBER

The serial number can be found at the bottom left inside the front cover.



Caution

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

RECOVERY



Leave the disposal of the packaging to the installer who installed the product or to special waste stations.



When disposing of the product, its constituent materials and components, e.g. compressors, fans, circulation pumps and circuit boards, must be disposed of at a special waste station or dealer who provides this type of service.

To access the separate components, refer to the section that shows the construction of the product. No special tools are required for access.

Improper disposal of the product by the user results in administrative penalties in accordance with current legislation.

INSPECTION OF THE INSTALLATION

In addition, fill in the page for the installation data in the User Manual.

Current regulations require the heating installation to be inspected before it is commissioned. The inspection must be carried out by a suitably qualified person. Current regulations require the exhaust air module to be inspected before it is commissioned. The inspection must be carried out by a suitably qualified person. In addition, fill in the page for the installation data in the User Manual.

✓	Description	Notes	Signature	Date
	Ventilation			
	Setting the ventilation flow			
	Brine			
	Non-return valve			
	System flushed			
	System vented			
	Antifreeze			
	Expansion vessel			
	Particle filter			
	Safety valve			
	Shut off valves			
	Circulation pump setting			
	Checking the condensation water seal			
	Trim valve			
	Electricity			
	Connections			
	Phase voltage			
	Supply connected 230 V			
	Circuit fuses			

2 Delivery and handling

Transport

The exhaust air module should be transported and stored in the dry.

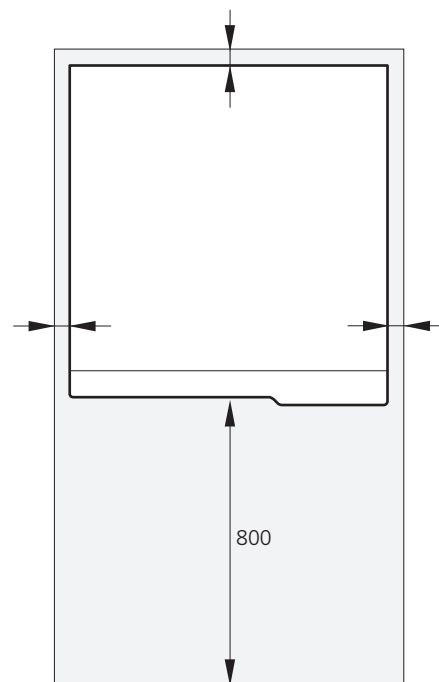
Assembly

NIBE FLM is installed on top of the ground source heat pump or independently on brackets. Noise from the circulation pump or fan can be transferred to the brackets.

- Install with its back to an outside wall, ideally in a room where noise does not matter, in order to eliminate noise problems. If this is not possible, avoid placing it against a wall behind a bedroom or other room where noise may be a problem.
- Wherever the unit is located, walls to sound sensitive rooms should be fitted with sound insulation.
- Route pipes so they are not fixed to an internal wall that backs on to a bedroom or living room.

INSTALLATION AREA

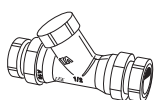
Leave a free space of 800 mm in front of the product. Leave free space between NIBE FLM and wall/fittings/cables/pipes etc. It is recommended that a space of at least 10 mm is left to reduce the risk of noise and of any vibrations being propagated.



NOTE

Ensure that there is sufficient space (300 mm) above NIBE FLM for connecting ventilation ducts.

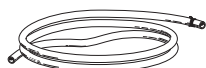
Supplied components Removing the covers



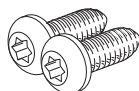
Trim valve (RN1)
Ø 15 mm



Non-return valve (RM1)
Ø 32 mm



Condensation water hose
Ø 20 mm



2 x screws (T25) for in-
stalling NIBE FLM on NIBE
heat pump

LOCATION

The bag of supplied items is placed on top of NIBE FLM.

Compatible NIBE heat pumps

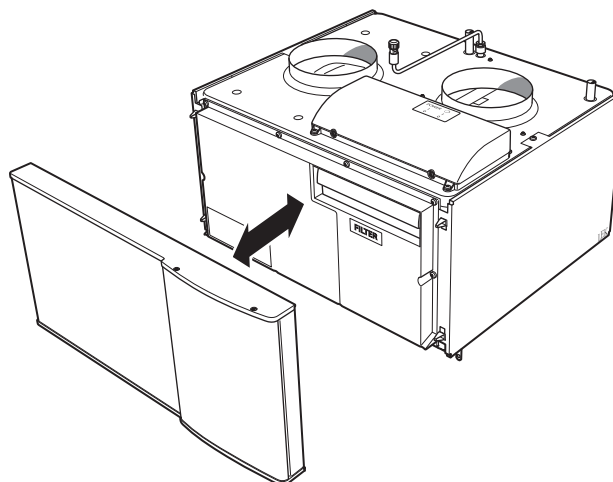
NIBE FLM ventilates the building and preheats the brine, regardless of which ground source heat pump is installed, but when NIBE FLM is installed together with a compatible ground source heat pump, it is possible to adjust settings and read off sensor values etc. in the heat pump's display.

COMPATIBLE PRODUCTS

- | | | |
|---------|---------|---------|
| • F1145 | • F1245 | • F1345 |
| • F1155 | • F1255 | • F1355 |

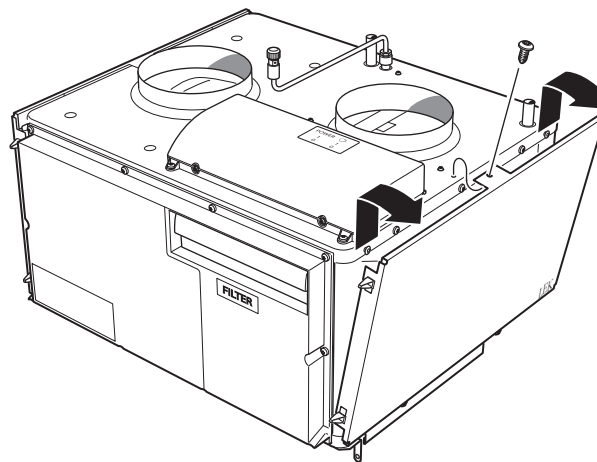
FRONT COVER

1. Remove the service cover by pulling it straight out.



SIDE COVERS

1. Undo the screws at the upper edge.
2. Lift the side hatches upwards and twist the cover outwards slightly.
3. Assembly takes place in the reverse order.



Mounting

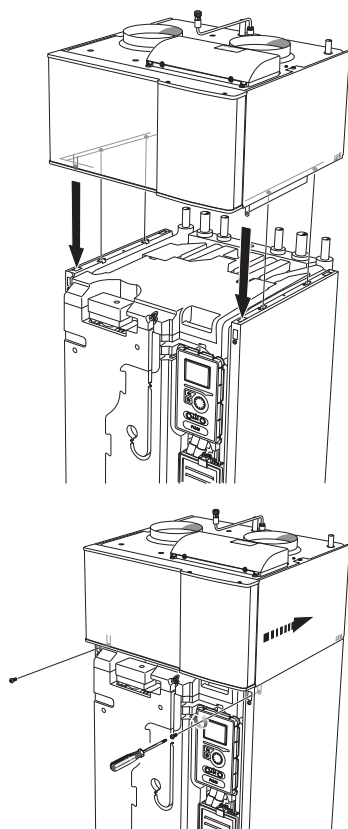
CONNECTING TO COMPATIBLE PRODUCT



Caution

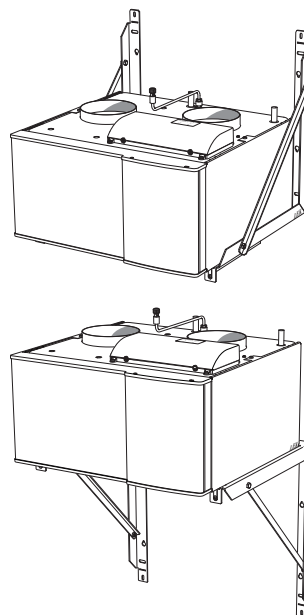
NIBE FLM can only be installed on top of F1145/F1155/F1245/F1255.

1. Remove the front cover from the heat pump.
2. Remove the top panel from the heat pump (installed with 6 screws).
3. Install NIBE FLM from the top and slide into position.
4. Secure NIBE FLM with the 2 screws supplied.

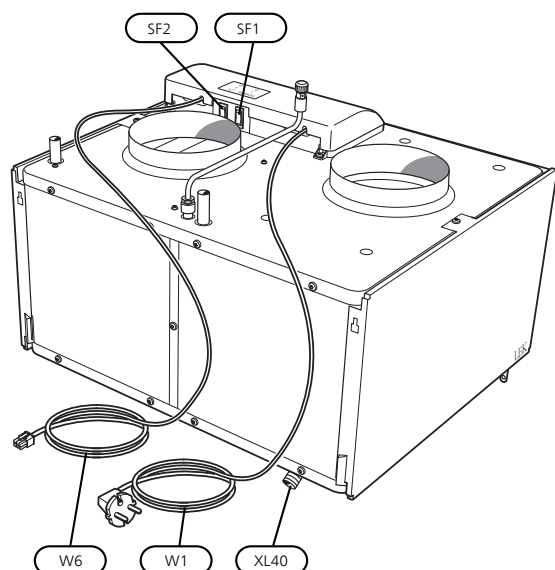
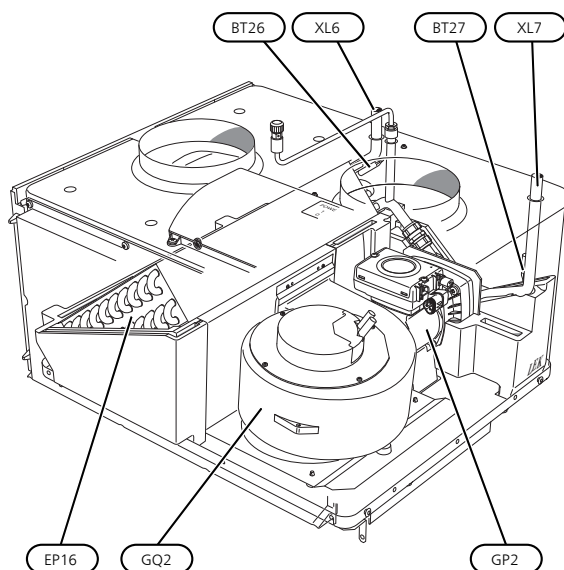
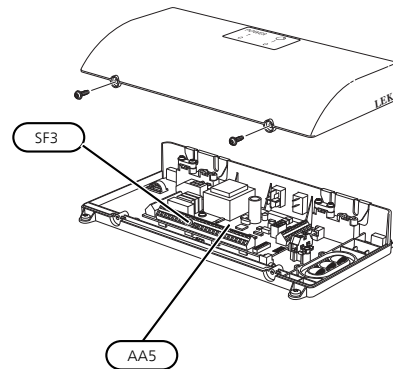
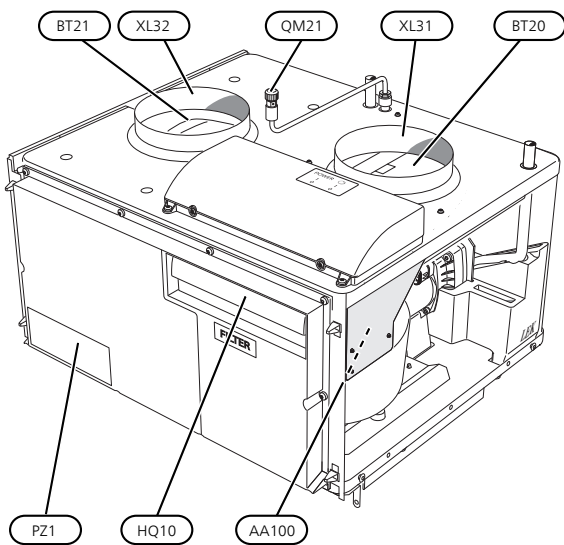


INSTALLING ON BRACKETS

NIBE FLM can also be installed freestanding on brackets.



3 The design of the exhaust air module



Pipe connections

XL6	Connection, brine in, compression ring Ø 15 mm
XL7	Connection, brine out, compression ring Ø 15 mm
XL31	Ventilation connection exhaust air, Ø 160 mm
XL32	Ventilation connection extract air, Ø 160 mm
XL40	Drip-pan drain

HVAC components

EP16	Heat exchanger
GP2	Circulation pump, brine
QM21	Venting brine

Sensors etc.

BT20	Temperature sensor, exhaust air
BT21	Temperature sensor, extract air
BT26	Temperature sensor, collector in
BT27	Temperature sensor, collector out

Electrical components

AA5	Accessory card
AA100	Joint card
SF1	Switch, position 0 - 1, main switch
SF2	Switch, position 0 - 1, circulation pump
SF3	Potentiometer
W1	Cord with connection plug
W6	Communication cable

Ventilation

GQ2	Exhaust air fan
HQ10	Exhaust air filter

Miscellaneous

PZ1	Type plate
-----	------------

Designations according to standard EN 81346-2.

4 Pipe and ventilation connections













General pipe connections

Pipe installation must be carried out in accordance with current norms and directives.

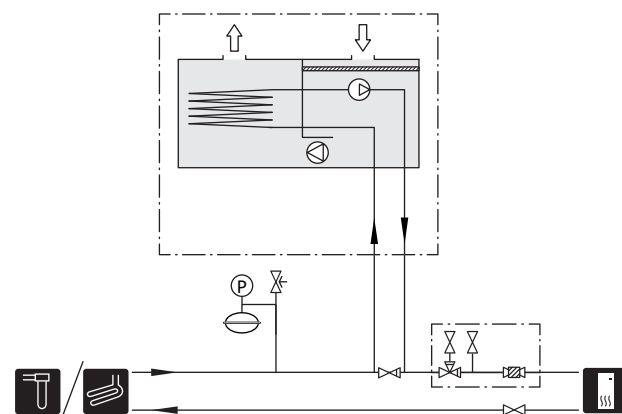
Lowest permitted temperature of incoming brine is -8°C.

Pipes and other cold surfaces must be insulated with diffusion-proof material to prevent condensation.

SYMBOL KEY

Symbol	Meaning
	Shut-off valve
	Non-return valve
	Circulation pump
	Expansion vessel
	Filterball
	Fan
	Pressure gauge
	Safety valve
	Trim valve
	Manual reversing valve/shunt
	Bore hole
	Ground collector

OUTLINE DIAGRAM



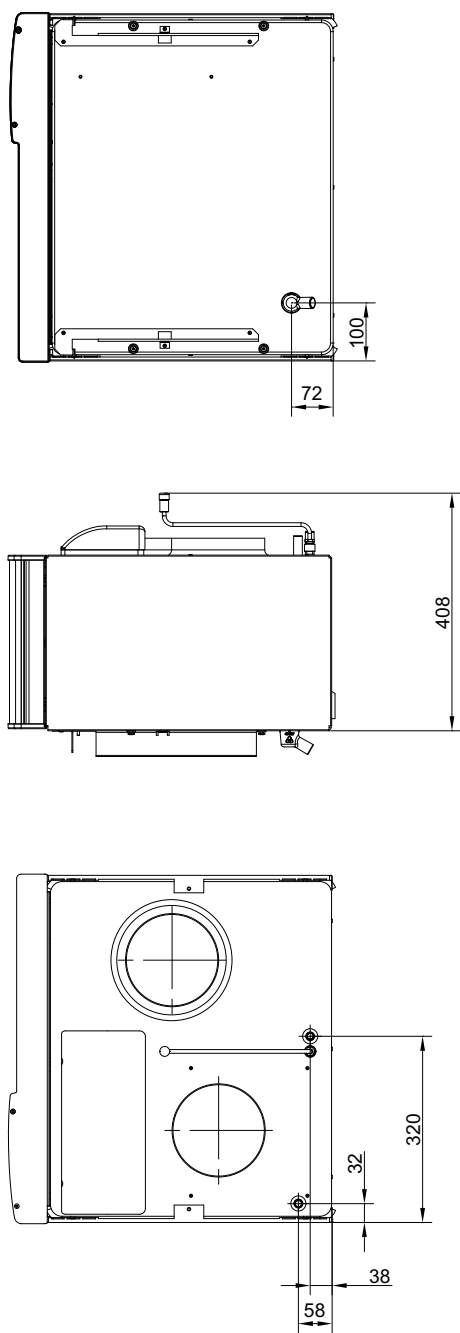
The brine system must be fitted with a pressure expansion vessel and a particle filter or filterball. In order to make any future servicing easier, one or more shut-off valves should be fitted.



NOTE

Venting may be necessary during installation and after a period of use. Venting takes place through vent valve (QM21). When venting, set the switch for the circulation pump (SF2) to position "0".

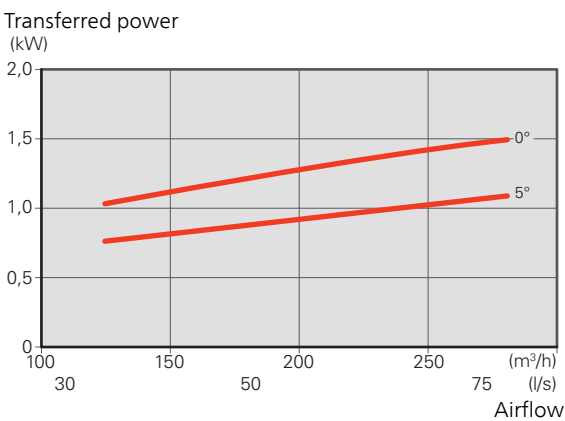
Dimensions and pipe connections



Brine side

OUTPUT TRANSFER TO BRINE

Output transfer to brine



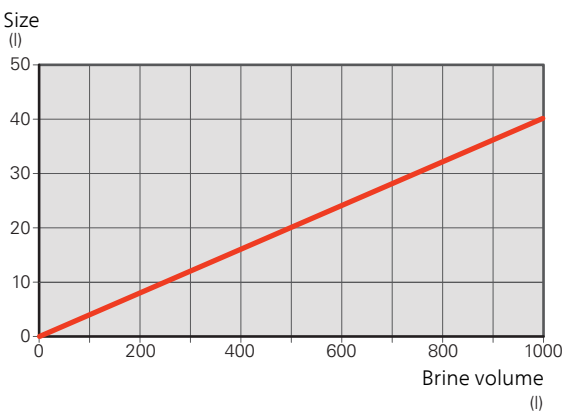
The diagram shows the power that is transferred from the ventilation air to the brine at 0°C and 5°C, and applies to an air temperature of +20°C and 50% relative air humidity.

EXPANSION VESSEL

The brine circuit must be provided with pressure expansion vessel (CM3). If there is a level vessel (CM2), this should be replaced. The brine side must be pressurised to at least 0.5 bar.

To prevent malfunctions, the pressure expansion vessel should be dimensioned as set out in the diagram. The pressure expansion vessel covers the temperature range from -10°C to +20 °C for the brine at a pre-pressure of 0.5 bar and with the safety valve's opening pressure set at 3 bar.

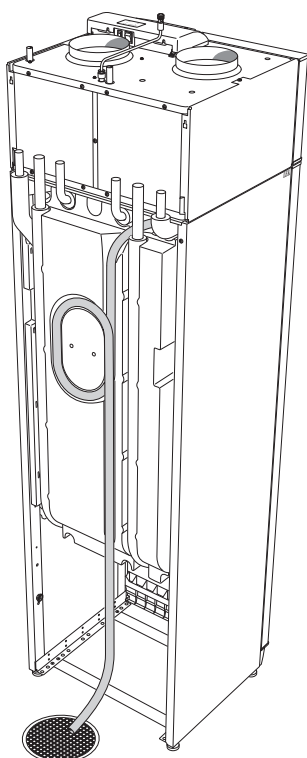
Expansion vessel



Condensation water hose

1. Connect the condensation water hose to the drip-pan drain (XL40).
2. Shape the hose into a water seal (see image). If NIBE FLM is connected to F1245/F1255, there is space for the hose and the water seal in the heat pump's insulation.
3. Route the hose to a floor drain or similar.
4. Refill the water seal with water.

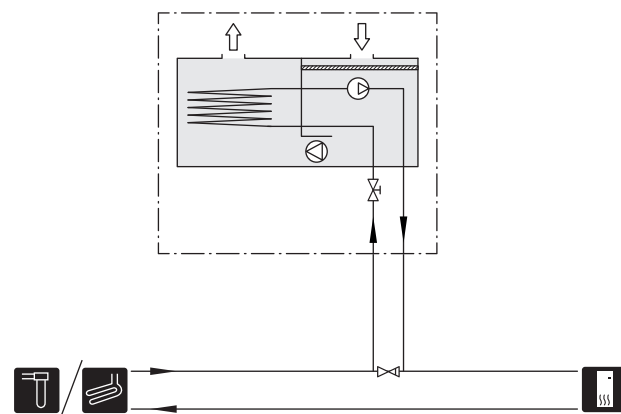
Ensure that the end of the hose runs out above the water level in the floor drain. The hose must be easily accessible for future cleaning.



Installation alternative

ANOTHER HEAT PUMP

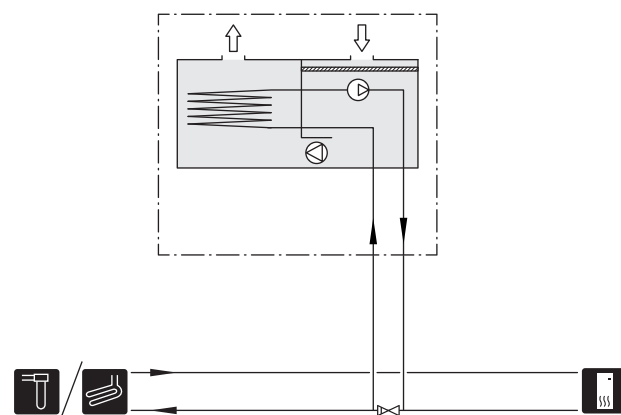
When NIBE FLM is installed together with another heat pump, the brine circuit is supplied with a trim valve (RN1). This is necessary for adjusting the brine flow.



FLM COOLING

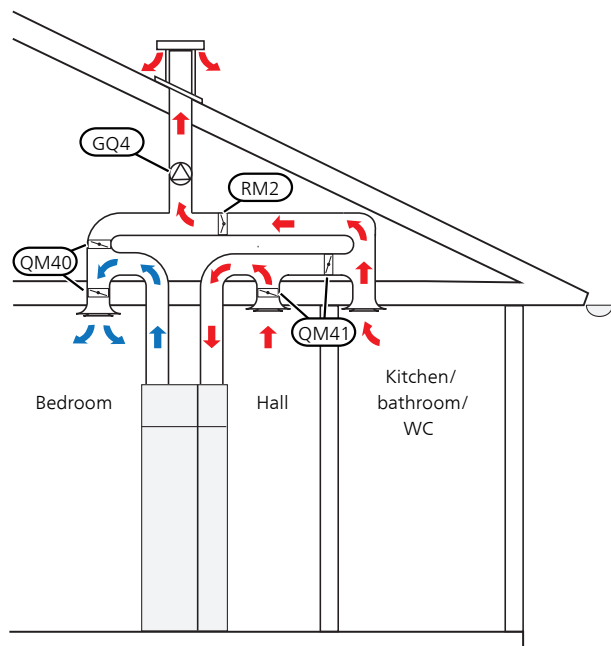
Where cooling is prioritised, NIBE FLM can be installed in the brine circuit after the heat pump in the direction of flow.

For FLM cooling, minimum software version 5539R5 is required.

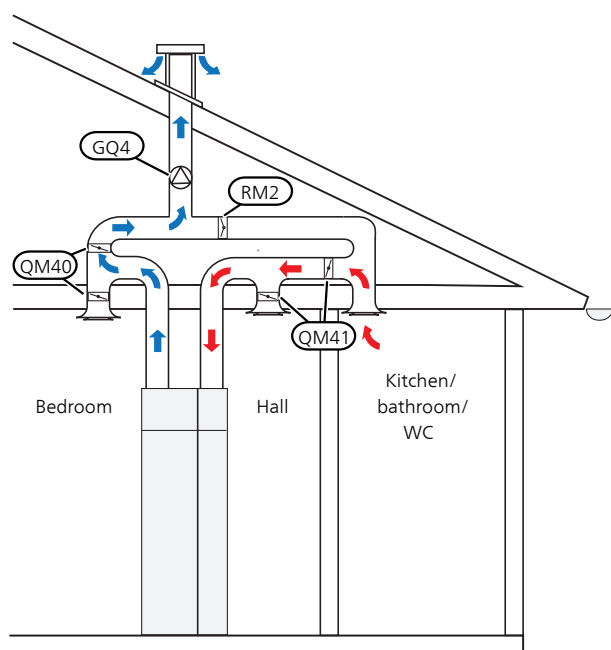


FLM cooling Requires an external fan (GQ4), four dampers that are controlled by two motors (QM40), (QM41) and a non-return damper (RM2). A room sensor (AZ10-BT50) is also required in one of the rooms where cooling is required. For electrical connection, see page 19.

The external fan (GQ4) takes over ventilation, which is led out of the house without recovery. At the same time, NIBE FLM circulates air to and from other rooms where cooling is required, normally two to three bedrooms.



Normal operation.



NOTE

When installing with cooling, the supply air ducts have to be insulated with diffusion-proof material (at least PE30 or equivalent) along their entire length.

General ventilation connection

- Ventilation installation must be carried out in accordance with current norms and directives.
- Connections must be made via flexible hoses, which should be installed so that they are easy to replace.
- Provision must be made for inspection and cleaning of the duct.
- Make sure that there are no reductions of cross-sectional area in the form of creases, tight bends, etc., since this will reduce the ventilation capacity.
- The air duct system must be a minimum of air tightness class B.
- To prevent fan noise being transferred to the ventilation devices, install silencers in suitable locations in the duct system.
- The extract air duct and ducts intended for supply air for FLM cooling have to be insulated with diffusion-proof material (at least PE30 or equivalent) along their entire length.
- Ensure that the condensation insulation is fully sealed at any joints and/or at lead-in nipples, silencers, roof cowls or similar.
- A duct in a masonry chimney stack must not be used for extract air.

EXHAUST AIR DUCT /KITCHEN FAN

Exhaust air duct (kitchen fan) must not be connected to NIBE FLM.

To prevent food vapour being transferred to NIBE FLM the distance between the kitchen fan and the exhaust air device must be considered. The distance should not be less than 1.5 m, but this can vary between different installations.

Always use a kitchen fan when cooking.

Ventilation flow

Connect NIBE FLM so that all the exhaust air, except kitchen duct air (kitchen fan), passes through the heat exchanger (EP16) in the product.

The ventilation flow must comply with the applicable national standards.

If the exhaust air module is connected to a compatible heat pump, set the ventilation capacity in the heat pump's menu system (menu 5.1.5). Otherwise, set the ventilation capacity via potentiometer (AA5-SF3).

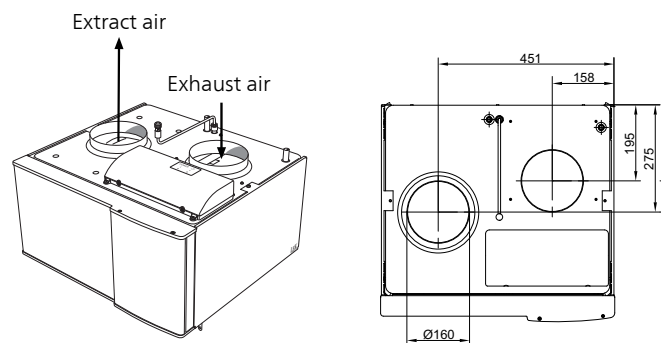
Adjusting ventilation

To obtain the necessary air exchange in every room of the house, the exhaust air devices must be correctly positioned and adjusted and the fan in the exhaust air module adjusted.

Immediately after installation adjust the ventilation so that it is set according to the projected value of the house.

Incorrect adjustment of the ventilation may lead to reduced installation efficiency and thus poorer operating economy, a poorer indoor climate and moisture damage in the building.

Dimension and ventilation connections



5 Electrical connections

General



NOTE

All electrical connections must be carried out by an authorised electrician.

Electrical installation and wiring must be carried out in accordance with national provisions.

NIBE FLM must not be powered during installation.

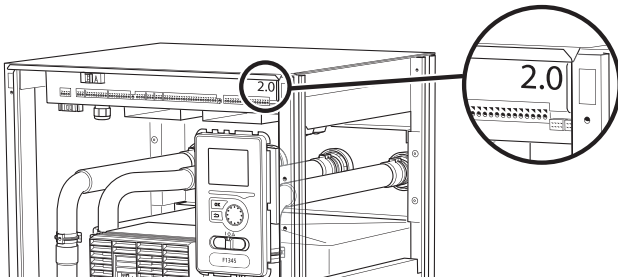
- To prevent interference, sensor cables to external connections must not be laid close to high voltage cables.
- The minimum area of communication and sensor cables to external connections must be 0.5 mm² up to 50 m, for example EKKX, LiYY or equivalent.
- Disconnect NIBE FLM before insulation testing the house wiring.

For the exhaust air module wiring diagram, see page 32.

Connections

F1345

F1345 has different electrical connection versions depending on when the heat pump was manufactured. To check which electrical connection applies to your F1345, check the designation "2.0" visible above the right hand side of the terminal block as illustrated.



CONNECTING TO COMPATIBLE HEAT PUMP

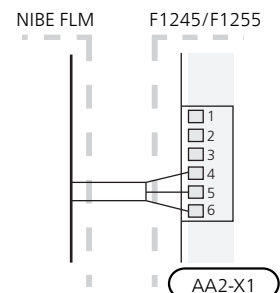
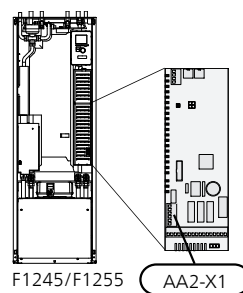
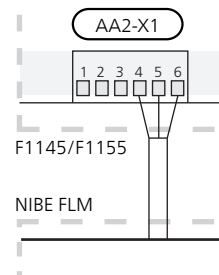
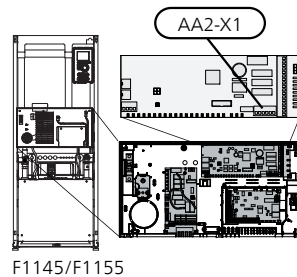
Connection of supply to NIBE FLM no. 1

There is the option to connect the supply for NIBE FLM no. 1 on the terminal block in the heat pump. With this type of connection, the plug on the supply cable (W1) is removed.

The cable is connected to the PCB (AA2) terminal block X1:4-6 in F1145/1155/F1245/1255 or on terminal block X2:6-9 and X2:11 in F1345, on terminal block AA101:X5 in F1345 2.0/F1355.

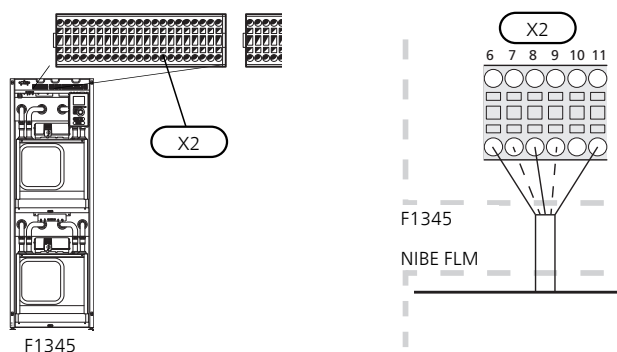
F1145/F1155/F1245/F1255

X1:4 Yellow/green, X1:5 Blue, X1:6 Brown



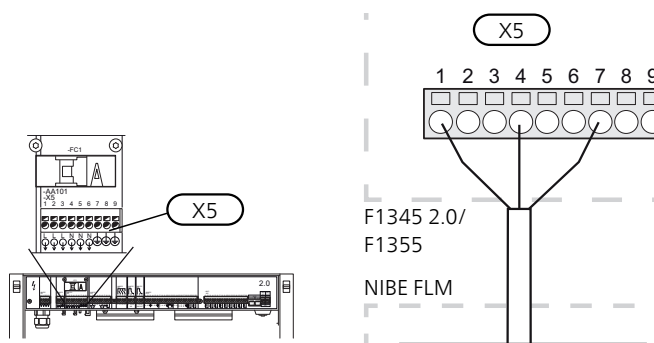
F1345 without 2.0

X2:6 or X2:7 Brown, X2:8 or X2:9 Blue, X2:11 Yellow/green



F1345 with 2.0/F1355

X5:1 Brown, X5:4 Blue, X5:7 Yellow/green



Connecting the supply to NIBE FLM no. 2-4

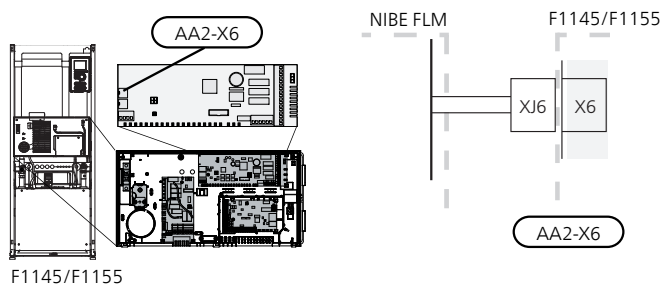
NIBE FLM no. 2-4 connects to an earthed single phase wall socket or a permanent installation. For permanent installations, NIBE FLM has to be preceded by a circuit breaker with at least a 3 mm breaking gap.

Connecting the communication to NIBE FLM no. 1

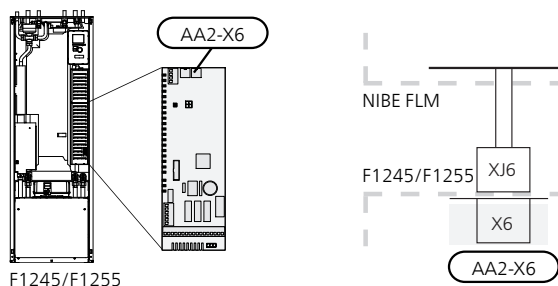
F1145/F1155/F1245/F1255: The communication cable (W6) with connector XJ6 connects to contact X6 on the PCB (AA2).

F1345/F1355: The communication cable (W6) with connector XJ6 connects to contact X1 on the display board (AA4).

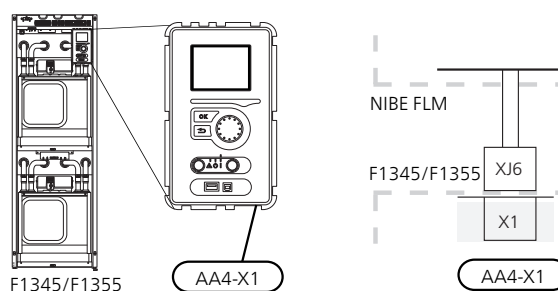
F1145/F1155



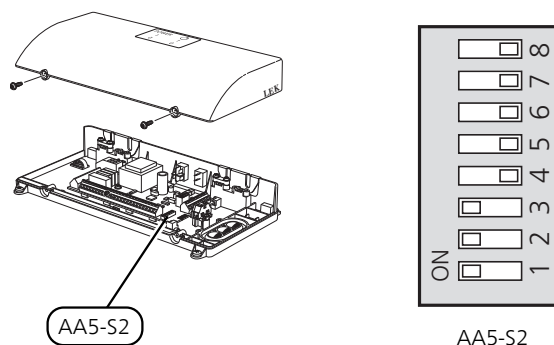
F1245/F1255



F1345/F1355



The DIP switch (AA5-S2) has to be set as follows.



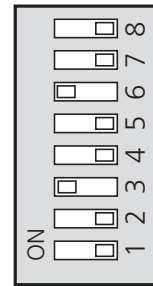
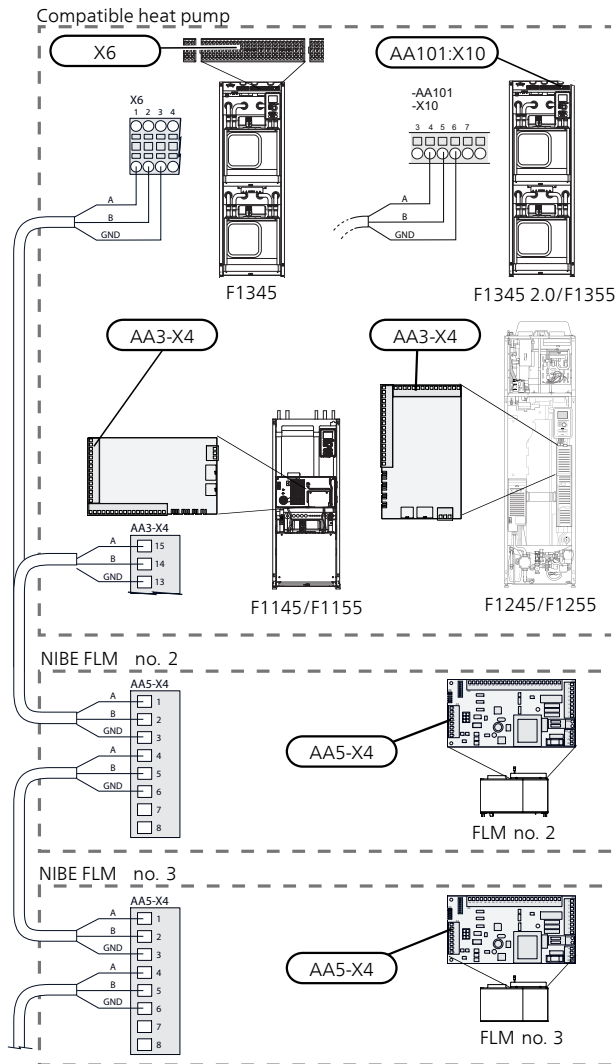
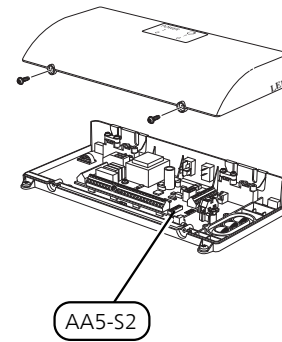
Connecting the communication to NIBE FLM no. 2-4

NIBE FLM no. 2 connects directly to the main product on the input board (terminal block AA3-X4) in F1145/F1155/F1245/F1255 or on terminal block X6 in F1345 and on terminal block AA101:X10 in F1345 2.0/F1355.

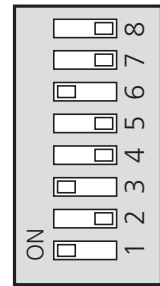
NIBE FLM no. 3 connects to the accessory board's terminal block (AA5-X4) in NIBE FLM no. 2.

NIBE FLM no. 4 connects in a similar way in NIBE FLM no. 3.

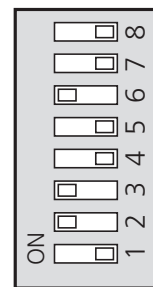
The DIP switch (AA5-S2) must be set as follows.



AA5-S2
NIBE FLM no. 2



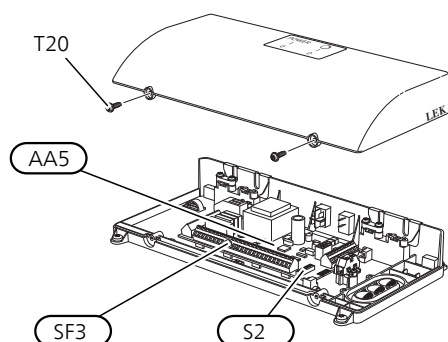
AA5-S2
NIBE FLM no. 3



AA5-S2
NIBE FLM no. 4

NIBE FLM 2-4 can be connected in a similar way to a previously installed accessory and its accessory board.

CONNECTING TO ANOTHER HEAT PUMP



Connecting the supply

NIBE FLM is connected to a earthed single-phase wall socket or a permanent installation. For permanent installations, NIBE FLM must be preceded by a circuit breaker with at least a 3 mm breaking gap.

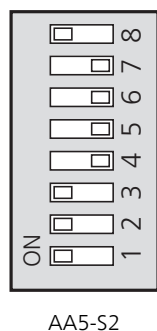
Circulation pump for brine (GP2)

Disconnect the PWM cable from terminal block AA5-X2:7-8. Insulate the wires properly.

Connecting communication

For installation with another heat pump, do not connect the communication cable (W6).

The DIP switch (AA5-S2) must be set as follows.



AA5-S2

OPTIONAL CONNECTIONS

Room sensor for FLM cooling

For optimum function, a separate room sensor (AZ10-BT50) should be connected when installing with cooling. This sensor is placed in the room that is to be kept coolest. The room sensor has up to three functions:

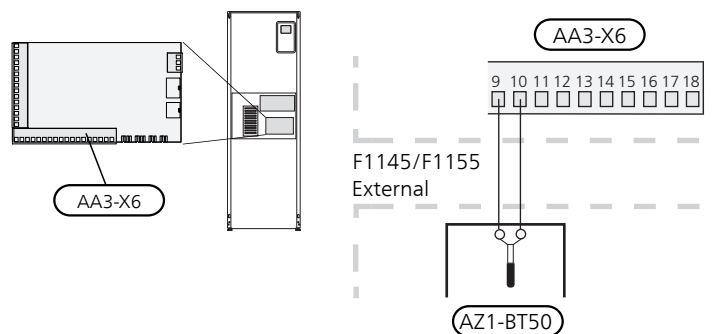
- Offers the opportunity to set a different target temperature in the room that is to be kept coolest.
- Show current room temperature in the display on the heat pump.
- Provides the opportunity to activate FLM cooling.

Install the sensor in a neutral position where the set temperature is wanted.

A suitable location is on a free inner wall in a hall approx. 1.5 m above the floor. It is important that the sensor is not prevented from measuring the correct room temperature, for example by being located in a recess, between shelves, behind a curtain, above or close to a heat source, in a draught from an external door or in direct sunlight. Closed radiator thermostats can also cause problems.

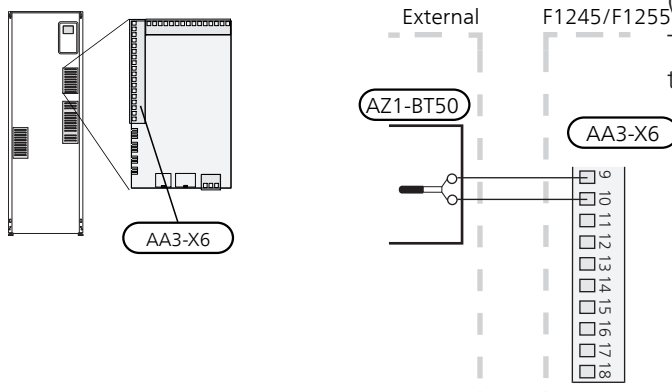
Connection of room sensor for FLM cooling F1145/F1155

Room sensor (AZ10-BT50) is connected to any AUX input (AA3-X6:9-18).



F1245/F1255

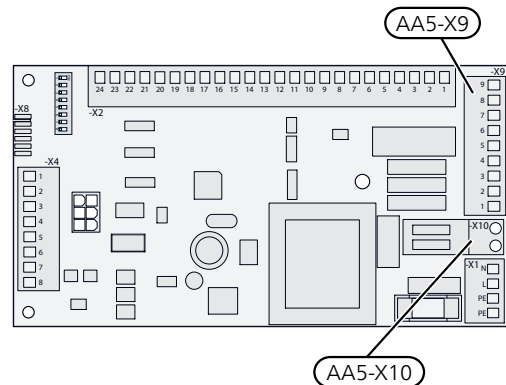
Room sensor (AZ10-BT50) is connected to any AUX input (AA3-X6:9-18).



Connection of duct fan and damper for FLM cooling

Connect the fan (GQ4) and the damper (QM40) (QM41) for AA5-X9:4 (signal), AA5-X9:3 (N) and AA5-X10:2 (230V).

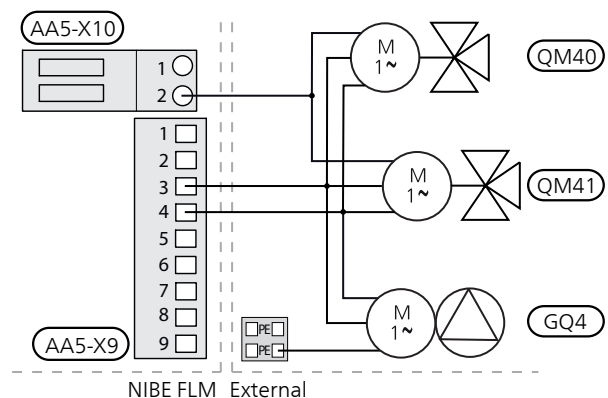
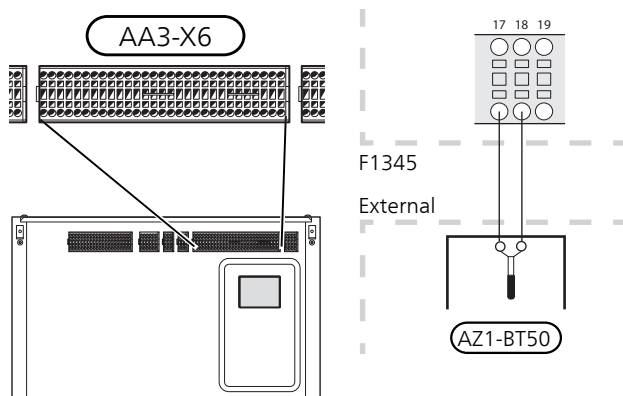
The connection on AA5-X10 and PE are occupied and these must be spliced with a clamp.



F1345/F1355

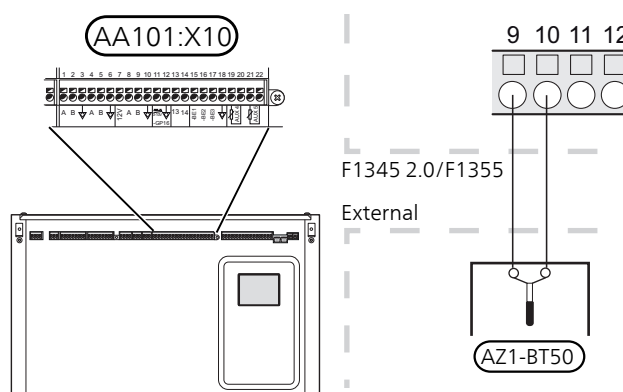
F1345 without 2.0

Room sensor (AZ10-BT50) is connected to any AUX input (AA3-X6:17-19).



F1345 with 2.0/F1355

Room sensor (AZ10-BT50) is connected to any AUX input (AA101-X10:9-14, 19-22).



6 Commissioning and adjusting

Preparations

1. Make sure the heat pump is switched off.
2. Check that the filling valves are fully closed.

Filling and venting



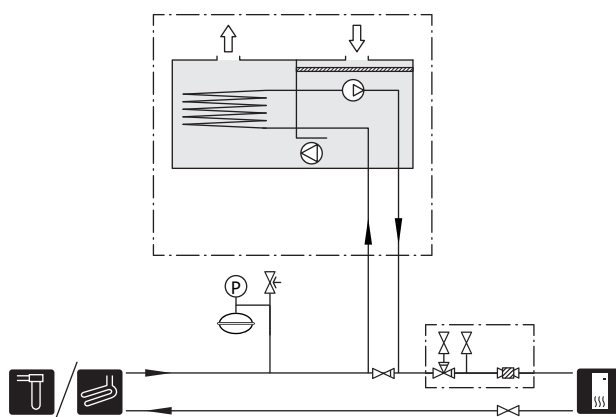
Caution

Insufficient venting can damage internal components in NIBE FLM.

FILLING AND VENTING THE BRINE SYSTEM

When filling the brine system, mix the water with anti-freeze in an open container. The mixture should be protected against freezing down to about -15°C. The brine is topped up by connecting a filling pump.

1. Check that the level vessel is replaced with an expansion vessel.
2. Check the brine system for leakage.
3. Connect the filling pump and return line on the brine system's filling connection (accessory).
4. Close the reversing valve in the filling connection.
5. Open the valves on the filler connector.
6. Start the filling pump.
7. Fill until liquid enters the return pipe.
8. Vent the brine system with vent valve (QM21) on NIBE FLM.
9. Close the valves on the filler connector.
10. Open the reversing valve in the filling connection.



NOTE

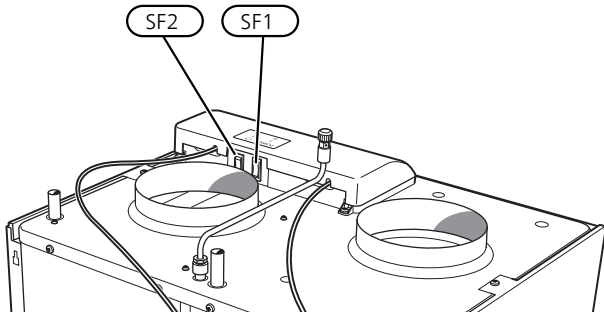
Venting may be necessary during installation and after a period of use. Venting takes place through vent valve (QM21). When venting, set the switch for the circulation pump (SF2) to position "0".

Start-up and inspection



NOTE

There must be brine in the system, before the switch for the circulation pump (SF2) is set to "1".



STARTING-UP WITH ANOTHER HEAT PUMP

1. Set the main switch (SF1) and the switch for the circulation pump (SF2) on NIBE FLM to position "1".
2. Check that the fan (GQ2) and the circulation pump (GP2) are in operation.
3. Set the speed of the fan using the potentiometer (SF3).
4. Start the heat pump.

START-UP WITH COMPATIBLE HEAT PUMP

1. Set the main switch (SF1) and the switch for the circulation pump (SF2) on NIBE FLM to position "1".
2. Start the heat pump.
3. Follow the instructions in the display's start guide. If the start guide does not start when you start the heat pump, you can start it manually in menu 5.7.
4. Check that the fan (GQ2) and circulation pump (GP2) are running.

STARTING-UP WITH VENTILATION ONLY

It is possible to run NIBE FLM with only ventilation, e.g. before the brine side is ready for connection. In this mode, the circulation pump must be switched off.

1. Follow the instructions on page 22, but leave the switch for circulation pump (SF2) in "0" mode.
2. When the brine side is connected, the switch for circulation pump (SF2) is set to "1" mode.

SETTING THE VENTILATION

The ventilation must be set according to applicable standards. If NIBE FLM is connected to a compatible heat pump, the setting is adjusted in menu 5.1.5. Otherwise the ventilation is set via potentiometer (AA5-SF3).

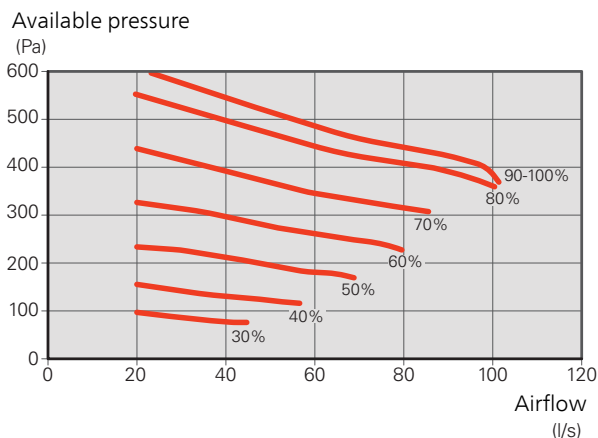
Even if ventilation is roughly set at installation it is important that a ventilation adjustment is ordered and permitted.



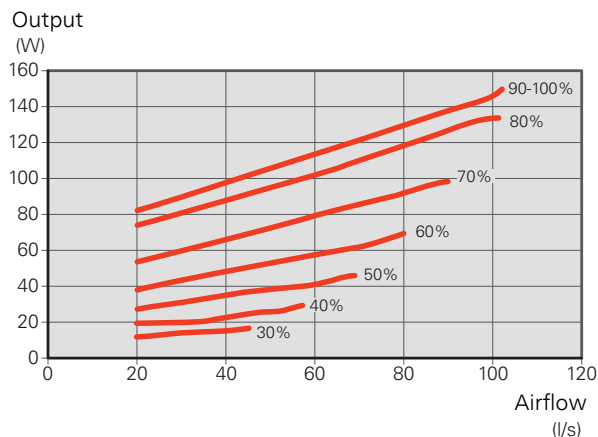
NOTE

Order a ventilation adjustment to complete the setting.

Ventilation capacity



Power direct current fan



SETTING THE BRINE FLOW

Set the brine flow so that the temperature difference between the brine entering and leaving NIBE FLM is 2–4°C. The temperature is measured using external measuring equipment.

Compatible heat pump: The brine flow over NIBE FLM is regulated by the trim valve (RN1) and the circulation pump (GP2).

Other heat pumps: The brine flow over NIBE FLM is regulated by the trim valve (RN1) and the brine pump in the heat pump.

Adjustments are made when the heat pump is in operation. Temperature difference applies at 20 °C room temperature and 0 °C in the brine.

The brine flow through NIBE FLM will be from 0.1 l/s (360 l/h) to 0.15 l/s (540 l/h) at the above temperature difference, depending on the ventilation flow.

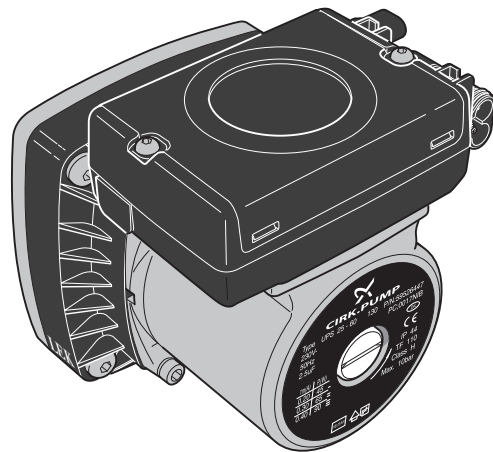
When the heat pump is at a standstill, the internal circulation pump in NIBE FLM gives from 0.085 l/s (306 l/h) to 0.125 l/s (450 l/h) in the return charging flow to the collector.

This applies to a heat pump with approximately 4 kW rated output.

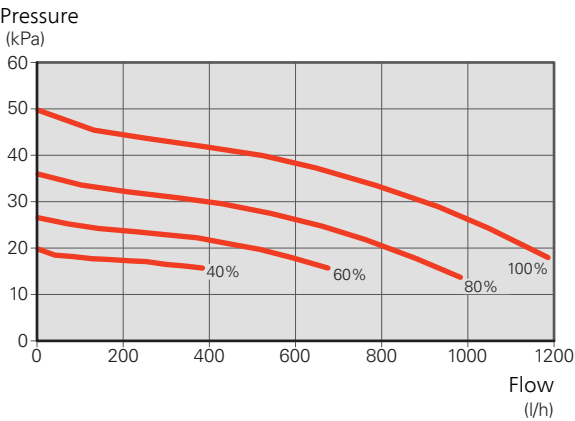
For a 15 kW heat pump, the corresponding flow is from 0.09 l/s (324 l/h) to 0.14 l/s (504 l/h).

SETTING PUMP SPEED

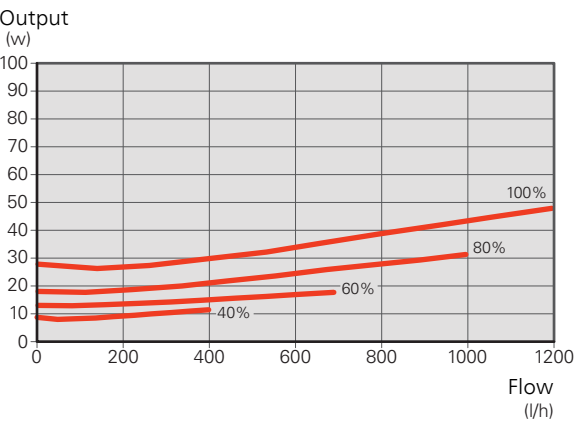
Set the speed of the circulation pump (GP2) in menu 5.3.1. For other heat pumps, the trim valve (RN1) is used to set the flow.



Capacity circulation pump



Output circulation pump



7 Program settings

The activation of NIBE FLM can be performed via the start guide or directly in the menu system in the compatible heat pump.



Caution

Also see the Installer Manual for the main product.

Start guide

The start guide appears upon first start-up after heat pump installation, but is also found in menu 5.7.

Menu system

If you do not make all settings via the start guide or need to change any of the settings, this can be done in the menu system.

MENU 5.2.4. - SYSTEM SETTINGS

Activating/deactivating of accessories.

Select "exhaust air module 1-4".

MENU 1.3.3 - SCHEDULING VENTILATION

Increases or decreases in the ventilation to the accommodation can be scheduled here for up to two time periods per day.

MENU 1.9.6 - FAN RETURN TIME

Here you select the return time for temporary speed change (speed 1-4) on the ventilation in menu 1.2.

Return time is the time it takes before ventilation speed returns to normal.

MENU 1.9.9 - NIGHT COOLING

You can activate night cooling here. This always runs at fan speed 4.

activated

Activate night cooling.

start temp. exhaust air

Here you set the indoor temperature at which night cooling is to be permitted. When the indoor temperature exceeds this value, the ventilation is permitted to increase, if heating is not active and the temperature outdoors is below the set difference.

min diff. outdoor-exhaust

Here you can select how much lower the outdoor temperature has to be for the ventilation to increase.

MENU 5.1.5 - FAN SP. EXHAUST AIR

Set the speed for the five different selectable speeds for the fan here.



Caution

An incorrectly set ventilation flow can damage the house and may also increase energy consumption.

MENU 5.3.1 - FLM

Activates "continuous pump op." in NIBE FLM.

pump speed

Here you select the speed of the circulation pump in NIBE FLM. See pump diagram and pump adjustment.

time between defrosts

Here you can select the minimum time between defrost cycles of the heat exchanger in the exhaust air module. Defrosting only occurs if there is a risk of ice build-up, due to cold inlet/exhaust air.

months btwn filter alarms

Here you can set the number of months between each time the heat pump informs that it is time to clean the filter in the exhaust air module.

activate cooling

Here you activate FLM cooling. For cooling to run, there must be a room sensor (AZ10-BT50) connected to the main product.

MENU 5.4 - SOFT IN/OUTPUTS

Here you select the room sensor for FLM cooling (AZ10-BT50) on the relevant AUX input.

MENU 1.9.12 - FLM COOLING

Set the start and stop values here.

Cooling is activated at the set start value + difference and cools to the stop value.

FLM cooling always runs at fan speed 3.



Caution

Cooling can be activated at the same time as there is a heating demand.

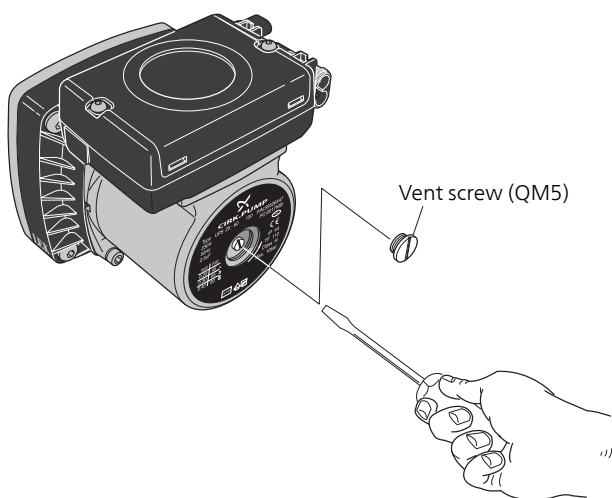
8 Service

Service actions

HELPING THE CIRCULATION PUMP TO START

1. Turn off NIBE FLM by setting the switch (SF1) to "0".
2. Remove the front cover
3. Remove the fan.
4. Loosen the venting screw (QM5) with a screwdriver. Hold a cloth around the screwdriver blade as a small amount of water may run out.
5. Insert a screwdriver and turn the pump motor around.
6. Screw in the venting screw (QM5).
7. Start NIBE FLM by setting the switch (SF1) to "1" and check that the circulation pump is working.

It is usually easier to start the circulation pump with NIBE FLM running, and with the switch (SF1) set to "1". If the circulation pump is helped to start while NIBE FLM is running, be prepared for the screwdriver to jerk when the pump starts.



9 Disturbances in comfort

In most cases, the compatible heat pump notes a malfunction (a malfunction can lead to disturbance in comfort) and indicates this with alarms and action instructions in the display.

Troubleshooting

If the malfunction does not appear in the display or NIBE FLM is not connected to a compatible heat pump, the following tips can be used:

BASIC ACTIONS

Start by checking the following items:

- That the heat pump is operating and the supply cable to NIBE FLM is connected.
- Group and main fuses of the accommodation.
- The property's earth circuit breaker.

LOW OR A LACK OF VENTILATION

- Filter (HQ10) blocked.
 - Clean or replace the filter.
- The ventilation is not adjusted.
 - Order/implement ventilation adjustment.
- Exhaust air device blocked or throttled down too much.
 - Check and clean the exhaust air devices.
- Fan speed in reduced mode.
 - If NIBE FLM is connected to a compatible heat pump: Enter menu 1.2 and select "normal".
If NIBE FLM is connected to another heat pump: Check the potentiometer (SF3).
- External switch for changing the fan speed activated.
 - Check any external switches.

HIGH OR DISTRACTING VENTILATION

- Filter (HQ10) blocked.
 - Clean or replace the filter.
- The ventilation is not adjusted.
 - Order/implement ventilation adjustment.

- Fan speed in forced mode.
 - If NIBE FLM is connected to a compatible heat pump: Enter menu 1.2 and select "normal".
If NIBE FLM is connected to another heat pump: Check the potentiometer (SF3).
- External switch for changing the fan speed activated.
 - Check any external switches.

GURGLING SOUND

- Not enough water in the water seal.
 - Refill the water seal with water.
- Choked water seal.
 - Check and adjust the condensation water hose.

10 Accessories

Detailed information about the accessories and complete accessories list available at nibe.eu.

Not all accessories are available on all markets.

BRACKET BAU 40

Wall mounting of NIBE FLM.

Part no. 067 666

TOP CABINET TOC 30

Top cabinet, which conceals any pipes/ventilation ducts.

Height 245 mm *Height 345 mm*

Part no. 067 517

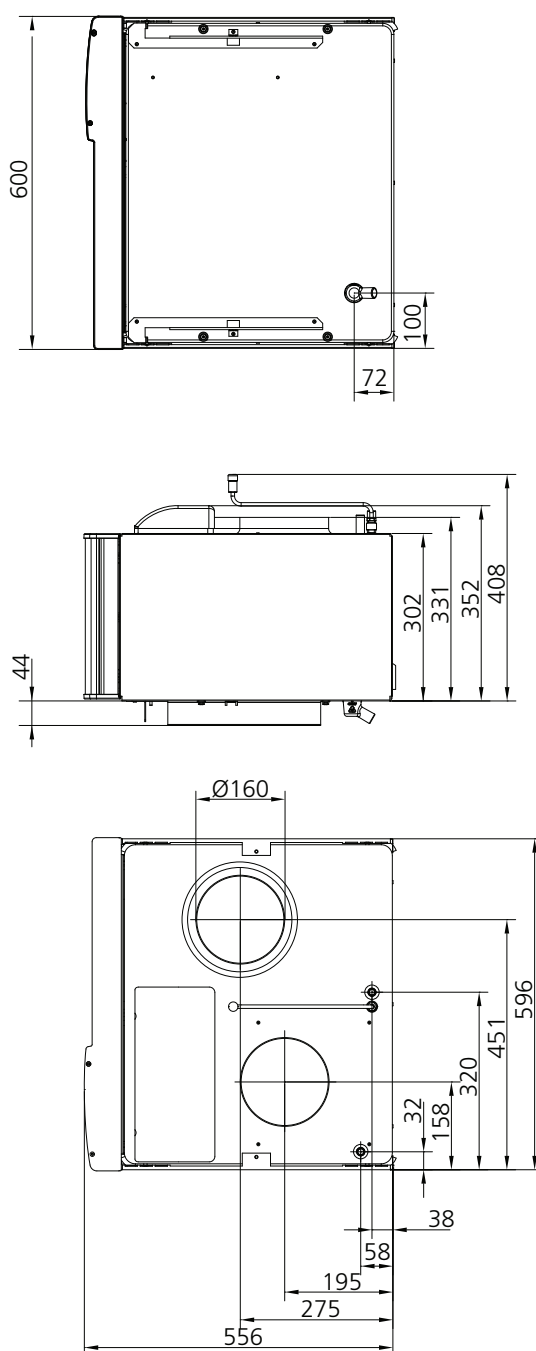
Part no. 067 518

Height 385-635 mm

Part no. 067 519

11 Technical data

Dimensions and setting-out coordinates



Technical specifications

NIBE FLM		
<i>Electrical data</i>		
Supply voltage	V	230 V NAC 50 Hz
Max driving power circulation pump	W	70
Driving power fan	W	170
Enclosure class		IP21
<i>Ventilation</i>		
Max airflow	m ³ /h	350
<i>Brine circuit</i>		
Minimum incoming brine temperature	°C	-8
Maximum recommended incoming brine temperature	°C	15
Maximum outgoing brine temperature	°C	30
Min pressure brine	MPa/bar	0.02/0.2
Maximum pressure brine	MPa/bar	0.3/3
<i>Sound effect level according to EN 12 102</i>		
Sound power level (L _{W(A)}) ¹	dB(A)	35-48
<i>Miscellaneous</i>		
Width	mm	600
Depth	mm	556
Height	mm	396
Weight	kg	35
Part No.		067 011

¹ The value varies with the selected fan curve.

NIBE FLM





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