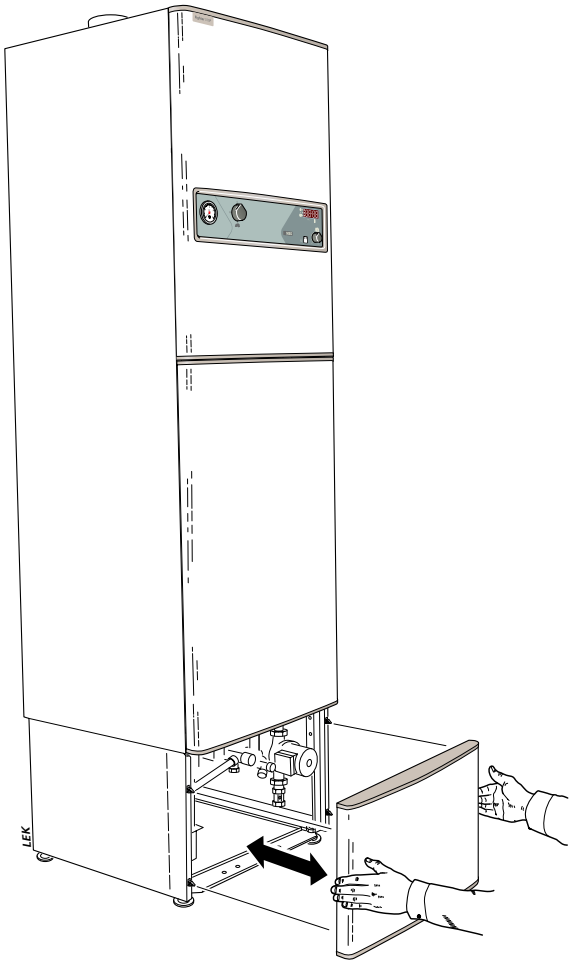
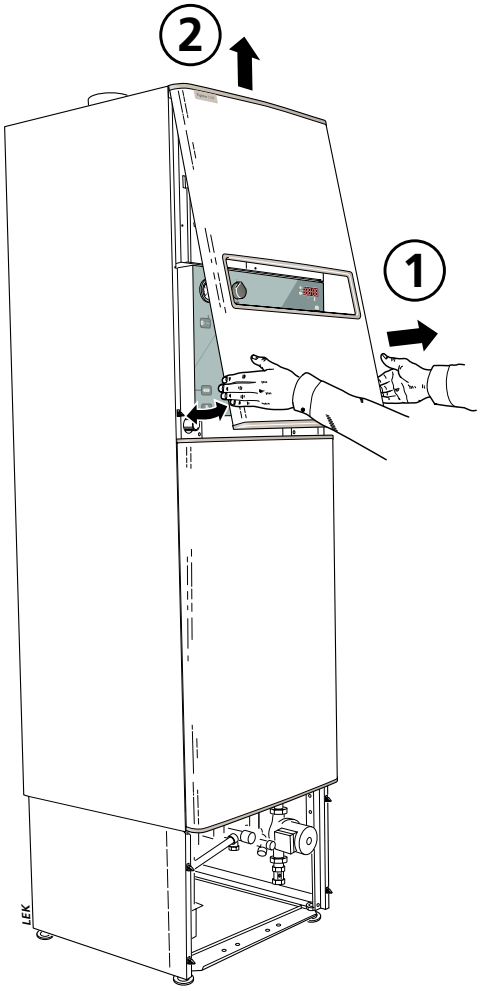
MOS GB 1124-1
NIBE™ F205P
031977

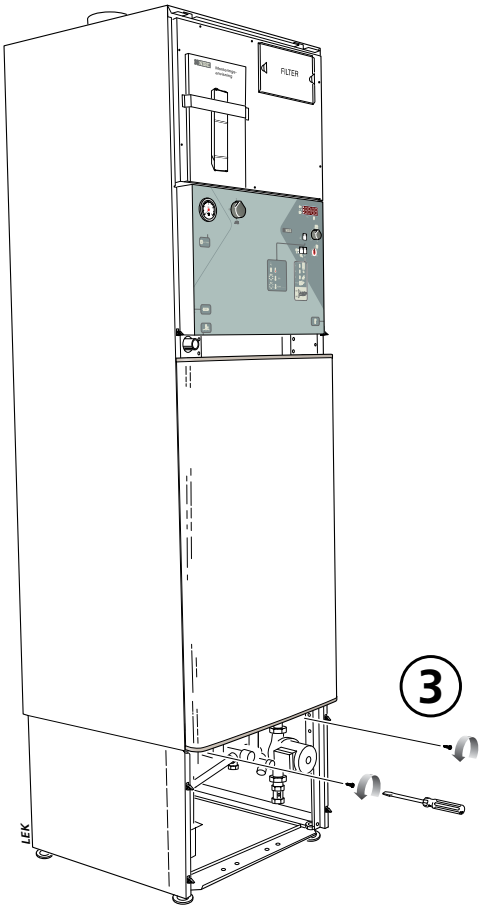
INSTALLATION AND MAINTENANCE INSTRUCTIONS

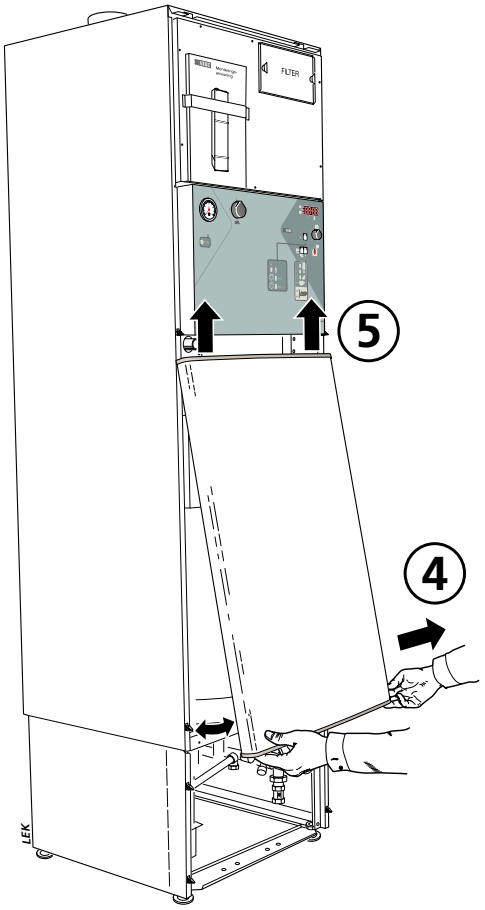
NIBE™ F205P

1 x 230 V UK


LEK


2
1
LEK


FILTER
3
LEK


FILTER
5
4
LEK

For home Owners

For the Installer

General

In order to get the ultimate benefit from your heat pump NIBETM F205P you should read through the For Home Owners section in this Installation and Maintenance Instruction.

F205P is an exhaust air heat pump. This means it utilises energy in ventilation air and uses this energy for hot water and heating the house. A microprocessor ensures that the heat pump always works efficiently.

For the installation engineer: Please, hand over to the home owner this manual after finalised installation.

To be filled in when the heat pump has been installed

☐ Benchmark checklist completed
Exhaust air flow and selected fan curve, high speed (Knob R51) ☐ l/s ☐ m³/h ..... Fan curve .....
Exhaust air flow and selected fan curve, normal speed (Knob R52) ☐ l/s ☐ m³/h ..... Fan curve .....
Setting the dip switch (S1) on the circuit board (34) ON: ☐ 4 ☐ 3 ☐ 2 ☐ 1
Heat emitter ☐ Radiator ☐ ..... ☐ Underfloor heating coil
Date_____ Signed_____

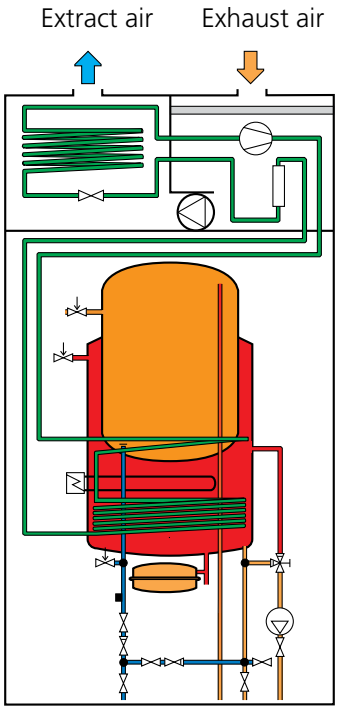
Manufacter: NIBE AB Box 14 Järnvägsgatan 40 285 21 MARKARYD SWEDEN	
Maximum water supply pressure	16 bar
Immersion heater	R50 / 3000W / 230 V
Operating pressure, tap water	6 bar
Expansion vessel, tap water, charge pressure	3,5 bar
Expansion vessel, heating water, charge pressure	0,5 bar
Pressure reduction valve, setting	3,5 bar
Volume, water heater	170 litres
Mass, unit, filled with water	435 kg
Maximum primary working pressure (heating side)	2,5 bar
Set opening pressure of temperature and pressure valve	7 bar
Set opening pressure relief valve	6 bar
Set opening, temperature limiter, immersion heater	88 °C
Set opening, temerature limiter, compressor	88 °C
Heating up time from 15 °C to stop temperature for compressor	7 h 8 min
Re-heating time, 70 % of total volume (only compressor working)	4 h 50 min

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. Rights to make any design or technical modifications are reserved.

Benchmark places responsibilities on both manufacturers and installers. The purpose is to ensure that customers are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturers instructions by competent persons and that it meets the requirements of the appropriate Building Regulations. The Benchmark Checklist can be used to demonstrate compliance with Building Regulations and should be provided to the customer for future reference.

Installers are required to carry out the installation, commissioning and servicing work in accordance with the Benchmark Code of Practice which is available from the Heating and Hotwater Industry Council who manage and promote the Scheme.Visit www.centralheating.co.uk for more information.

System description



Principle of operation

F205P comprises an electric boiler with a stainless steel water heater and a heat pump which recovers energy from the ventilation air. The recovered energy is supplied to the heat pump. The heat pump must be installed in a ventilation system intended for mechanical exhaust air. A DC fan is used in F205P.

The output of the immersion heater is 3 kW. When the exhaust air at room temperature passes through the evaporator, the refrigerant evaporates because of its low boiling point. In this way the heat in the air is transferred to the refrigerant.

The refrigerant is then compressed in a compressor, causing the temperature to rise considerably.

The warm refrigerant is led to the condenser. Here the refrigerant gives off its heat to the boiler water, so that the temperature of the the refrigerant drops and its phases changes from gas to liquid. The refrigerant then goes via a filter to the expansion valve, where the pressure drops and the temperature is lowered further.

The refrigerant has now completed its circulation and returns to the evaporator.

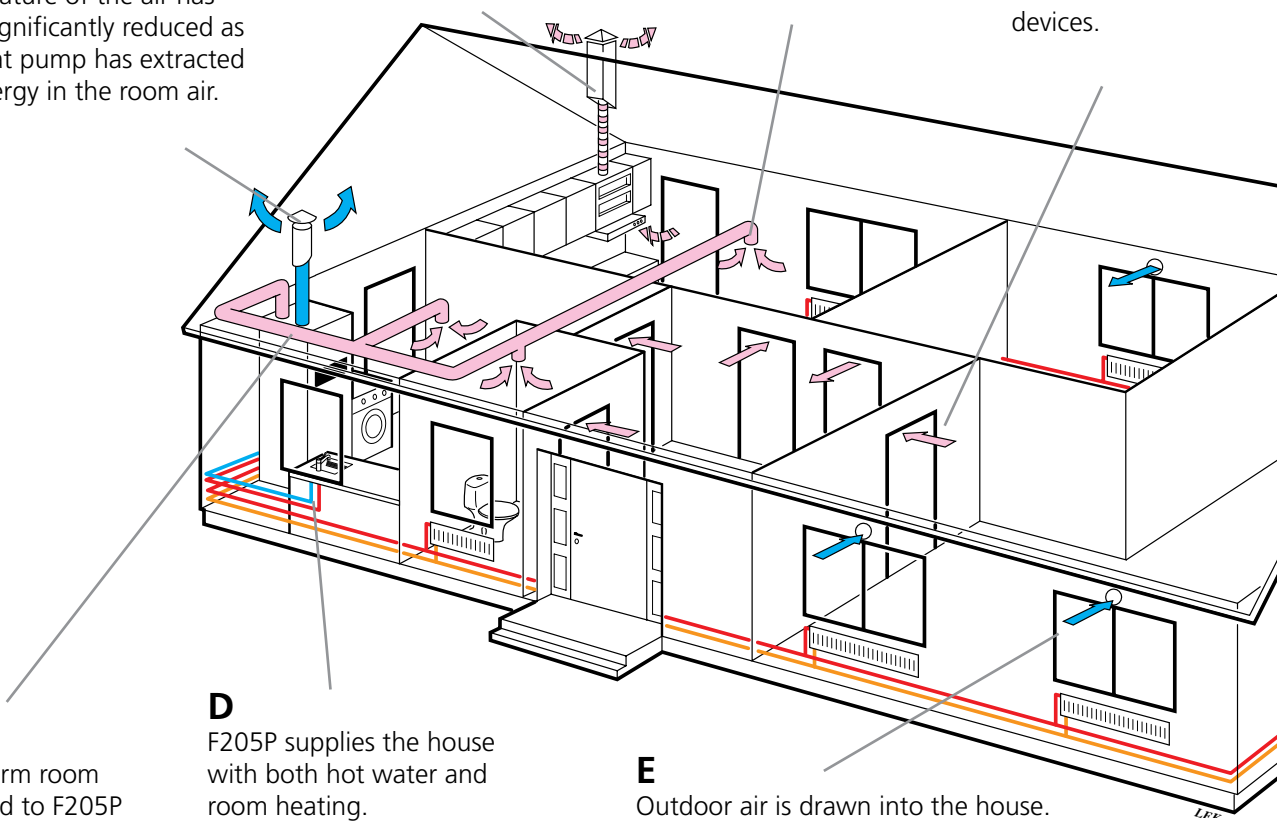
System diagram

C
When the room air has passed through the heat pump it is discharged. The temperature of the air has been significantly reduced as the heat pump has extracted the energy in the room air.

G
The air from the kitchen fan goes directly out into a separate duct.

A
The warm room air is drawn into the air duct system.

F
Air is transported from rooms with outdoor air devices to rooms with exhaust air devices.

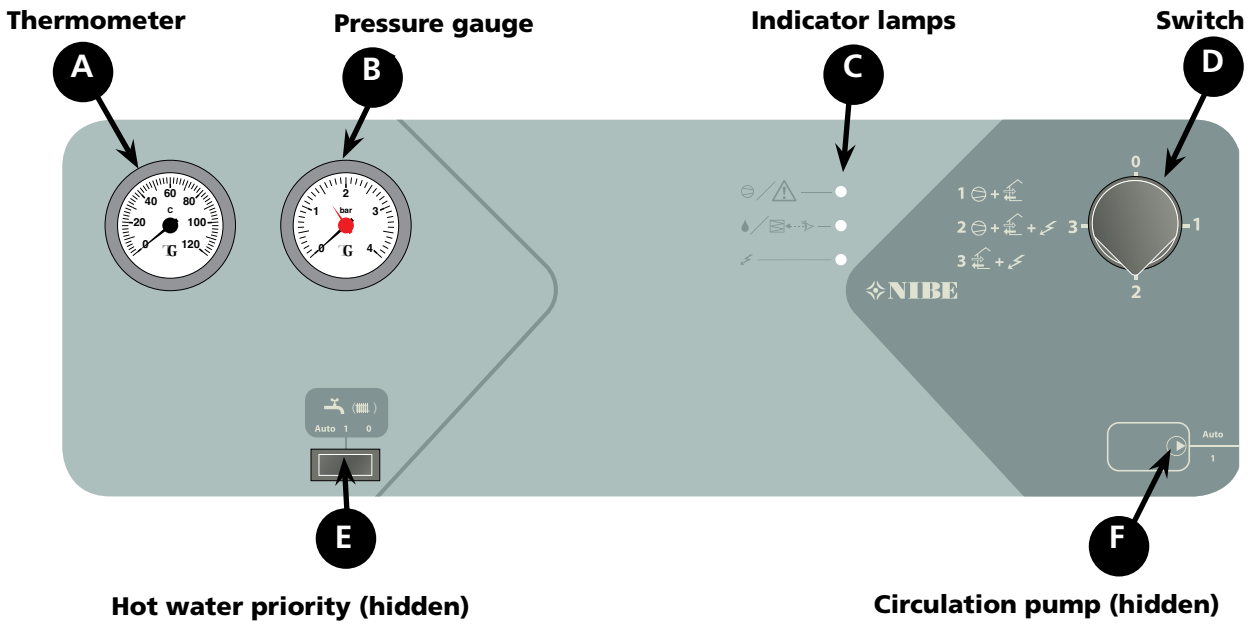


B
The warm room air is fed to F205P

D
F205P supplies the house with both hot water and room heating.

E
Outdoor air is drawn into the house.

Front panel



Functions on the front panel

A **Thermometer**

Here the boiler temperature is indicated . The value depends on the cut-out temperature of the immersion heater, the set value for the compressor cut-out temperature and the hot water taps.

B **Pressure gauge**

Here the pressure of the radiator circuit is indicated . The scale marks go from 0 - 4 bars. Normal pressure is 0,5 - 1,5 bar.

C **Indicators lamps**

Top lamp

Lit	Compressor is running.
Flashing	Alarming for tripped pressostates or indicating standby mode (Compressor blocked).
Not lit	Compressor is not running.

Midmost lamp

Lit	Defrosting is operational.
Flashing	Air filter to be cleaned.
Not lit	-

Lower lamp

Lit	Immersion heater is in operation.
Flashing	-
Not lit	Immersion heater is not in operation.

D **Switch**

with 4 positions 0 - 1 - 2 - 3:

0	Heat pump off.
1	Fan is operational. Compressor and circulation pump operational on demand.
2	Fan is operational. Compressor, immersion heater and circulation pump operational on demand.
3	Standby mode. Fan is operational. Compressor is not operational. Immersion heater and circulation pump operational on demand.

E **Hot water prioritising (hidden)**

with 3 positions “Auto” - “1” - “0”:

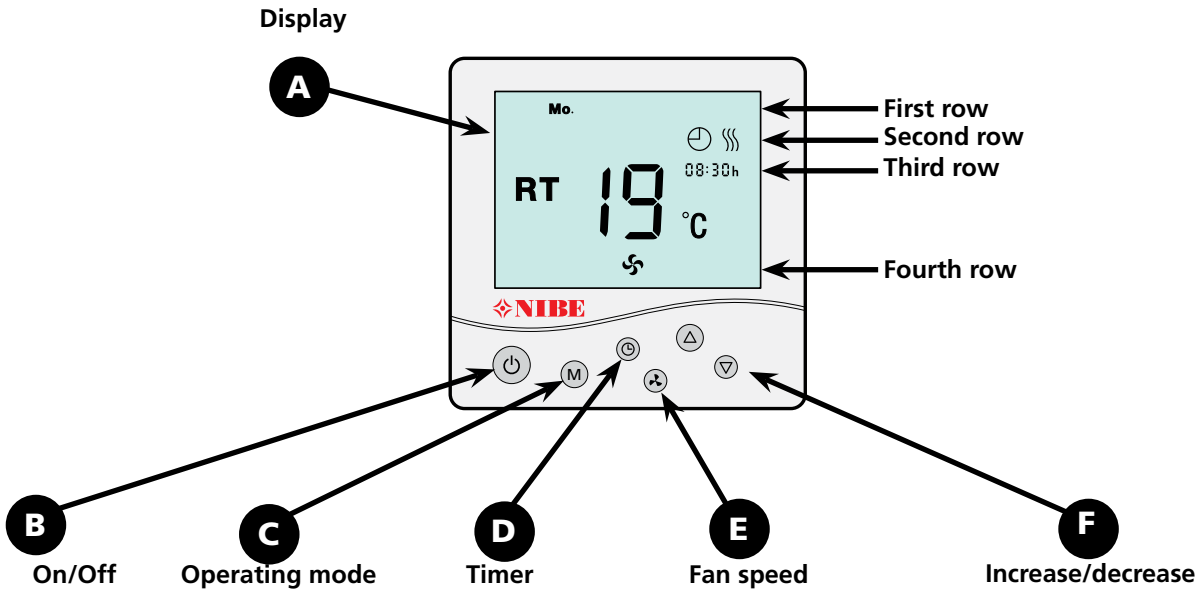
Auto	Hot water prioritising Continuously activated (same function as "1")
1	Hot water prioritising continuously activated.
0	Hot water prioritising not activated.

F **Circulation pump (hidden)**

with 2 positions “Auto” - “1”:

Auto	The circulation pump is controlled on and off by the control system or clock thermostat.
1	Circulation pump in continuous operation.

Front panel, supplied clock thermostat



Front panel's functions

The indoor temperature is regulated using a room thermostat. When the temperature in the accommodation is the same as the temperature set on the room thermostat, the circulation pump in the heat pump stops.

To set different intervals with a temperature change, we recommend the supplied clock thermostat. For instructions on how to set times and temperatures, see section "Settings".

A **Display**

First row: Week day.

Second row: Operating mode day ☀, operating mode auto ◴, heating on ≋.

Third row: Actual indoor temperature (RT) or set indoor temperature (SET), clock

Fourth row: Actual fan speed, operating mode night ☽.

B **On/Off**

Press "⏻" once to switch off the thermostat, press again to restart.

C **Operating mode**

The operating mode that the heat pump is to use is selected here.

Auto ◴: In this mode the heat pump operates according to your own settings. You set which temperature you want indoors during day and night.

Day ☀: In this mode you get the setting for day temperature for the entire day.

Night ☽: In this mode you get the setting for night temperature for the entire day.

Manual: (no symbol) In this mode the set temperatures are not used. Press △ or ▽ to increase or decrease the temperature indoors.

D **Timer**

Set current time and date here.

E **Fan speed**

Select the fan speed here: high, normal and auto (no symbol).

If normal or high is selected, you return to the previous setting after one hour.

If normal or auto is selected, the fan runs at low speed when the compressor has stopped and rotates up to speed when the compressor is in operation.

F **Increase/decrease**

These buttons are used to increase or decrease a value.

Settings

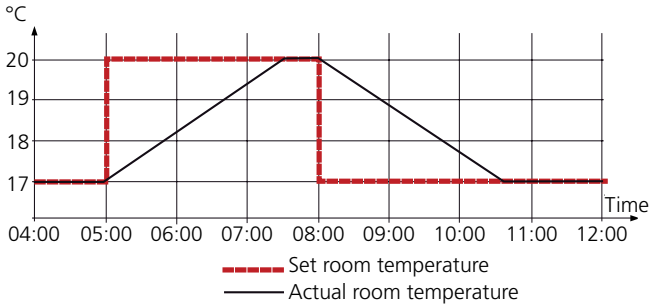
Set actual time and weekday

1. Press the timer button once ◷. The first two digits in the clock start to flash.
2. Use △ or ▽ to set the hours. Save the settings by pressing the timer button once.
3. Use △ or ▽ to set the minutes. Save the settings by pressing the timer button once.
4. Use △ or ▽ to set the weekday. Save the settings by pressing the timer button once.

Changing the indoor temperature

A water borne heating system has a certain inertia. This means that it can take several hours from when the change was made until the desired temperature in the accommodation is achieved. The size of the house, outdoor temperature, hot water usage during the time etc. affects how long the change takes.

E.g. You change the 05:00 setting of the clock thermostat from 17 °C to 20°C. F205P starts to increase the temperature but it can take several hours for the heat pump to achieve the desired change.



At 08:00 you change the setting again, from 20 °C to 17°C. The heat pump then starts to send out cooler water to the heating system but it can take several hours before the water has cooled enough to achieve the desired temperature.

Programme operating mode

Start by making settings for Monday to Friday:

SET 1 means period 1, SET 2 means period 2.

1. Hold in the timer button ◷ until SET 1 appears in the display.
2. Set the time at which you want period 1 to start to apply. Set the time in the same way as you set the clock previously, using △ or ▽ and the timer button.
3. Set the temperature you want indoors during period 1 by pressing △ or ▽. Save the settings by pressing the timer button once.
4. Set the time at which you want the period 1 setting to stop being applied. Set the time in the same way as you set the clock previously, using △ or ▽ and the timer button.
5. Set the temperature you want indoors between periods 1 and 2 by pressing △ or ▽. Save the settings by pressing the timer button once.
6. SET 2 now appears in the display. Set the time at which you want period 2 to start to apply. Set the time in the same way as you set the clock previously, using △ or ▽ and the timer button. The temperature will be the same as you selected in period 1.
7. Set the time at which you want the period 2 setting to stop being applied. Set the time in the same way as you set the clock previously, using △ or ▽ and the timer button.

Now make settings for Saturday and Sunday:

1. This is done in the same way as setting the temperatures for weekdays (repeat steps 2-7).

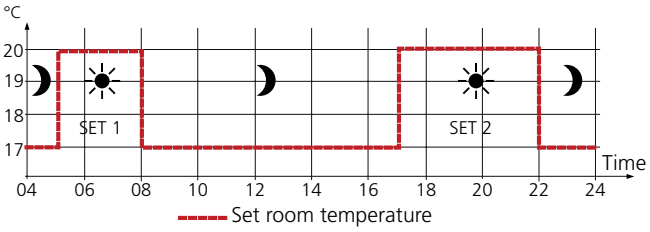
Change operating mode

Press operating mode button (M) to switch between auto, day, night and manual mode. Confirm using the timer button ◷.

If you want one indoor temperature during the daytime and another indoor temperature during the night select operating mode auto ◴.

If you want the day temperature for 24 hours select ☀ and if you want the night temperature for 24 hours select ☽.

To change temperature at any point during the day, select the manual mode. If the temperature in the accommodation is too low or too high, press △ or ▽ to increase or decrease the temperature. Approximately 30 seconds after the last button push, the thermostat returns to showing the actual room temperature.

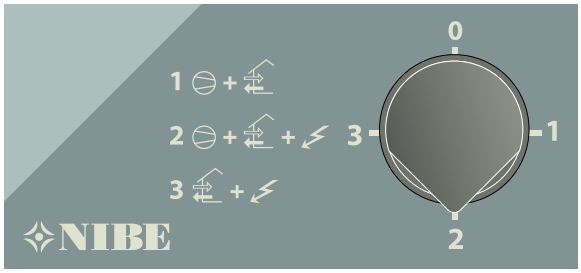


Maintenance routines

General

The heat pump and its ventilation ducting require some regular maintenance when the following points should be checked.

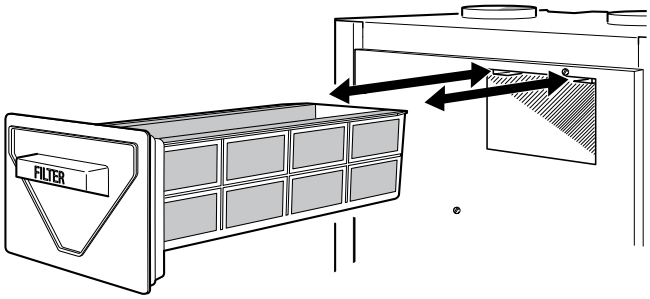
The numbers in brackets refer to the section "Component locations".



Cleaning the air filter

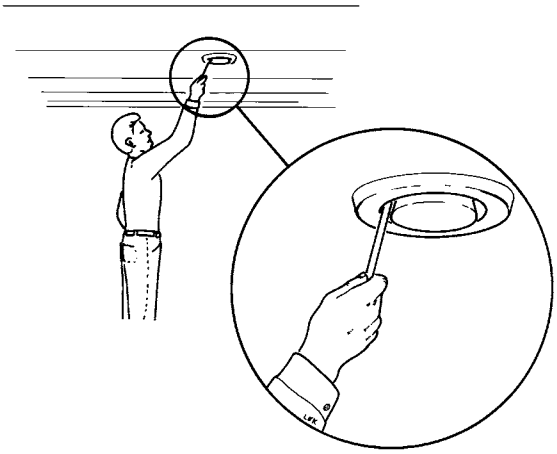
The heat pump air filter (63) should be cleaned regularly, about four times a year.

1. Set the switch (8) to "0".
2. The upper service cover is opened by pulling the lower section outwards. The cover can then be lif-ted off.
3. Pull out the filter cassette (78).
4. Take out the filter and shake/vacuum off any dirt. Do not use water or other liquids for cleaning.
5. Check that the filter is not damaged. New original filters can be ordered from a Nibe distributor.
6. Re-assembly takes place in the reverse order.



The cleaning time intervals vary depending on the amount of dust in the exhaust air. Each third month an indicator lamp "Midmost lamp" flashing to reminds about cleaning the air filter. Note that the time will be set to zero by setting the switch to "0".

Cleaning the ventilation devices



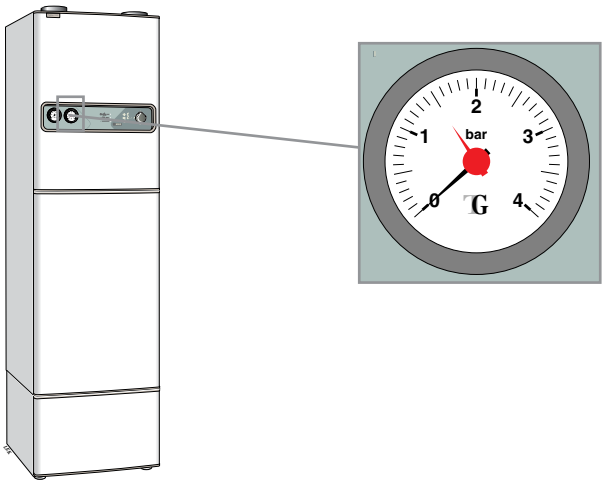
The building's ventilation devices should be cleaned regularly with a small brush to keep the correct ventilation.

The device settings must not be changed.

Note! If you take down more than one ventilation device for cleaning, do not mix them up.

Check that the ventilation opening (84), behind the lower front cover, is not blocked. Clean if necessary.

Pressure gauge



The pressure gauge shows the pressure in the heating system. The pressure should be between 0.5 and 1.5 bar.

Checking the safety valves

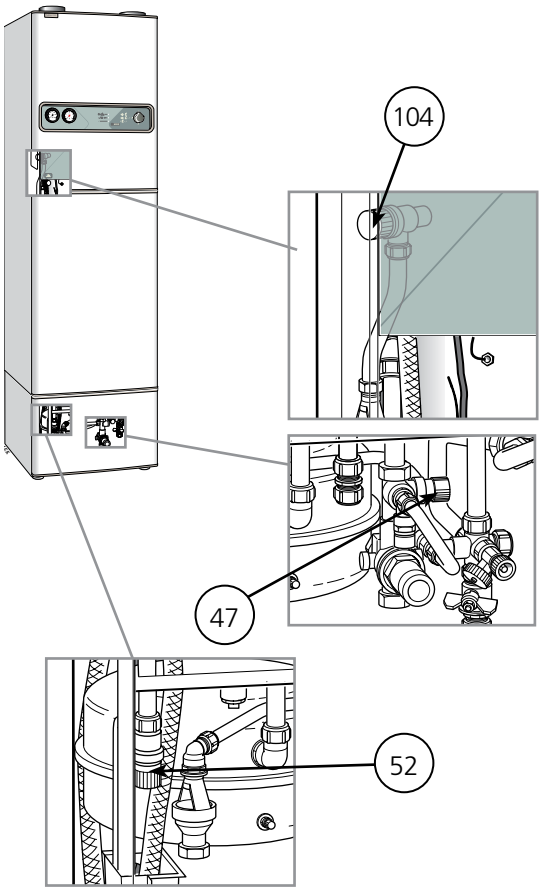
F205P has three safety valves, one for the heating system and two for the water heater.

The heating system safety valve (52) must be completely tight, but the hot water safety valve (47) may release some water after hot water has been used. This is because the cold water which enters the water heater to replace the hot water expands when heated, causing the pressure to rise and the safety valve to open.

Safety valve (104) does not normally release water.

The safety valves must be checked regularly. Check one valve at a time as follows:

1. Open the valve.
2. Check that water flows through the valve.
3. Close the valve.
4. The heating system may need to be refilled after checking the safety valve (52), see the section "Commissioning and adjustment" – "Filling the heating system".



In the event of malfunction or operating disturbances first check the points below:

Dealing with malfunctions

Low temperature or a lack of hot water

- Large amounts of hot water were used.
- Circuit or main MCB tripped.
- Possible earth circuit-breaker tripped.
- Wrong mode chosen on power switch (8).
- Temperature limiter (6) tripped. Contact service.
- Thermostat (3) for immersion heater set too low.

Low or a lack of ventilation

- Defrost mode - lamp flashing - see chapter "Lamp indications".
- Filter (63) clogged (possible replace).
- Exhaust air device blocked or throttled down too much.
- Circuit or main MCB tripped.
- RCD (if fitted) tripped.
- Setting of the manual fan switch (if mounted) is incorrect.

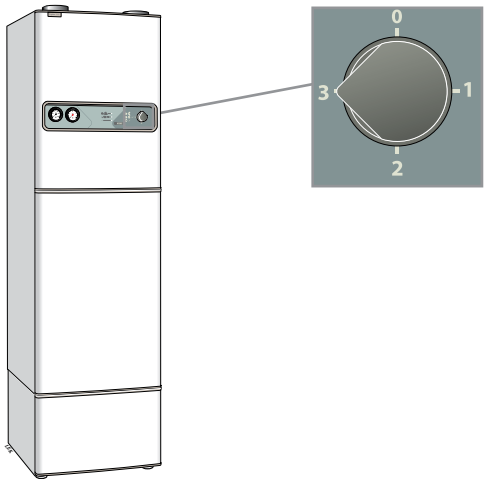
Low room temperature

- Circuit or main MCB tripped.
- Possible earth circuit-breaker tripped.
- Tripped temperature limiter (6). Contact service
- Incorrectly set value on the room thermostat.
- Circulation pump (16) stopped. See the section "Dealing with malfunctions" – "Starting the pump".
- Air in the boiler or system.
- Close valves (44) and (50) in the radiator circuits.
- Too low pre-pressure in the expansion vessel, contact the installer.

High room temperature

- Clock thermostat setting not correct

Switch position 3



When the switch is set to "3", the compressor is not operational. The fan and the immersion heater are operational. Normally the immersion heater lamp is lit in mode "3", when the immersion heater is operational.

A possible fault on the printed circuit card can cause the disappearance of the number display. However, the immersion heater is still operational, if the thermostat has not cut-out the immersion heater.

Cleaning the fan

The fan needs to be cleaned, if it is noisy. Call your installation engineer.

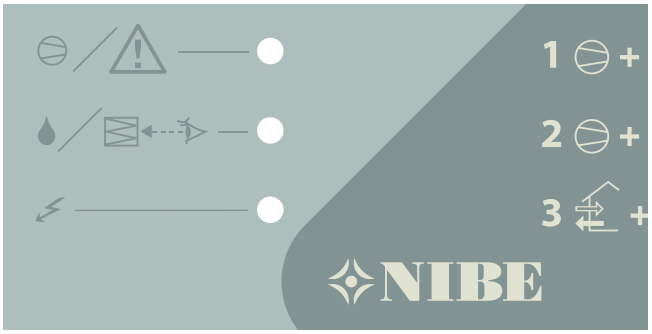
Note!

In all correspondence with NIBE

state the serial number

_____

Indications on the display



Lamp "Compressor is operational/alarm" is flashing

- A fault has occured in the cooling circuit. (One of the pressostates has cut-out).
- Mode "3" is set.

When the cause of the fault has been put right, the fault code must be cleared from the display by switching the heat pump off and on again.

Lamp "Defrosting is operational/check filter" is flashing

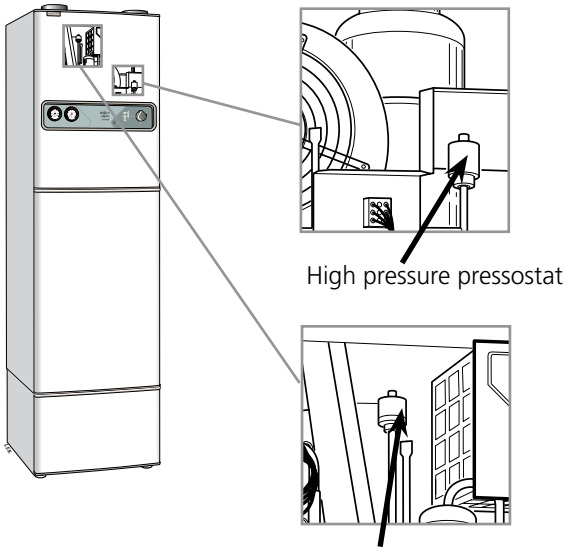
Air filter has to be cleaned (lamp flashing each third month). After cleaning the filter, the fault code must be cleared from the display by switching the heat pump off and on again.

Lamp "Defrosting is operational/check filter" is litted

When there is too much ice on the evaporator, defrosting takes place. After this, the compressor starts automatically if heating is needed. Frequent defrosting is a sign of clogged ventilation devices or dirty filters.

See "Maintenance routines" – "Cleaning air filters".

Resetting the pressostats



High pressure pressostat

Low pressure pressostat. Normally this pressostat resets automatically, so it does not have a resetbutton.

To reset a tripped pressostat, press the button on top of it; see figure. The pressostats are within reach by opening the filter box.

Note!

In all correspondence with NIBE

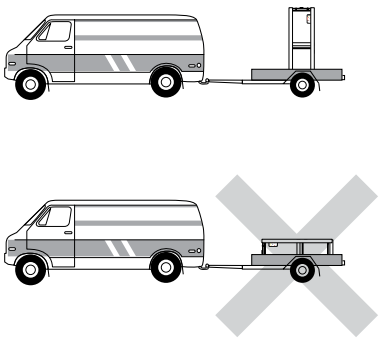
state the serial number

_____

General information for the installer

Transport and storage

The heat pump should be transported and stored vertically in the dry. The F205P may however be carefully laid on its back when being moved into a building.



Handling

The heat pump contains highly inflammable refrigerant. Special care should be exercised during handling, installation, service, cleaning and scrapping to avoid damage to the refrigerant system and in doing so reduce the risk of leakage.

Installation

The heat pump should preferably be erected with its back about 10 mm from an outside wall in a utility room or similar, to minimise noise nuisance. If this is not possible, avoid placing it against a wall behind a bedroom or other room where noise may be a problem. Irrespective of the placement the wall should be sound insulated. NOTE! The distance between the heat pump and the wall should be at least 10 mm.

Route pipes so they are not fixed to an internal wall that backs on to a bedroom or living room.

An area of approximately 15 cm is required on the left side of the heat pump, at the temperature and pressure valve (104) to enable access to the valve.

Note!

Since a waterfilled F205P weighs roughly 435 kilos, the floor must stand such a weight.

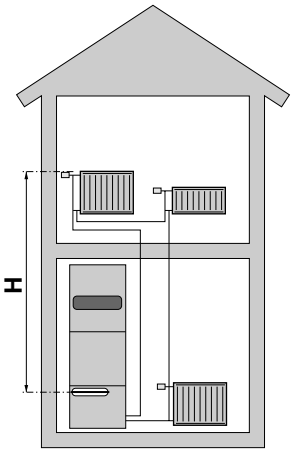
Hard water areas

Normally it is no problem to install F205P in hard water areas since the maxing working temperature is 60 °C.

Inspection of the installation

Current regulations require the heating installation to be inspected before it is commissioned. The inspection must be carried out by a suitably qualified person. The above applies to installations with a closed expansion vessel. A new inspection must be made when changing the heat pump or the expansion vessel.

Maximum boiler and radiator volumes

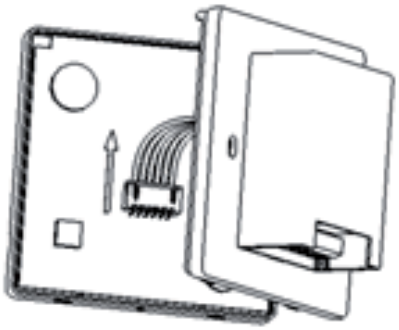


The volume of the expansion vessel (85) is 12 litres and it is pressurised as standard to 0.5 bar (5 mwp). As a result, the maximum permitted height "H" between the vessel and the highest radiator is 5 metres; see figure. If the standard initial pressure in the pressure vessel is not high enough it can be increased by adding air via the valve in the expansion vessel. The initial pressure of the expansion vessel must be stated in the inspection document.

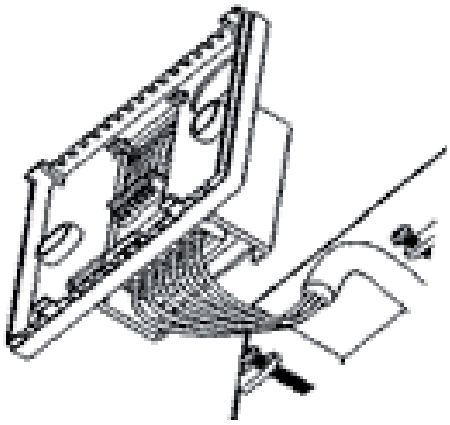
Any change in the initial pressure affects the ability of the expansion vessel to handle the expansion of the water. The maximum system volume excluding the boiler is 106 litres at the above initial pressure.

Installing the clock thermostat

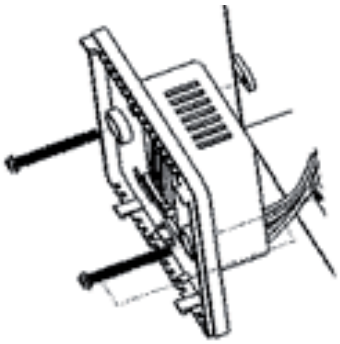
Open the main control panel. Put the screwdriver (3.5mm) into the block 4mm along the bevel. Prize up, open the clips.



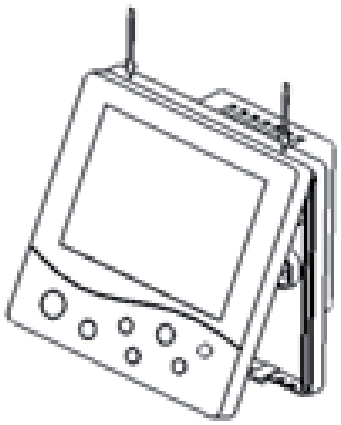
Take off the wires.



As per wiring diagram, connect it with terminals, fixed by the screwdriver.



Put the connected thermostat onto the back panel in the wall, then fix it with the two screws in the packing box.



Put the cover with 30 degree angle, then fix the up two clips;

Push the places of the two down clips, fix the cover, and finish the installation.

Note!

Be sure to connect all the wires as per the wiring diagrams and keep it away from water, mud and other material so as to prevent the unit being spoiled!

Pipe connections

General

This installation is subject to building regulation approval, notify the Local Authority of intention to install.

Use only replacement parts recommended by the manufacturer.

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

All domestic hot water circuits, connections and fittings must be in accordance with the relevant standards and water supply regulations. It should also be in accordance with the relevant requirements of the Local Authority and the Building Regulations relevant to the location of installation.

BS 6700 Services supplying water for domestic use within buildings and their cartilages.

Water Supply (Water Fitting) Regulations 1999 or The Water Bylaws 2000 (Scotland).

The installation of the heat pump should follow best practice as covered in the following:

BS 5449 Forced circulation hot water central heating systems for domestic premises.

BS 15450 Heating systems in buildings – Design of heat pump heating systems.

The system requires a low-temperature dimensioning of the radiator circuit. At DUT, the highest recommended temperatures are 55 °C on the flow line and 45 °C on the return line.

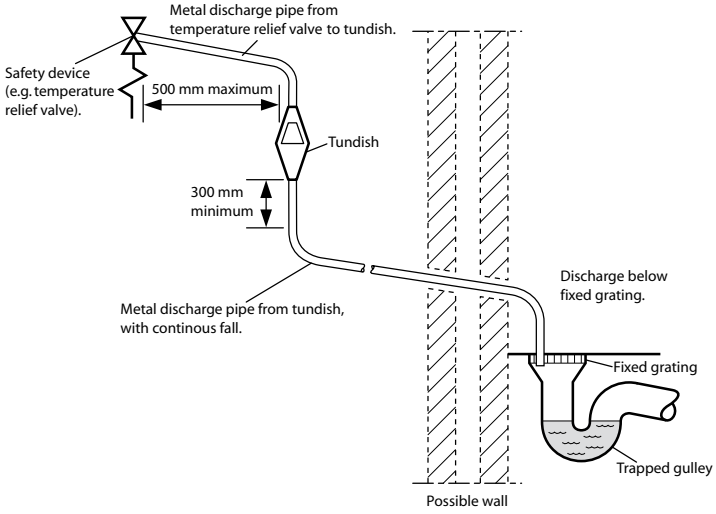
When the circulation pump is running, the flow in the radiator circuit must not be completely stopped. When connecting to a system with thermostats on all radiators, a relief valve must be fitted, or some of the thermostats must be removed to ensure sufficient flow.

The total volume is 240 litres, with 170 litres in the water heater and 70 litres in the boiler section.

The pressure vessel in the F205P is approved for max 9.0 bar (0.9 MPa) in the water heater and 2.5 bar (0.25 MPa) in the double shell section.

Overflow water from the evaporator collection tray and safety valves goes via non-pressurised collecting pipes to a drain so that hot water splashes cannot cause injury. The outlet of the overflow pipe should be visible and clearly away from any electrical components. Likewise should the discharge pipes (tundishes), drain valves and motorised valves be positioned clearly away from any electrical components. These non-pressurised collecting pipes shall not be used for anything else. A discharge pipe from the tundish (108) connected to the expansion reliet valve (47) (safety valve) shall also be connected to a drain in the same way.

No valve should be fitted between the pressure reduction valve (expansion valve) and the storage cylinder.



Note!

Do not use collection funnel (99) to discharge pipes from tundish (109).

Note!

This installation is subject to building regulation approval, notify the local Authority of intention to install.

Note!

Use only manufacturer's recommended replacement parts.

Table sizing of copper discharge pipe for common temperature relief valve outlet sizes.

Valve outlet size	Minimum size of discharge pipe	Minimum size of discharge pipe from tundish	Maximum resistance allowed, expressed as a lenght of straight pipe (i.e. no elbows or bends)	Resistance created by each elbow or bend
G1/2	15 mm	22 mm	up to 9 m	0,8 m
G1/2	15 mm	28 mm	up to 18 m	1,0 m
G1/2	15 mm	35 mm	up to 27 m	1,4 m
<G3>/4	22 mm	28 mm	up to 9 m	1,0 m
<G3>/4	22 mm	35 mm	up to 18 m	1,4 m
<G3>/4	22 mm	42 mm	up to 27 m	1,7 m
G1	28 mm	35 mm	up to 9 m	1,4 m
G1	28 mm	42 mm	up to 18 m	1,7 m
G1	28 mm	54 mm	up to 27 m	2,3 m

Cleaning the system / Flushing out of the hot water and the heating system

The pipe work must be flushed before the heat pump is connected, so that any contaminants do not damage the components parts.

After flushing, an inhibitor should be used for long term corrosion protection. Ensure all cleanser is removed from the system before adding the inhibitor.

NIBE Energy Sytems Limited recommends Fernox and Sentinel water treatment products for heating and cooling systems.

Tap water connection

Hot and cold water are connected to pos (74) (hot water) and (73) (cold water).

The enclosed expansion vessel (107) must be connected to the hot water system.

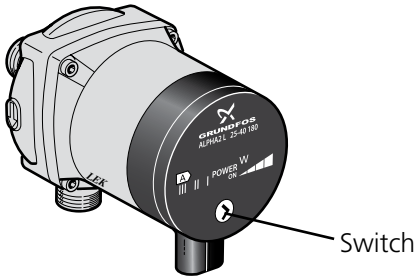
The heat pump should be supplemented with an electric water heater if a bubble pool or other significant consumer of hot water is installed.

Setting the pump speed

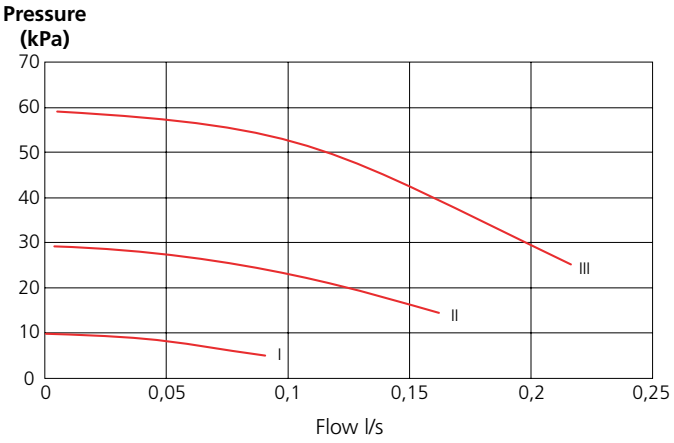
To set the correct flow in the heating system, the correct speed must be set for the circulation pump in the different operating conditions.

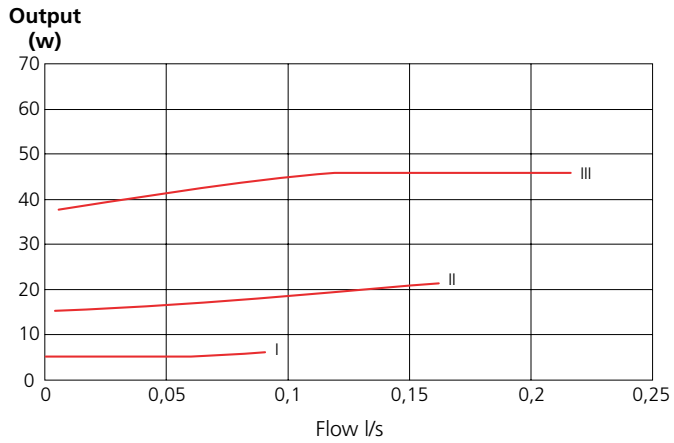
Compare the planned heating with the available capacity for the circulation pump (16) and set the lowest possible pump speed.

You set the speed for the circulation pump with the help of the switch on the pump. Choose speed I, II or III. You can see the chosen speed to the left, above the switch. The display to the right, above the switch, should not be lit.



Pump and pressure drop diagram





Ventilation connection

Ventilation flow

Ventilation system should be installed and commissioned in accordance with the UK Building Regulations Part F England and Wales and Chapter 3.4, Scotland.

F205P is connected so that all ventilation air except the kitchen fan passes the evaporator (62) in the heat pump. For optimum heat pump performance the ventilation flow must not be less than 100 m ³/h (28 l/s) when the compressor is in operation. F205P is equipped with a ventilation opening in the base. As a result, an air flow of about 5 m³/h.
(1,4 l/s) is taken directly from the room where the heat pump is installed. Changing the ventilation capacity is described under "Electrical connection - Setting the fan capacity". The curve's designation refers to the position of the knobs R51 and R52 on the circuit board (34).

Connect the supplied clock thermostat to select between normal or high ventilation.

Kitchen duct

Duct from Cooker Hoods must not be connected to the F205P.

Adjustment

To obtain the necessary air exchange in every room of the house, the exhaust air devices must be correctly positioned and adjusted. An incorrect ventilation installation may lead to reduced heat pump efficiency and thus poorer operating economy, and may result in damage to the house.

Fan diagram

The diagram below shows the available ventilation capacity.

Duct installation

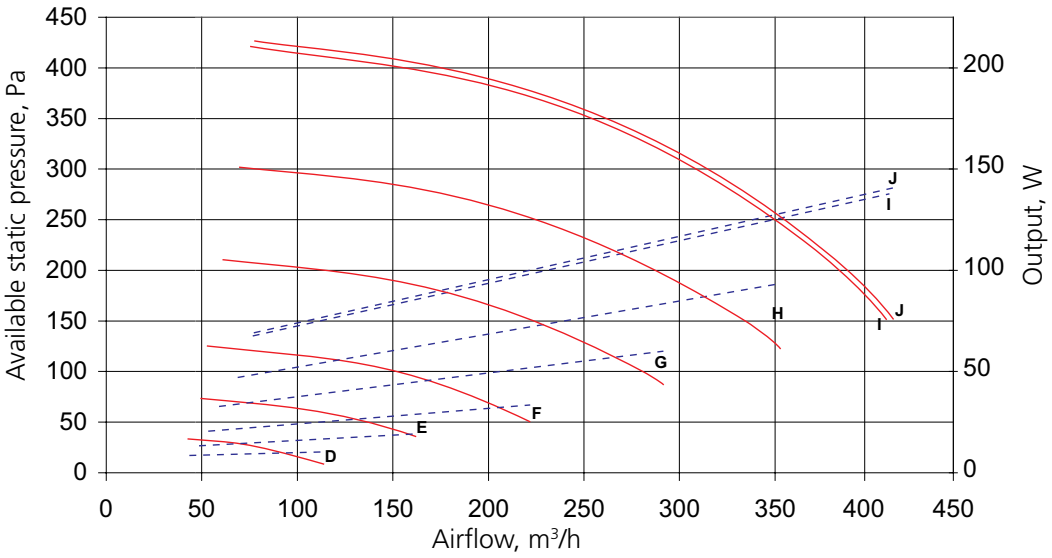
To prevent fan noise being transferred to the exhaust air devices, it may be a good idea to install a silencer in the duct. This is especially important if there are exhaust air devices in bedrooms. Because the heat pump contains a flammable refrigerant in the form of propane (R290), the air ducting system must be earthed. This is done by making a sound electrical connection to the exhaust air duct and extract air duct using the two earthing cables supplied. The cables must then be connected to the earthing studs on top of the top cover.

Duct connections should be made via flexible hoses, which must be installed so that they are easy to replace. The extract air duct is to be insulated using diffusion-proof material along its entire length. Provision must be made for inspection of the duct. The exhaust air duct should be fitted with an adjustment damper. 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. All joins in the ducting must be sealed and pop-riveted to prevent leakage.

The air duct system should, at a minimum, be of air tightness class B.

Note!

A duct in a masonry chimney stack must not be used for extract air.



Electrical connections

Connection

The heat pump must be permanently connected to a 230V ac 50Hz supply.

All system components shall be of an approved type and all wiring to current I.E.E wiring regulations.

External wiring must be correctly earthed, polarised and in accordance with the relevant standards: Currently this is BS 7671.

Note!

The switch (8) must not be moved from "0" until the boiler has been filled with water Otherwise the temperature limiter, thermostat, compressor and the immersion heater can be damaged.

Disconnect the heat pump before insulation testing the house wiring.

The supply (230 V~ 1-phase + N) for the heat pump must be connected to terminal (9) via a cable clamp.

The connection of the heat pump must be done under the supervision of a qualified electrician.

The heat pump installation implies a contact breaker.

The vinyl-pipe on the right side may be used as cable entry conduit.

The temperature limiter (6) cuts off the supply to the immersion heater if the temperature rises to 88 °C; it can be manually reset by pressing the button on the temperature limiter.

The temperature limiter (7) for the compressor cuts off the supply to the compressor if the temperature rises to 88 °C; it can be manually reset by pressing the button on the temperature limiter.

Note!

Reset the temperature limiters, it may have tripped during transport.

Note!

The electrical installation, wiring and any service work must be done in strict conformity to current regulations under the supervision of a qualified electrician.

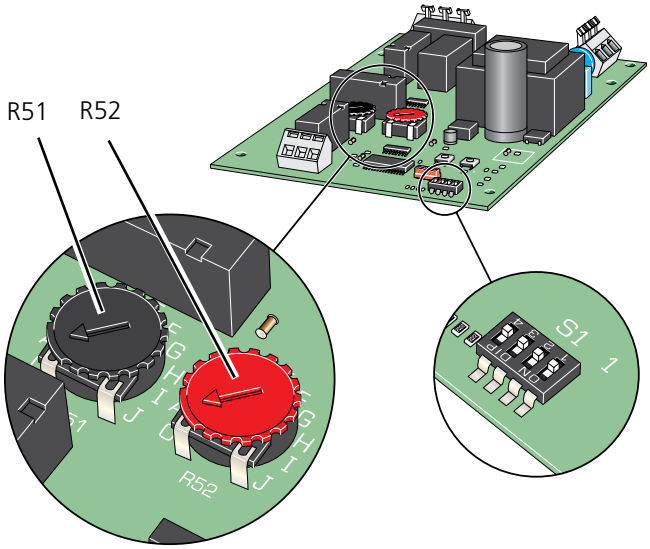
Setting the fan capacity

Select the ventilation capacity by turning the knob on the circuit board (34) to the desired setting. See the illustration "Ventilation connection" – "Fan diagram".

The positions are as follows:

Knob R51: High ventilation, compressor in operation.

Knob R52: Normal ventilation, compressor stopped.



Connecting fan switch

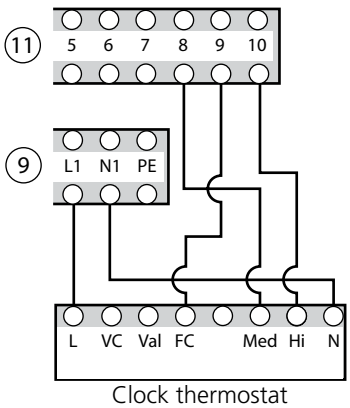
Connect the supplied clock thermostat to select between normal or high ventilation.

Closing function between "8" and "9" means normal fan speed.

Closing function between "9" and "10" means high fan speed.

Connect the fan switch according to the image below.

Connecting with clock thermostat



Clock thermostat

Circulation pump control

Normally a room thermostat is used controlling the starts and stops of the circulation pump. When the set room temperature is reached, the circulation pump is stopped and starts again when the temperature drops. For connection see diagram "Electrical connections" – "Connecting the room thermostat".

The circulation pump can even be operated manually. No room thermostat will be connected. Instead the circulation pump is operated by the switch (18) on the front panel. The mode "Auto" does not permit any operation of the circulation pump if no room thermostat is connected. The switch in position "On" permits permanent operation of the circulation pump.

Current, fuse

The maximum current is 16,7 Ampere. Therefore a 20 Ampere fuse shall be used. NOTE! Relevant electrical standards must be considered.

Immersion heater

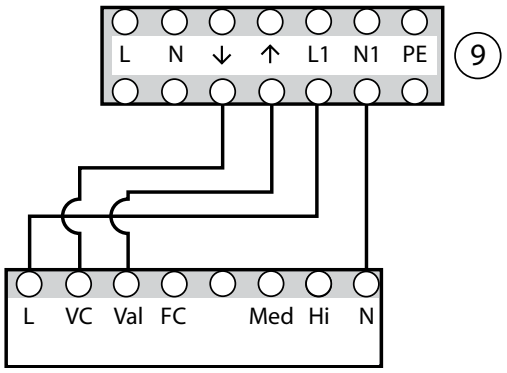
F205P is delivered with a 3 kW immersion heater (1). It is started and stopped via the microproessor card (34). If a failure occurs there is a temperature limiter (6) (thermal cut-out) that is stopping the immersion heater. An immersion heater without a temperature limiter is not allowed to be mounted.

Connecting the clock thermostat for the circulation pump

Connect the supplied clock thermostat to terminal block (9) and (11) according to the image below.

Set switch, circulation pump (18) to "auto".

Set the clock thermostat according to the "Settings" sections.



Clock thermostat

Commissioning and adjusting

Preparations

When connecting to a system with thermostats on all radiators, a relief valve must be fitted, or some of the thermostats must be removed to ensure sufficient flow.

Check that the switch (8) is set to "0".

Check that valves (44) and (50) are fully open and that the temperature limiter (6) has not tripped (press firmly the knob). F205P is supplied with a limiting valve (5) mounted on the outlet pipe. This one allows to set a maximum outlet temperature in order to protect the floor in an existing floor heating system. This valve is adjustable between 36 and 60 °C. Factory setting is 38 °C which corresponds to a value between 1 and 2 on the knob. To change this value, remove the protective cover and turn the settings knob (19) clockwise for a lower temperature and anticlockwise for a higher temperature to the desired setting.

Filling the water heater and the heating system

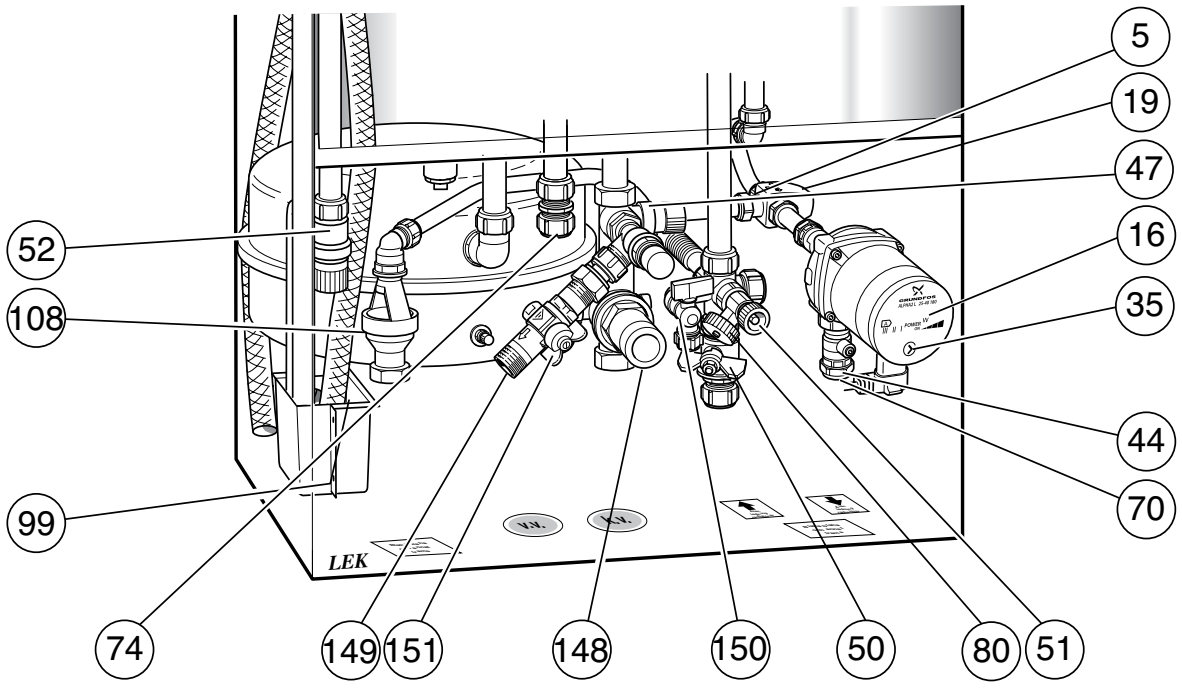
1. The water heater is filled by opening a hot water tap. When water comes out of the hot water tap this can be closed.
2. Connect enclosed flexible hose (147) between connection (149) and connection (150) (the hose is mounted at the unit when this is delivered). Open filling valves (151) and (49). The boiler part of the heat pump and the radiator system are now filled with water.
3. After a while the pressure gauge (42) will show rising pressure. When the pressure reaches 2.5 (bar) (approx. 25 mvp) a mixture of air and water starts to emerge from the safety valve (52). The filling valves (151) and (49) are then closed.
4. Turn the safety valve (52) until the boiler pressure reaches the normal working range (0.5 - 1.5 bar).
5. The flexible hose between connection (149) and connection (150) must not be connected during operation. Therefore, remove it before the heat pump is started.

Note!

When filling, after the heat pump is started, the flexible hose must be installed between connection (149) and (150).

Venting the heating system

- Vent the electric boiler through the safety valve (52) and the rest of the heating system through the relevant venting valves.
- Keep topping up and venting until all air has been removed and the pressure is correct.



Starting

- Set the switch (8) to "2" in order to accelerate the-heating of the radiator system. NOTE! The compressor has a start delay of about 10 minutes in the start mode.
- Set the designed capacity on the circulation pump using its switch (35). See the section "Pipe connections" – "Pump and pressure drop diagram". Make sure that the switch is not in an intermediate position.

Setting the ventilation

The ventilation flow and setting are given on the ventilation drawing. See section "Ventilation connection", "Fan diagram".

1. Remove any switches for ventilation changes from terminal block (11), pos 8-10.
2. Ensure that the heat pump's boiler section is filled with water.
3. Make sure that all outdoor air devices are fully open.
4. Adjust the normal ventilation speed using knob R52.
5. Start the heat pump with compressor operation. The compressor can be quick-started by pressing in button S202 on the circuit board (34).
6. Adjust the high fan capacity using knob R51. To ensure the lowest possible noise level, adjust the fan to the lowest possible capacity.
7. Set correct ventilation flows on the house exhaust air valves.
8. Reinstall any switches for ventilation changes in terminal block (11).

The ventilation flow must never be lower than 100 m^3/h.

Readjustment

During the initial running period, air is given off by the heating water, and venting can be necessary. If bubbling sounds can be heard from the heat pump, the entire system requires further venting. NOTE! The safety valve (52) also acts as a manual venting valve. Operate it with care, since it opens quickly.

Draining the heating system

The hot water can be drained off through the drain valve (51) using an R15 (1/2") hose coupling. Remove the cover (80) from the valve (51). Screw on the hose coupling and open the valve (51). Open the safety valve (52) to let air into the system.

Draining the water heater

This is how to drain the water heater:

- Disconnect the overflow pipe from the drain connection and connect a hose to a draining pump instead. Where no draining pump is available, the water can be released into the overflow funnel (99).
- Open the drain valve (47).
- Open a hot water tap to let air into the system. If this is not enough, undo the pipe coupling (74) on the hot water side and pull out the pipe.

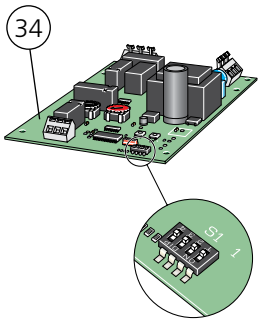
Note!

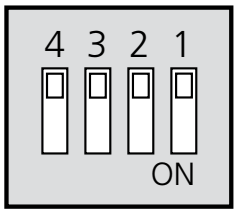
At the time of commissioning complete all relevant sections of the Benchmark Checklist enclosed with the product.

Completion of the Benchmark Checklist is a condition of warranty. For full terms and conditions of warranty, please see our website www.nibe.co.uk

Temperature levels

Hot water temperature, anti freeze and periodic increase of the hot water are set using dipswitch (S1) on the circuit board (34). The image below shows the dip switch in the factory setting.





	4	3	2	1
OFF	off	7 days	off	50/53
ON	on	every day	on	57/60

1 Hot water temp. with compressor (°C)

2 Hot water prioritisation

3 Interval for periodic increase

4 Periodic increase off/on

Hot water temp.

The compressor starts when the temperature at the compressor sensor drops to 50°. The compressor stops when the temperature reaches 53°. This means that the hot water temperature will be between 50-53 °C. If hotter water is required, the compressor's start and stop temperatures can be increased by seven degrees.

Activate the function by setting switch 1 on the dip switch (S1) to ON.

Periodic increase

F205P has a function for periodic increases of the hot water temperature. The hot water temperature is increased to about 60 °C.

Activate the function by setting switch 4 on the dip switch (S1) to ON and by setting switch, hot water prioritisation (25) to Auto.

Then choose how often the increase is to occur. The factory setting is once every seven days, but by setting switch 3 on the dip switch (S1) to ON the increase occurs once a day.

During periodic increases, the circulation pump is off and heating is produced mostly by the immersion heater only. The energy saving is affected negatively.

Hot water prioritising

In cases where continuous operation of the circulation pump is required, F205P is also equipped with a switch (18) which can be shifted between continuous and automatic operation, i.e. when the control system determines whether the circulation pump is to be in operation or not, see section "Electrical connection" - "Circulation pump control".

Note! If continuous operation is selected, hot water prioritisation does not work. The periodic temperature increase should not be activated.

If hot water prioritisation is activated, all energy from the compressor and immersion heater is used (if 2 on switch is selected) to heat the water. This normally happens when the temperature at the immersion heater sensor (88) drops to 48 °C. The circulation pump starts again when the temperature reaches 51 °C. These temperatures can be reduced two degrees (i.e. 46 respectively 49 °C) to delay prioritisation slightly. This is done by changing the position of switch number 2 on the circuit board (34) to "ON".

F205P has a 3-position switch (25) to select the suitable hot water operation, so-called hot water prioritisation.

The following three positions can be selected:

Off This means that hot water prioritisation is not activated.

To Hot water prioritisation is activated.

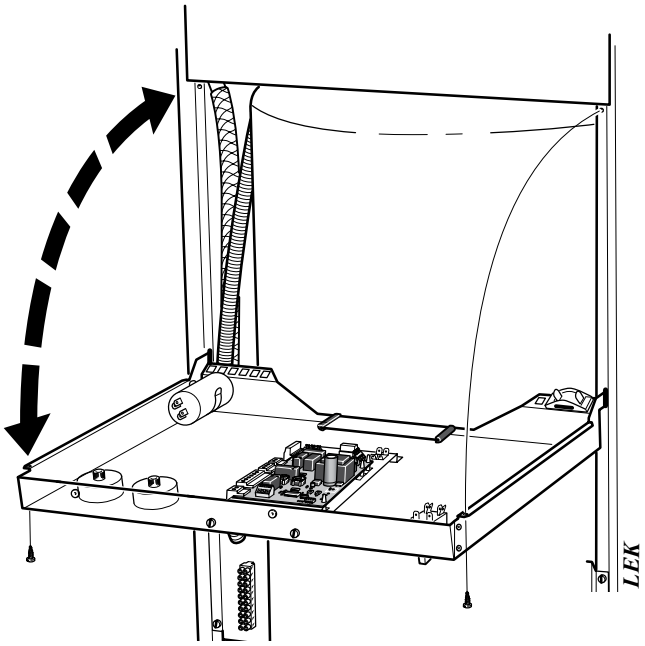
Auto Not used. Same function as "On".

Note!

During periodic increase, the immersion heater also connects when position 1 on the switch is selected.

Opening the cover on the distribution box

To lower the front panel, unscrew the two screws at the top of the panel. The panel can then be lowered to the horizontal position (where it rests on stops on either side of the front panel).



Refrigerant system

Work on the refrigerant system must be done by authorised personnel in accordance with the relevant legislation on refrigerants, supplemented by additional requirements for flammable gas, for example, product knowledge as well as service instruction on gas systems with flammable gases.

Note!

Any servicing must be carried out by a competent person.

When replacing a part on the appliance, use only spare parts supplied by NIBE.

Note!

If any electrical connections have been disconnected and reconnected, checks for earth continuity must be tested for with a suitable multimeter.

Note!

After service, complete all relevant sections of the Benchmark Checklist enclosed with the product.

Completion of the Benchmark Checklist is a condition of warranty. For full terms and conditions of warranty, please see our website www.nibe.co.uk

Service actions

See also the sections "Maintenance routines" and "Dealing with malfunctions".

General Inspection

Check the following:

1. Condition of casing.
2. Electrical supply connections.
3. Water connections.
4. Heating system pressure.

Correct any fault before continuing.

Hot water heater

The following components must be inspected:

1. Expansion relief valve. Check correct operation.
2. T&P relief valve. Check for correct operation.
3. Check that discharge pipe is free of any obstructions.
4. Check expansion vessel is fully charged.

Heating system

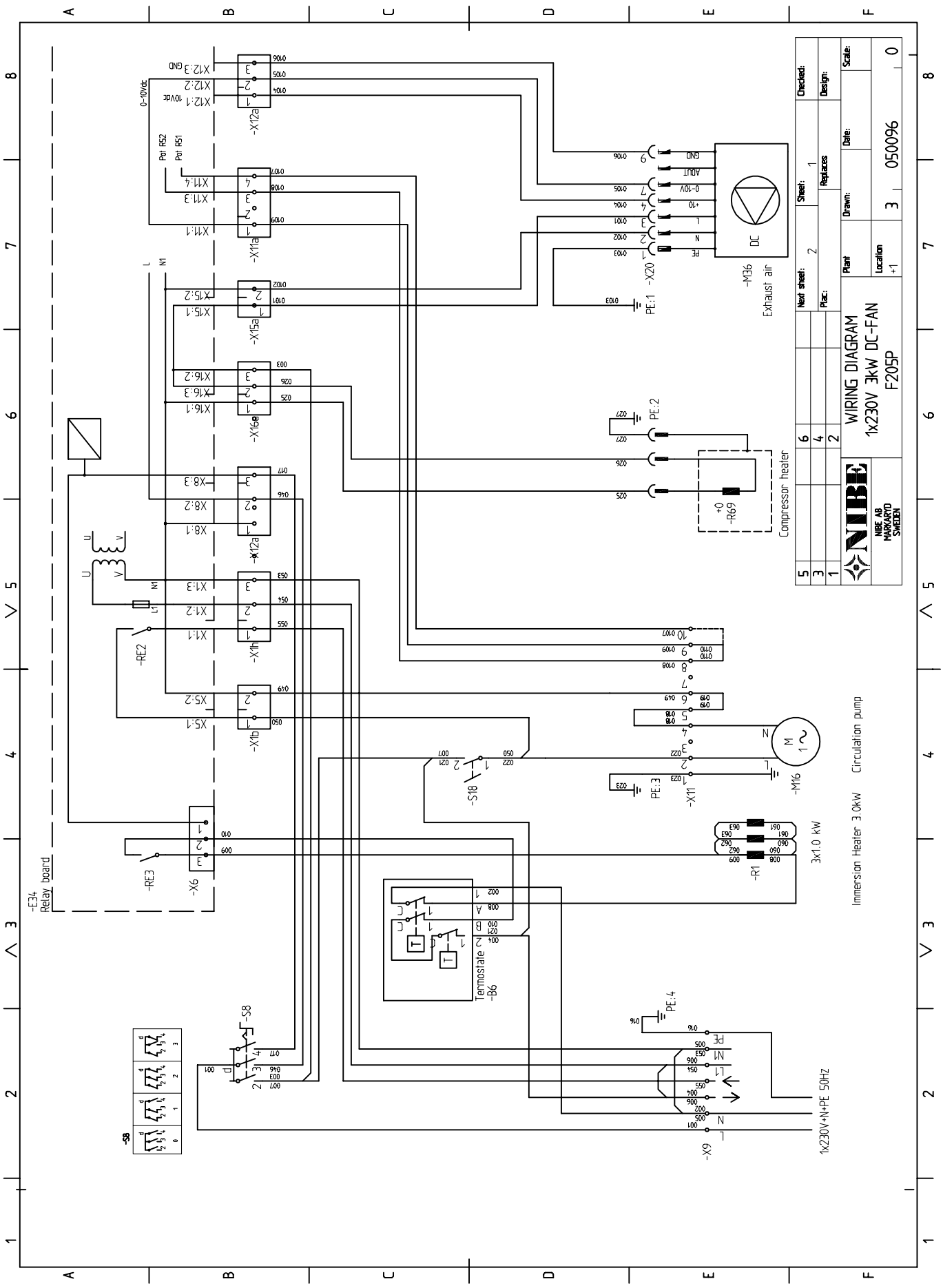
1. Inspect compressor start and stop temperature. Correct if required.
2. Inspect the setting of the limiting valve.
3. Check operation of clock thermostate.
4. Check flow temperatures, the difference shoud be between 5-10°

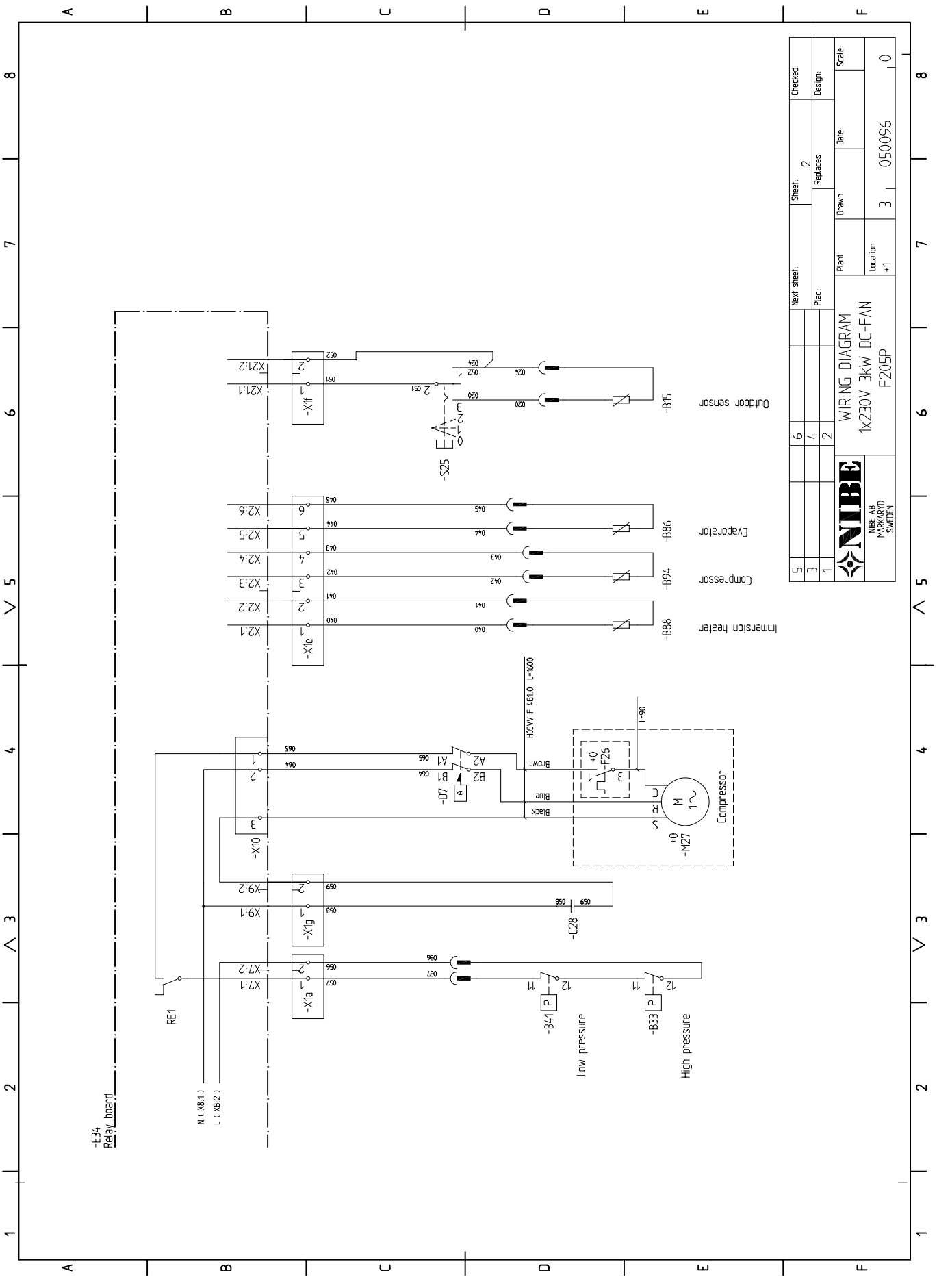
Adjust flow if required.

Draining the water heater

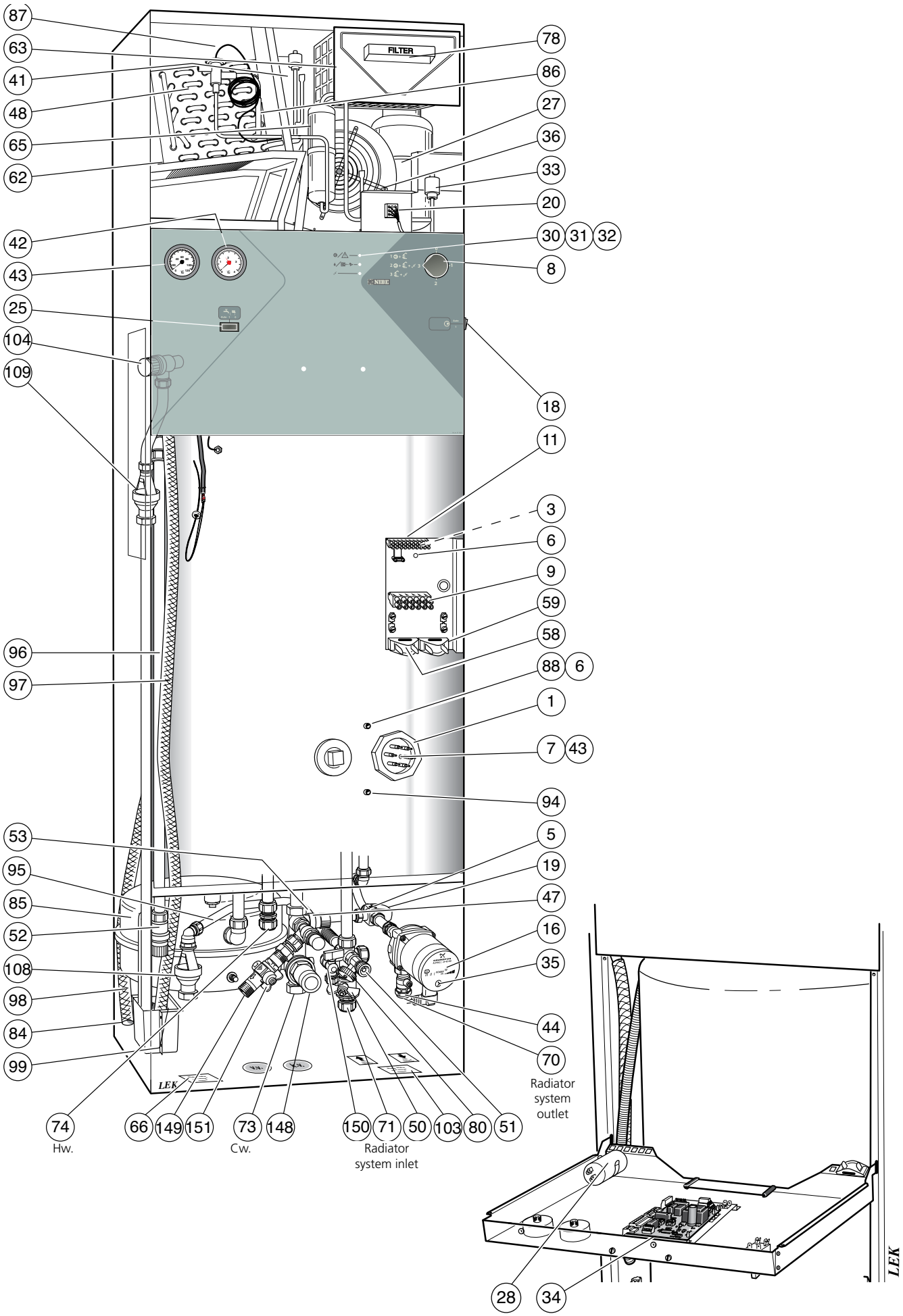
The siphon principle is used to empty the hot water heater. This can be done either via the drain valve on the incoming cold water pipe or by inserting a hose into the cold water connection.

Electrical circuit diagram




WIRING DIAGRAM
1x230V 3kW DC-FAN
F205P
NIBE AB
MARKARYD
SWEDEN
Outdoor sensor
Evaporator
Compressor
Immersion heater
Low pressure
High pressure
Compressor
Relay board
N (X8:1)
L (X8:2)

Component locations



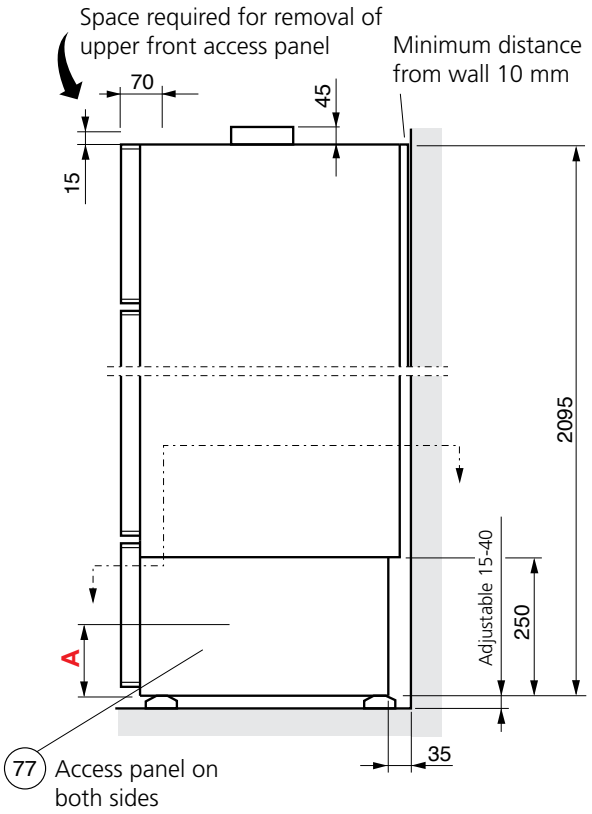
List of components

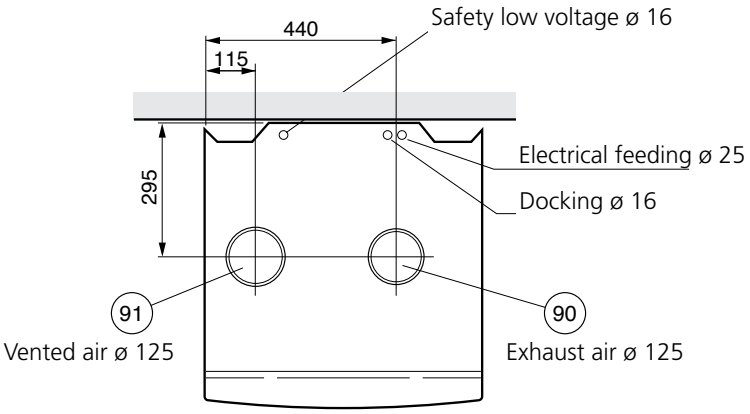
1 Immersion heater - 3,0 kW
3 Resetting, temperature limiter (hidden)
5 Limiting valve, heating system
6 Thermostat and temperature limiter, immersion heater
7 Temperature limiter, compressor
8 Power switch with mode 0 - 1 - 2 - 3
9 Feeding terminal and clock thermostat
11 Terminal block for fan switch
16 Circulation pump
18 Pushbutton switch for circulation pump
19 Setting knob for limiting valve
20 Exhaust air connector
25 Pushbutton switch for hot water prioritising
26 Motor protection device for compressor
27 Compressor
28 Working capacitor for compressor
30 Indicator lamp "Compressor running/alarm"
31 Indicator lamp "Defrosting on/check filter"
32 Indicator lamp "Immersion heater on"
33 High pressure pressostat
34 Microprocessor board with power pack
35 Capacity setting, circulation pump
36 Exhaust air fan
41 Low pressure pressostat
42 Boiler pressure gauge
43 Boiler thermometer
44 Shutoff valve, pump and supply heating system
47 Safety valve, water heater
48 Expansion valve
50 Shutoff valve, return line heating system
51 Drain valve, heating system
52 Safety valve, heating system
53 Vacuum valve (hidden)
58 Tension load stop for feeding conductor
59 Tension load stop for room thermostat conductor
62 Evaporator
63 Air filter
65 Filter drier
66 Type plate
69 Compressor heater

		Connection	Setting-out dimensions A	B	C
70	Flow line, heating system	Compression ring Ø 22 mm	105	465	90
71	Return line, heating system	Compression ring Ø 22 mm	130	465	190
73	Cold water connection	Compression ring Ø 22 mm	180	465	290
74	Hot water outlet from water heater	Compression ring Ø 22 mm	295	465	345
77	Side access panel to valve connections				
78	Filter box (hidden)				
80	Drain connection, heating system	R 15 utv			
82	Room thermostat (accessory)				
84	Ventilation opening				
85	Expansion vessel				
86	Temperature sensor from evaporator				
88	Temperature sensor from immersion heater & hot water prioritising				
90	Ventilation connection for exhaust air	Ø 125 mm	2095	295	160
91	Ventilation connection for vented air	Ø 125 mm	2095	295	485
94	Temperature sensor for working compressor				
95	Overflow pipe, safety valve water heater				
96	Overflow pipe from heating system safety valve				
97	Condensate drain from fan box				
98	Overflow water discharge	PVC-pipe, 32 mm outer diameter			
99	Collecting funnel, waste water				
103	Serial number sign				
104	Temperature and pressure valve				
107	Expansion vessel, tap water				
108	Tundish from safety valve				
109	Tundish from pressure valve				
148	Pressure reduction valve				
149	Connection for flexible hose to CW-side				
150	Connection for flexible hose to heating-side				
151	Filling valve, heating system cw-side				

Dimensions

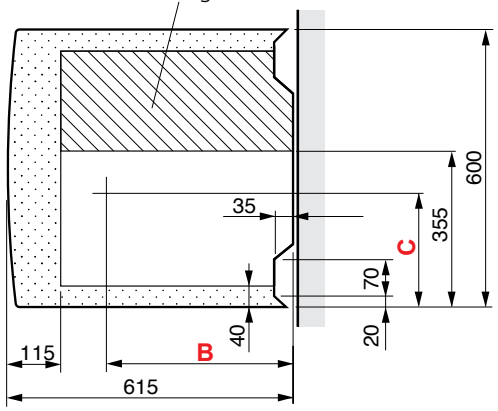
Dimensions and setting-out coordinates



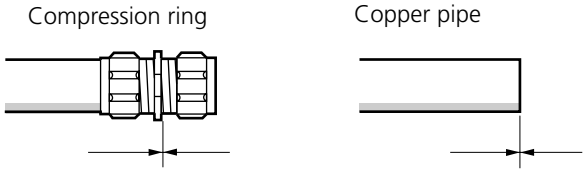


A clear space of 500 mm is needed in front of the heat pump for servicing.

When running pipes in the hatched area to facilitate servicing.



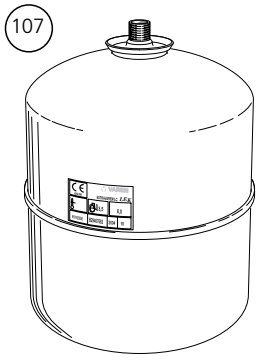
Principle of dimensioning



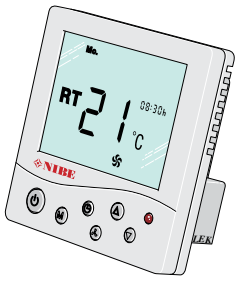
Enclosed kit

Expansion vessel, tap water

(is delivered separately)



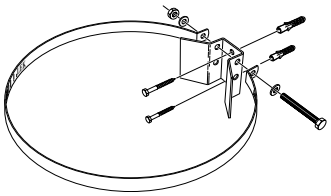
Clock thermostat



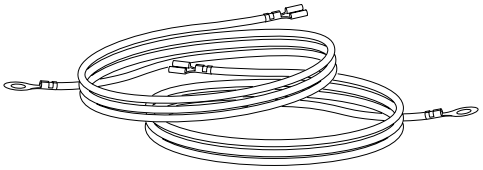
Part no. 518 405

Bracket

(is delivered separately)



Earth cable

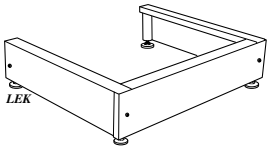


Part no. 418 172

Accessories

Heightening console

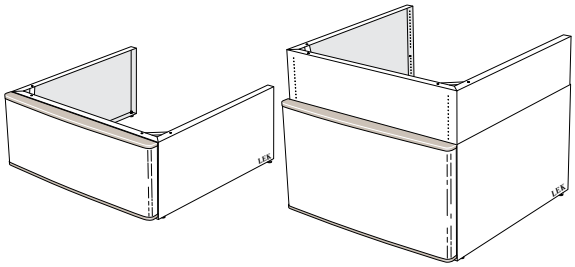
Height: 125 mm



Part no. 089195

Top cabinet

A top cabinet is available as an accessory to conceal the ventilation ducts above the heat pump.



Top cabinet 245 mm. Part no 089 424

Top cabinet 345 mm. Part no 089 426

Top cabinet 385 — 535 mm. Part no 089 428

Technical Data

CE IP 21 benchmark COLLECTIVE MARK THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

Height (excl. feet 15-40mm)	mm	2 095
Required ceiling height	mm	2 185
Width	mm	600
Depth	mm	615
Net weight	kg	195
Total volume	litre	240
Volume in double jacket	litre	70
Water heater volume	litre	170
Expansion vessel volume, heating system	litre	12
Expansion vessel volume, tap water	litre	18
Supply voltage	230 V~ 1-phase + N	
Max operating current	A	16.7
Immersion heater power rating	kW	3
Circulation pump power rating	W	45
Exhaust air fan power consumption (DC)	W	25-140
Compressor power rating	W	550
COP*		3.3
Heating capacity*	kW	1.5
Total power input*	kW	0.45
Current*	A	2.3
Protection	IP21	
Break pressure for high pressure pressostat	MPa (bar)	2.45 (24.5)
Break pressure for low pressure pressostat	MPa (bar)	0.15 (1.5)
Maximum pressure in water heater	MPa (bar)	0.6 (6)
Maximum pressure in double jacket vessel	MPa (bar)	0.3 (3)
Design pressure in double jacket volume	MPa (bar)	0.25 (2.5)
Opening pressure T&P valve	MPa (bar)	0.7 (7)
Opening temperature T&P valve	°C	90-95
Refrigerant quantity	g	420
Refrigerant type	R290 (propane)	
Min air flow, exhaust air	m^3/h	100
Exhaust air temperature range	°C	16-30
Cut-in temperature for compressor (Controlled by a separate sensor)	° C	50 **
Cut-out temperature for compressor	° C	53 **
Cut-in temperature for immersion heater	° C	49 **
Cut-out temperature for immersion heater	° C	52 **
Inlet dry bulb temperature	° C	21
Water outlet temperature	° C	50
Setting area for the limiting valve	° C	38-55
Cut-out temperature, termostat for immersion heater	° C	70
Cut-out temperature, temperature limiter for immersion heater	° C	88
Cut-out temperature, temperature limiter for compressor	° C	88
Sound power level***	dB(A)	46-50
Sound level in room where installed****	dB(A)	42-46
LW*****	dB(A)	50
LWD suction*****	dB(A)	49
LWD discharge*****	dB(A)	54
Part no.		089 890

Clock thermostat

Sensing element		NTC
Accuracy	K	±0,5
Set-point range:	°C	5-35
Operating Temperature:	°C	0~45
Operating Humidity:		5~90%RH (non-condensing)
Power supply:		AC 85~260V, 50/60Hz
Switch current rating	A	Resistive: 2
	A	Inductive: 1
Rated power	W	<1
Wirings		Screw-in terminals, each terminal capable of accepting 2 x 1,5 mm^2 or 1 x 2,5 mm^2 wires
Housing		ABS+PC Flame Retardant
Dimensions: (WxHxD)	mm	86x86x13
Hole pitch	mm	60 c/c
Protection Class:		IP30
Display		LCD

* COP and heating capacity according to EN 14511. Rating condition: Air flow, exhaust air 150 m3/h. Inlet dry bulb temperature 20 °C. Inlet wet bulb temperature 12 °C. Water Inlet temperature 40 °C. Water outlet temperature 45 °C.

** Concerns settings on delivery

*** A-weighted sound power level (LWA). The value varies with the selected fan curve.

**** A-weighted sound pressure level (LpA). The value varies with the damping capacity of the room. These values apply with a damping of 4 dB.

***** Sound power level according to EN 12102. Rating condition: Air flow, exhaust air 300 m^3/h. Inlet dry bulb temperature 21 °C. Water outlet temperature 50 °C.

EXHAUST AIR HEAT PUMP COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the heat pump and associated equipment as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.

Failure to install and commission this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Customer Name

Address

Telephone Number

Heat Pump Make and Model

Heat Pump Serial Number

Commissioned by *(print name)* | Certified Operative Reg. No. [1]

Company Name & Address | Commissioning Date

Telephone No.

Building Regulations Notification Number *(if applicable)* [2]

CONTROLS - SYSTEM AND HEAT PUMP *Tick the appropriate boxes if applicable*

1. Time & Temperature Control to Heating	Room Thermostat & Programmer/Timer	☐	Programmable Roomstat	☐	Load/Weather Compensation	☐	Optimum Start Control ☐
2. Time & Temperature Control to Hot Water					Cylinder Thermostat & Programmer/Timer	☐	Combined with Heat pump main controls ☐
3. Heating Zone Valves					Fitted	☐	Not Required ☐
4. Hot Water Zone Valves					Fitted	☐	Not Required ☐
5. Thermostatic Radiator Valves					Fitted	☐	Not Required ☐
6. Heat Pump Safety Interlock [3]						☐	Provided ☐
7. Outdoor Sensor					Fitted	☐	Not Required ☐
8. Automatic Bypass System					Fitted	☐	Not Required ☐
9. Buffer Vessel Fitted					Yes ☐	No ☐	If YES, Volume ☐ Litres

ALL SYSTEMS

The heating system has been filled and pressure tested	Yes ☐
Expansion vessel for heating is sized, fitted & charged in accordance with manufacturer's instructions	Yes ☐
The heat pump is fitted on a solid/stable surface capable of taking its weight	Yes ☐
The system has been flushed and cleaned in accordance with BS7593 and heat pump manufacturer's instructions	Yes ☐
What system cleaner was used?	
What inhibitor was used?	Qty ☐ litres
Are all external pipeworks insulated?	Yes ☐
Is the system adequately frost protected?	Yes ☐

VENTILATION SYSTEM

Duct work fitted and pressure tested in accordance with manufacturer's instructions	Yes ☐	No ☐
Air Vents fitted	Yes ☐	N/A ☐
Ventilation air flow measured/recorded in accordance with building regulations & manufacturers instructions	Yes ☐	l/s ☐
Air filter cleaned & correctly fitted	Yes ☐	

CENTRAL HEATING MODE

Heating Flow Temperature ☐ °C Heating Return Temperature ☐ °C

DOMESTIC HOT WATER MODE

Is the heat pump connected to a hot water cylinder? ☐ Unvented ☐ Vented ☐ Thermal Store ☐ Not Connected

Hot water has been checked at all outlets Yes ☐

ADDITIONAL SYSTEM INFORMATON

Additional heat sources connected

☐ Gas Boiler ☐ Oil Boiler ☐ Electric Heater Other

ALL INSTALLATIONS

The heating, hot water and ventilation systems complies with the appropriate Building Regulations	Yes ☐
All electrical work complies with the appropriate Regulations	Yes ☐
The heat pump and associated products have been installed and commissioned in accordance with the manufacturer's instructions	Yes ☐
The operation of the heat pump and system controls have been demonstrated to the customer	Yes ☐
The manufacturer's literature, including Benchmark Checklist and Service Record, has been explained and left with the customer	Yes ☐

Commissioning Engineer's Signature

Customer's Signature

(To confirm demonstration of equipment and receipt of appliance instructions)

Notes: [1] Installers should be members of an appropriate Competent Persons Scheme. [2] All installations in England and Wales must be notified to Local Area Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer. [3] May be required for systems covered by G3 Regulations

benchmark COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

MAINS PRESSURE HOT WATER STORAGE SYSTEM COMMISSIONING CHECKLIST

This Commissioning Checklist is to be completed in full by the competent person who commissioned the storage system as a means of demonstrating compliance with the appropriate Building Regulations and then handed to the customer to keep for future reference.

Failure to install and commission this equipment to the manufacturer's instructions may invalidate the warranty but does not affect statutory rights.

Customer Name _____ Telephone Number _____

Address _____

Cylinder Make and Model _____

Cylinder Serial Number

Commissioned by *(print name)* _____ Registered Operative ID Number _____

Company Name _____ Telephone Number _____

Company Address _____

_____ Commissioning Date _____

To be completed by the customer on receipt of a Building Regulations Compliance Certificate*:

Building Regulations Notification Number *(if applicable)* _____

ALL SYSTEMS PRIMARY SETTINGS (indirect heating only)

Is the primary circuit a sealed or open vented system?	Sealed ☐	Open ☐	
What is the maximum primary flow temperature?			°C

ALL SYSTEMS

What is the incoming static cold water pressure at the inlet to the system?			bar
Has a strainer been cleaned of installation debris (if fitted)?	Yes ☐	No ☐	
Is the installation in a hard water area (above 200ppm)?	Yes ☐	No ☐	
If yes, has a water scale reducer been fitted?	Yes ☐	No ☐	
What type of scale reducer has been fitted?			
What is the hot water thermostat set temperature?			°C
What is the maximum hot water flow rate at set thermostat temperature (measured at high flow outlet)?			l/min
Time and temperature controls have been fitted in compliance with Part L of the Building Regulations?		Yes ☐	
Type of control system (if applicable)	Y Plan ☐ S Plan ☐	Other ☐	
Is the cylinder solar (or other renewable) compatible?	Yes ☐	No ☐	
What is the hot water temperature at the nearest outlet?			°C
All appropriate pipes have been insulated up to 1 metre or the point where they become concealed		Yes ☐	

UNVENTED SYSTEMS ONLY

Where is the pressure reducing valve situated (if fitted)?			
What is the pressure reducing valve setting?			bar
Has a combined temperature and pressure relief valve and expansion valve been fitted and discharge tested?	Yes ☐	No ☐	
The tundish and discharge pipework have been connected and terminated to Part G of the Building Regulations		Yes ☐	
Are all energy sources fitted with a cut out device?	Yes ☐	No ☐	
Has the expansion vessel or internal air space been checked?	Yes ☐	No ☐	

THERMAL STORES ONLY

What store temperature is achievable?			°C
What is the maximum hot water temperature?			°C

ALL INSTALLATIONS

The hot water system complies with the appropriate Building Regulations	Yes ☐	
The system has been installed and commissioned in accordance with the manufacturer's instructions	Yes ☐	
The system controls have been demonstrated to and understood by the customer	Yes ☐	
The manufacturer's literature, including Benchmark Checklist and Service Record, has been explained and left with the customer	Yes ☐	

Commissioning Engineer's Signature

Customer's Signature

(To confirm satisfactory demonstration and receipt of manufacturer's literature)

*All installations in England and Wales must be notified to Local Authority Building Control (LABC) either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer.

benchmark COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

Service Record

It is recommended that your heating system is serviced regularly and that the appropriate Service Interval Record is completed.

Service Provider
Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

Always use the manufacturer's specified spare part when replacing controls.

Service 1 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 2 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 3 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 4 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 5 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 6 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 7 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 8 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 9 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

Service 10 Date:
Engineer Name:
Company Name:
Telephone No.
Operative ID No.
Comments:
Signature:

NIBE Energy Systems Ltd, 3C Broom Business Park, Bridge Way, Chesterfield S41 9QG
Tel: 0845 095 1200 Fax: 0845 095 1201 E-mail: info@nibe.co.uk www.nibe.co.uk