IHB EN 1925-1
531281

INSTALLATION MANUAL

Exhaust air module NIBE S135

Table of Contents

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.

Rights to make any design or technical modifications are reserved.

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.

TIP

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

Marking

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

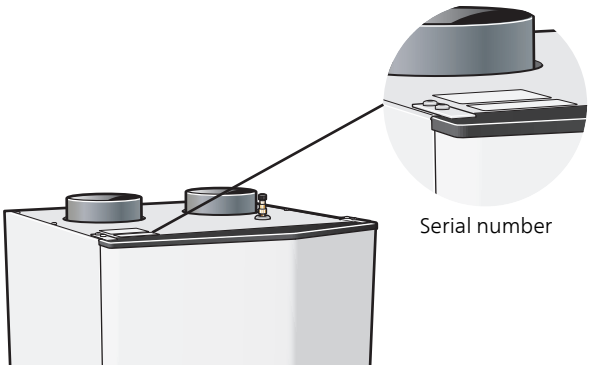
IP21 Classification of enclosure of electro-technical equipment.

Danger to person or machine.

Read the Installer Manual.

Serial number

The serial number can be found to the left, on top of S135.



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.

Do not dispose of used products with normal household waste. It must be disposed of at a special waste station or dealer who provides this type of service.

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

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.

✔	*Description*	*Notes*	*Signature*	*Date*
Ventilation, exhaust air (page 15)				
	Setting the ventilation flow			
	Exhaust air filter			
Heating medium (page 22)				
	System flushed			
	System vented			
	Circulation pump setting			
	System pressure			
Electricity (page 19)				
	Supply connected 230 V			
	Circuit fuses			

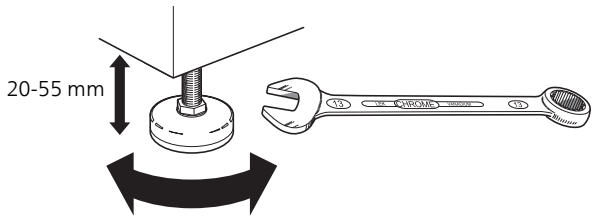
2 Delivery and handling

Transport

S135 should be transported and stored vertically in a dry place.

Assembly

- S135 is installed freestanding on brackets or a suitable flat surface indoors. Noise from the circulation pump, fan and compressor can be transferred to the bracket or the surface on which S135 is placed. Use the product's adjustable feet to obtain a horizontal and stable set-up.



- S135 must be positioned with the back towards a wall. Install the brackets or position S135 against 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 S135 and wall/other machinery/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.

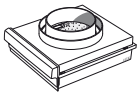
* Depending on whether the panels can be removed or not.

NOTE

Ensure that there is sufficient space (300 mm) above S135 for installing ventilation hoses.

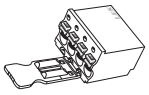
Supplied components

Silencer

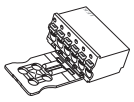


Filter cartridge

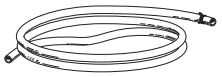
Choke washer Ø 22 mm [1]



4-pin connector



6-pin connector

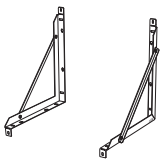


Drain hose Ø 20 mm
Length 2200 mm

Power supply cable

Communication cable

Circulation pump



2 x bracket
6 x screws
6 x nuts
4 x washers

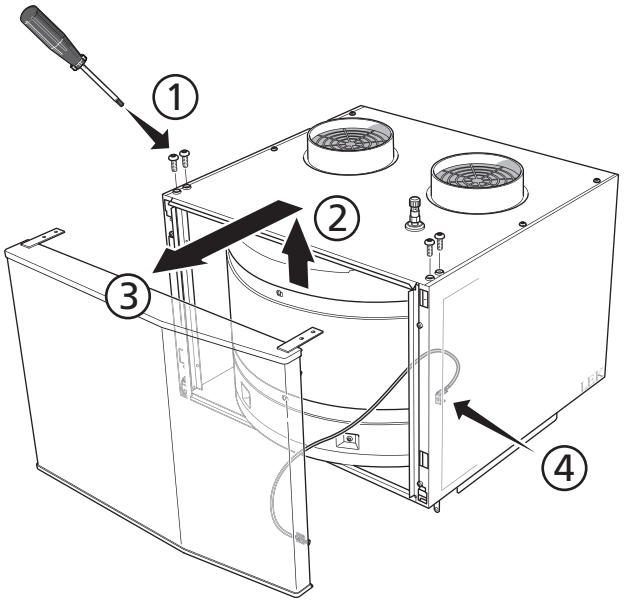
[1] Only for VVM 310 / VVM 500

LOCATION

The kit of supplied items is placed on top of the product.

Removing the covers

FRONT HATCH



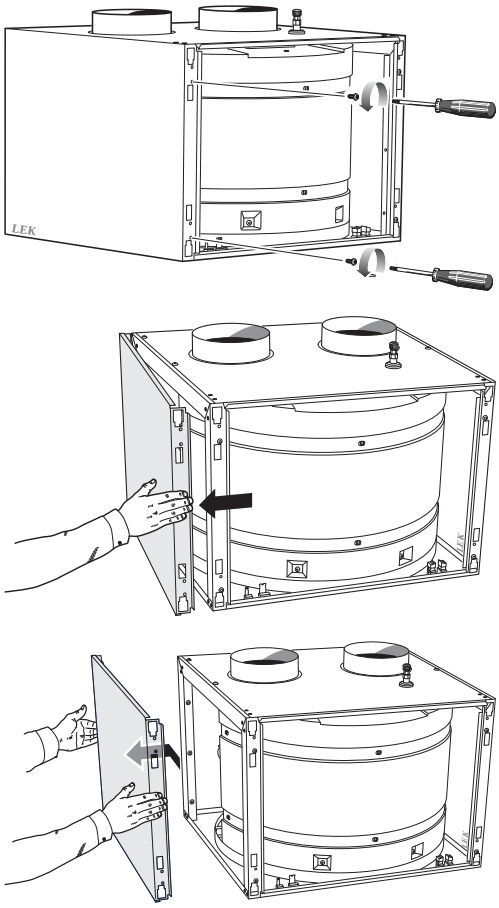
1. Slacken off the screws for the securing plate above S135.
2. Slide the hatch upwards and pull it towards you.
3. Pull the hatch towards yourself.

NOTE

An earth cable is installed in the hatch, which can therefore only be lifted out 35 cm. If the hatch needs to be removed completely, the cable must be disconnected.

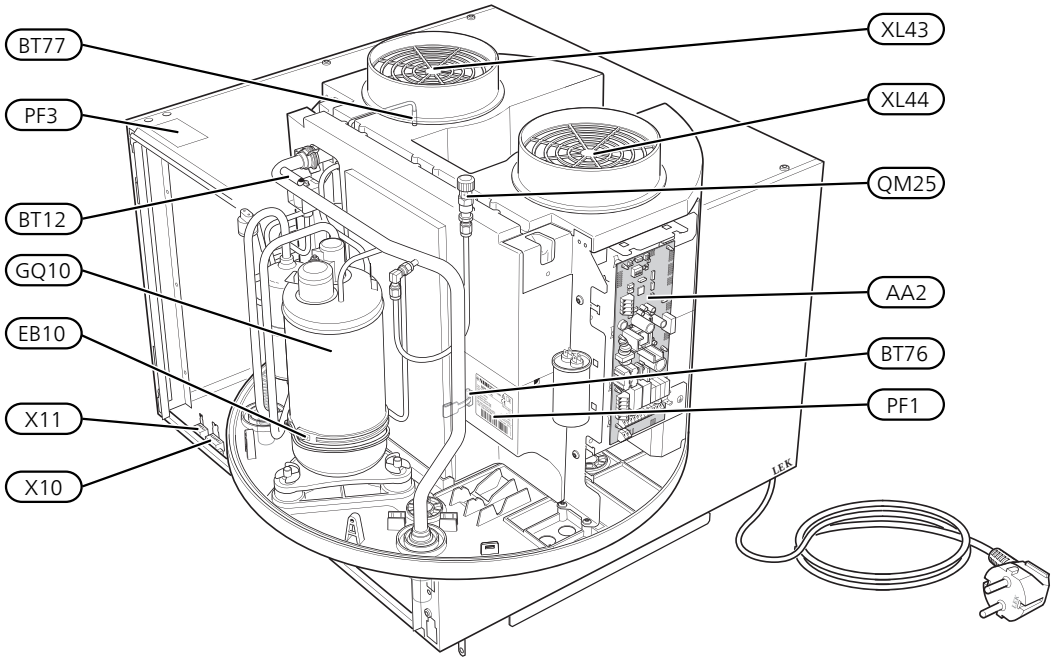
SIDE PANELS

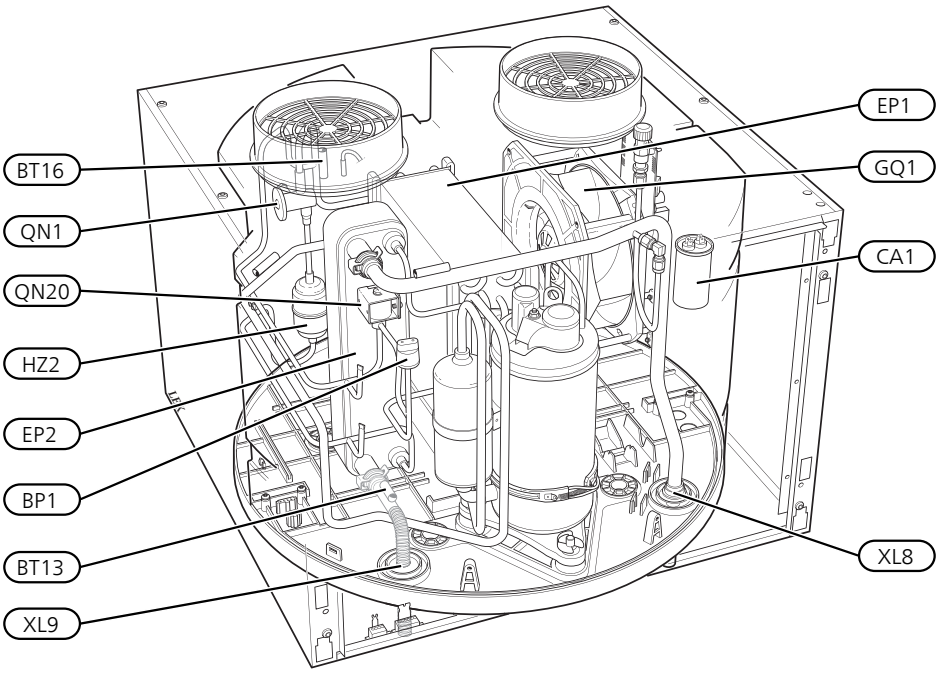
1. Undo the screws at the edge.
2. Twist the cover slightly outward.
3. Move the side cover outwards and backwards.
4. Assembly takes place in the reverse order.



3 The exhaust air module design

Component positions





List of components

PIPE CONNECTIONS

XL8	Heating medium connection, supply
XL9	Heating medium connection, return
XL43	Connecting incoming air
XL44	Connecting outgoing air
WM2	Overflow water discharge[1]

HVAC COMPONENTS

QM25	Venting, hot water

SENSORS

BP1	High pressure pressostat
BT12	Temperature sensor, condenser out
BT13	Temperature sensor, heating medium return before condenser
BT16	Temperature sensor, evaporator
BT76	Temperature sensor, defrosting
BT77	Temperature sensor, incoming air

ELECTRICAL COMPONENTS

AA2	Base card
CA1	Capacitor
EB10	Compressor heater
X10	PWM switch, circulation pump
X11	Terminal block, communication with indoor module

COOLING COMPONENTS

EP1	Evaporator
EP2	Condenser
GQ10	Compressor
HZ2	Drying filter
QN1	Expansion valve
QN20	Solenoid valve, defrosting

VENTILATION

GQ1	Fan
HQ12	Air filter[1]

MISCELLANEOUS

PF1	Rating plate
PF3	Serial number plate

[1]Not visible in the image

Designations according to standard EN 81346-2.

4 Pipe and air connections

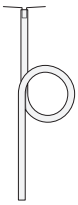
General pipe connections

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

S135 is only designed for upright installation. All connections are equipped with smooth pipe for compression ring couplings.

A safety valve must be installed in the system where S135 is present.

Overflow water from the evaporator's collecting trough is routed via the supplied plastic hose to a drain. Shape the hose into a water seal (see image).
The entire length of the overflow water pipe must be inclined to prevent water pockets and must also be frost-proof.



To make the installation energy efficient, NIBE recommends that all pipes between S135 and the indoor module are insulated. The insulation should be at least 12 mm thick.

NOTE

The pipe systems need to be flushed out before S135 is connected so that any debris cannot damage component parts.

COMPATIBLE NIBE PRODUCTS

- VVM S320
- VVM S325
- SMO S40

SYMBOL KEY

Symbol	*Meaning*
	Unit box
	Shut-off valve
	Non-return valve
	Circulation pump
	Expansion valve
	Fan
	Compressor
	Shut off valve
	Particle filter
	Temperature sensor
	Reversing valve/shunt
	Heat exchanger
	Indoor module
	Cooling system
	Air/water heat pump
	Pool
	Ventilation

SYSTEM DIAGRAM

S135 is an exhaust air module.

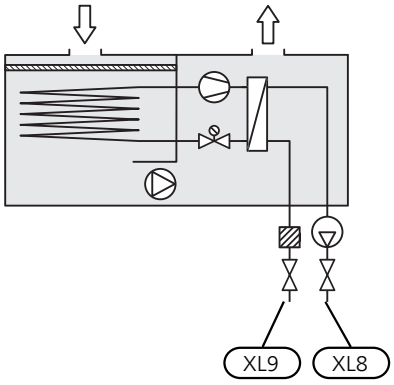
When the air passes through the evaporator, the refrigerant evaporates because of its low boiling point. In this way the energy in the air is transferred to the refrigerant.

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 energy to the hot water, whereupon the refrigerant changes state from gas to liquid.

The refrigerant then goes via filters to the expansion valve, where the pressure and temperature are reduced.

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

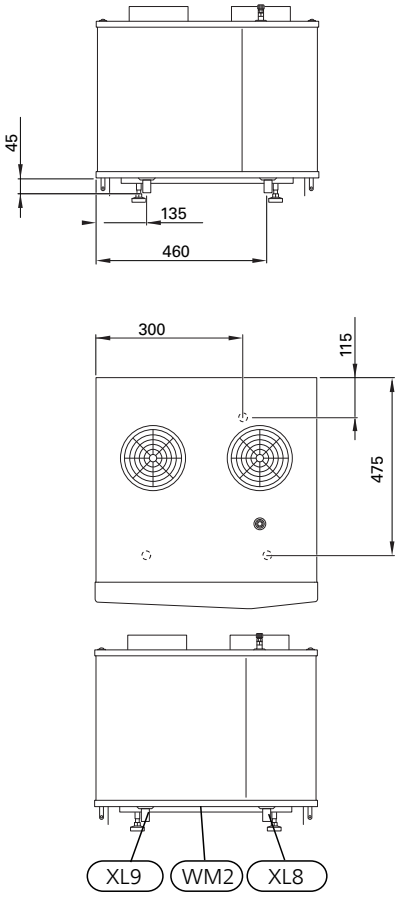


XL8	Heating medium connection, supply
XL9	Heating medium connection, return

Caution

This is a principle of operation, differences may occur in the installation in question.

Dimensions and pipe connections



PIPE DIMENSIONS

Connection		
XL8 Heating medium connection, supply ext Ø	(mm)	22
XL9 Heating medium connection, return ext Ø	(mm)	22
WM2 Overflow water discharge int Ø	(mm)	20

Mounting

The exhaust air module is wall-mounted using the brackets enclosed. The exhaust air module can also be placed on a suitable flat surface.

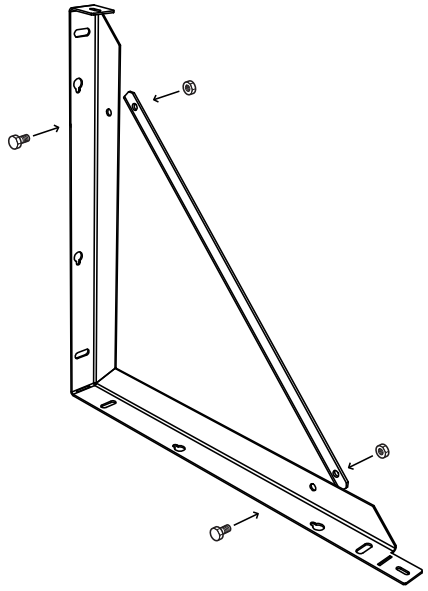
NOTE

Check that the mountings are located in the intended grooves on the exhaust air module.

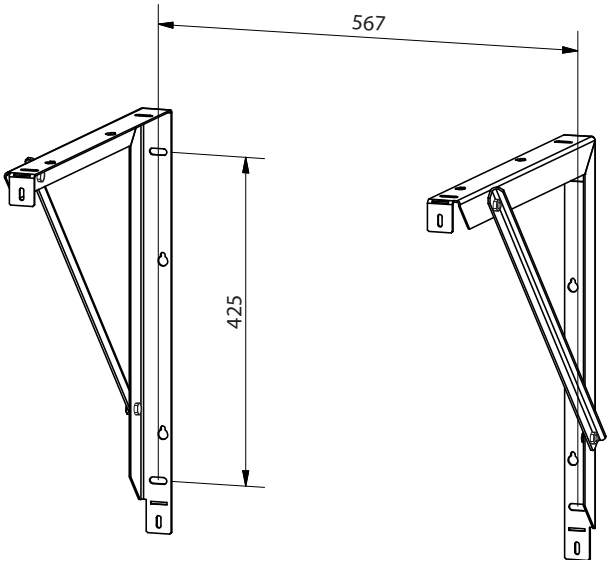
Ensure that the exhaust air module is installed horizontally.

INSTALLING BRACKETS

1. Install the brackets together using the M6 screws and nuts supplied.

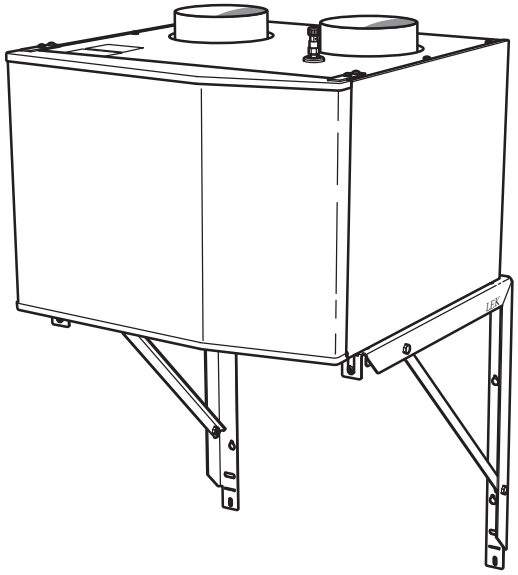


2. Drill holes in the wall as illustrated.



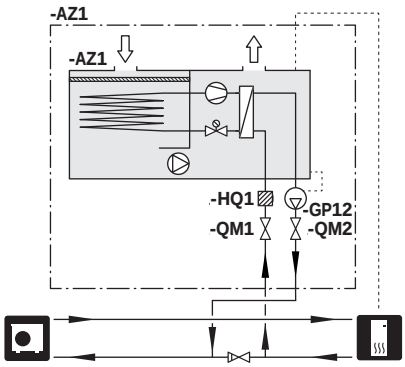
3. Mount the brackets on the wall.

4. Screw S135 into place in the brackets using the M5 screws and nuts supplied.



Connection to indoor module and air/water heat pump

Heating medium connection, supply (XL8) and heating medium connection, return (XL9) are connected to the return line between the indoor module and the air/water heat pump. The particle filter must be installed before S135 to prevent dirt from depositing in S135. Install the shut-off valves outside S135 to facilitate any future servicing.

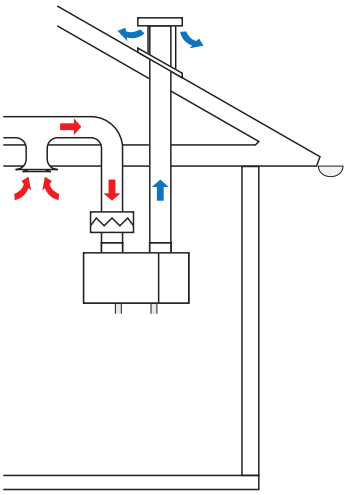


Installation exhaust air

S135 must be connected according to the instructions in this manual.

Installation must be carried out in accordance with current standards and directives.

EXHAUST AIR



Connecting the exhaust air

The heat pump uses the heat that is in the building's ventilation air to heat the building and the hot water at the same time that the house is ventilated.

The hot air is transferred from the rooms to the heat pump via the exhaust air module.

NOTE

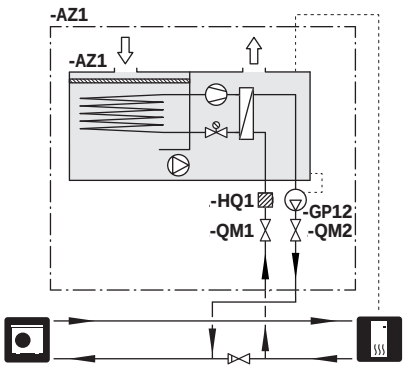
An air filter (HQ12) (enclosed), minimum classification G2, is required on the exhaust air duct for this connection. The filter must be cleaned regularly.

Caution

Noise from the fan can be transferred via the ventilation ducts.

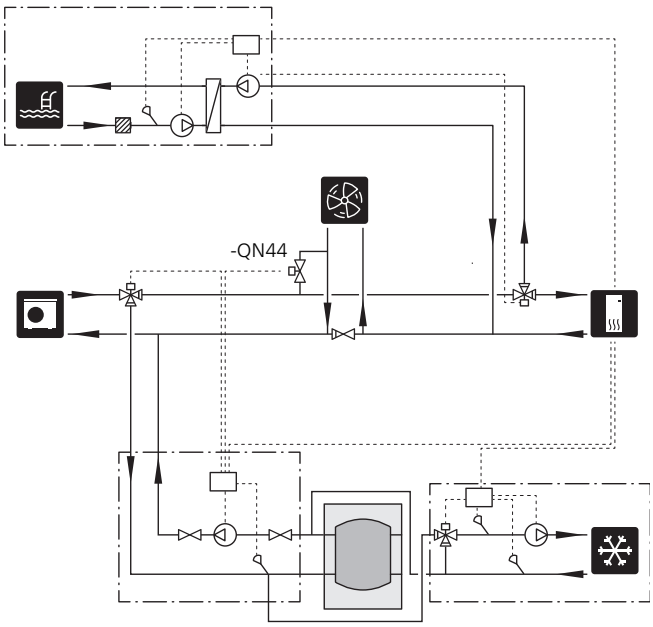
DOCKING NIBE AIR/WATER HEAT PUMP

The demand on S135 is controlled by the indoor module in the system. The pump and fan speed are also controlled from the menu in the indoor module.



DOCKING S135, NIBE HWM, AIR/WATER HEAT PUMP, POOL, COOLING

S135 connected in air/water system with 4-pipe cooling. In these cases, 4-pipe cooling must be connected between the air/water heat pump and S135. Where there is also a pool, S135 must be connected between 4-pipe cooling and pool. S135 can produce hot water at the same time as the air/water heat pump is producing cooling. A shut-off valve (QN44) is required for this. The demand on S135 is controlled by the indoor module in the system. The pump and fan speed are also controlled from the menu in the indoor module.



General ventilation connections

- 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, silencers should be installed in the duct system. In the event of ventilation devices in noise-sensitive rooms, silencers must be installed.
- Ducts that may become cold must 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.
- The exhaust air module must be provided with the enclosed air filter.

EXHAUST AIR DUCT /KITCHEN FAN

Exhaust air duct (kitchen fan) must not be connected to S135.

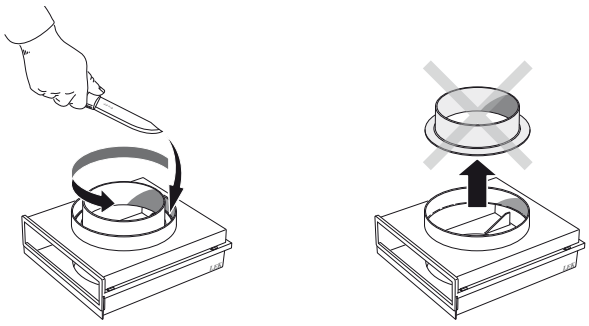
To prevent food vapour being transferred to S135 the distance between the kitchen fan and the exhaust air device must be considered. The distance should not be less than 1.5 m, but this can vary between different installations.

Always use a kitchen fan when cooking.

INSTALL THE FILTER CARTRIDGE

The filter cartridge has two sizes of connector, 125 mm or 160 mm.

1. Check the diameter of the air channel for inlet air.
2. When the air duct has a large diameter (Ø 160 mm) the inner ring must be cut out of the upper section of the filter cartridge.
3. Cut just inside the inner edge of the outer ring using a sharp knife. The plastic is prepared for easy cutting.
4. Press the filter cartridge into place in the connection for incoming air (XL43).



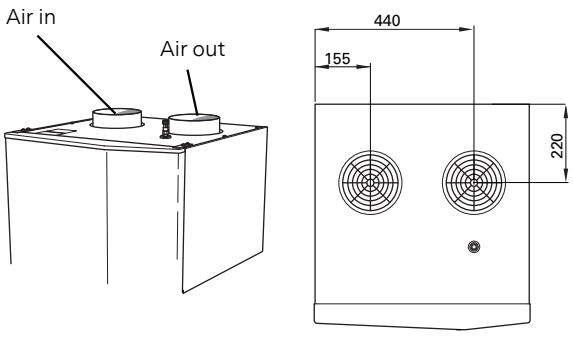
INSTALL THE CONNECTOR

If a filter solution other than that enclosed is used, the enclosed coupling must instead be mounted in the connection for incoming air (XL43).

INSTALL THE SILENCER

1. Remove the plugs from the silencer enclosed.
2. Install the silencer in the connector for outgoing air (XL44).

Dimension and ventilation connections



Ventilation flow (exhaust air)

Connect S135 so that all the exhaust air, except kitchen duct air (kitchen fan), passes through the evaporator (EP1) in the exhaust air module.

The ventilation flow must comply with the applicable national standards.

For the optimum exhaust air module performance, the ventilation flow should not be less than 20 l/s (72 m³/h) at normal exhaust air temperature. At lower exhaust air temperatures, a higher flow is required.

The ventilation capacity is set in the indoor module's menu system (menu 7.1.4.1).

Adjusting ventilation (exhaust air)

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, and may cause moisture damage in the building

5 Electrical connections

General

Installation must be carried out in accordance with current standards and directives.

When working behind screwed covers, the circuit fuse must be removed or the connection plug pulled out.

Work behind screwed covers may only be carried out under the supervision of a qualified electrician.

- Disconnect S135 before insulation testing the house wiring.
- For electrical wiring diagram for S135, see page 32.
- Signal cables to external connections must not be laid close to high current cables.
- Signal cables to external connections are four core, at least 0.35 mm^2.
- If the supply cable is damaged, it must be replaced by qualified persons.

NOTE

The supply cable must not be connected until the boiler has been filled. Internal components can be damaged.

NOTE

Electrical installation and service must be carried out under the supervision of a qualified electrician. Electrical installation and wiring must be carried out in accordance with the stipulations in force.

Connections

POWER CONNECTION

NOTE

To prevent interference, unscreened communication and/or sensor cables to external connections must not be laid closer than 20 cm from high voltage cables.

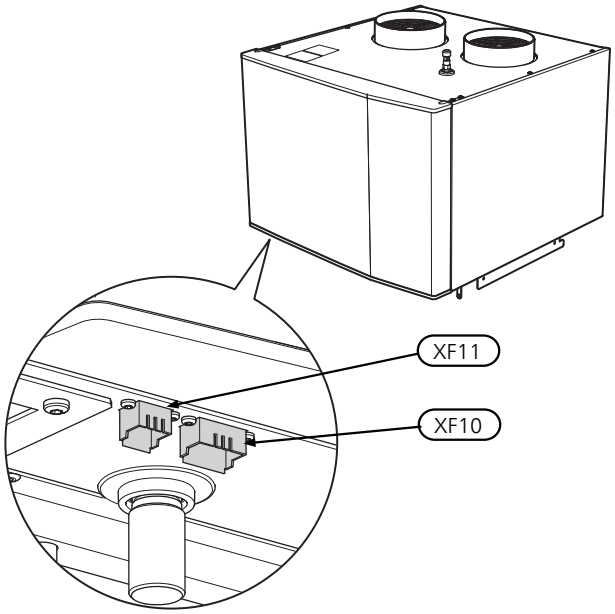
S135 is connected to an earthed socket with the factory-installed connection cable (length approx. 2.8 m), which is fitted with a plug. The power connection to the circulation pump must be connected via a circuit breaker with a minimum breaking gap of 3 mm.

NOTE

The circulation pump must not be powered up until S135 is activated in the indoor module.

COMMUNICATION

S135 is connected to the indoor module/control module and circulation pump via the connectors (XF10) and (XF11), which are placed underneath S135.



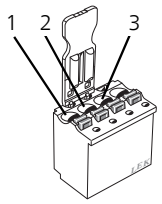
INDOOR MODULE

Connect the indoor module's PCB (AA2-X30) to the supplied 4-pin connector (X11) according to the table.

Connect the connector (X11) to (XF11).

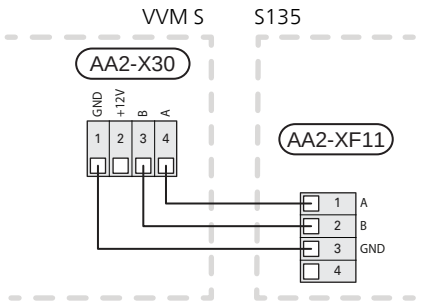
Use a 3 core cable of at least 0.5 mm² cable area.

Indoor module	*Contact*
AA2-X30:1	X11:3
AA2-X30:3	X11:2
AA2-X30:4	X11:1



X11

> ⚠ *NOTE*
>
> Cable between the indoor module and S135 must be a max of 15 m.



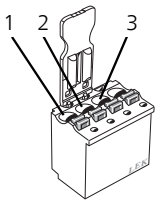
CONTROL MODULE

Connect the control module's joint board (AA100-X9) to the supplied 4-pin connector (X11) according to the table.

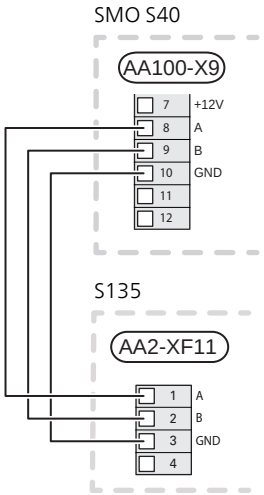
Connect the connector (X11) to (XF11).

Use a 3 core cable of at least 0.5 mm² cable area.

Indoor module	*Contact*
AA100-X9:8	X11:1
AA100-X9:9	X11:2
AA100-X9:10	X11:3



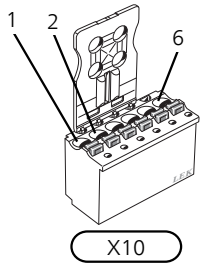
X11



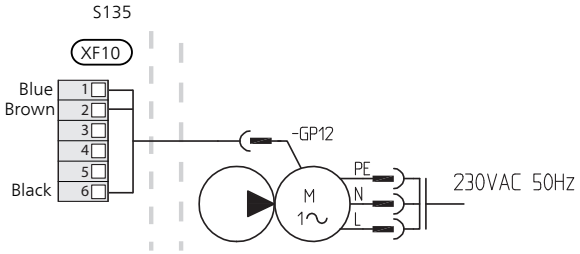
CIRCULATION PUMP

Connect the circulation pump's communication cable to the supplied 6-pin connector (X10) according to the table.

Communication cable	*Contact*
Blue	X10:1
Brown	X10:2
Black	X10:6



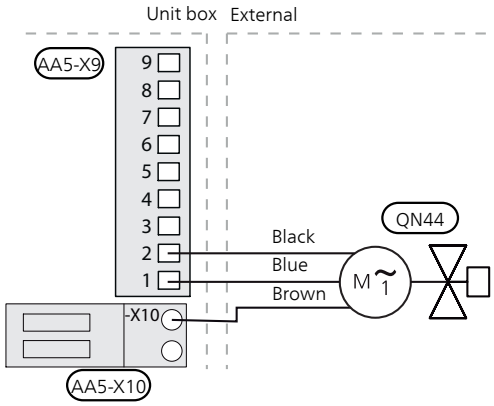
Connect the connector (X10) to (XF10) and connect the cable to the circulation pump.



Optional connections

Connecting the shut-off valve (QN44)

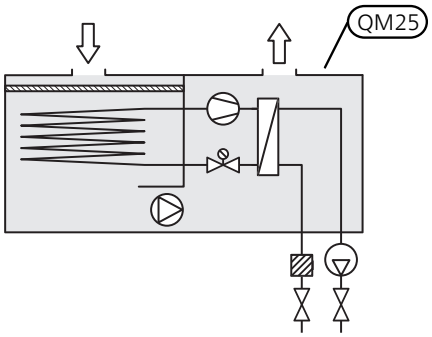
Connect the shut-off valve's motor (QN44) to AA5-X9:2 (signal), AA5-X9:1 (N) and AA5-X10:2 (230 V) in the cooling accessory's unit box.



6 Commissioning and adjusting

Preparations

1. Check that the switch for the indoor module is in position "⏻".
2. Cut the power to S135.
3. Check that the filling valves are fully closed.



Filling and venting

Caution

Insufficient venting can damage internal components in S135.

FILLING THE CLIMATE SYSTEM

1. Check that the externally mounted shut-off valves for the heating system are open.
2. Open the vent valve (QM25).
3. Open the externally mounted filler valves. S135 and the rest of the climate system are filled with water.
4. When the water that exits the vent valve (QM25) is not mixed with air, close the valve. After a while, the pressure rises on the external pressure gauge. When the pressure reaches 2.5 bar (0.25 MPa) the safety valve starts to release water. Close the external filler valve.
5. Reduce the boiler pressure to the normal working range (approx. 1 bar) by opening the vent valve (QM25) or the external safety valve.

VENTING THE CLIMATE SYSTEM

NOTE

Venting may be necessary during installation and after a period of use.

1. Cut the power to the exhaust air module.
2. Vent the exhaust air module via the vent valve (QM25) and the rest of the climate system via the relevant vent valves.
3. Keep topping up and venting until all air has been removed and the pressure is correct.

Start-up and inspection

START-UP WITH NIBE INDOOR MODULE

NOTE

There must be water in the climate system before S135 is started.

NOTE

The circulation pump must not be powered up until S135 is activated in the indoor module.

1. Start S135 by connecting the supply cable.
2. Start the indoor module by pressing the on/off button (SF1).
3. Follow the instructions in the start guide in the indoor module display. If the start guide does not start when you start the indoor module, start it manually in menu 7.7.

Commissioning with NIBE indoor module

The first time that the indoor module is started, a start guide begins. The start guide instructions state what needs to carried out at initial start-up together with a run through of the indoor module's basic settings.

The start guide ensures that start-up is carried out correctly and, for this reason, cannot be skipped. The start guide can be started later in menu 7.7.

The circulation pump runs at a fixed speed. Can be changed in menu 7.2.13.

Caution

As long as the start guide is active, no function in the installation will start automatically.

The guide will appear at each installation restart until it is deselected on the last page.

SETTING VENTILATION (EXHAUST AIR)

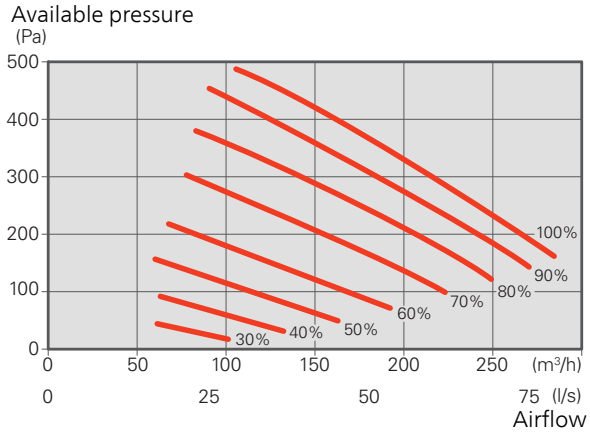
The ventilation must be set according to applicable standards. Set the fan speed in menu 7.1.4.1.

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

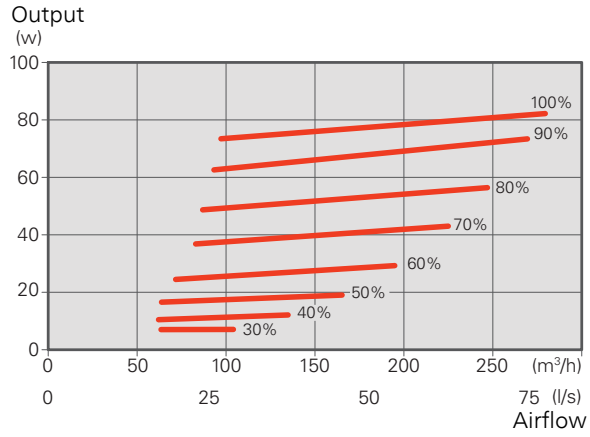
NOTE

Order a ventilation adjustment to complete the setting.

Fan capacity



Power, fan



7 Control - Menus

Program setting of S135 can be performed via the start guide or directly in the menu system in the compatible heat pump.

Menu system

MENU 7.2.1 - ADD/REMOVE ACCESSORIES

Here, you state which accessories are installed for the compatible product.

To automatically identify connected accessories, select "Search for installed accessories". It is also possible to select accessories from the list manually.

MENU 1.2.1 - FAN SPEED

Alternative: normal and speed 1-4

The ventilation in the accommodation can be temporarily increased or reduced here.

When you have selected a new speed a clock starts a count down. When the time has counted down the ventilation speed returns to the normal setting.

If necessary, the different return times can be changed in menu 1.2.5.

The fan speed is shown in brackets (in percent) after each speed alternative.

MENU 1.2.2 - NIGHT COOLING

Start temperature, exhaust air

Setting range: 20 – 30 °C

Lowest diff., outdoor/exhaust air

Setting range: 3 – 10 °C

Activate night cooling here.

When the temperature in the house is high and the outdoor temperature is lower, a cooling effect can be obtained by forcing the ventilation.

If the temperature difference is greater than the set value for "Min diff outdoor and exhaust air", and the exhaust air temperature is higher than the set value for "Start temperature exhaust air", the ventilation operates at speed 4 until one of these conditions is no longer valid.

Caution

Night cooling is only activated when heating is not permitted.

MENU 1.2.5 - FAN RETURN TIME

Select the return time here for the temporary speed change (speed 1-4) of the ventilation in menu 1.2.1.

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

MENU 1.2.6 - FILTER CLEANING INTERVAL

Cleaning interval

Setting range: 1 – 24 months

Clean the filter in S135 regularly; how often depends on the amount of dust in the ventilation air.

Set the interval for the reminder to clean the filter in this menu.

The menu shows the time remaining until the next reminder, and you can also reset active reminders.

MENU 7.2.13 - EXHAUST AIR MODULE (S135)

charge pump speed

Setting range: 1 – 100 %

hot water at cooling

Setting range: on/off

Here you can set the charge pump speed for S135. You can also choose to charge hot water with S135 at the same time as the outdoor section is producing cooling.

NOTE

Cooling is required to allow "hot water during cooling" to be activated.

Caution

For installations with F2040, cooling must be permitted in Menu 7.3.2.1 - heat pump to allow "hot water during cooling" to be activated.

MENU 7.1.4.1 - FAN SPEED EXHAUST AIR

Normal and Speed 1-4

Setting range: 0 – 100 %

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

8 Disturbances in comfort

In most cases, the indoor module notes operational interference (operational interference can lead to disturbance in comfort) and indicates this with alarms and shows action instructions in the display.

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

BASIC ACTIONS

Start by checking the following items:

- That the feed cable is connected to S135.
- Group and main fuses of the accommodation.
- The property's earth circuit breaker.

LOW OR A LACK OF VENTILATION (EXHAUST AIR INSTALLATION)

- Filter (HQ12) 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.
  - – Enter menu 1.2.1 and select "normal".

LOUD OR DISTURBING VENTILATION (EXHAUST AIR INSTALLATION)

- Filter (HQ12) blocked.
  - – Clean or replace the filter.
- The ventilation is not adjusted.
  - – Order/implement ventilation adjustment.
- Fan speed in forced mode.
  - – Enter menu 1.2.1 and select "normal".

THE COMPRESSOR DOES NOT START

- There is no heating requirement.
  - – The indoor module does not call on heating or hot water.
  - – The heat pump defrosts.

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.

9 Accessories

More info and images available at nibe.eu.

Not all accessories are available on all markets.

Some accessories manufactured before 2019 may need to have their circuit board updated in order to be compatible with S135. For more information, see the Installer Manual for the relevant accessory.

Top cabinet TOC 40

Top cabinet, which conceals any pipes/ventilation ducts.

HEIGHT 245 MM

Part no. 089 756
RSK no. 625 06 87

HEIGHT 345 MM

Part no. 089 757
RSK no. 625 06 88

HEIGHT 445 MM

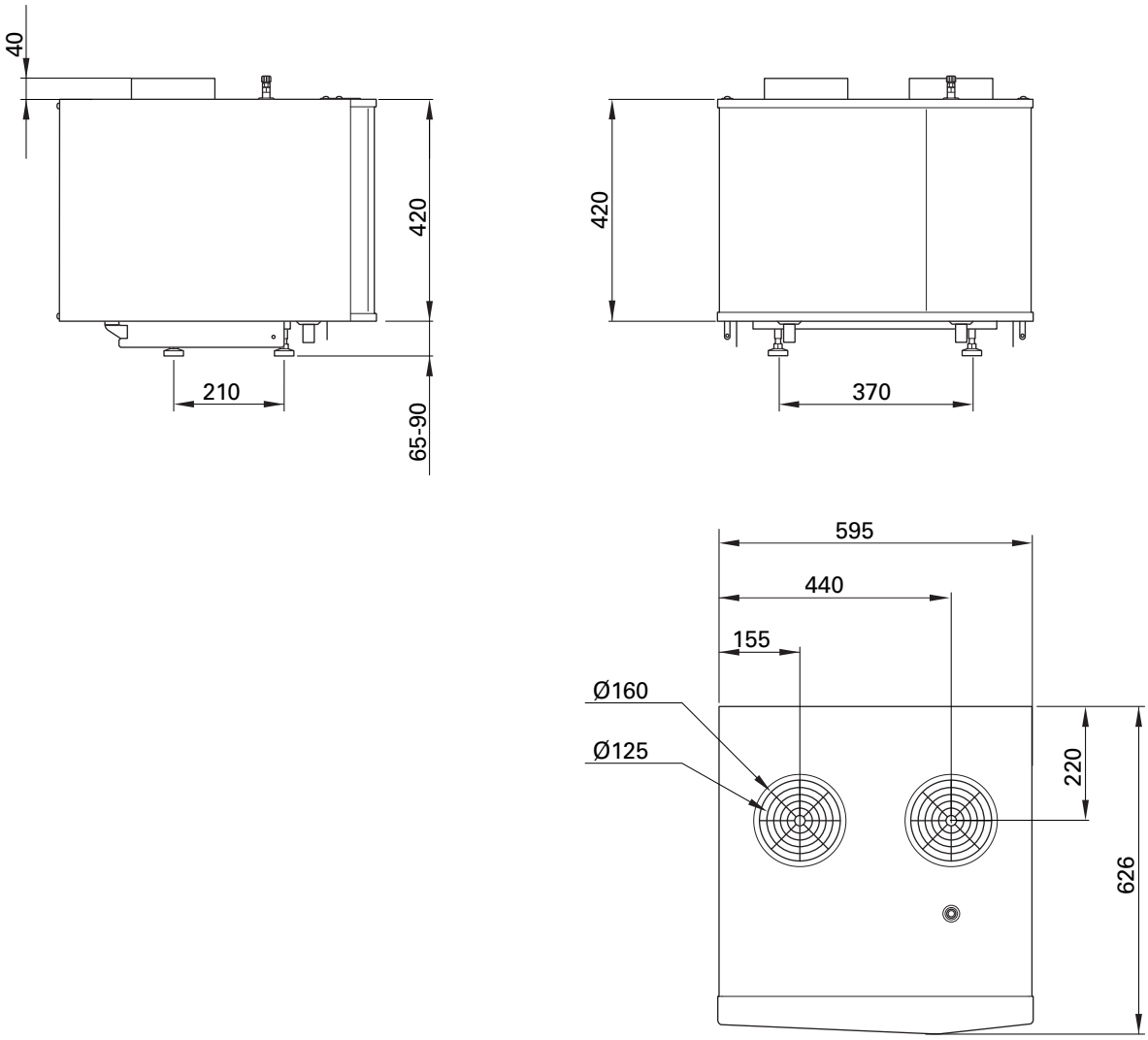
Part no. 067 522
RSK no. 625 12 99

HEIGHT 385-635 MM

Part no. 089 758
RSK no. 625 06 89

10 Technical data

Dimensions and setting-out coordinates



Technical specifications

1x230 V		-
Output data according to EN 14 511		
Capacity (P_H)/COP	kW/-	1.42 / 3.87 [1]
Capacity (P_H)/COP	kW/-	1.34 / 3.13 [2]
Capacity (P_H)/COP	kW/-	1.27 / 2.65 [3]
Electrical data		
Rated voltage	V	230 V ~ 50 Hz
Max operating current	A	3.5
Min. fuse rating	A	6
Driving power circulation pump	W	5-20
Driving power fan	W	20-75
Enclosure class		IP21
Refrigerant circuit		
Type of refrigerant		R134A
GWP refrigerant		1430
Volume	kg	0.38
CO_2 equivalent	ton	0.54
Cut-out value pressostat HP	MPa/bar	2.2 / 22.0
Exhaust air module		
Max system pressure	MPa/bar	1.0 / 10.0
Max temperature, supply line	°C	63
Max temperature, return line	°C	54
Air flow requirement		
Min. air flow at exhaust air temperature at least 10°C	l/s	25
Temperature range for compressor operation	°C	10 - 37
Sound effect level according to EN 12 102		
Sound power level ($L_{W(A)}$) [4]	dB(A)	47.0
Sound pressure levels according to EN ISO 11 203		
Sound pressure level in the installation room ($L_{P(A)}$) [5]	dB(A)	43.0
Pipe connections		
Heating medium ext Ø	mm	22
Ventilation ext Ø	mm	160
Filter box ext. Ø	mm	160/125

1 A20(12)W35, frånluftsflöde 50 l/s (180 m³/h), exkl. driveffekt för fläkt
2 A20(12)W45, frånluftsflöde 50 l/s (180 m³/h), exkl. driveffekt för fläkt
3 A20(12)W55, frånluftsflöde 50 l/s (180 m³/h), exkl. driveffekt för fläkt
4 The value varies with the fan speed selected. For more detailed sound data, including sound to ducts, visit nibe.eu.
5 The value can vary with the room's damping capacity. These values apply at a damping of 4 dB.

Other 1x230 V		
Dimensions and weight		
Width	mm	600
Depth	mm	626
Height		490 - 515
Weight	kg	50
RSK No.		624 45 25
Part No.		066 161

Energy labelling

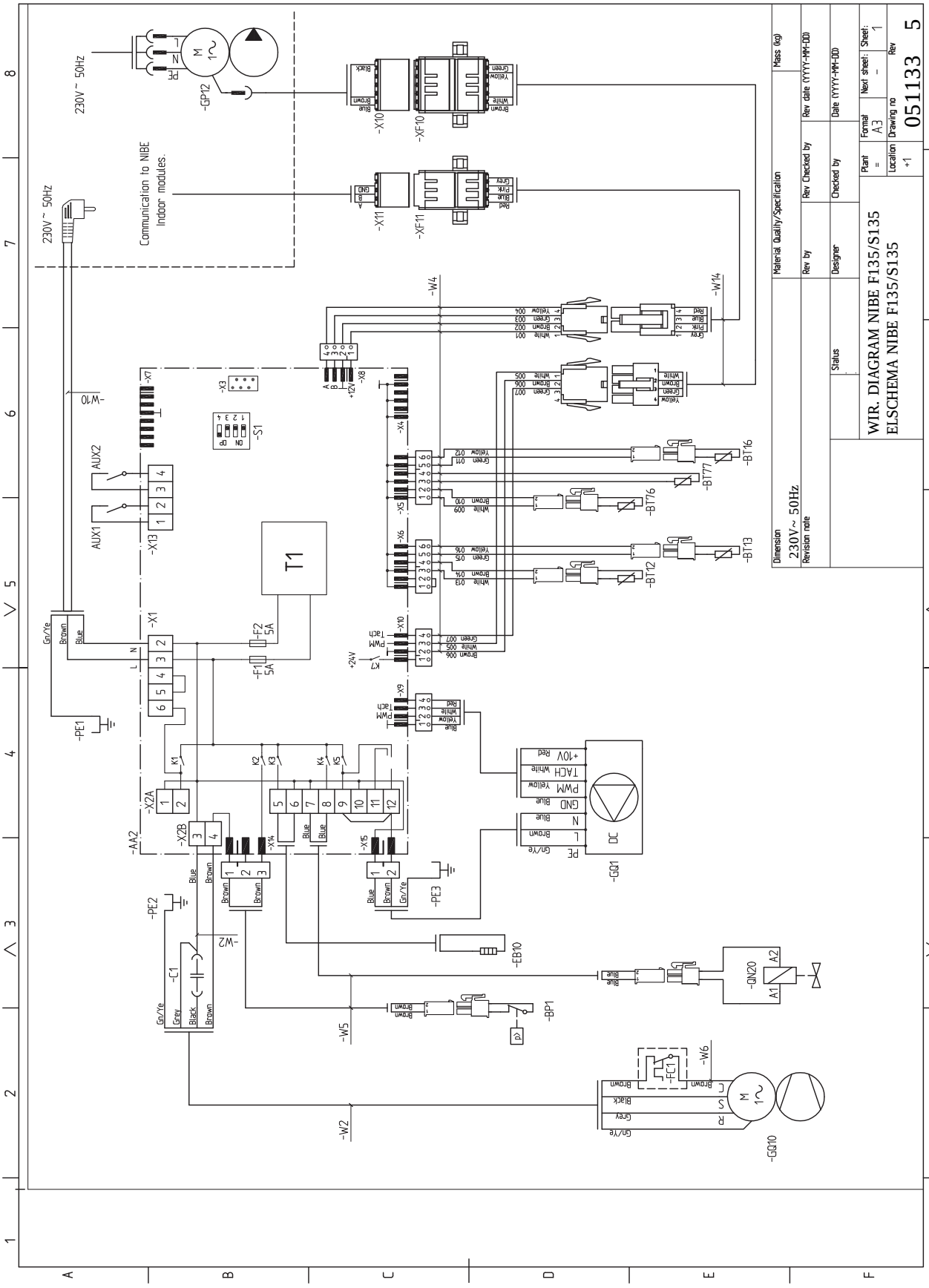
INFORMATION SHEET

Supplier		*NIBE*
Model		*S135*
Temperature application	*°C*	*35 / 55*
Seasonal space heating energy efficiency class, average climate		**A+ / A+**
Rated heat output ($P_{designh}$), average climate	kW	2
Annual energy consumption space heating, average climate	kWh	879 / 1087
Seasonal space heating energy efficiency, average climate	%	141 / 114
Sound power level L_{WA} indoors	dB	47
Rated heat output ($P_{designh}$), cold climate	kW	2
Rated heat output ($P_{designh}$), warm climate	kW	2
Annual energy consumption space heating, cold climate	kWh	1004 / 1264
Annual energy consumption space heating, warm climate	kWh	587 / 731
Seasonal space heating energy efficiency, cold climate	%	147 / 117
Seasonal space heating energy efficiency, warm climate	%	136 / 110
Sound power level L_{WA} outdoors	dB	-

TECHNICAL DOCUMENTATION

Model		*S135*					
Type of heat pump		☐ Air-water ☒ Exhaust-water ☐ Brine-water ☐ Water-water					
Low-temperature heat pump		☐ Yes ☒ No					
Integrated immersion heater for additional heat		☐ Yes ☒ No					
Heat pump combination heater		☐ Yes ☒ No					
Climate		☒ Average ☐ Cold ☐ Warm					
Temperature application		☒ Average (55 °C) ☐ Low (35 °C)					
Applied standards		EN14825 EN16147					
Rated heat output	Prated	1,5	kW	*Seasonal space heating energy efficiency*	η_s	114	%
Declared capacity for space heating at part load and at outdoor temperature Tj				*Declared coefficient of performance for space heating at part load and at outdoor temperature Tj*			
Tj = -7 °C	Pdh	1.3	kW	Tj = -7 °C	COPd	3.0	-
Tj = +2 °C	Pdh	1.3	kW	Tj = +2 °C	COPd	3.1	-
Tj = +7 °C	Pdh	1.3	kW	Tj = +7 °C	COPd	3.3	-
Tj = +12 °C	Pdh	1.4	kW	Tj = +12 °C	COPd	3.3	-
Tj = biv	Pdh	1.2	kW	Tj = biv	COPd	2.7	-
Tj = TOL	Pdh	1.2	kW	Tj = TOL	COPd	2.8	-
Tj = -15 °C (if TOL < -20 °C)	Pdh		kW	Tj = -15 °C (if TOL < -20 °C)	COPd		-
Bivalent temperature	T_{biv}	-6.9	°C	Min. outdoor air temperature	TOL	-10	°C
Cycling interval capacity	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation coefficient	Cdh	0.98	-	Max supply temperature	WTOL	58	°C
Power consumption in modes other than active mode				*Additional heat*			
Off mode	P_{OFF}	0.003	kW	Rated heat output	Psup	0.3	kW
Thermostat-off mode	P_{TO}	0.01	kW				
Standby mode	P_{SB}	0.005	kW	Type of energy input	Electric		
Crankcase heater mode	P_{CK}	0.01	kW				
Other items							
Capacity control	Fixed			Rated airflow (air-water)		150	m^3/h
Sound power level, indoors/outdoors	L_{WA}	47 / -	dB	Nominal heating medium flow		0.13	m^3/h
Annual energy consumption	Q_{HE}	1,087	kWh	Brine flow brine-water or water-water heat pumps			m^3/h
Contact information	*NIBE Energy Systems – Box 14 – Hannabadsvägen 5 – 285 21 Markaryd – Sweden*						

ELECTRICAL CIRCUIT DIAGRAM



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