Indoor module
NIBE VVM S330

The NIBE VVM S330 is an intelligent indoor module designed to cool your home. Together with a NIBE air/water heat pump, it forms a complete climate system for heating, cooling and hot water. The system provides optimised savings as it automatically adapts to the house's output requirements all year round.

The NIBE VVM S330 has a smart, user-friendly control system which provides efficient heating/powerful cooling and hot water with high performance. The effective cooling function allows the heat pump to deliver a comfortable indoor climate even at high outdoor temperatures.

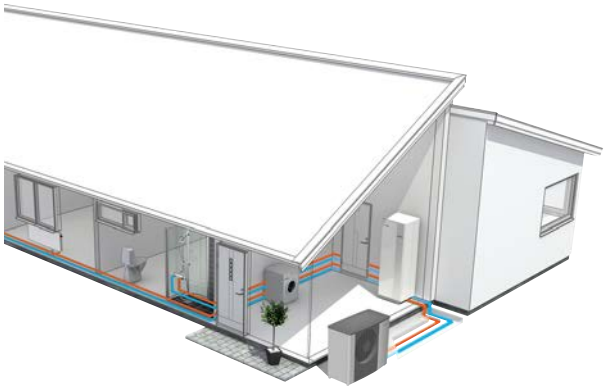
Together with a NIBE air/water heat pump, it forms a complete solution for simple installation and high comfort.

With integrated Wi-Fi and the possibility of connecting to wireless accessories, the NIBE S-Series will become a natural part of your connected home. The smart technology adjusts the indoor climate automatically, while you enjoy complete control via your smartphone or tablet. A high level of comfort and low energy consumption – and you're doing nature a favour at the same time.

- **Combine with a NIBE air/water heat pump for a complete climate system.**
- **Powerful cooling.**
- **User-friendly touchscreen, wireless accessories and integrated wireless connectivity with energy-saving smart technology for a high level of comfort.**

This is how NIBE VVM S330 works

Installation method



VVM S330, together with a NIBE air/water heat pump, forms a complete system, with compressor, immersion heater and components for hot water heating.

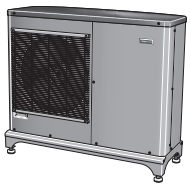
Energy is recovered from the outdoor air using the air/water heat pump and supplied to VVM S330, which significantly reduces the energy costs. The system supplies heating, cooling and hot water. Heating up to 70 °C[1] and cooling down to 7 °C are possible.

For optimum operation and savings, a low temperature heat distribution system is recommended.

COMPATIBLE OUTDOOR MODULES

F2040

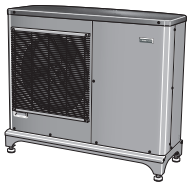
F2040-12
Part no. 064 092



F2050

F2050-6
Part no. 064 328

F2050-10
Part no. 064 318



S2125

S2125-8 1x230 V
Part no. 064 220

S2125-8 3x400 V
Part no. 064 219

S2125-12 1x230 V
Part no. 064 218

S2125-12 3x400 V
Part no. 064 217

Design

Control of VVM S330 is designed to ensure easy operation while always enabling the air/water heat pump to run as efficiently as possible. VVM S330 automatically determines the best operation mode. The display shows the current temperatures and set values in plain text.

VVM S330 gives great savings thanks to the outdoor unit's powerful, speed-controlled compressor, which, together with the indoor module's intelligent control, works with the currently most beneficial temperature conditions.

The outer casing is made of white, powder-coated, steel plate. The front panel is simple to remove, providing easy access when installing and servicing. The insulation is made of moulded Neopor, which provides excellent heat insulation.

All pipes and components are condensation-insulated to avoid condensation during cooling operation.

The internal immersion heater's power is easy to adjust via the display and VVM S330 can be blocked.

1 Only VVM S330 with shunt valve QN11.

Principle of operation

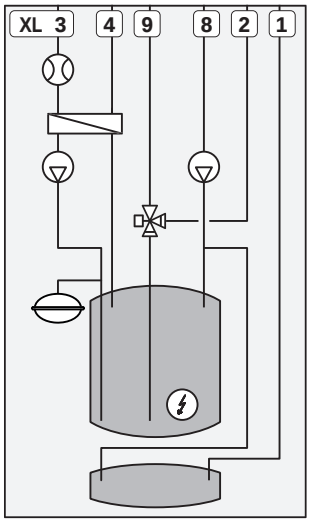
VVM S330 consists of hot water heat exchanger storage tank, hot water expansion vessel, immersion heater, circulation pumps, buffer vessel and control system. VVM S330 connects to the climate system. Hot water is produced via the hot water heat exchanger.

VVM S330 is intended for connection and communication with a compatible NIBE outdoor unit, and together they constitute a complete heating installation.

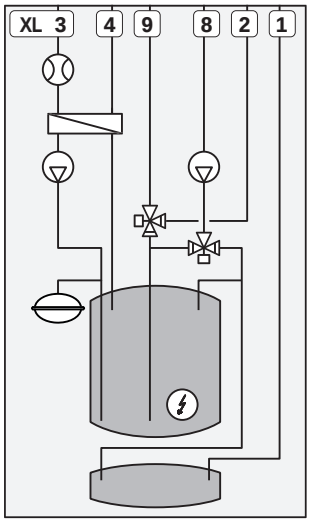
When it is cold outdoors, the outdoor unit works with the indoor module, and if the outdoor air temperature falls below the outdoor unit's working range, all heating is performed by the immersion heater[2].

The indoor unit can produce hot water with the integrated immersion heater at the same time as the outdoor unit produces cooling with the compressor.

1x230 V



3x400 V



XL1	Connection, heating medium flow line
XL2	Connection, heating medium return line
XL3	Connection, cold water
XL4	Connection, hot water
XL8	Connection, docking from heat pump
XL9	Connection, docking to heat pump

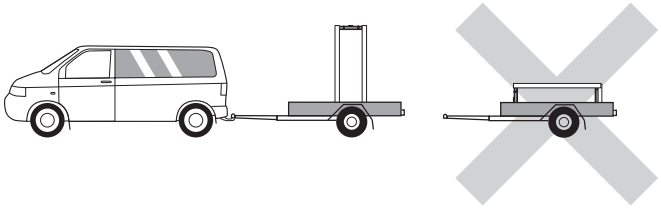
2 Only VVM S330 3x400 V.

Good to know about VVM S330

Transport

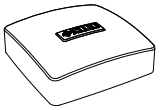
VVM S330 should be transported and stored vertically in a dry place.

However, the VVM S330 can be carefully laid on its back when being moved into the building.

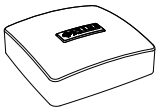


Supplied components

Local differences in the enclosed kit may occur. See relevant installer manual for more information.

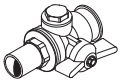


Outdoor temperature sensor
1 x



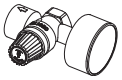
Room sensor
1 x

Current sensor[1]
3 x



Filterball valve for incoming cold water
1 x

Non-return valve[2]
1 x

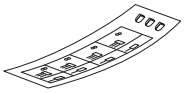


Combined safety valve/pressure gauge, heating medium
1 x

Vent hose
2 x

Clips
2 x to VVM S330 1x230 V, 1 x to VVM S330 3x400 V

O-ring
8 x



Label for external control voltage for the control system
1 x

1 Only VVM S330 3x400 V.
2 Only VVM S330 1x230 V.

LOCATION

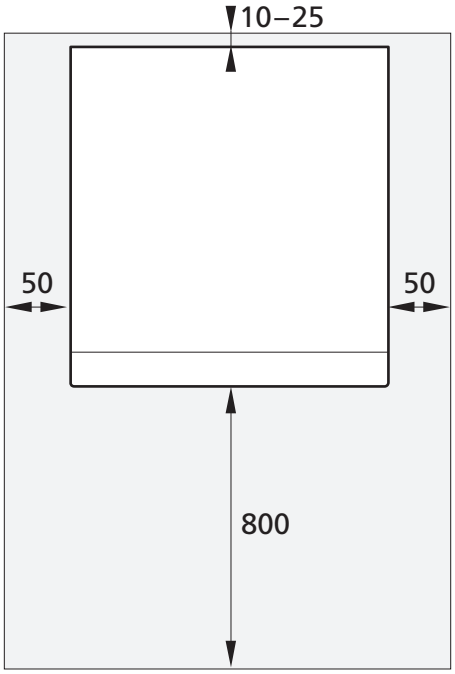
The kit of enclosed items is placed on top of the indoor module.

Assembly

- Position VVM S330 on a solid foundation indoors that withstands water and the weight of the product.
- The space where VVM S330 is located must be frost-free.
- Since water comes from VVM S330, the area where VVM S330 is located must be equipped with floor drainage.

INSTALLATION AREA

Leave a free space of 800 mm in front of the product and 200 mm above the product. All service on VVM S330 can be carried out from the front and above.



Leave 10 – 25 mm free space between VVM S330 and the wall behind for routing cables and pipes.

Installation

Equipment

VVM S330 is equipped with an expansion vessel, draining valve, buffer vessel and safety valve for the climate system.

Pipe installation, indoor module

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

VVM S330 is easy to install. All pipe connections are easily accessible. This is especially useful for the replacement market.

MINIMUM SYSTEM FLOWS

An undersized climate system can result in damage to the product and lead to malfunctions.

Each climate system must be dimensioned individually to provide the recommended system flows.

The installation must be dimensioned to provide at least the minimum defrosting flow at 100 % circulation pump operation.

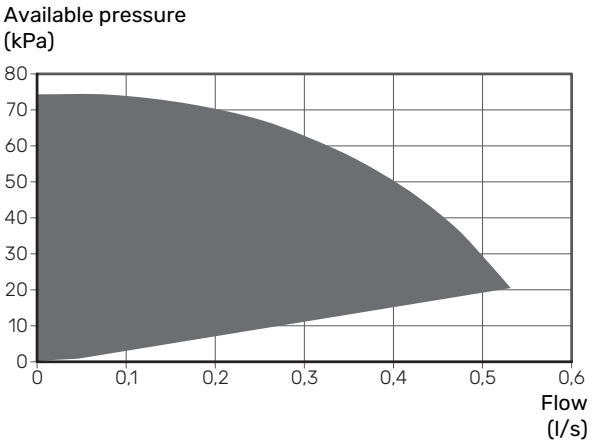
Air/water heat pump	Minimum flow during defrosting 100% circulation pump operation (l/s)	Minimum recommended pipe dimension (DN)	Minimum recommended pipe dimension (mm)
F2040-12	0.29	20	22

Air/water heat pump	Minimum flow during defrosting 100% circulation pump operation (l/s)	Minimum recommended pipe dimension (DN)	Minimum recommended pipe dimension (mm)
F2050-6	0.19	20	22
F2050-10			

Air/water heat pump	Minimum flow during defrosting 100% circulation pump operation (l/s)	Minimum recommended pipe dimension (DN)	Minimum recommended pipe dimension (mm)
S2125-8 (1x230 V)	0.32	25	28
S2125-8 (3x400 V)			
S2125-12 (1x230 V)			
S2125-12 (3x400 V)			

AVAILABLE EXTERNAL PRESSURE, HEATING SYSTEM

Capacity, heating medium pump



COLD AND HOT WATER

Ensure that incoming water is clean. When using a private well, it may be necessary to supplement with an extra water filter.

Installation alternative

VVM S330 can be connected in many different ways.

EXTRA CLIMATE SYSTEM

In buildings with several climate systems that require different supply temperatures, the accessory ECS 40/ECS 41 can be connected.

A shunt valve then lowers the temperature to the underfloor heating system, for example.

TAP WATER CONNECTION

The system should be supplemented with an extra water heater, if a large bath tub or other significant consumer of hot water is installed.

Water heater with immersion heater

In a water heater with an immersion heater, the water is initially heated by the heat pump. The immersion heater in the water heater is used for keeping warm and when the heat pump does not have sufficient power.

The water heater's flow is connected after VVM S330.

HOT WATER CIRCULATION

A circulation pump can be controlled by VVM S330 to circulate the hot water. The circulating water must have a temperature that prevents bacterial growth and scalding, and national standards must be satisfied.

The HWC return is connected to a freestanding water heater.

COOLING

Cooling is produced by the outdoor unit and then passes through the indoor unit and is distributed in the home using, for example, fan coils.

In installations where heat and cooling can be required at different times, heat and cooling can be distributed via the same climate system.

SEPARATE SYSTEM FOR HEATING AND COOLING

In installations where some climate systems are not protected against condensation, the flow to these climate systems can be shut off with a shut-off valve during cooling operation.

DELAYED SUPPLY LINE FOR COOLING

When the installation switches to cooling production e.g. from hot water production, a certain amount of heat escapes into the cooling system. To avoid this, a reversing valve is installed in the system.

Electrical installation

Connection must not be carried out without the permission of the electricity supplier and must be under the supervision of a qualified electrician.

VVM S330 must be installed via an isolator switch. The cable area has to be dimensioned based on the fuse rating used.

All electrical equipment, except the outdoor sensors, room sensors and the current sensors are ready connected at the factory.

Functions

Control, general

The indoor temperature depends on several different factors. Sunlight and heat emissions from people and household machines are normally sufficient to keep the house warm during the warm seasons. When it gets colder outside, the climate system needs to help heat the house. The colder it is outside, the warmer radiators and underfloor heating systems have to be.

Control of the heat production is performed based on the "floating condensing" principle, which means that the temperature level needed for heating at a specific outdoor temperature is produced based on collected values from the outdoor and supply temperature sensors. The room sensor can also be used to compensate the deviation in room temperature.

Heat production

The supply of heating/cooling to the house is regulated in accordance with the selected heating curve setting (or cooling curve). After adjustment, the correct amount of heat for the current outdoor temperature is supplied. The supply temperature will oscillate around the theoretically desired value.

OWN CURVE

VVM S330 has pre-programmed non-linear heating curves. It is also possible to create your own defined curve. This is an individual linear curve with a number of break points. You select break points and the associated temperatures.

Cooling

Cooling is produced by the outdoor unit and then passes through the indoor unit and is distributed in the home using, for example, fan coils.

In installations where heat and cooling can be required at different times, heat and cooling can be distributed via the same climate system.

Hot water production

Hot water charging starts when the temperature has fallen to the set start temperature. Hot water charging stops when the hot water temperature at the hot water sensor has been reached.

For temporary higher hot water demand, there is a function that allows the temperature to be raised temporarily for up to 12 hours or by a one time increase (can be selected in the menu system).

With the Smart Control function activated, VVM S330 learns how much hot water is used and when. The Smart Control function memorises the previous week's hot water consumption and adapts the hot water temperature for the coming week to ensure minimal energy consumption.

It is also possible to set VVM S330 in holiday mode, which means that the lowest possible temperature is achieved without the risk of freezing.

Additional heat only

VVM S330 can be used with additional heat only (electric boiler) to produce heating and hot water, for example before the outdoor unit is installed. [3]

Alarm indications

In the event of an alarm, a malfunction has occurred and the status lamp shines with a steady red light. You receive information about the alarm in the smartguide on the display.

myUplink

With myUplink you can control the installation – where and when you want. In the event of any malfunction, you receive an alarm directly to your e-mail or a push notification to the myUplink app, which allows you to take prompt action.

Visit myuplink.com for more information.

SPECIFICATION

You need the following in order for myUplink to be able to communicate with your VVM S330:

- wireless network or network cable
- Internet connection
- account on myuplink.com

We recommend our mobile apps for myUplink.

[3] Only VVM S330 3 x 400 V

RANGE OF SERVICES

myUplink gives you access to various levels of service. The base level is included and, apart from this, you can choose two premium services for a fixed annual fee (the fee varies depending on the functions selected).

Service level	Basic	Premium extended history	Premium change settings
Viewer	X	X	X
Alarm	X	X	X
History	X	X	X
Extended history	-	X	-
Manage	-	-	X

MOBILE APPS FOR MYUPLINK

The mobile apps can be downloaded free of charge from where you usually download your mobile apps. Logging into the mobile app is performed using the same account details as on myuplink.com.

NIBE SMART PRICE ADAPTION™

Smart Price Adaption is not available in all countries. Contact your NIBE dealer for more information.

Smart Price Adaption adjusts the system's consumption according to the time of day when electricity prices are lowest. This allows for savings, provided that an hourly rate subscription has been signed with the electricity supplier.

The function is based on hourly rates for the coming day being downloaded via myUplink. To use the function, an Internet connection and account on myUplink are necessary.

WIRELESS UPDATES

When the system is connected, there is the option to receive wireless updates. This provides the system with new functions, giving a better experience. To receive wireless updates, you have to create an account on myUplink.

SMART HOME

When you have a smart home system that can communicate with myUplink, you can control the installation via an app by activating the "smart home" function.

By allowing connected units to communicate with myUplink, your heating system becomes a natural part of your homesmart home and gives you the opportunity to optimise the operation.

Remember that the "smart home" function requires myUplink in order to work.

NIBE SMART ENERGY SOURCE™

Smart Energy Source™ prioritises how / to what extent each docked energy source will be used. Here you can choose if the system is to use the energy source that is cheapest at the time. You can also choose if the system is to use the energy source that is most carbon neutral at the time.

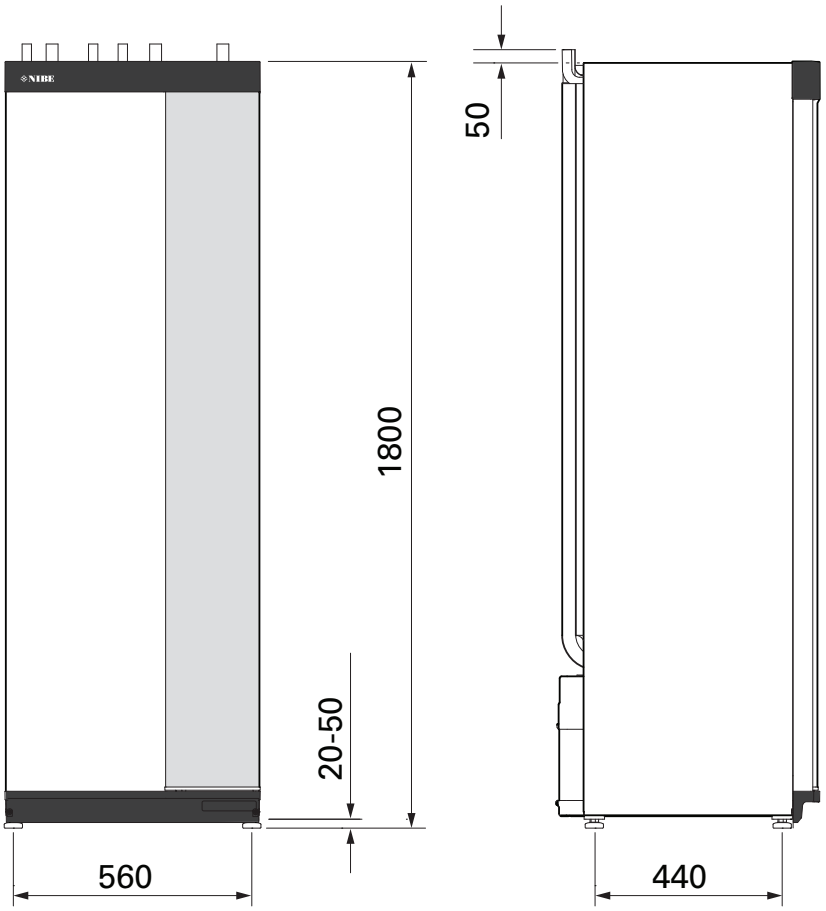
The display

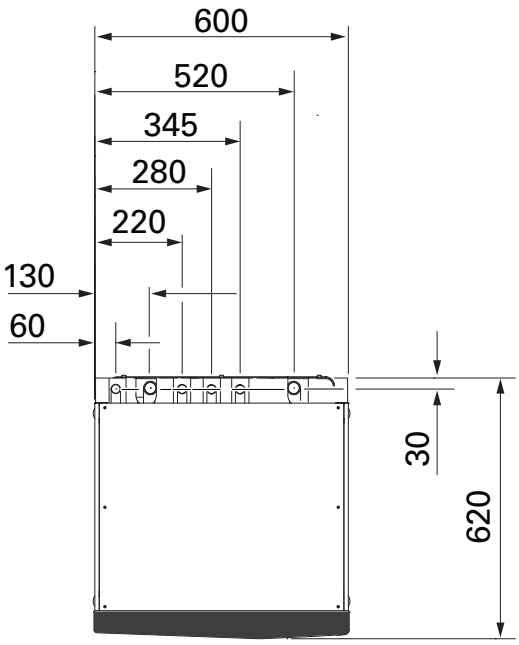
VVM S330 is controlled using a clear and easy to use display.

Instructions, settings and operational information are shown on the display. You can easily navigate between the different menus and options to set the comfort or obtain the information you require.

Technical data

Dimensions





Technical specifications

Type		1 x 230 V	3 x 400 V
Electrical data			
Max power, immersion heater (factory setting)	kW	7 (7)	9 (9)
Rated voltage		230 V ~ 50 Hz	400 V 3N ~ 50 Hz
Fuse	A	32	16
Enclosure class		IPX1B	
Equipment Compliant with IEC 61000-3-12			
For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements			
WLAN			
2.412 - 2.484 GHz max power	dbm	11	
Wireless units			
2.405 - 2.480 GHz max power	dbm	4	
Heating medium circuit			
Max system pressure heating medium	MPa (bar)	0.3 (3)	
Min system pressure heating medium	MPa (bar)	0.05 (0.5)	
Cut-off pressure, heating medium	MPa (bar)	0.25 (2.5)	
Max. heating medium temperature	°C	70	
Pipe connections			
Heating medium ext Ø	mm	22	
Hot water connection ext Ø	mm	22	
Cold water connection ext Ø	mm	22	
Heat pump connections ext Ø	mm	22	
Hot water and heating section			
Volume storage tank hot water	litre	140	
Volume, total indoor	litre	192	
Volume buffer vessel	litre	52	
Max. permitted pressure in hot water heat exchanger	MPa (bar)	1.0 (10)	
Min. permitted pressure in hot water heat exchanger	MPa (bar)	0.01 (0.1)	
Capacity hot water heating According to EN16147			
Tap volume 40 °C (comfort mode Medium) [1]	litre	240	
Dimensions and weight			
Width	mm	600	
Depth	mm	620	
Height [2]	mm	1,800	
Required ceiling height [3]	mm	1,930	
Weight	kg	115	118
Corrosion protection in the hot water heat exchanger		Stainless	
Part no.			
Part no.		069 249	069 250

1 This applies at a tap flow of 10 l/min.

2 Enclosed filterball valve (QZ2) is 120 mm tall. VVM S330 1x230 V has both enclosed non-return valve (RM1) and filterball valve (QZ2) which together are 190 mm tall.

3 With feet removed, the height is approx. 1,940 mm.

Accessories

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

Not all accessories are available on all markets.

Energy measurement kit EMK 300

This accessory is installed externally and used to measure the amount of energy that is supplied for the pool/hot water/heating/cooling for the house.

Part no. 067 314

External electric additional heat ELK

These accessories require accessories card AXC 40 (step controlled addition).

ELK 5
Electric heater
5 kW, 1 x 230 V
Part no. 069 025

ELK 8
Electric heater
8 kW, 1 x 230 V
Part no. 069 026

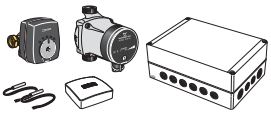
ELK 15
15 kW, 3 x 400 V
Part no. 069 022

ELK 26
26 kW, 3 x 400 V
Part no. 067 074

ELK 42
42 kW, 3 x 400 V
Part no. 067 075

ELK 213
7–13 kW, 3 x 400 V
Part no. 069 500

Extra shunt group ECS



This accessory is used when VVM S330 is installed in houses with two or more different heating systems that require different supply temperatures.

ECS 40 (Max 80 m²)
Part no 067 287

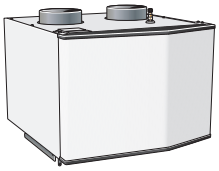
ECS 41 (approx. 80-250 m²)
Part no 067 288

Humidity sensor HTS 40

This accessory is used to show and regulate humidity and temperatures during both heating and cooling operation.

Part no. 067 538

Exhaust air unit S135[1]

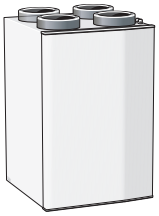


S135 is an exhaust air module specially designed to combine recovery of mechanical exhaust air with an air/water heat pump. Indoor module/control module controls S135.

Part no. 066 161

[1] The accessory requires that NIBE outdoor unit is installed.

HRV unit ERS



This accessory is used to supply the accommodation with energy that has been recovered from the ventilation air. The unit ventilates the house and heats the supply air as necessary.

ERS S10-400[1]
Part no. 066 163

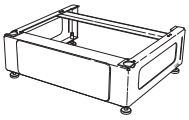
ERS 20-250[1]
Part no. 066 068

ERS 30-400[1]
Part no. 066 165

ERS S40-350
Part no. 066 166

[1] A preheater may be required.

Base extension EF 45



This accessory can be used to create a larger area under VVM S330.

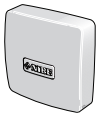
Part no. 067 152

Auxiliary relay HR 10

Auxiliary relay HR 10 is used to control external 1 to 3 phase loads such as oil burners, immersion heaters and pumps.

Part no 067 309

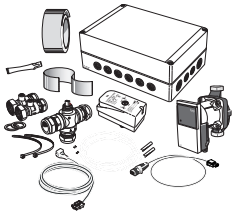
Communication module for solar electricity EME 20



EME 20 is used to enable communication and control between inverters for solar cells from NIBE and VVM S330.

Part no. 057 215

Pool heating POOL 310[1]



POOL 310 is an accessory that enables pool heating with VVM S330.

Part no. 067 247

[1] The accessory requires theNIBE outdoor unit to be installed.

Room unit RMU S40

The room unit is an accessory with a built-in room sensor, which allows the control and monitoring of VVM S330 to be carried out in a different part of your home to where it is located.

Part no. 067 650

Solar package NIBE PV

NIBE PV is a modular system comprising solar panels, assembly parts and inverters, which is used to produce your own electricity.

Accessory card AXC 40

This accessory is used to enable connection and control of shunt-controlled additional heat, step-controlled additional heat or external circulation pump.

Part no. 067 060

Wireless accessories

It is possible to connect wireless accessories to VVM S330, e.g. room, humidity, CO_2 sensors.

For more information, as well as a complete list of all available wireless accessories, see myuplink.com.

Buffer vessel UKV

A buffer vessel is an accumulator tank that is suitable for connection to a heat pump or another external heat source, and can have several different applications.

UKV 40
Part no. 088 470

UKV 100
Part no. 088 207

UKV 200
Part no. 080 300

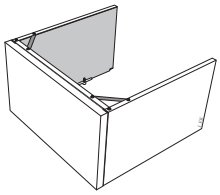
UKV 300
Part no. 080 301

UKV 500
Part no. 080 114

UKV 200 Cooling
Part no. 080 321

UKV 300 Cooling
Part no. 080 330

Top cabinet TOC 30



Top cabinet, which conceals any pipes/ventilation ducts.

Height 245 mm
Part no. 067 517

Height 345 mm
Part no. 067 518

Height 385-635 mm
Part no. 067 519

Sustainable energy solutions since 1952

NIBE has been manufacturing energy-efficient and sustainable climate solutions for your home for 70 years. It all began in Markaryd, in the southern Swedish province of Småland, and we recognise our Nordic heritage by utilising the power of nature. We combine renewable energy with smart technology to offer efficient solutions, allowing us to work together to create a more sustainable future.

Regardless of whether it is a chilly winter's day or a warm afternoon in the summer sun, we need a balanced indoor climate that allows us to enjoy a comfortable life, whatever the weather. Our extensive range of products supply your home with cooling, heating, ventilation and hot water, making it possible for you to create a pleasant indoor climate with little impact on the environment.

NIBE Energy Systems
Box 14, SE-285 21 Markaryd
nibe.eu

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