

## Split system NIBE SPLIT SVM S332 / AMS 20

The NIBE SVM S332 is an intelligent indoor module designed to cool your home. Together with the NIBE AMS 20, 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 SVM S332 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.





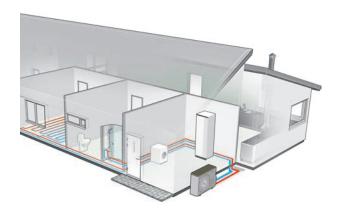




- Combine the indoor module with NIBE AMS 20 for a complete climate system.
- Powerful cooling.
- User-friendly touchscreen, wireless accessories and integrated wireless connectivity with energy-saving smart technology for a high level of comfort.

## This is how NIBE SPLIT works

#### Installation method



NIBE SPLIT is a complete air/water heat pump system with compressor, immersion heater and components for hot water heating.

Energy is recovered from the outdoor air and supplied to NIBE SPLIT, which significantly reduces the energy costs. The system supplies heating, cooling and hot water. Heating up to 70 °C<sup>1</sup> and cooling down to 7 °C are possible.

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

#### **COMPATIBILITY NIBE SPLIT**

| NIBE Indoor unit | NIBE Outdoor unit |  |  |  |
|------------------|-------------------|--|--|--|
| SVM S332-6       | AMS 20-6          |  |  |  |
| SVM S332-10      | AMS 20-10         |  |  |  |

## Design

Control of NIBE SPLIT is designed to ensure easy operation while always enabling the outdoor unit to run as efficiently as possible. NIBE SPLIT automatically determines the best operation mode. The display shows the current temperatures and set values in plain text.

NIBE SPLIT 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 powder-coated, steel plate. The panels are simple to remove, providing easy access when installing and servicing. The insulation in the indoor module 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 NIBE SPLIT can be blocked.

<sup>&</sup>lt;sup>1</sup> Only SVM S332 with shunt valve QN11.

## Principle of operation

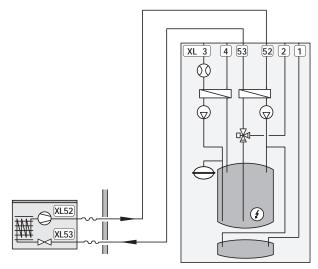
SVM S332 consists of hot water heat exchanger storage tank, hot water expansion vessel, immersion heater, circulation pumps, buffer vessel and control system. SVM S332 connects to the climate system. Hot water is produced via the hot water heat exchanger.

SVM S332 is designed for connection and communication with AMS 20, which together make up a complete heating installation.

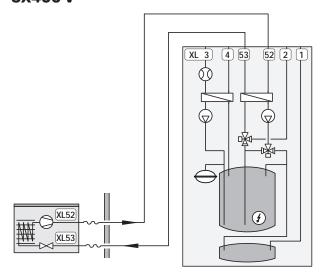
When it is cold outdoors, the outdoor unit works with the indoor module, and if the outdoor air temperature falls below the outdoor unit's working range, all heating is performed by the immersion heater  $^2$ .

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
- XL52 Gas line connection
- XL53 Liquid line connection

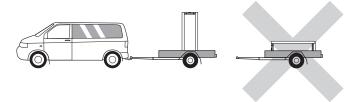
<sup>&</sup>lt;sup>2</sup> Only SVM S332 3x400 V.

## Good to know about NIBE SPLIT

## **Transport indoor unit**

SVM S332 should be transported and stored vertically in a dry place.

However, the SVM S332 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

Room sensor





Current sensor<sup>1</sup> 3 x Filterball valve for the climate system (G1") 1 x

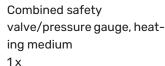




Filterball valve for incoming cold water

1 x

2 x





1 x

Vent hose





0-ring 8 x

Label for external control voltage for the control system 1x

#### **LOCATION**

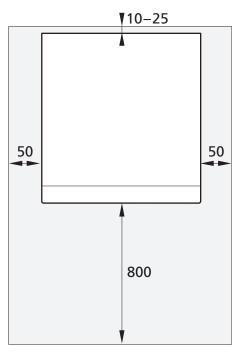
The kit of enclosed items is placed on top of the indoor module.

## Set-up indoor unit

- Position SVM S332 on a solid foundation indoors that withstands water and the weight of the product.
- The space where SVM S332 is located must be frost-free.
- Since water comes from SVM S332, the area where SVM S332 is located must be equipped with floor drainage.
- Install with its back to an outside wall, ideally in a room
  where noise does not matter, in order to eliminate noise
  problems. If this is not possible, avoid placing it against a
  wall behind a bedroom or other room where noise may be
  a problem.
- Wherever the unit is located, walls to sound sensitive rooms should be fitted with sound insulation.
- Route pipes so they are not fixed to an internal wall that backs on to a bedroom or living room.

#### **INSTALLATION AREA**

Leave a free space of 800 mm in front of the product and 400 mm above the product. All service on SVM S332 can be carried out from the front and above.



Leave 10 – 25 mm free space between SVM S332 and the wall behind for routing cables and pipes.

<sup>1</sup> Only SVM S332 3x400 V.

#### REQUIREMENTS FOR INSTALLATION SPACE

For systems with a total refrigerant amount less than 1.84 kg R32, there is no space requirement.

#### **AMS 20-6**

AMS 20-6 is filled with 1.3 kg of refrigerant from the factory and therefore has no specific requirements regarding installation space. When the pipe length is max. 30 m, the refrigerant must be filled with max. 0.3 kg. The total refrigerant amount is always below the limit value of 1.84 kg.

#### **AMS 20-10**

AMS 20-10 is filled with 1.84 kg of refrigerant from the factory. When the pipe length is longer than 15 m, the refrigerant must be filled to max. 0.02 kg/m. This because the total amount of refrigerant then exceeds 1.84 kg, the accessory AGS 10 (automatic gas separator) must be installed and consideration must be given to the size of the installation space with regard to the total amount of refrigerant. A total refrigerant amount exceeding 2.54 kg R32 is not permitted in the system.

## Transport outdoor unit

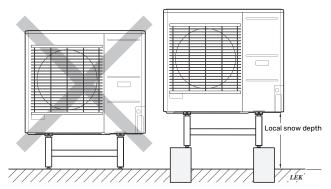
AMS 20 should be transported and stored vertically in a dry place.

Ensure that the outdoor unit cannot fall over during transport.

Check that AMS 20 has not been damaged during transport.

## Set-up outdoor unit

- Place AMS 20 outdoors on a solid level base that can take the weight, preferably a concrete foundation. If concrete slabs are used they must rest on asphalt or shingle.
- The concrete foundation or slabs must be positioned so that the lower edge of the evaporator is at the level of the average local snow depth, however a minimum of 300 mm.
- Do not place AMS 20 directly on the lawn or other non solid surface.

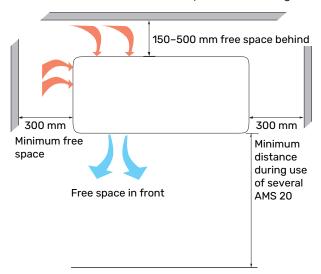


- AMS 20 should not be positioned next to noise sensitive walls, for example, next to a bedroom.
- Also ensure that the placement does not inconvenience the neighbours.
- AMS 20 must not be placed so that recirculation of the outdoor air can occur. This causes lower output and impaired efficiency.

- The evaporator should be sheltered from direct wind, which negatively affects the defrosting function. Place AMS 20 protected from wind against the evaporator.
- If there is a risk of snow sliding off the roof a protective canopy or similar should be installed over the outdoor unit, pipes and wiring.
- Large amounts of condensation water, as well as melt water from defrosting, can be produced. Condensation water must be led off to a drain or equivalent.

#### **INSTALLATION AREA**

The recommended distance between AMS 20 and the house wall is at least 150 mm, but no more than 500 mm in locations that are exposed to the wind. The free space above AMS 20 must be at least 1,000 mm. The free space in front must be at least 1,000 mm for any future servicing.



## Installation

## 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 and must be documented. The above applies to closed heating systems.

If the heat pump is replaced, the installation must be inspected again.

Connection of, and other work on, the refrigerant circuit may only be carried out by a qualified technician with the correct qualifications and requisite certificates.

## 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.

| Outdoor module | Minimum flow during defrost-<br>ing<br>100% circulation pump opera-<br>tion (I/s) |
|----------------|---|
| AMS 20-6       | 0.19  |
| AMS 20-10      | 0.19  |

For more information see nibe.eu.

## Connecting refrigerant pipes

Install refrigerant pipes between the outdoor unit and indoor unit.

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

#### **LIMITATIONS, OUTDOOR UNIT**

|   |   | SVM S332 |    |  |  |
|---|---|----------|----|--|--|
|   |   | 6        | 10 |  |  |
| Max. length, refrigerant pipe, one-way <sup>1</sup>                           | m | 30       | 50 |  |  |
| Max height difference,<br>when SVM S332 is placed<br>higher than outdoor unit | m | 20       | 15 |  |  |
| Max height difference,<br>when SVM S332 is placed<br>lower than outdoor unit  | m | 20       | 30 |  |  |

<sup>1</sup> If the length of the refrigerant pipes exceeds 15 metres, extra refrigerant must be added at 0.02 kg/m.

## Equipment, indoor module

SVM S332 is equipped with an expansion vessel, draining valve, buffer vessel and safety valve for the climate system.

## Pipe installation, indoor module

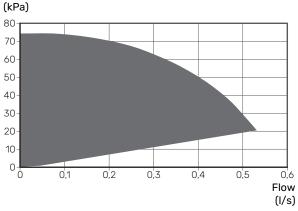
Pipe installation must be carried out in accordance with current norms and directives.

SVM S332 is easy to install. All pipe connections are easily accessible. This is especially useful for the replacement market.

#### **AVAILABLE EXTERNAL PRESSURE, HEATING SYSTEM**

#### Capacity, heating medium pump

Available pressure



#### **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.

## Pipe installation, outdoor unit

#### **CONDENSATION**

Condensation runs out on to the ground below AMS 20. To avoid damage to the house and outdoor unit, the condensation must be collected and drained away.

Pipe with heating cable for draining the condensation water trough is not included.

To ensure this function, the accessory KVR should be used.

#### **Drainage of condensation**

If none of the following recommended alternatives is used, good drainage of condensation must be provided.

#### Stone caisson

If the house has a cellar, the stone caisson must be positioned to prevent the condensation water from affecting the house. Otherwise, the stone caisson can be positioned directly under the outdoor unit.

#### **Gutter drainage**

The installation length can be adjusted by the size of the water seal.

Route the pipe sloping down from the outdoor unit. The condensation water pipe must have a water seal to prevent air circulation in the pipe. The installation length can be adjusted by the size of the water seal.

#### Installation alternative

SVM S332 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 SVM S332.

#### **HOT WATER CIRCULATION**

A circulation pump can be controlled by SVM S332 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 NIBE SPLIT**



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

NIBE SPLIT must be installed via isolator switches, one for the outdoor unit and one for the indoor unit. The cable area must 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**

SVM S332 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, SVM S332 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 SVM S332 in holiday mode, which means that the lowest possible temperature is achieved without the risk of freezing.

## Additional heat only



SVM S332 can be used with additional heat only (electric boiler) to produce heating and hot water, for example before the outdoor unit is installed.<sup>3</sup>

#### 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 SVM S332:

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

We recommend our mobile apps for myUplink.

<sup>&</sup>lt;sup>3</sup> Only SVM S332 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 ex-<br>tended his-<br>tory | Premium<br>change set-<br>tings |
|------------------|-------|------------------------------------|---------------------------------|
| Viewer           | X     | X                                  | Х                               |
| Alarm            | Χ     | 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.

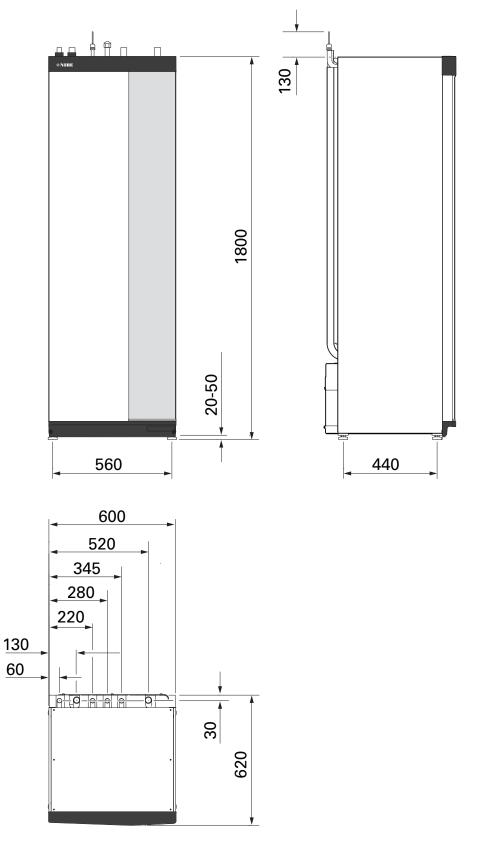
## The display

SVM S332 is controlled using a clear and easy to use display.

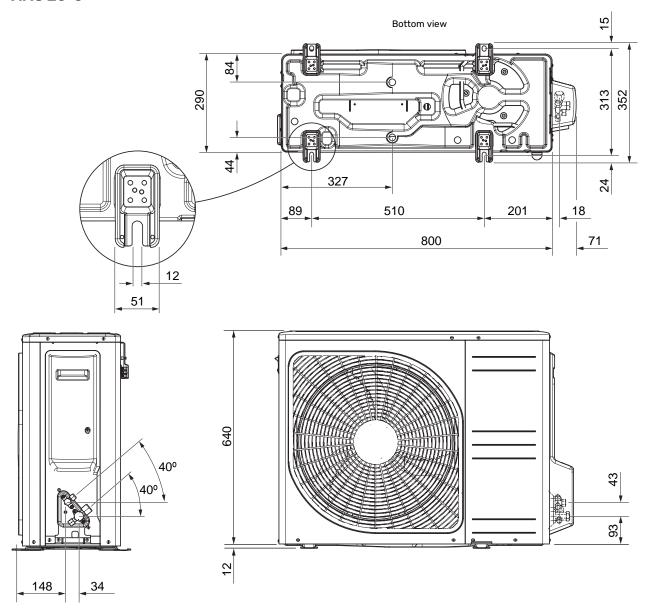
Instructions, settings and operational information are shown on the display. You can easily navigate between the different menus and options to set the comfort or obtain the information you require.

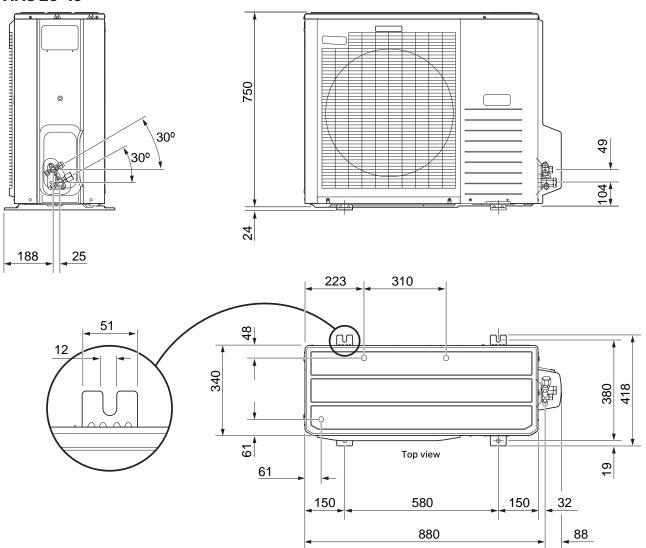
## **Technical data**

## Dimensions, indoor unit

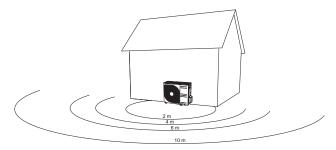


## Dimensions, outdoor unit





## **Sound levels**



AMS 20 is usually placed next to a house wall, which gives a directed sound distribution that should be considered. Accordingly, you should always attempt to find a placement on the side that faces the least sound sensitive neighbouring area.

The sound pressure levels are further affected by walls, bricks, differences in ground level, etc and should therefore only be seen as guide values.

|           |  | Sound<br>power <sup>1</sup> | Sound pressure at distance (m) <sup>2</sup> |      |      |      |      |      |      |      |      |      |
|-----------|--|-----------------------------|---|------|------|------|------|------|------|------|------|------|
|           |  |                             | 1   | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |
| AMS 20-6  | Nominal sound value                    | 54                          | 49.0  | 43.0 | 39.5 | 37.0 | 35.0 | 33.5 | 32.1 | 31.0 | 29.9 | 29.0 |
|           | Max. sound value                       | 62                          | 57.0  | 51.0 | 47.5 | 45.0 | 43.0 | 41.5 | 40.1 | 39.0 | 37.9 | 37.0 |
|           | Max. sound value, silent mode          | 54                          | 48.0  | 42.0 | 38.5 | 36.0 | 34.0 | 32.5 | 31.1 | 30.0 | 28.9 | 28.0 |
| AMS 20-10 | Nominal sound value                    | 54                          | 49.0  | 43.0 | 39.5 | 37.0 | 35.0 | 33.5 | 32.1 | 31.0 | 29.9 | 29.0 |
|           | Max. sound value                       | 65                          | 60.0  | 54.0 | 50.5 | 48.0 | 46.0 | 44.5 | 43.1 | 42.0 | 40.9 | 40.0 |
|           | Max. sound value, silent mode 60<br>Hz | 54                          | 49.0  | 43.0 | 39.5 | 37.0 | 35.0 | 33.5 | 32.1 | 31.0 | 29.9 | 29.0 |

 $<sup>^{1}</sup>$  Sound power level,  $L_{W}(A)$ , according to EN12102

## **Installation requirements**

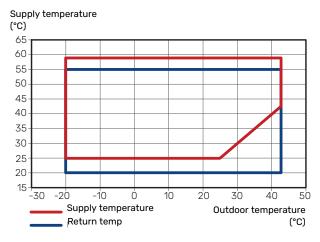
| SVM \$332  | SVM S332-6               | SVM S332-10 |  |
|--|--------------------------|-------------|--|
| Compatible outdoor module  | AMS 20-6                 | AMS 20-10   |  |
| Requirements   |                          |             |  |
| Max system pressure heating medium   | 0.3                      | (3)         |  |
| Highest recommended supply/return temperature at dimensioned outdoor temperature | 55 /                     | 45°C        |  |
| Max flow line temperature with compressor  | 58 °C                    | 60 °C       |  |
| Min supply temperature cooling   | remperature cooling 7 °C |             |  |
| Max supply temp. cooling   | 25 °C                    |             |  |
| Min flow, climate system, 100 % circulation pump operation (defrosting flow)     | 0.19 l/s                 |             |  |
| Recommendations  |                          |             |  |
| Min volume, climate system during heating, cooling <sup>1</sup>                  | 20 I                     | 50 I        |  |
| Min. volume, climate system during underfloor cooling <sup>1</sup>               | 50 I                     | 801         |  |
| Max flow, climate system   | 0.29 l/s                 | 0.38 l/s    |  |
| Min flow, heating system   | 0.09 l/s                 | 0.12 l/s    |  |
| Min flow, cooling system   | 0.11 l/s                 | 0.16 l/s    |  |

<sup>1</sup> Refers to circulating volume.

<sup>&</sup>lt;sup>2</sup> Sound pressure calculated according to directivity factor Q=4

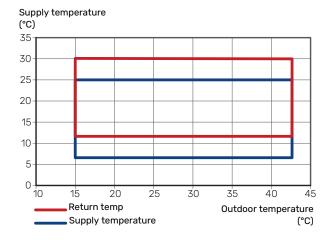
## **Technical specifications**

#### **WORKING RANGE, HEATING**



The supply temperature is permitted to be lower for a short period, e.g. at start-up.

#### **WORKING RANGE, COOLING**



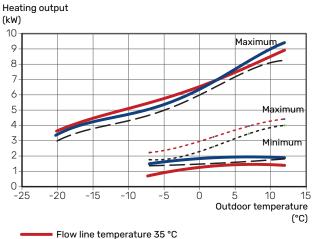
#### **CAPACITY AND COP**

Power and COP at different supply temperatures during continuous operation (excluding defrosting).

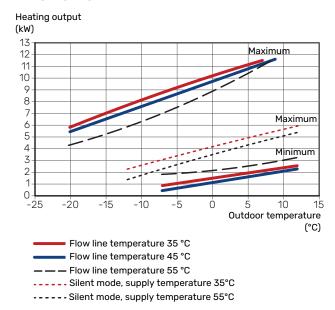
#### Power during heating operation

Maximum and minimum capacity during continuous opera-

#### **AMS 20-6**



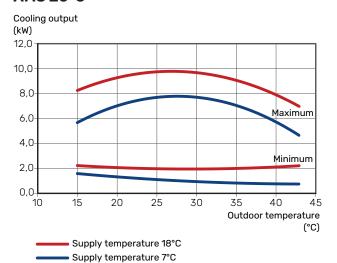
 Flow line temperature 45 °C - - Flow line temperature 55 °C ---- Silent mode, supply temperature 35°C ---- Silent mode, supply temperature 55°C



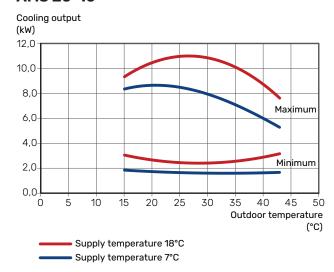
#### Power during cooling operation

Maximum and minimum capacity during continuous operation.

#### **AMS 20-6**

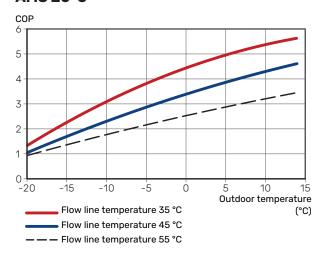


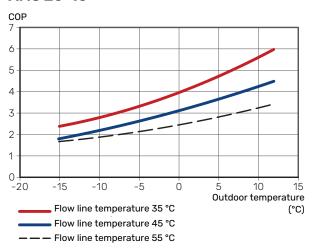
#### **AMS 20-10**



## **COP** during heating operation

#### **AMS 20-6**





| Indoor unit SVM S332                                |                 | 6                     | 10            | 6                | 10               |  |  |
|---|-----------------|-----------------------|---------------|------------------|------------------|--|--|
| Туре  |                 | 1x 230 V              | 1 x 230 V     | 3 x 400 V        | 3 x 400 V        |  |  |
| Electrical data                                     |                 |                       |               |                  |                  |  |  |
| Max power, immersion heater (factory setting)       | kW              | 7 (7)                 | 7 (7)         | 9 (9)            | 9 (9)            |  |  |
| Rated voltage                                       |                 | 230 V ~ 50 Hz         | 230 V ~ 50 Hz | 400 V 3N ~ 50 Hz | 400 V 3N ~ 50 Hz |  |  |
| Fuse  | Α               | 32                    | 32            | 16               | 16               |  |  |
| Enclosure class                                     |                 | IPX1B                 |               |                  |                  |  |  |
| Equipment Compliant with IEC 61000-3-12             |                 |                       |               |                  |                  |  |  |
| For Connection Design Purposes, Complian            | t with IEC 6100 | 00-3-3 technical regu | irements      |                  |                  |  |  |
| WLAN  |                 | · ·                   |               |                  |                  |  |  |
| 2.412 - 2.484 GHz max power                         | dbm             |                       |               | <br> 1           |                  |  |  |
| Wireless units                                      |                 |                       |               |                  |                  |  |  |
| 2.405 - 2.480 GHz max power                         | dbm             |                       |               | 4                |                  |  |  |
| Heating medium circuit                              |                 |                       |               |                  |                  |  |  |
| Max. system pressure, cooling system                | MPa (bar)       |                       | 4 (           | 40)              |                  |  |  |
| Max system pressure heating medium                  | MPa (bar)       |                       |               | 5 (3)            |                  |  |  |
| Min system pressure heating medium                  | MPa (bar)       |                       |               | (0.5)            |                  |  |  |
| Cut-off pressure, heating medium                    | MPa (bar)       |                       |               | (2.5)            |                  |  |  |
| Max. heating medium temperature                     | °C              |                       |               | 0                |                  |  |  |
| Pipe connections                                    |                 |                       |               |                  |                  |  |  |
| Heating medium ext 0                                | mm              |                       | 2             | 22               |                  |  |  |
| Hot water connection ext ∂                          | mm              |                       |               | 22               |                  |  |  |
| Cold water connection ext ∂                         | mm              |                       |               | 22               |                  |  |  |
| Connection, gas pipe (Cu) 0                         | mm              | 12.7 (1/2")           | 15.9 (5/8")   | 12.7 (1/2")      | 15.9 (5/8")      |  |  |
| Connection, liquid pipe (Cu) $\theta$ <sup>1</sup>  | mm              | 12.7 (1,2 )           |               | (1/4")           | 10.7 (0,0)       |  |  |
| Hot water and heating section                       | 111111          |                       | 0.00          | (1/ + )          |                  |  |  |
| Volume storage tank hot water                       | litre           |                       | 1/2           | 40               |                  |  |  |
| Volume, total indoor                                | litre           |                       |               | 92               |                  |  |  |
| Volume buffer vessel                                | litre           |                       |               | 52               |                  |  |  |
| Max. permitted pressure in hot water heat           | MPa (bar)       |                       |               | (10)             |                  |  |  |
| exchanger   |                 |                       |               |                  |                  |  |  |
| 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)<br>2         | litre           |                       | 18            | 35               |                  |  |  |
| Dimensions and weight                               |                 |                       |               |                  |                  |  |  |
| Width   | mm              |                       | 60            | 00               |                  |  |  |
| Depth   | mm              | 620                   |               |                  |                  |  |  |
| Height <sup>3</sup>                                 | mm              | 1,800                 |               |                  |                  |  |  |
| Required ceiling height <sup>4</sup>                | mm              | 2,010                 |               |                  |                  |  |  |
| Weight  | kg              | 125 127 128 130       |               |                  |                  |  |  |
| Corrosion protection in the hot water heat          |                 | Stainless             |               |                  |                  |  |  |
| exchanger   |                 |                       |               |                  |                  |  |  |
| Part no.  |                 |                       |               |                  |                  |  |  |
| Part no.  |                 | 069 247               | 069 248       | 069 255          | 069 256          |  |  |

 $<sup>^{1}\,</sup>$  If the length of the refrigerant pipes exceeds 15 metres, extra refrigerant must be added at 0.02 kg/m.

<sup>2</sup> This applies at a tap flow of 10 l/min.

<sup>&</sup>lt;sup>3</sup> Enclosed filterball valve (QZ2.1) is 120 mm high.

<sup>4</sup> With feet removed, the height is approx. 1,940 mm.

| Outdoor module AMS 20  |                       | 6                         | 10                         |  |  |  |
|--|-----------------------|---------------------------|----------------------------|--|--|--|
| Output data according to EN 14 511, partial load <sup>1</sup>                      |                       |                           |                            |  |  |  |
| Heating  | -7 / 35 °C            | 5.55 / 2.05 / 2.71        | 7.18 / 2.93 / 2.45         |  |  |  |
| Capacity / power input / COP (kW/kW/-) at nominal flow                             | 2/35 °C               | 2.31 / 0.56 / 4.13        | 3.46 / 0.83 / 4.17         |  |  |  |
| Outdoor temp. / Supply temp.   | 2 / 45 °C             | 2.02 / 0.67 / 3.01        | 3.24 / 1.12 / 3.24         |  |  |  |
|  | 7/35 °C               | 2.64 / 0.49 / 5.42        | 4.00 / 0.75 / 5.33         |  |  |  |
|  | 7 / 45 °C             | 2.43 / 0.65 / 3.74        | 5.00 / 1.28 / 3.91         |  |  |  |
| Cooling  | 35 / 7 °C             | 5.32 / 1.94 / 2.74        | 7.07 / 2.40 / 2.95         |  |  |  |
| Capacity / power input / EER (kW/kW/-) at maximum flow                             | 35 / 18 °C            | 7.55 / 2.11 / 3.58        | 10.79 / 3.00 / 3.60        |  |  |  |
| Outdoor temp: / Supply temp.   |                       |                           |                            |  |  |  |
| SCOP according to EN 14 825  |                       |                           |                            |  |  |  |
| P <sub>designc</sub> /SEER 7 / 12 / 35 °C  | kW/-                  | 5.3 / 4.12                | 7.1 / 4.03                 |  |  |  |
| P <sub>designc</sub> /SEER 18 / 23 / 35 °C   | kW/-                  | 7.6 / 6.08                | 10.8 / 5.17                |  |  |  |
| Nominal heat output (P <sub>designh</sub> ) average climate 35 °C / 55 °C (Europe) | kW                    | 5.20 / 5.60               | 6.3 / 6.5                  |  |  |  |
| Nominal heat output (P <sub>designh</sub> ) cold climate 35 °C / 55 °C             | kW                    | 5.80 / 5.70               | 6.5 / 6.2                  |  |  |  |
| Nominal heat output (P <sub>designh</sub> ) warm climate 35 °C / 55 °C             | kW                    | 5.57 / 5.48               | 6.9 / 6.6                  |  |  |  |
| SCOP average climate, 35 °C / 55 °C (Europe)                                       |                       | 5.08 / 3.58               | 4.6 / 3.4                  |  |  |  |
| SCOP cold climate, 35 °C / 55 °C   |                       | 4.10 / 3.05               | 3.9 / 2.9                  |  |  |  |
| SCOP warm climate, 35 °C / 55 °C   |                       | 6.76 / 4.55               | 6.4 / 4.4                  |  |  |  |
| Energy rating, average climate <sup>2</sup>  | 1                     |                           |                            |  |  |  |
| The product's room heating efficiency class 35 C / 55 C <sup>3</sup>               |                       | A+++ / A++                |                            |  |  |  |
| The system's room heating efficiency class 35 C / 55 C <sup>4</sup>                |                       | A+++ / A++                |                            |  |  |  |
| Electrical data  |                       | ,                         |                            |  |  |  |
| Rated voltage  |                       | 230 V                     | ~ 50 Hz                    |  |  |  |
| Max. power, fan  | W                     | 50                        | 86                         |  |  |  |
| Drain pan heating (integrated)   | W                     | 110                       | 100                        |  |  |  |
| Fuse   | A <sub>rms</sub>      | _                         | 16                         |  |  |  |
| Starting current   |                       | 5                         |                            |  |  |  |
| Enclosure class  | A <sub>rms</sub>      | IP24                      |                            |  |  |  |
| Refrigerant circuit  |                       | IF                        | 24                         |  |  |  |
| Type of refrigerant  |                       | D                         | 32                         |  |  |  |
| GWP refrigerant  |                       |                           | 75                         |  |  |  |
| Volume   | kg                    | 1.3                       | 1.84                       |  |  |  |
| Type of compressor   | Ng                    |                           | Rotary                     |  |  |  |
| CO <sub>2</sub> -equivalent (The cooling circuit is hermetically sealed.)          | t                     | 0.88                      | 1.24                       |  |  |  |
| Max. length, refrigerant pipe, one way   | m                     | 30                        | 50                         |  |  |  |
| Max height difference, when AMS 20 is placed higher than SVM S332                  |                       | 20                        | 30                         |  |  |  |
|  | m                     | 20                        | 15                         |  |  |  |
| Max height difference, when AMS 20 is placed lower than SVM S332                   | m                     | 12.7 (1/2") / 6.35 (1/4") | 15.88 (5/8") / 6.35 (1/4") |  |  |  |
| Dimensions, refrigerant pipes, Gas pipe/Liquid pipe (Cu) Ø 5  Airflow              | mm                    | 12.7 (1/2 ) / 0.35 (1/4 ) | 15.00 (5/0 ) / 0.55 (1/4 ) |  |  |  |
| Max airflow  | m <sup>3</sup> /h     | 2,530                     | 3,000                      |  |  |  |
|  | 111.711               | 2,330                     | 3,000                      |  |  |  |
| Working area Min./max. air temperature, heating                                    | °C                    | 20                        | / 43                       |  |  |  |
| Min./max. air temperature, neating  Min./max. air temperature, cooling             | °C                    |                           | / 43<br>/ 43               |  |  |  |
|  | L C                   | 15 /                      | 43                         |  |  |  |
| Pipe connections   |                       | Diabt b                   | and side                   |  |  |  |
| Pipe connection option   | Right-hand side Flare |                           |                            |  |  |  |
| Pipe connections  Dimensions and weight  |                       | Fi                        | ع اد<br>                   |  |  |  |
| Dimensions and weight  | mm                    | 900                       | 990 (167 yahra protostica) |  |  |  |
| Width  | mm                    | 800                       | 880 (+67 valve protection) |  |  |  |
| Depth Light with stand   | mm                    | 290                       | 340 (+ 110 with foot rail) |  |  |  |
| Height with stand  | mm                    | 640                       | 750                        |  |  |  |
| Weight   | kg                    | 46                        | 60                         |  |  |  |
| Miscellaneous  |                       | 0/4075                    | 0/4.740                    |  |  |  |
| Part no.   | <u> </u>              | 064 235                   | 064 319                    |  |  |  |

- 1 Power statements including defrosting according to EN 14511 at heating medium supply corresponding to DT=5 K at 7 / 45.
- 2 Reported efficiency for the system also takes the temperature regulator into account. If the system is supplemented with an external auxiliary boiler or solar heating, the total efficiency of the system must be recalculated.
- $^{\rm 3}$   $\,$  Scale for the product's room heating efficiency class A++ to G.
- $^{\rm 4}~$  Scale for the system's room heating efficiency class A+++ to G.
- $^{5}$  If the length of the refrigerant pipes exceeds 15 metres, extra refrigerant must be added at 0.02 kg/m.

#### **Accessories**

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

Not all accessories are available on all markets.

#### **Automatic gas separator AGS 10**

This automatic gas separator needs to be installed when the pipe length between the outdoor unit NIBE AMS 20-10 and indoor unit SVM S332 is longer than 15 metres. In cases where additional filling with refrigerant is reauired.

Part no. 067 829



#### Energy measurement kit EMK 300

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

Part no. 067 314



#### **External electric additional heat ELK**

ELK 8

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

ELK 5

Electric heater 5 kW, 1 x 230 V Part no. 069 025 Electric heater 8 kW, 1 x 230 V Part no. 069 026

**ELK 15** 

15 kW, 3 x 400 V Part no. 069 022 26 kW, 3 x 400 V Part no. 067 074

**ELK 42** 42 kW, 3 x 400 V

Part no. 067 075

**ELK 213** 

**ELK 26** 

7-13 kW, 3 x 400 V Part no. 069 500

#### Extra shunt group ECS

This accessory is used when SVM S332 is installed in houses with two or more different heating systems that require different supply temperatures.



ECS 40 (Max 80 m<sup>2</sup>)

Part no 067 287

ECS 41 (approx. 80-250 m<sup>2</sup>)

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



#### **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<sup>1</sup> ERS 20-250<sup>1</sup> Part no. 066 068

ERS 30-400<sup>1</sup>

Part no. 066 163

ERS \$40-350

Part no. 066 165

Part no. 066 166

A preheater may be required.

#### **Base extension EF 45**

This accessory can be used to create a larger area under SVM S332.

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 is used to enable communication and control between inverters for solar cells from NIBE and SVM S332

Part no. 057 215



#### **Condensation water pipe KVR**

Condensation water pipe, different lengths.

**KVR 12-30** 

**KVR 12-10** 

1 metres

3 metres Part no. 067 932 Part no. 067 933

**KVR 12-60** 

6 metres Part no. 067 934



#### Refrigerant pipe kit

Refrigerant pipe, different lengths.

**RPK 10-120** 

**RPK 12-120** 1/4" / 1/2", 12 metres, 1/4" / 5/8", 12 metres,

insulated, insulated, for SVM S332-6 for SVM S332-10

Part no. 067 889 Part no. 067 830



#### **Room unit RMU S40**

The room unit is an accessory with a built-in room sensor, which allows the control and monitoring of SVM S332 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, stepcontrolled additional heat or external circulation pump.



Part no. 067 060

#### **Wireless accessories**

It is possible to connect wireless accessories to SVM S332, e.g. room, humidity,  $\mathrm{CO}_2$ 





#### **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 UKV 100** Part no. 088 470 Part no. 088 207

**UKV 200 UKV 300** Part no. 080 300 Part no. 080 301

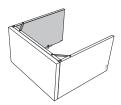
**UKV 200 UKV 300** Cooling Cooling Part no. 080 321 Part no. 080 330

#### Top cabinet TOC 30

Top cabinet, which conceals any pipes/ventilation ducts.

Height 345 Height 245 mm mm

Part no. 067 517 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.

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