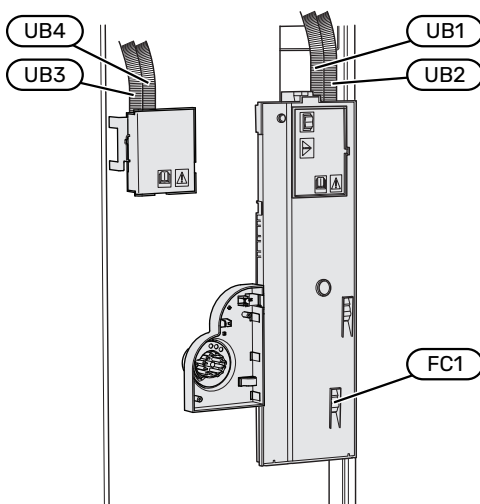


Electrical connections

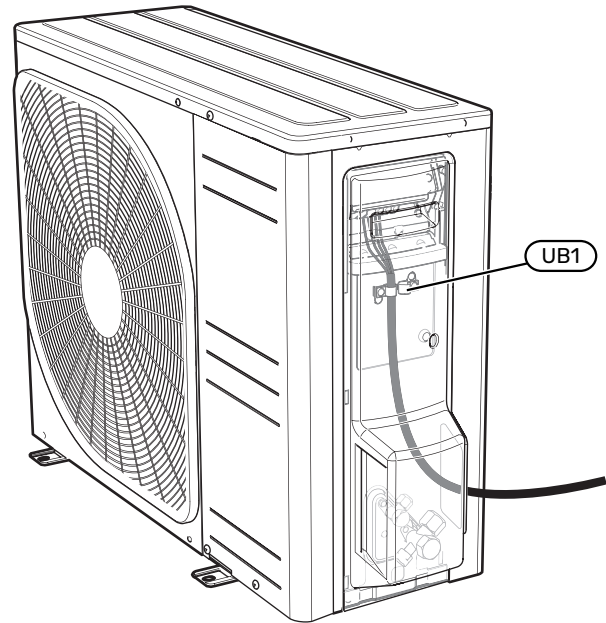
General

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

- Electrical installation and wiring must be carried out in accordance with national provisions.
- Prior to insulation testing the house wiring, disconnect the air/water heat pump installation.
- If the property has residual current devices (RCDs) NIBE SPLIT should be equipped with two separate RCDs, one for the outdoor unit and one for the indoor unit.
- 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.
- If a miniature circuit breaker is used, this must have at least triggering characteristic "C". See section "Technical specifications" for fuse size.
- Use a screened cable for communication with the outdoor unit.
- To prevent interference, communication cables to external connections must not be laid in the vicinity of high voltage cables.
- The minimum area of communication and sensor cables to external connections must be 0.5 mm² up to 50 m, for example EKKX, LiYY or equivalent.
- For an electrical wiring diagram for NIBE SPLIT, see the "Technical specifications" section.
- When routing a cable into SVM S332, the cable grommets (UB1-UB4) must be used.



When routing a cable into AMS 20, the cable holder (UB1) must be used.



CAUTION!

Electrical installation and any servicing must be carried out under the supervision of a qualified electrician. Turn off the power with the circuit breaker before servicing.



CAUTION!

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



CAUTION!

To prevent damage to the installation's electronics, check the connections, main voltage and phase voltage before NIBE SPLIT is started.



CAUTION!

Do not start the system before filling up with water. Components in the system could be damaged.

MINIATURE CIRCUIT-BREAKER

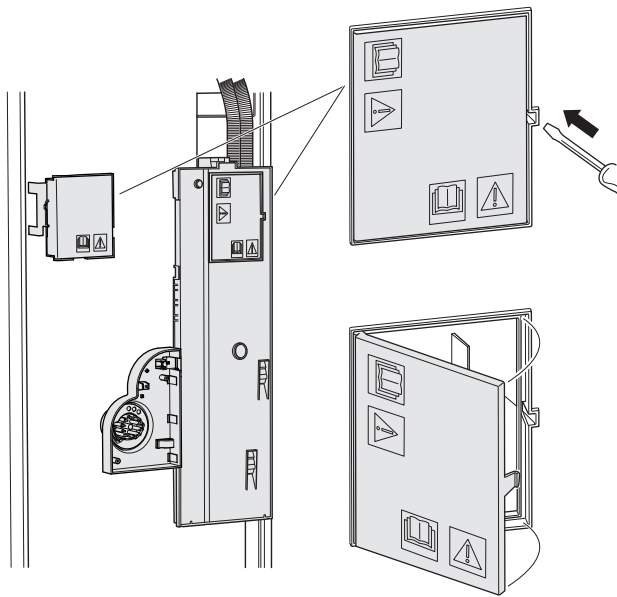
The operating circuit in SVM S332 and some of its internal components are fused internally by a miniature circuit-breaker (FC1).

Only SVM S332 1x230 V.

ACCESSIBILITY, ELECTRICAL CONNECTION

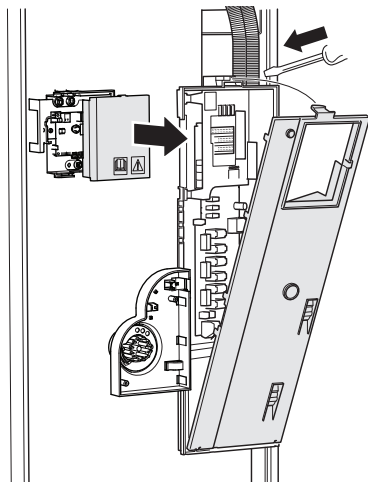
Removing the cover

The hatch is opened using a screwdriver.



Removing the covers

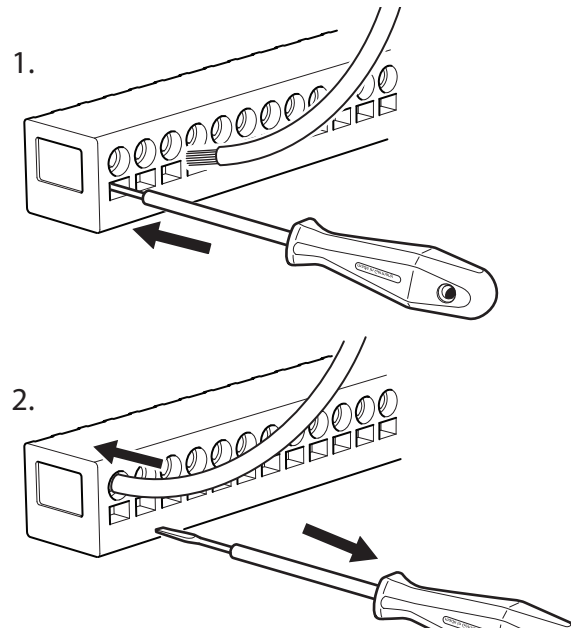
The cover is opened using a screwdriver.



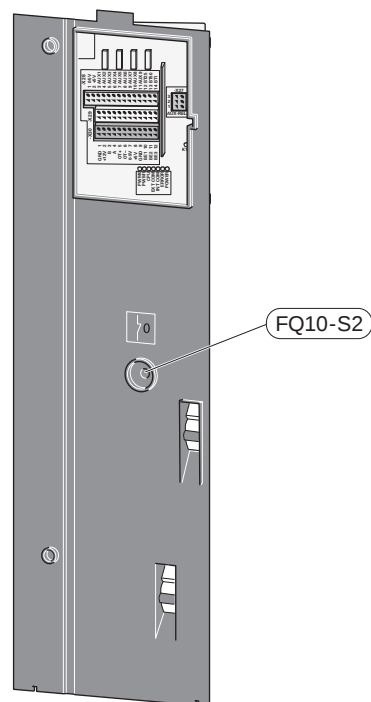
CABLE LOCK

Use a suitable tool to release/lock cables in the indoor module terminal blocks.

Terminal block



TEMPERATURE LIMITER



The temperature limiter (FQ10) cuts the voltage to the electric additional heat if the temperature rises above 89 °C and it is reset manually.

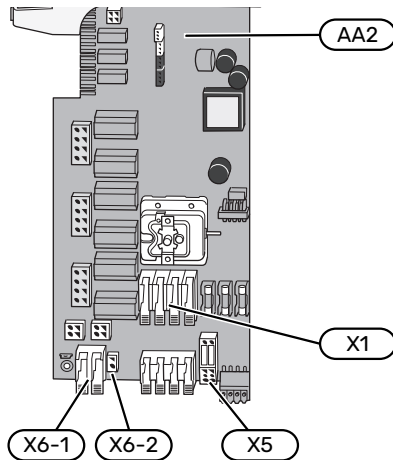
Resetting

The temperature limiter (FQ10) is accessed behind the front cover. Reset the temperature limiter by pressing its button (FQ10-S2).

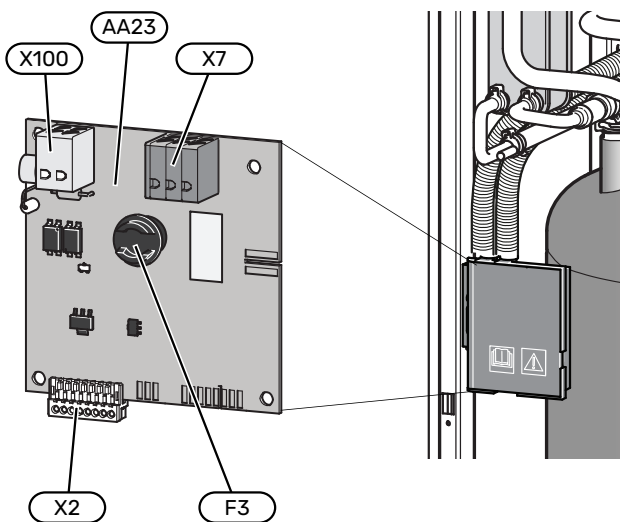
Connections

TERMINAL BLOCKS SVM S332

The following terminal blocks are used on the base board (AA2).

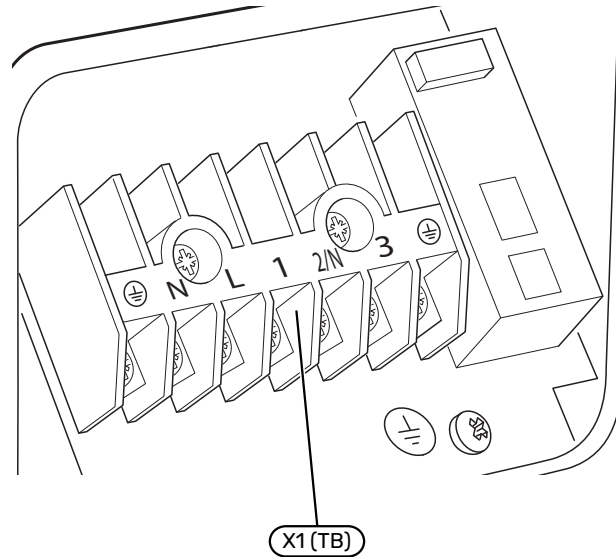


The following terminal blocks are used on the communication board (AA23).



TERMINAL BLOCK AMS 20

The following terminal block is used as a terminal block for power supply and communication X1 (TB).

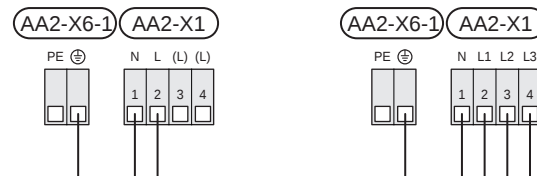


POWER CONNECTION SVM S332

Supply voltage

Enclosed cable for incoming supply electricity is connected to terminal block X1 and X6-1 on the PCB (AA2).

Connection 1x230 V Connection 3x400 V



External control voltage for the control system

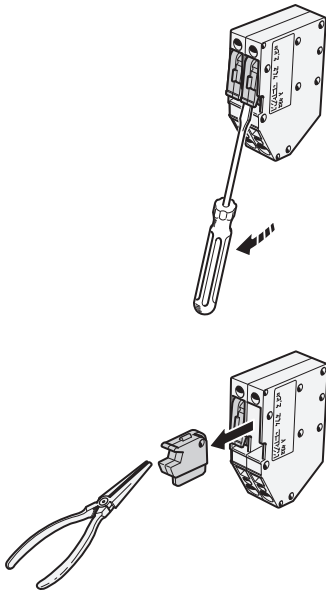
If the control system will be powered separately from other components in the indoor module (e.g. for tariff control), a separate operating cable must be connected.



CAUTION!

During service, all supply circuits must be disconnected.

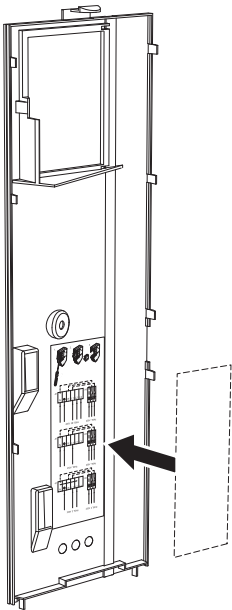
1. Remove the bridges from terminal block AA2-X5.



2. Connect control voltage (230 V ~ 50Hz) to AA2-X5:N, AA2-X5:L and AA2-X6-2 (PE).

Enclosed label

The enclosed label is placed on the electrical connection's cover.



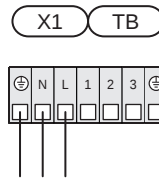
Tariff control

If the voltage to the immersion heater is lost for some time, "Tariff blocking" must be selected at the same time via the selectable inputs, see section "Selectable inputs".

POWER CONNECTION AMS 20

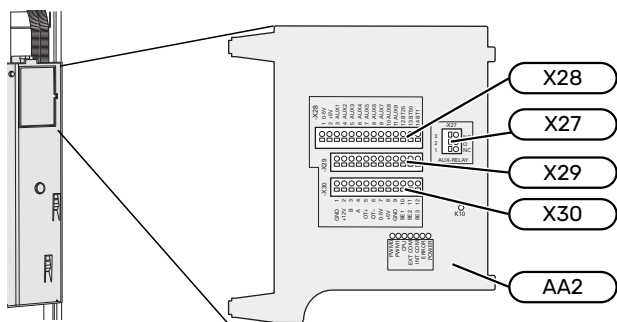
Connect the cable for the external supply to terminal block X1 (TB).

Connection 1 x 230 V



EXTERNAL CONNECTIONS

Connect external connections on terminal blocks X28, X29 and X30 on the base board (AA2).



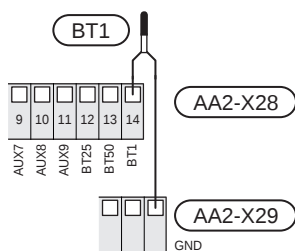
Sensors

Outside sensor

The outdoor temperature sensor (BT1) is placed in the shade on a wall facing north or north-west, so it is unaffected, for example, by the morning sun.

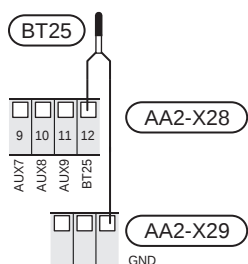
Connect the outdoor temperature sensor to terminal block AA2-X28:14 and AA2-X29:GND.

If a conduit is used it must be sealed to prevent condensation in the sensor capsule.



External supply temperature sensor

If an external supply temperature sensor (BT25) needs to be used, connect it to terminal block AA2-X28:12 and to terminal block AA2-X29:GND.



Room sensor

SVM S332 is supplied with an enclosed room sensor (BT50) that makes it possible to display and control the room temperature in the display on SVM S332.

SVM S332 operates without the room sensor, but if you want to read the property's indoor temperature from the display on SVM S332, the room temperature sensor must be fitted.

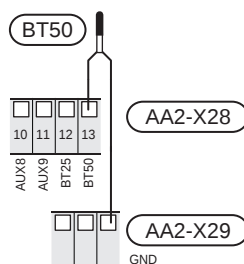
The room temperature sensor is installed in a neutral location where the set temperature is required. A suitable location might be, for example, on a free inner wall in a hall approx. 1.5 m above the floor. It is important that the room temper-

ature sensor is not prevented from measuring the correct room temperature, for example by being located in a recess, between shelves, behind a curtain, above or close to a heat source, in a draught from an external door or in direct sunlight. Closed radiator thermostats can also cause problems.

Connect the room temperature sensor to terminal blocks X28:13 and AA2-X29:GND.

If a room sensor is to be used to change the room temperature in °C and/or to fine-tune the room temperature, the sensor must be activated in menu 1.3 - "Room sensor settings".

If a room sensor is used in a room with underfloor heating, it should only have an indicative function, not control of the room temperature.



NOTE!

Changes of temperature in the property take a long time. For example, short periods of time combined with under floor heating will not give a noticeable difference in room temperature.

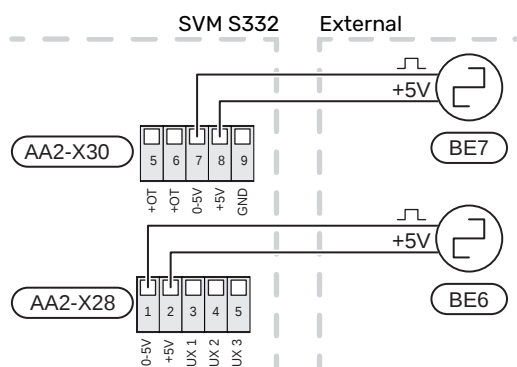
Pulse energy meter

Up to two electricity meters or energy meters for heating (BE6, BE7) can be connected to SVM S332 via terminal blocks AA2-X28:1-2 and AA2-X30:7-8.



NOTE!

The EMK accessory is connected to the same terminal blocks as electricity meters/energy meters.



Activate the meter(s) in menu 7.2 - "Accessory settings" and then set the desired value ("Energy per pulse" or "Pulses per kWh") in menu 7.2.19 - "Pulse energy meter".

Load monitor

Integrated load monitor

SVM S332 is equipped with a simple form of integrated load monitor, which limits the power steps for the electric additional heat by calculating whether future power steps can be connected to the relevant phase without exceeding the current for the specified main fuse.

If the current would exceed the specified main fuse, the power step is not permitted. The size of the property's main fuse is specified in menu 7.1.9 - "Load monitor".

Load monitor with current sensor

When many power-consuming products are connected in the property at the same time as the compressor and/or the electric additional heat is operating, there is a risk of the property's main fuses tripping.

SVM S332 is equipped with a load monitor that, with the help of a current sensor, controls the power steps for the electric additional heat by redistributing the power between the different phases or, alternatively, disengages the electric additional heat step-by-step if there is an overload in a phase.

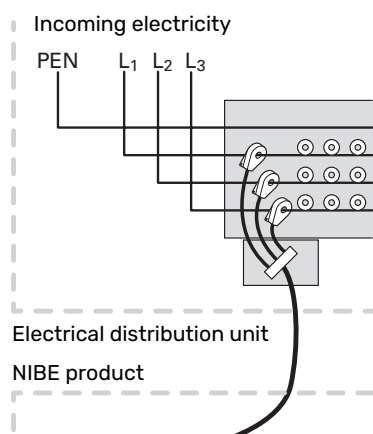
If the overload remains despite the electric additional heat being disengaged, the compressor is limited.

Reconnection occurs when the other current consumption is reduced.

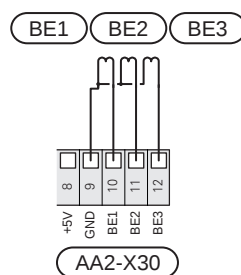
The building's phases can have different loads. If the compressor has been connected to a heavily loaded phase, there is a risk that the compressor output will be restricted and the electric additional heat will operate longer than expected. This means that the savings will not be as expected.

Connection and activation of current sensors

1. Install a current sensor on each incoming phase conductor into the electrical distribution unit. This is best done in the electrical distribution unit.
2. Connect the current sensors to a multi-core cable in an enclosure directly adjacent to the electrical distribution unit. The multi-core cable between the enclosure and SVM S332 must have a cable area of at least 0.5 mm².



3. Connect the cable to terminal block AA2-X30:9-12, where X30:9 is the common terminal block for the three current sensors.



4. Specify the size of the property's main fuse in menu 7.1.9 - "Load monitor".
5. Activate phase detection in menu 7.1.9 - "Load monitor". Read more about phase detection in section "Menu 7.1.9 - Load monitor".

External heating cable KVR 12 (Accessory)

SVM S332 is equipped with a terminal block for external heating cable (EB14, not enclosed). The connection is fused for a 3-metre cable length with 250 mA (F3 on communication board AA23). If a different cable length is to be used, the fuse must be replaced in accordance with table.



CAUTION!

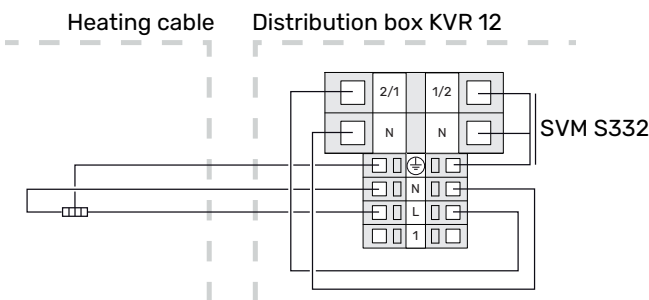
Self regulating heating cables must not be connected.

Length (m)	Total power (W)	Fuse (F3)	NIBE Part no. Fuse
1	15	T100mA/250V	718 085**
3	45	T250mA/250V	518 900*
6	90	T500mA/250V	718 086**

*Fitted at the factory.

**Enclosed with the accessory KVR 12.

Connect the heating cable to terminal block PE, N and L in the enclosed electrical distribution box. Connect supply voltage from SVM S332 AA23-X7 to terminal block 1/2, N and PE. See following image:



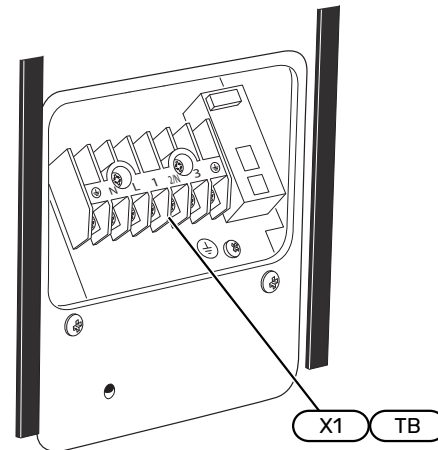
CAUTION!

The pipe must be able to withstand the heat from the heating cable.

To guarantee the function, the accessory KVR 12 should be used. See instructions in the Installer Manual for KVR 12.

COMMUNICATION

Communication connection AMS 20

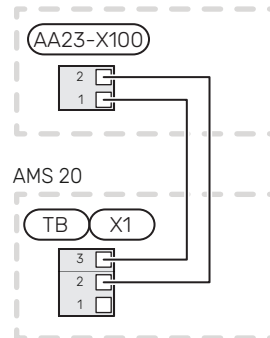


Communication is connected on terminal block X1(TB).

Air/water heat pump

The outdoor unit is connected to terminal block AA23-X100:1-2.

SVM S332



Connecting accessories

Instructions for connecting accessories are provided in the manual accompanying the accessory. See section "Accessories" for a list of the accessories that can be used with SVM S332. Connection for communication with the most common accessories is shown here.

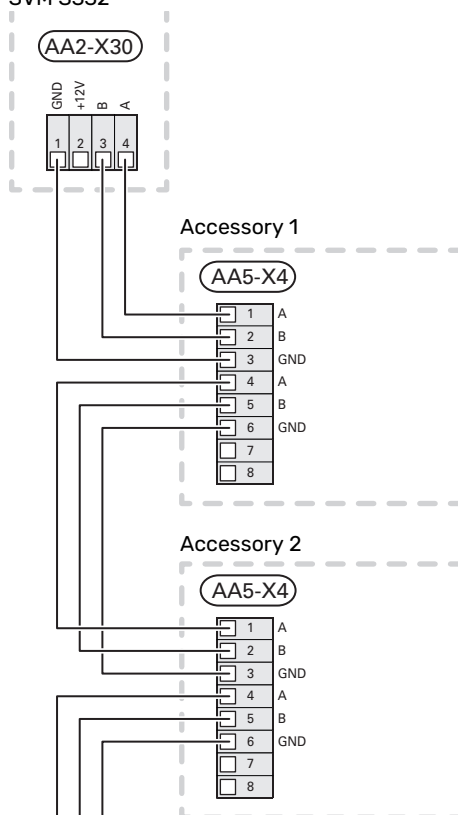
Accessories with accessory board (AA5)

Accessories with accessory board (AA5) connect to terminal block AA2-X30:1, 3, 4 in SVM S332.

If several accessories are to be connected, or are already installed, the boards are connected in series.

Because there can be different connections for accessories with accessory board (AA5), you should always read the instructions in the manual for the accessory that is to be installed.

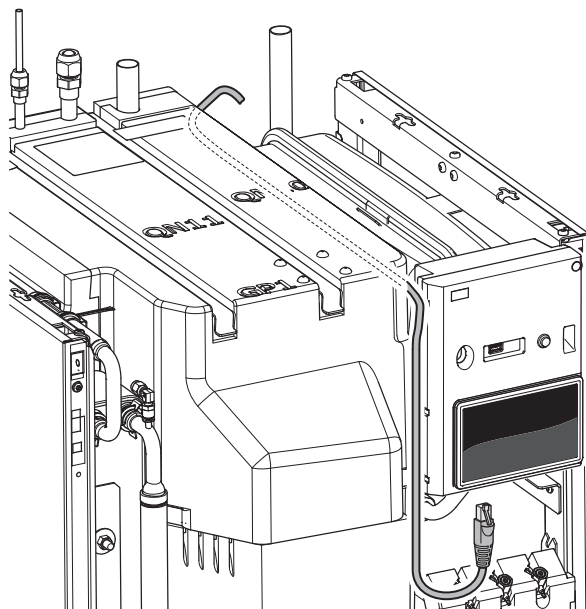
SVM S332



Network cable for myUplink (W130)

In instances when you want to connect to myUplink using a network cable instead of via wifi.

1. Connect the shielded network cable to the display.
2. Route the network cable to the top of SVM S332.



SELECTABLE IN/OUTPUTS

SVM S332 has software-controlled AUX inputs and outputs for connecting the external switch function (contact has to be potential-free) or sensor.

In menu 7.4 - "Selectable in/outputs", you select the AUX connection to which each function has been connected.

For certain functions, accessories may be required.

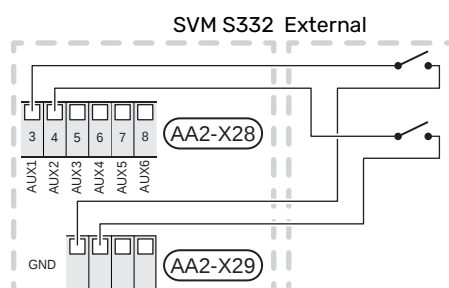


TIP!

Some of the following functions can also be activated and scheduled via menu settings.

Selectable inputs

Selectable inputs on the base board (AA2) for these functions are AA2-X28:3-11. Each function connects to any input and GND (AA2-X29).



The example above uses the inputs AUX1 (AA2-X28:3) and AUX2 (AA2-X28:4).

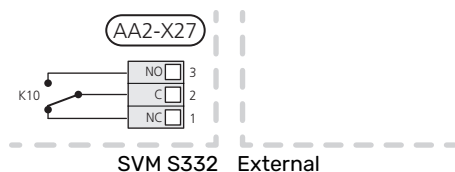
Selectable output

A selectable output is AA2-X27.

The output is a potential-free switching relay.

Alarm indication is connected to C-NC, other functions are connected to C-NO.

If SVM S332 is switched off or in emergency mode, the relay is in C-NC position.



NOTE!

The relay output may be subjected to a max load of 2 A at resistive load (230 V~).

TIP!

The AXC accessory is required if more than one function is to be connected to the AUX output.

Possible selection for AUX inputs

Temperature sensor

Available options are:

- Cool/ht sensor (BT74), determines when it is time to switch between cooling, heating and hot water mode.
- Ext. HW out temp. (BT70) (displayed hot water sensor for HWC. Placed on the supply line.)
Can be selected when "HW circulation" is activated in menu 7.4 - "Selectable in/outputs".
- Ext. HW recirc. temp. (BT82) (displayed hot water sensor for HWC. Placed on the return line.)
Can be selected when "HW circulation" is activated in menu 7.4 - "Selectable in/outputs".
- 6 dedicated sensors (BT37.1 – BT37.6) for optional placement and naming.

Monitor

Available options are:

- External alarm (NO), External alarm (NC)
The alarm is connected to the control, which means that the malfunction is presented as an information message in the display.
- Stove monitor. To the ERS HRV unit.
A stove monitor is a thermostat that is connected to the chimney. If the negative pressure is too low, the fans in ERS (NC) are closed.

External activation of functions

An external switch function can be connected to SVM S332 to activate various functions. The function is activated during the time the switch is closed.

Possible functions that can be activated:

- Temp. more hot water
- Act. dmnd. mode small
- "External adjustment"

When the switch is closed, the temperature is changed in °C (if a room sensor is connected and activated). If a room sensor is not connected or not activated, the desired change of "Temperature" ("Offset") is set with the number of steps selected. The value is adjustable between -10 and +10. Setting the value for the change is performed in menu 1.30.3 - "External adjustment".

- activation of one of four fan speeds.

(Can be selected if ventilation accessory is activated.)

The following options are available:

- "Activate fan speed 1 (NO)" - "Activate fan speed 4 (NO)"
- "Activate fan speed 1 (NC)"

The fan speed is activated during the time the switch is closed. Normal speed is resumed when the switch is opened again.

- SG ready

NOTE!

"SG Ready" requires two AUX inputs.

In cases where this function is required, it must be connected to terminal block X28 on the base board (AA2).

"SG Ready" is a smart form of tariff control where your electricity supplier can affect the indoor and hot water temperatures or simply block the additional heating and/or the compressor in the heat pump at certain times of the day (can be selected in menu 4.2.3 after the function is activated). Activate the function by connecting potential-free switch functions to two inputs selected in menu 7.4 - "Selectable in/outputs" (SG Ready A and SG Ready B).

Closed or open switch means one of the following:

- *Blocking (A: Closed, B: Open)*

"SG Ready" is active. The compressor in the outdoor unit and additional heating are blocked.

- *Normal mode (A: Open, B: Open)*

"SG Ready" is not active. No effect on the system.

- *Low price mode (A: Open, B: Closed)*

"SG Ready" is active. The system focuses on costs savings and can for example exploit a low tariff from the electricity supplier or over-capacity from any own power source (effect on the system can be adjusted in the menu 4.2.3).

- Overcapacity mode (A: Closed, B: Closed)

"SG Ready" is active. The system is permitted to run at full capacity at over capacity (very low price) with the electricity supplier (effect on the system is settable in menu 4.2.3).

(A = SG Ready A, B = SG Ready B)

External blocking of functions

An external switch function can be connected to SVM S332 for blocking various functions. The switch must be potential-free and a closed switch results in blocking.



CAUTION!

Blocking entails a risk of freezing.

Functions that can be blocked:

- Block heating
- Block hot water (any hot water circulation (HWC) remains in operation)
- Block (EB101) (outdoor unit (EZ101))
- Block additional heat
- Tariff blocking (NO), Tariff blocking (NC) (additional heat, compressor, heating, cooling and hot water are disconnected)
- "External power limiting"

For markets where the mains network operator requires dynamic control of the mains network's load, the compressor's and the immersion heater's operating power can be limited.

You set the power limit in menu 7.4.2 - "External power limiting".

Possible selections for AUX output

Indications

- Alarm outp.
- Group alarm
- Cooling mode indication
- Cool. mode ind. w delay
- Holiday
- Away mode
- SPA (Smart Price Adaption: low electricity price)

Control

- HW circulation (circulation pump for hot water circulation)
- Ext. HM pump (external heating medium pump)

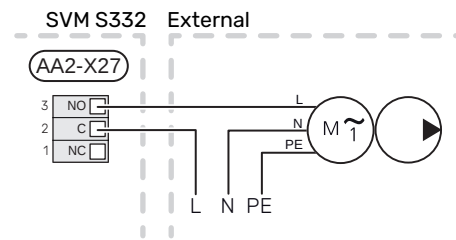


CAUTION!

The relevant distribution box must be marked with a warning about external voltage.

Connecting external circulation pump

An external circulation pump is connected to the AUX output, as illustrated below.



Settings

ELECTRICAL ADDITION - MAXIMUM OUTPUT

The immersion heater is set at the factory to max power.

The immersion heater's power is set in menu 7.1.5.1 - "Int elec add heat".

Power steps of the immersion heater

The table(s) displays the total phase current for the immersion heater.

1x230 V

Electrical addition (kW)	Max L1 (A)
0	0.0
1	4.3
2	8.7
3	13.0
4	17.4
5	21.7
6	26.1
7 ¹	30.4

¹ Factory setting

3x400 V

Electrical addition (kW)	Max L1 (A)	Max L2 (A)	Max L3 (A)	N (A)
0	0.0	0.0	0.0	0.0
1	0.0	4.3	0.0	4.3
2	0.0	0.0	8.7	8.7
3	0.0	4.3	8.7	7.5
4	0.0	8.7	8.7	8.7
5	4.3	8.7	8.7	4.3
6	8.7	8.7	8.7	0.0
7	8.7	8.7	13.0	4.3
8	8.7	13.0	13.0	4.3
9 ¹	13.0	13.0	13.0	0.0

¹ Factory setting

Current sensor

When the current sensors are connected, SVM S332 monitors the phase currents and allocates the power steps automatically to the least loaded phase.



CAUTION!

If the current sensors are not connected, SVM S332 calculates how high the currents will be if the relevant power steps are added. If the currents are higher than the set fuse size, the power step is not allowed to cut in.

EMERGENCY MODE

Emergency mode is used in event of operational interference and in conjunction with service.

When SVM S332 is put into emergency mode, the system works as follows:

- The compressor is blocked.
- SVM S332 prioritises heating production³.
- Hot water is produced if possible.
- The load monitor is not active.
- Max output for the immersion heater in emergency mode, limited according to the setting in menu 7.1.8.2 - "Emergency mode".
- Fixed supply temperature if the system has no value from the outdoor temperature sensor (BT1).

When the emergency mode is active, the status lamp is yellow.

You can activate the emergency mode both when SVM S332 is running and when it is switched off.

To activate when SVM S332 is running: press and hold the on/off button (SF1) for 2 seconds and select "Emergency mode" from the shutdown menu.

To activate emergency mode when SVM S332 is switched off: press and hold the on/off button (SF1) for 5 seconds. (Deactivate the emergency mode by pressing once).

SINGLE PHASE COMPRESSOR

AMS 20 is equipped with a single phase compressor. This means that one of the phases will be loaded with a number of amperes (A) during compressor operation. Check the maximum load in the table below.

Outdoor module	Maximum current (A)
AMS 20-6	15
AMS 20-10	16

Maximum permitted phase loading can be restricted to a lower maximum current in the indoor unit.

³ Only SVM S332 3x400 V with shunt valve QN11.

Commissioning and adjusting

Compressor heater

AMS 20 is equipped with a compressor heater (EB10) (CH) that heats the compressor when it is cold and at start-up. (Does not apply to AMS 20-6.)



CAUTION!

The compressor heater must have been active for 6 – 8 hours before the first start.

Preparations

1. Check that the externally mounted filling valves are fully closed.
2. Check that SVM S332 is closed.
3. Check the miniature circuit-breaker (FC1)⁴. It may have tripped during transport.
4. Check that the draining valve (QM1) is fully closed and that the temperature limiter (FQ10) has not tripped. See section "Temperature limiter".

⁴ Only SVM S332 1x230 V.

Filling and venting

FILLING THE HOT WATER HEAT EXCHANGER

1. Open a hot water tap in the house.
2. Fill the hot water heat exchanger through the cold water connection (XL3).
3. When the water coming out of the hot water tap is no longer mixed with air, the hot water heat exchanger is full and the hot water tap can be closed.

FILLING THE CLIMATE SYSTEM

The climate system and SVM S332 are filled by an external filling hose (incl. filling valve) being connected in the product's draining valve (QM1).

1. Open all vent valves (QM23.1–QM23.5).
2. Connect a filling hose to the draining valve for heating medium (QM1).
3. Open the draining valve (QM1) and the external filling valve. SVM S332 and the climate system fill with water.
4. When the water exiting the vent valves (QM23) is no longer mixed with air, close the valves.
5. After a while the pressure rises on the externally mounted pressure gauge (BP5). When the pressure reaches approx. 2.5 bar (025 MPa) the externally mounted safety valve (FL2) starts to release water. Then close the draining valve (QM1).
6. Reduce the climate system's pressure to the normal working range (approx. 1 bar) by opening the vent valves (QM23.1–QM23.5) or the safety valve (FL2).

VENTING THE CLIMATE SYSTEM



TIP!

Use the enclosed venting hose for simpler and easier venting.

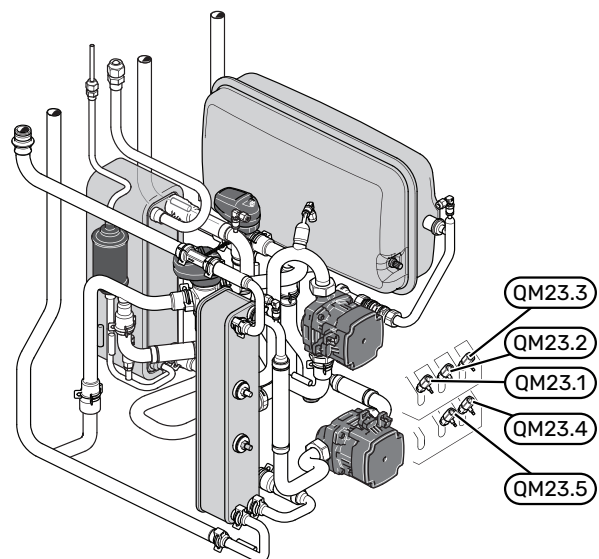
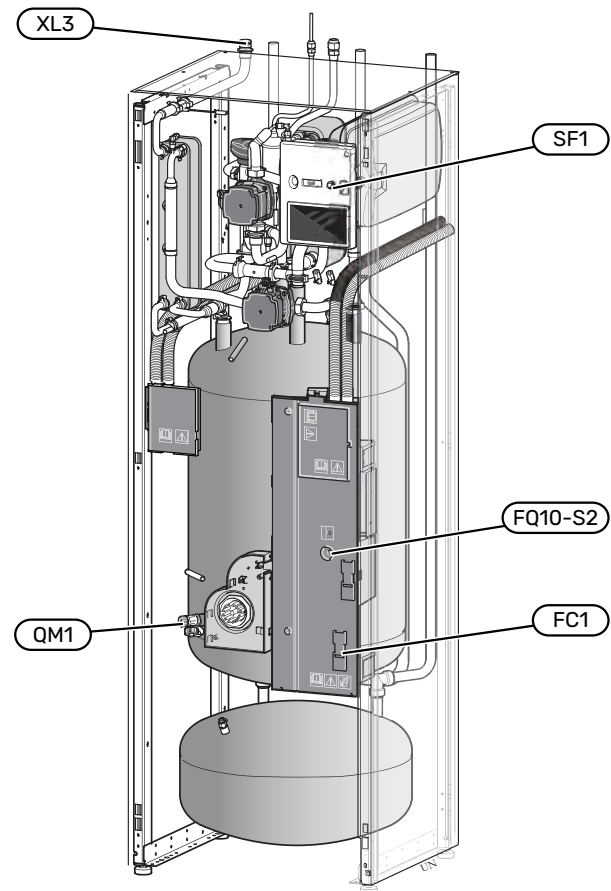


NOTE!

Insufficient venting can damage internal components in SVM S332.

1. Turn off SVM S332 using the on/off button. Wait for about 30 seconds.
2. Open all the vent valves (QM23.1–QM23.5).
3. Fill SVM S332 via the drain connection (QM1) to a pressure of 1.0 bar.
4. Open and close the vent valves (QM23.1–QM23.5) until the pressure drops to 0 bar.
5. Repeat steps 1–4 until no more air emerges from the vent valves.
6. Close the vent valves and fill the product to a pressure of 1.5 bar.
7. Start SVM S332.

8. Follow the instructions in the start guide to vent.
9. The venting procedure can also be activated in menu 4.30.1.



Commissioning

START GUIDE



CAUTION!

There must be water in the climate system before SVM S332 is started.



CAUTION!

Do not start SVM S332 if there is a risk that the water in the system has frozen.

1. Power-up the outdoor unit.
2. Start SVM S332 by pressing the on/off button (SF1).
3. Follow the instructions in the display's start guide. If the start guide does not start when you start the SVM S332, you can start it manually in menu 7.7.



TIP!

See the section "Control – Introduction" for a more detailed introduction to the installation's control system (operation, menus, etc.).

Commissioning

The first time the installation is started a start guide is started. The start guide instructions state what needs to be carried out at the first start together with a run through of the installation's basic settings.

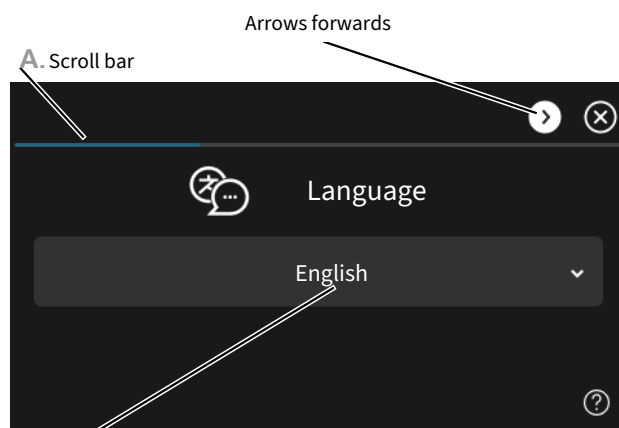
The start guide ensures that the start-up is carried out correctly and, for this reason, cannot be skipped.



NOTE!

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

Operation in the start guide



B. Option / setting

A. Scroll bar

Here you can see how far you have come in the start guide.

Drag to the right or left with your finger to browse between the pages.

You can also press the arrows in the top corners to browse.

B. Option / setting

Make settings for the system here.

COMMISSIONING WITHOUT OUTDOOR UNIT

The indoor module can be used without an outdoor unit, i.e. solely as an electric boiler, to produce heat⁵ and hot water, for example before the outdoor unit is installed.

1. Go to menu 4.1 - "Operating mode" and select "Add. heat only".
2. Go to menu 7.3.2 - "Installed heat pump" and deactivate the heat pump..



NOTE!

When commissioning without NIBE outdoor unit the "communication error" alarm may appear in the display.

The alarm is reset if the relevant heat pump is deactivated in menu 7.3.2 - "Installed heat pump"



CAUTION!

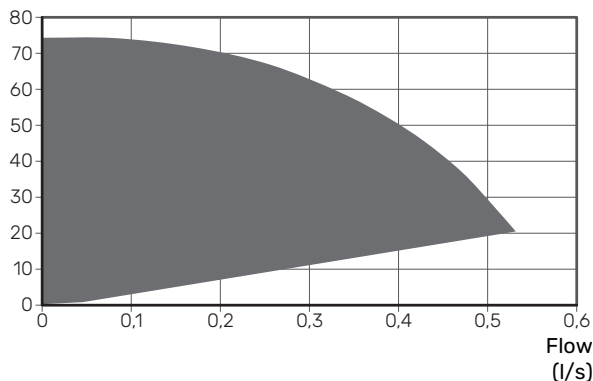
Select operating mode "Auto" or "Manual" when the indoor unit is once again to be used with the outdoor unit.

PUMP SPEED

The heating medium pump (GP1) in SVM S332 is frequency controlled and adjusts automatically using control and based on heating demand.

Capacity, heating medium pump (GP1)

Available pressure
(kPa)



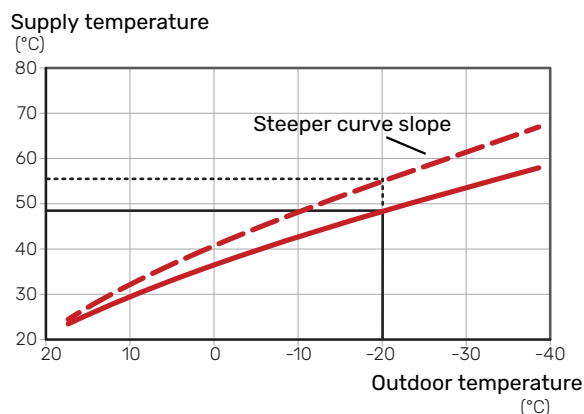
Setting the cooling/heating curve

In the menus "Curve, heating" and "Curve, cooling", you can see the heating and cooling curves for your house. The purpose of the curves is to provide an even indoor temperature, regardless of the outdoor temperature, and thereby energy-efficient operation. Based on these curves, SVM S332 determines the temperature of the water to the climate system (the supply temperature) and thus the indoor temperature.

CURVE COEFFICIENT

The slopes of the heating /cooling curves indicate how many degrees the supply temperature is to be increased/reduced when the outdoor temperature drops/increases. A steeper slope means a higher supply temperature for heating or a lower supply temperature for cooling at a certain outdoor temperature.

The lower the heating curve, the more energy efficient the operation, although an excessively low curve entails reduced comfort.



The optimum curve slope depends on the climate conditions and the lowest dimensioned outdoor temperature (DOT) in your location, whether the house has radiators, fan coils or underfloor heating and how well insulated the house is.

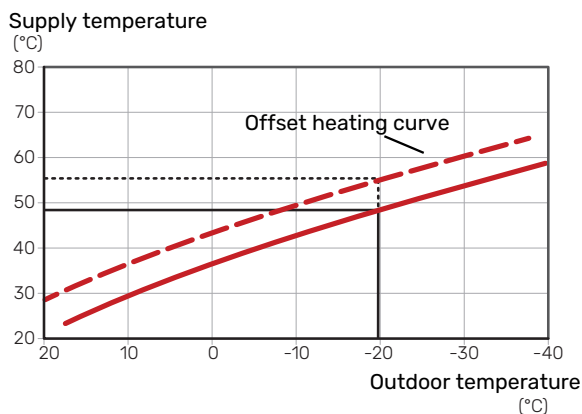
For houses with radiators or fan coils, a higher heating curve (e.g. curve 9) is suitable, for houses with under floor heating, a lower curve (e.g. curve 5) is suitable.

The heating/cooling curves are set when the heating/cooling system is installed, but may need adjusting later. Thereafter, the curves should not need further adjustment.

CURVE OFFSET

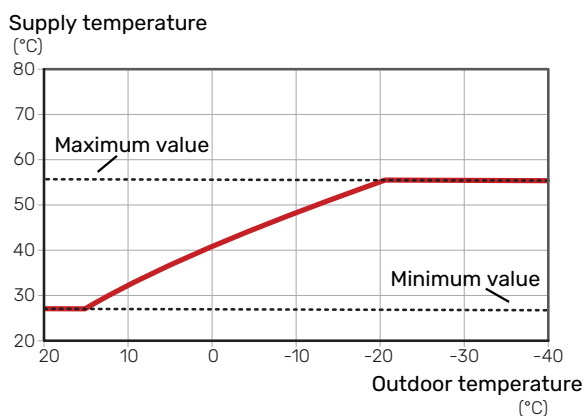
An offset of the heating curve means that the supply temperature changes by the same amount for all outdoor temperatures, e.g. a curve offset of +2 steps increases the supply temperature by 5 °C at all outdoor temperatures. A corresponding change to the cooling curve results in a lowering of the supply temperature.

⁵ Only SVM S332 3x400 V with shunt valve QN11.



SUPPLY TEMPERATURE - MAXIMUM AND MINIMUM VALUES

Because the supply temperature cannot be calculated higher than the set maximum value or lower than the set minimum value, the curves flatten out at these temperatures.



NOTE!

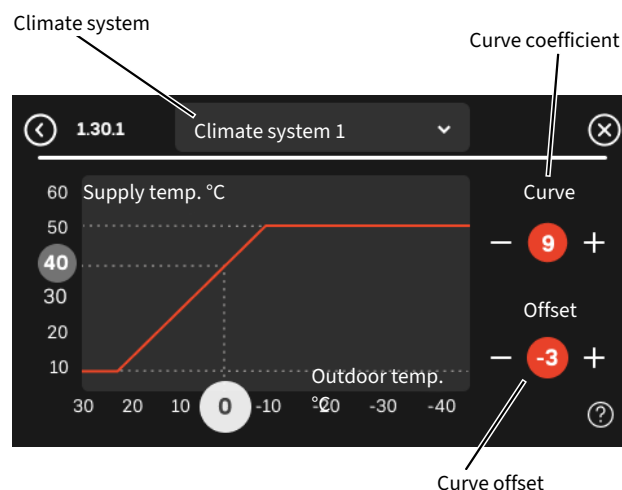
With underfloor heating systems, the maximum supply temperature is normally set between 35 and 45 °C.



NOTE!

With underfloor cooling, "Min. supply temp. cooling" must be restricted to prevent condensation.

ADJUSTMENT OF CURVE



1. Select the climate system (if more than one) for which the curve is to be changed.
2. Select curve slope and curve offset.
3. Select max and min supply temperature.



NOTE!

Curve 0 means that "Own curve" is used.

Settings for "Own curve" are made in menu 1.30.7.

TO READ OFF A HEATING CURVE

1. Drag in the circle on the axis with outdoor temperature.
2. Read off the value for supply temperature in the circle on the other axis.

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.

It is possible to update the software for SVM S332 via myUplink.

The possibility to view the history and to make changes depends on the myUplink subscription. You can always view and subscribe on the myUplink website.

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.

Connection

To connect your system to myUplink:

1. Select connection type (wifi/Ethernet) in menu 5.2.1 or 5.2.2.
2. In menu 5.1 you select "Request new connection string".
3. When a connection string has been produced, it is shown in this menu and is valid for 60 minutes.
4. If you do not already have an account, register in the mobile app or on myuplink.com.
5. Use the connection string to connect your installation to your user account on myUplink.

Range of services

myUplink gives you access to various levels of service. The basic level is included and, in addition to that, you can opt for additional subscriptions for a fee. Visit <https://myuplink.com/store> for more information.

myUplink PRO

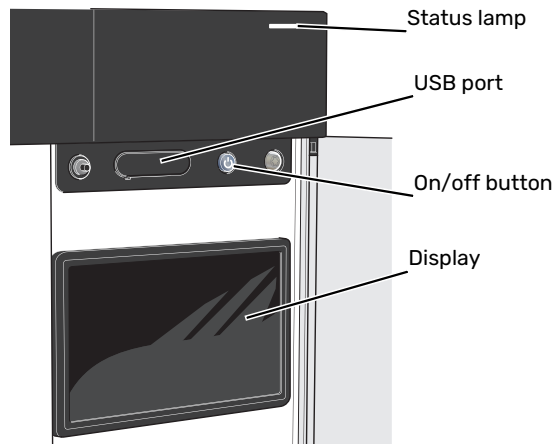
myUplink PRO is a complete tool for offering service agreements to the end customer and for always having the latest information about the installation, as well as the option to adjust settings remotely.

With myUplink PRO, you can provide your connected customers with rapid status and remote diagnostics.

Visit pro.myuplink.com for information about what else you can do using the mobile app and online.

Control - Introduction

Display unit



THE STATUS LAMP

The status lamp indicates current operating status. It:

- lights up white during normal operation.
- lights yellow in emergency mode.
- lights red in the event of a deployed alarm.
- flashes white during active notice.
- is blue when SVM S332 is switched off.

If the status lamp is red, you receive information and suggestions for suitable actions on the display.



TIP!

You also receive this information via myUplink.

THE USB PORT

Above the display, there is a USB port that can be used e.g. for updating the software. Log in to myuplink.com and click the "General" tab and then "Software" to download the latest software version for your installation.



TIP!

If you connect the product to myUplink, you can update the software without using the USB port. See section "myUplink".

THE ON/OFF BUTTON

The on/off button (SF1) has three functions:

- start
- switch off
- activate emergency mode

To start: press the on/off button once.

To switch off, restart or activate emergency mode: press and hold the on/off button for 2 seconds. This brings up a menu with various options.

For hard switch off: press and hold the on/off button for 10 seconds.

To activate emergency mode when SVM S332 is switched off: press and hold the on/off button (SF1) for 5 seconds. (Deactivate the emergency mode by pressing once).

THE DISPLAY

Instructions, settings and operational information are shown on the display.

Navigation

SVM S332 has a touchscreen where you simply navigate by pressing and dragging with your finger.

SELECT

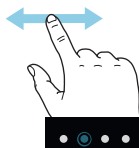
Most options and functions are activated by lightly pressing on the display with your finger.



BROWSE

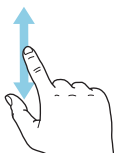
The symbols at the bottom edge show if there are more pages.

Drag to the right or left with your finger to browse between the pages.



SCROLL

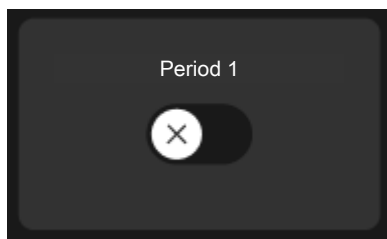
If the menu has several sub-menus, you can see more information by dragging up or down with your finger.



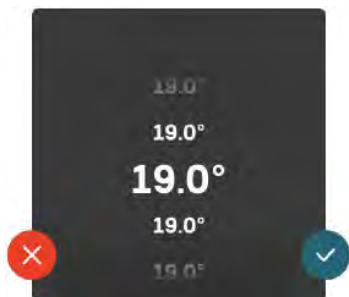
CHANGE A SETTING

Press the setting you want to change.

If it is an on/off setting, it changes as soon as you press it.



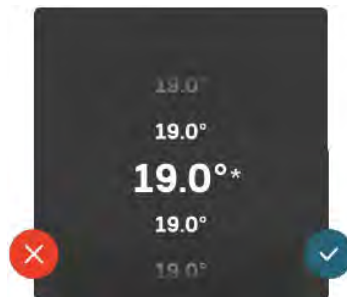
If there are several possible values, a spinning-wheel appears that you drag up or down to find the desired value.



Press  to save your change, or  if you don't want to make a change.

FACTORY SETTING

Factory set values are marked with *.



HELP MENU



In many menus there is a symbol that indicates that extra help is available.

Press the symbol to open the help text.

You may need to drag with your finger to see all text.

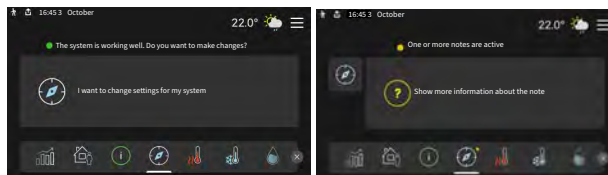
Menu types

HOME SCREENS

Smartguide

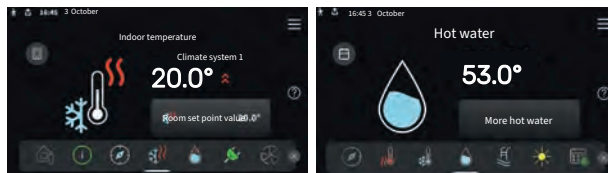
Smartguide helps you both to view information about the current status and to make the most common settings easily. The information that you see depends on the product you have and the accessories that are connected to the product.

Select an option and press it to proceed. The instructions on the screen help you to choose correctly or give you information about what is happening.

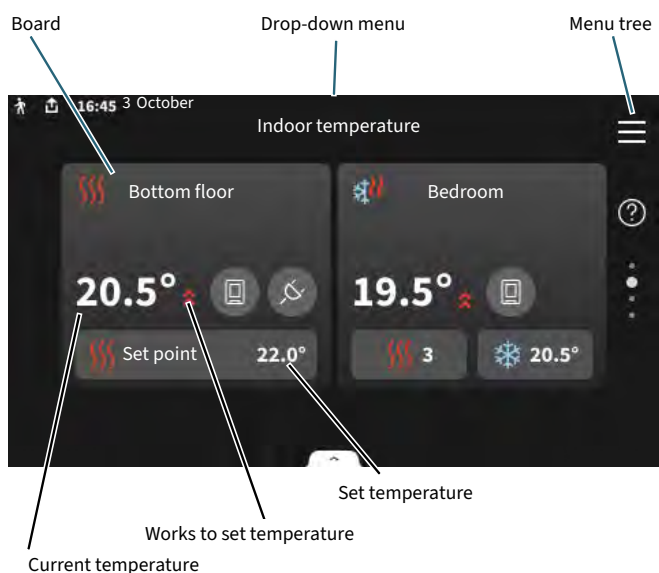


Function pages

On the function pages, you can both view information about the current status and easily make the most common settings. The function pages that you see depend on the product you have and the accessories that are connected to the product.



Drag to the right or left with your finger to browse between the function pages.



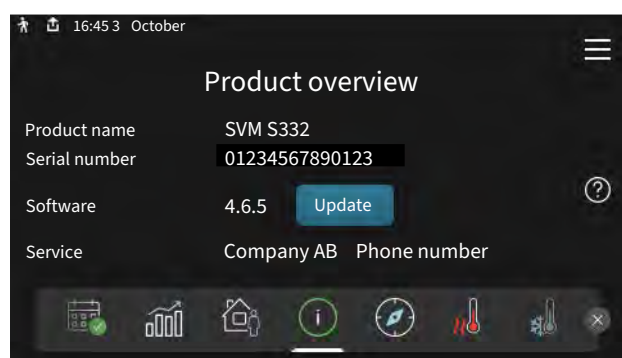
Press the card to adjust the desired value. On certain function pages, drag your finger up or down to obtain more cards.

Product overview

It can be a good idea to have the product overview open during any service cases. You can find it among the function pages.

Here, you can find information about the product name, the product's serial number, the version of the software, and the contact details of the company that provides service. When there is new software to download, you can do it here (provided that SVM S332 is connected to myUplink).

TIP!
You enter the service details in menu 4.11.1.

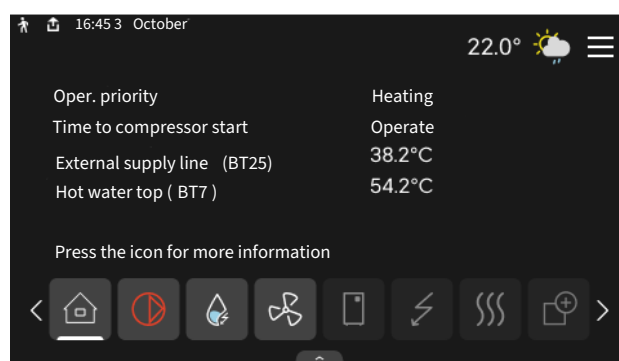


Drop-down menu

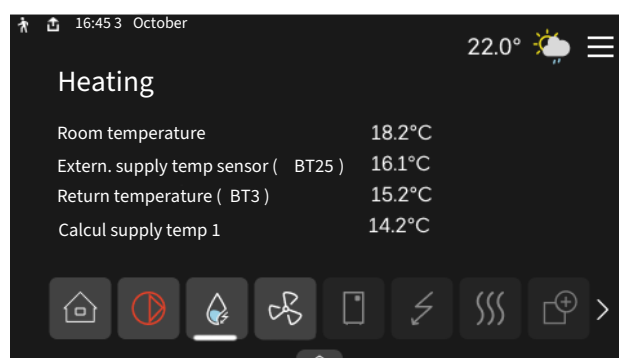
From the home screens, you reach a new window containing further information by dragging down a drop-down menu.



The drop-down menu shows the current status for SVM S332, what is in operation and what SVM S332 is doing at the moment. The functions that are in operation are highlighted with a frame.

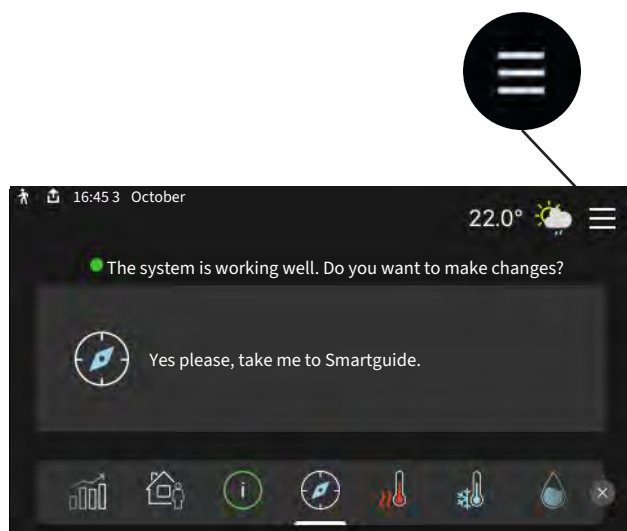


Press the icons on the menu's lower edge for more information about each function. Use the scroll bar to view all information for the selected function.

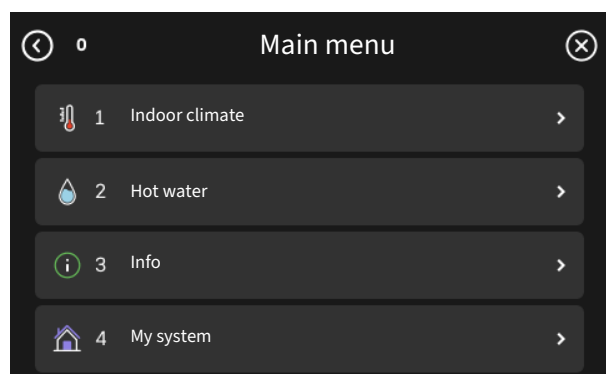


MENU TREE AND INFORMATION

In the menu tree, you can find all menus and can make more advanced settings.



You can always press "X" to return to the home screens.



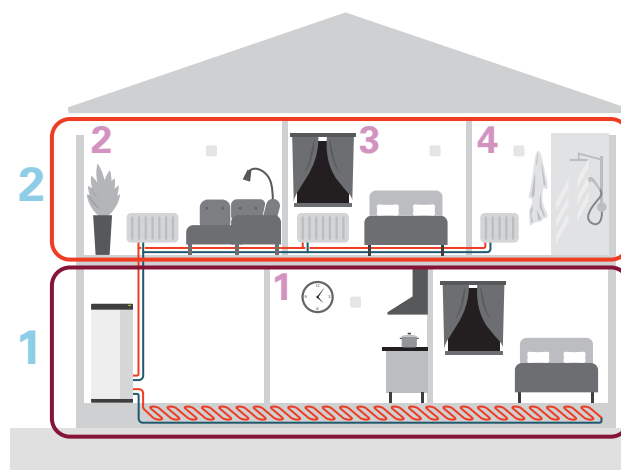
Climate systems and zones

Climate systems can be divided into multiple zones. A zone can be a specific room, and it is also possible to divide a large room into several zones, with the help of radiator thermostats.

Each zone can contain one or more accessories, e.g. room sensors or thermostats, both wired and wireless.

A zone can be set with or without the influence of the climate system's supply temperature.

OUTLINE DIAGRAM WITH TWO CLIMATE SYSTEMS AND FOUR ZONES



This example shows a property with two climate systems (1 and 2, two separate floors) divided into four zones (1-4, four different rooms). The temperature can be controlled individually in each zone (accessory required).

Control – Menus

Menu 1 – Indoor climate

OVERVIEW

1.1 – Temperature	1.1.1 – Indoor temperature
	1.1.2 – Cooling
	1.1.3 – Humidity ¹
1.2 – Ventilation ¹	1.2.1 – Fan speed ¹
	1.2.2 – Night cooling ¹
	1.2.4 – Demand controlled ventilation ¹
	1.2.5 – Fan return time ¹
	1.2.6 – Filter cleaning interval ¹
	1.2.7 – Ventilation recovery ¹
1.3 – Room sensor settings	1.3.3 – Room sensor settings
	1.3.4 – Zones
1.5 – Climate system name	
1.30 – Advanced	1.30.1 – Curve, heating
	1.30.2 – Curve, cooling
	1.30.3 – External adjustment
	1.30.4 – Lowest supply heating
	1.30.5 – Lowest supply cooling
	1.30.6 – Highest supply heat
	1.30.7 – Own curve
	1.30.8 – Point offset

¹ Consult the accessory's Installer Manual.

MENU 1.1 – TEMPERATURE

Here, you make temperature settings for your installation's climate system.

If there is more than one zone and/or climate system, the settings are made for each zone/system.

MENU 1.1.1 – INDOOR TEMPERATURE

Set the temperature (with room sensor installed and activated):

Setting range: 5 – 35°C

Cooling, 2-pipe, is activated in menu 7.3.2.1. Accessories are needed to run cooling, 4-pipe.

The value in the display appears as a temperature in °C, if the zone is controlled by a room sensor.



NOTE!

A slow climate system, such as underfloor heating, may be unsuitable for controlling with room sensors.

Setting the temperature (without room sensors activated):

Setting range: -10 – 10

The display shows the set value for heating/cooling (curve offset). To increase or reduce the indoor temperature, increase or reduce the value in the display.

The number of steps the value has to be changed in order to achieve a one degree change to the indoor temperature depends on the climate system. One step is usually enough, but in some cases several steps may be required.

If multiple zones in a climate system do not have activated room sensors, these will have the same curve offset.

Set the desired value. The new value is shown on the right-hand side of the symbol on home screen heating/home screen indoor temperature.

NOTE!

An increase in the room temperature can be slowed by the thermostats for the radiators or under floor heating. Therefore, open the thermostats fully, except in those rooms where a cooler temperature is required, e.g. bedrooms.

TIP!

If the room temperature is constantly too low/high, you increase/decrease the value on the indoor temperature home screen.

If the room temperature changes when the outdoor temperature changes, you increase/decrease the curve slope by one step in menu 1.30.1.

Wait 24 hours before making a new setting, so that the room temperature has time to stabilise.

MENU 1.3 - ROOM SENSOR SETTINGS

Here, you make your settings for room sensors and zones. The room sensors are grouped by zone.

MENU 1.3.3 - ROOM SENSOR SETTINGS

Here, you select the zone to which a sensor will belong. It is possible to connect multiple room sensors to each zone. Each room sensor can be given a unique name.

The control of heating and cooling is activated by ticking the relevant option. Which options are shown depends on which type of sensor is installed. If control is not activated, the sensor will be the displaying sensor.

Smart Room Comfort is activated, if a controlling room sensor is connected. A zone is regulated by the weather forecast and the indoor temperature.

NOTE!

A slow heating system such as underfloor heating may be inappropriate for controlling with room sensors.

If there is more than one zone and/or climate system, the settings are made for each zone/system.

MENU 1.3.4 - ZONES

Here, you add and name zones. You also select the climate system to which a zone is to belong.

MENU 1.5 - CLIMATE SYSTEM NAME

You can give the installation's climate system a name here.

MENU 1.30 - ADVANCED

Menu "Advanced" is intended for the advanced user. This menu has several sub-menus.

"Curve, heating" Setting the heating curve slope.

"Curve, cooling" Setting the cooling curve slope.

"External adjustment" Setting the heating curve offset when the external contact is connected.

"Lowest supply heating" Setting minimum permitted supply temperature during heating operation.

"Lowest supply cooling" Setting minimum permitted supply temperature during cooling operation.

"Highest supply heat" Setting maximum permitted supply temperature for the climate system.

"Own curve" You can create your own heating curve here, if there are special requirements, by setting the desired supply temperatures for different outdoor temperatures.

"Point offset" Select a change in the heating curve at a certain outdoor temperature here. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required.

MENU 1.30.1 - CURVE, HEATING

Curve, heating

Setting range: 0 – 15

The heating curve can be found in this menu. The task of the heating curve is to provide a uniform indoor temperature, regardless of the outdoor temperature, and thereby energy efficient operation. It is from the heating curve that SVM S332 determines the temperature of the water to the climate system, the supply temperature, and therefore the indoor temperature.

For houses with radiators or fan coils, a higher heating curve (e.g. curve 9) is suitable, for houses with under floor heating, a lower curve (e.g. curve 5) is suitable.

When you have selected the heating curve, you can read off how the supply temperature will change at different outdoor temperatures.

TIP!

It is also possible to create your own curve. This is done in menu 1.30.7.

NOTE!

With underfloor heating systems, the maximum supply temperature is normally set between 35 and 45 °C.



TIP!

If the room temperature is constantly too low/high, you increase/decrease the curve offset by one step.

If the room temperature changes when the outdoor temperature changes, you increase/decrease the curve slope by one step.

Wait 24 hours before making a new setting, so that the room temperature has time to stabilise.

MENU 1.30.2 - CURVE, COOLING

Curve, cooling

Setting range: 0 – 9

The cooling curve can be found in this menu. The task of the cooling curve is, together with the heating curve, to provide a uniform indoor temperature, regardless of the outdoor temperature, and thereby energy-efficient operation. Based on these curves, SVM S332 determines the temperature of the water to the climate system, the supply temperature, and thus the indoor temperature.

For houses with fan coils, a higher curve (e.g. curve 9) is appropriate, for houses with under floor cooling, a lower curve (e.g. curve 5) is appropriate.

When you have selected the cooling curve, you can read off how the supply temperature will change at different outdoor temperatures.



NOTE!

With underfloor cooling, "Min. supply temp. cooling" must be restricted to prevent condensation.

Cooling in 2-pipe system

SVM S332 contains a built-in function for operating cooling in a 2-pipe system down to 7 °C.

For operating mode "cooling" to be permitted, the average temperature must be above the set value for "start cooling" in menu 7.1.10.2 "Auto mode setting". There is the option to activate cooling by selecting "manual" operating mode in menu 4.1 "Operating mode".

The cooling settings for the climate system are adjusted in the indoor climate menu, menu 1.

MENU 1.30.3 - EXTERNAL ADJUSTMENT

External adjustment

Setting range: -10 – 10

Setting range (if room sensor is installed): 5 – 30 °C

Connecting an external switch, for example a room thermostat or a timer, allows you to raise or lower the room temperature temporarily or periodically. When the switch is on, the heating curve offset is changed by the number of steps selected in the menu. If a room sensor is installed and activated, the desired room temperature (°C) is set.

If there is more than one zone, the setting can be made separately for each zone.

MENU 1.30.4 - LOWEST SUPPLY HEATING

Heating

Setting range: 5 – 80 °C

Set the minimum temperature on the supply temperature to the climate system. This means that SVM S332 never calculates a temperature lower than that set here.

If there is more than one climate system the setting can be made separately for each system.

MENU 1.30.5 - LOWEST SUPPLY COOLING

Cooling

Setting range: 7 – 30 °C

Alarm, room sensor during cooling operation

Alternative: on/off

Set the minimum temperature on the supply temperature to the climate system. This means that SVM S332 never calculates a temperature lower than that set here.

If there is more than one climate system the setting can be made separately for each system.

Here, you can receive alarms during cooling operation, for example if a room sensor malfunctions.



CAUTION!

The cooling supply line must be set with regard to which climate system is connected. For example, under floor cooling with too low supply temperature can cause condensation to precipitate, which in the worst instance could lead to moisture damage.

MENU 1.30.6 - HIGHEST SUPPLY HEAT

Climate system

Setting range: 5 – 80 °C

Here, you set the highest supply temperature for the climate system. This means that SVM S332 never calculates a temperature higher than the one set here.

If there is more than one climate system the setting can be made separately for each system. Climate systems 2 – 8 cannot be set to a higher max supply temperature than climate system 1.



NOTE!

With underfloor heating systems, "Maximum supply temperature for heating" should normally be set between 35 and 45°C.



NOTE!

Wait 24 hours before making a new setting, so that the room temperature has time to stabilise.

MENU 1.30.7 - OWN CURVE

Own curve, heat

Supply temp

Setting range: 5 – 80 °C



NOTE!

Curve 0 must be selected for own curve to apply.

You can create your own heating curve here, if there are special requirements, by setting the desired supply temperatures for different outdoor temperatures.

Own curve, cooling

Supply temp

Setting range: 7 – 40 °C



NOTE!

Curve 0 must be selected for own curve to apply.

You can create your own cooling curve here, if there are special requirements, by setting the desired supply temperatures for different outdoor temperatures.

MENU 1.30.8 - POINT OFFSET

Outdoor temp. point

Setting range: -40 – 30 °C

Change in curve

Setting range: -10 – 10 °C

Select a change in the heating curve at a certain outdoor temperature here. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required.

The heating curve is affected at $\pm 5^\circ\text{C}$ from set outdoor temp. point.

It is important that the correct heating curve is selected so that the room temperature is experienced as even.



TIP!

If it feels cold in the house at e.g. -2°C , "outdoor temp. point" is set to "-2" and "change in curve" is increased until the desired room temperature is maintained.

Menu 2 – Hot water

OVERVIEW

2.1 - More hot water
2.2 - Hot water demand
2.3 - External influence
2.5 - Hot water circulation

MENU 2.1 - MORE HOT WATER

More hot water

Alternatives: 3, 6, 12, 24 and 48 hours, and modes "Off" and "One-time incr."

Quick start with imm. heater

Alternative: on/off

"More hot water" When there is a temporary increase in hot water demand, this menu can be used to select an increase in the hot water temperature for a selectable time.

If the hot water temperature is already sufficiently high, "One-time incr." cannot be activated.

The function is activated directly when a time period is selected. The remaining time for the selected setting is shown to the right.

When the time has run out, SVM S332 returns to the set demand mode.

Select "Off" to switch off "More hot water".

"Quick start with imm. heater" gives faster heating, but can lead to increased energy consumption.

MENU 2.2 - HOT WATER DEMAND

Options: Small, Medium, Large, Smart control

The difference between the selectable modes is the temperature of the hot tap water. Higher temperature means that the hot water lasts longer.

Small: This mode produces less hot water at a lower temperature than the other alternatives. This mode can be used in smaller households with a small hot water demand.

Medium: Normal mode produces a larger amount of hot water and is suitable for most households.

Large: This mode produces the most hot water at a higher temperature than the other alternatives. In this mode, the immersion heater may be used to partially heat the hot water. In this mode, hot water production is prioritised ahead of heating.

Smart control: With Smart control activated, SVM S332 continuously learns the previous hot water consumption and, in this way, adjusts the temperature in the water heater for the minimum energy consumption and maximum comfort.

MENU 2.3 - EXTERNAL INFLUENCE

Information for the accessories/functions that can affect the hot water operation is shown here.

MENU 2.5 - HOT WATER CIRCULATION

Operating time

Setting range: 1 – 60 min

Downtime

Setting range: 0 – 60 min

Period

Active days

Alternatives: Monday – Sunday

Start time

Setting range: 00:00 – 23:59

Stop time

Setting range: 00:00 – 23:59

Set hot water circulation for up to five periods per day here. During the set periods, the hot water circulation pump will run according to the settings above.

"Operating time" determines how long the hot water circulation pump will run per operating instance.

"Downtime" determines how long the hot water circulation pump will be stationary between operating instances.

"Period" Here, you set the time period during which the hot water circulation pump will run, by selecting "Active days", "Start time" and "Stop time".



CAUTION!

Hot water circulation is activated in menu 7.4 "Selectable in/outputs" or via accessory.

Menu 3 - Info

OVERVIEW

3.1 - Operating info	
3.2 - Temperature log	
3.3 - Energy and power log	3.3.1 - Energy log
	3.3.2 - Power log
3.4 - Alarm log	
3.5 - Product info, summary	
3.6 - Licences	
3.7 - Version history	
3.8 - Data protection information	

MENU 3.1 - OPERATING INFO

Information about the installation's current operating status (e.g. current temperatures) can be obtained here. No changes can be made.

You can also read off operating information from all your connected wireless units.

A QR code appears on one side. This QR code indicates serial number, product name and limited operating data.

MENU 3.2 - TEMPERATURE LOG

Here you can see the average temperature indoors week by week over the past year.

The average outdoor temperature is only shown if a room temperature sensor/room unit is installed.

In installations with ventilation accessories and no room sensors (BT50), the exhaust air temperature is displayed instead.

MENU 3.3 - ENERGY AND POWER LOG

Here, you can select which parts of the installation will be included in the log.

MENU 3.3.1 - ENERGY LOG

Number of years

Setting range: 1 – 10 years

Months

Setting range: 1 – 24 months

Include heating

Alternative: on/off

Include hot water

Alternative: on/off

Show outdoor temperature

Alternative: on/off

Show indoor temperature

Alternative: on/off

Here, you can see a diagram showing how much energy SVM S332 supplies and consumes. You can select which parts of the installation will be included in the log. It is also possible to activate display of indoor and/or outdoor temperature.

MENU 3.3.2 - POWER LOG

Here, you can see how much power the installation has consumed at a given time of day. You can choose to view either hourly or every 15 mins.

MENU 3.4 - ALARM LOG

To facilitate troubleshooting, the installation's operating status at the time of an alarm is stored here. You can see information for the 10 most recent alarms.

To view operating status in the event of an alarm, select the relevant alarm from the list.

MENU 3.5 - PRODUCT INFO, SUMMARY

Here, you can see general information about your system, such as software versions.

MENU 3.6 - LICENCES

You can view licences for open source code here.

MENU 3.7 - VERSION HISTORY

Here you can see what is new and/or has been changed in different software versions.

MENU 3.8 - DATA PROTECTION INFORMATION

Here, you can see what data NIBE collects for troubleshooting and optimising the product.