

Menu 4 - My system

OVERVIEW

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¹ Consult the accessory's Installer Manual.

MENU 4.1 - OPERATING MODE

Operating mode

Alternative: Auto, Manual, Add. heat only

Manual

Alternative: Compressor, Add. heat, Heating, Cooling

Add. heat only

Alternative: Heating

The operating mode for SVM S332 is normally set to "Auto". It is also possible to select operating mode "Add. heat only". Select "Manual" to choose that functions will be activated.

If "Manual" or "Add. heat only" is selected, selectable options are shown further down. Tick the functions you want to activate.

Operating mode "Auto"

In this operating mode, SVM S332 automatically selects which functions are permitted.

Operating mode "Manual"

In this operating mode you can select what functions are permitted.

"Compressor" is the unit that produces hot water, heating and cooling for the property. You cannot deselect "compressor" in manual mode.

"Add. heat" is the unit that helps the compressor to heat the property and/or the hot water when it cannot manage the entire demand alone.

"Heating" ensures you obtain heating in the property. You can deselect the function, when you do not wish to have the heating on.

"Cooling" ensures that you obtain cooling in the property in hot weather. You can deselect this function, when you do not wish to have cooling in operation.



NOTE!

If you deselect "Add. heat", it may result in you not obtaining sufficient hot water and/or heating in the property.

Operating mode "Add. heat only"

In this operating mode the compressor is not active, only additional heat is used.



NOTE!

If you choose mode "Add. heat only" the compressor is deselected and there is a higher operating cost.

MENU 4.2 - PLUS FUNCTIONS

Settings for any additional functions installed in SVM S332 can be made in the sub menus.

MENU 4.2.3 - SG READY

Here, you set the part of your climate system (e.g. room temperature) that will be affected on activation of "SG Ready". The function can only be used in mains networks that support the "SG Ready" standard.

Affect room temp heating

With low price mode on "SG Ready", the parallel offset for the indoor temperature is increased by "+1". If a room sensor is installed and activated, the desired room temperature is increased instead by 1 °C.

With overcapacity mode on "SG Ready", the parallel offset for the indoor temperature is increased by "+2". If a room sensor is installed and activated, the desired room temperature is increased by 2 °C instead.

Affect hot water

With low price mode on "SG Ready", the stop temperature for the hot water is set as high as possible with compressor operation only (immersion heater not permitted).

In the case of overcapacity mode on "SG Ready", the hot water is set to large demand mode (immersion heater permitted).

Affect room temp cooling

With low price mode of "SG Ready" and cooling operation the indoor temperature is not affected.

With overcapacity mode on "SG Ready" and cooling operation, the parallel offset for the indoor temperature is decreased by "-1". If a room sensor is installed and activated, the desired room temperature is decreased by 1 °C instead.



CAUTION!

The function must be connected to two AUX inputs and be activated in menu 7.4 "Selectable in/outputs".

MENU 4.2.5 - SMART PRICE ADAPTION™

Activated

Alternative: on/off

Price source

Options: "Spot price", "Manual"

Affect heating

Options: "Off", "Comfort", "Saving", "Saving PLUS"

Affect room temp cooling

Options: "Off", "Comfort", "Saving", "Saving PLUS"

Affect hot water

Alternative: on/off

With smart control activated in menu 2.2

Options: "Off", "Comfort", "Saving", "Saving PLUS"

This function can only be used if you have an active account on myUplink and your electricity supplier supports electricity contracts that are based on the current spot price.

Smart price adaption™ adjusts some of the installation's consumption throughout the day to those periods that have the cheapest electricity prices, which can provide savings if you are on a spot price electricity contract. The function is based on downloading the electricity prices for the coming 24 hours via myUplink.

Price source Here, you can choose whether to use spot prices or to enter prices manually.

Degree of effect: The greater the saving you select, the greater the effect the electricity price has.

Certain wireless units can also be affected by Smart Price Adaption™.



CAUTION!

Increased savings can lead to a negative impact on the comfort.

MENU 4.2.5.1 - ELECTRICITY PRICE TABLE

If you have selected "Price source" in option "Price source" in menu 4.2.5 - Smart Price Adaption™, you can enter the electricity price for individual time periods.

MENU 4.2.5.2 - TRANSFER FEE

If you have selected "Spot price" in menu 4.2.5 - Smart Price Adaption™ you can define transfer fees and assign them to specific time periods. The changes take effect the following day.

MENU 4.4 - WEATHER CONTROL

Activate weath. contr.

Alternative: on/off

Factor

Setting range: 0 – 10

You can select whether you want SVM S332 to adjust the indoor temperature based on the weather forecast.

You can set factor for outdoor temperature. The higher the value, the greater the effect from the weather forecast.



NOTE!

This menu is only visible if the installation is connected to myUplink and if a climate system is not using room control.

MENU 4.5 - AWAY MODE

In this menu, you activate/deactivate "Away mode".

When away mode is activated, the following functions are affected:

- the setting for heating is lowered slightly
- the setting for cooling is raised slightly
- the hot water temperature is lowered if demand mode "large" or "medium" is selected
- The AUX function "Away mode" is activated.

If you want, you can select for the following functions to be affected:

- ventilation (accessory is required)
- hot water circulation (accessory or use of AUX is required)

MENU 4.6 - SMART ENERGY SOURCE™



CAUTION!

Smart Energy Source™ requires external additional heat.

Smart Energy Source™

Alternative: on/off

Control method

Setting options: Price per kWh / CO2

If Smart Energy Source™ is activated, SVM S332 prioritises how/to what extent each docked energy source will be used. Here, you can select whether the system will use the energy source that is cheapest at the time or the one that is currently the most carbon dioxide neutral.



NOTE!

Your choices in this menu affect menu 4.7 - "Energy price".

MENU 4.7 - ENERGY PRICE

Here you can use tariff control for your additional heat.

Here you can choose whether the system is to exercise control based on the spot price, tariff control or a set price. The setting is made for each individual energy source. Spot price can only be used if you have an hourly tariff agreement with your electricity supplier.

Set the lower tariff periods. It is possible to set two different date periods per year. Within these periods, it is possible to set up to four different periods on weekdays (Monday to Friday) or four different periods on weekends (Saturdays and Sundays).



NOTE!

This menu can only be seen if Smart Energy Source™ is activated.

MENU 4.7.1 - VARIABLE ELECTRICITY PRICE

Here you can use tariff control for the electric additional heat.

Set the lower tariff periods. It is possible to set two different date periods per year. Within these periods, it is possible to set up to four different periods on weekdays (Monday to Friday) or four different periods on weekends (Saturdays and Sundays).

MENU 4.8 - TIME AND DATE

Set time and date, display mode and time zone here.



TIP!

Time and date are set automatically if connected to myUplink. To obtain the correct time, the time zone must be set.

MENU 4.9 - LANGUAGE

Choose the language that you want the information to be displayed in here.

MENU 4.10 - COUNTRY

Here, you specify the country in which the product has been installed. This allows access to country-specific settings in your product.

Language settings can be made regardless of this selection.



CAUTION!

This option locks after 24 hours, restart of display or program updating. Afterwards, it is not possible to change the country selected in this menu without first replacing components in the product.

MENU 4.11 - TOOLS

Here, you can find tools for use.

MENU 4.11.1 - INSTALLER DETAILS

The installer's name and telephone number are entered in this menu.

Afterwards, the details are visible in the home screen, "Product overview".

MENU 4.11.2 - SOUND WHEN PRESSING BUTTON

Alternative: on/off

Here you choose if you want to hear a sound when you press buttons on the display.

MENU 4.11.4 - HOME SCREEN

Alternative: on/off

Here, you choose which home screens you want to be displayed.

The number of options in this menu varies depending on which products and accessories are installed.

MENU 4.30 - ADVANCED

Menu "Advanced" is intended for advanced users.

MENU 4.30.4 - FACT. SETTINGS USER

All settings that are available to the user (including advanced menus) can be reset to default values here.



NOTE!

After the factory setting, personal settings such as the heating curve must be reset.

Menu 5 - Connection

OVERVIEW

5.1 - myUplink	
5.2 - Network settings	5.2.1 - wifi
	5.2.2 - Ethernet
5.4 - Wireless units	
5.10 - Tools	5.10.1 - Direct connection

MENU 5.1 - MYUPLINK

Here, you obtain information about the installation's connection status, serial number and how many users and service partners are connected to the installation. A connected user has a user account in myUplink, which has been given permission to control and/or monitor your installation.

You can also manage the installation's connection to myUplink and request a new connection string.

It is possible to switch off all users and service partners who are connected to the installation via myUplink.



CAUTION!

After disconnecting all users none of them can monitor or control your installation via myUplink without requesting a new connection string.

Add the wireless unit by pressing "Add unit". For the quickest identification of a wireless unit, it is recommended that you put your master unit in search mode first. Then put the wireless unit in identification mode.

MENU 5.10 - TOOLS

As the installer, you can e.g. connect an installation via an app here, by activating an access point for direct connection to a mobile phone.

MENU 5.10.1 - DIRECT CONNECTION

If you have a user account in myUplink PRO, you can activate direct connection via wifi. This means that the installation will lose communication with the relevant network, and that you instead make settings via your mobile unit, which you connect to the installation.

MENU 5.2 - NETWORK SETTINGS

Here, you choose whether your system connects to the Internet via wifi (menu 5.2.1) or via a network cable (Ethernet) (menu 5.2.2).

Here, you can set TCP/IP settings for your installation.

To set the TCP/IP settings with the aid of DHCP, activate "Automatic".

During manual setting, select "IP address" and enter the correct address using the keyboard. Repeat this procedure for "Network mask", "Gateway" and "DNS".



NOTE!

The installation cannot connect to the Internet without the correct TCP/IP settings. If you are unsure about applicable settings, use the "Automatic" mode or contact your network administrator (or equivalent) for further information.



TIP!

All settings made since opening the menu can be reset by selecting "Reset".

MENU 5.4 - WIRELESS UNITS

In this menu you connect wireless devices, and manage settings for connected devices.

Menu 6 - Scheduling

OVERVIEW

6.1 - Holiday

6.2 - Scheduling

MENU 6.1 - HOLIDAY

In this menu, you schedule longer changes in heating and hot water temperature.

You can also schedule settings for certain installed accessories.

If a room sensor is installed and activated, the desired room temperature (°C) is set during the time period.

If a room sensor is not activated, the desired offset of the heating curve is set. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required.



TIP!

Stop the holiday setting about a day before your return so that room temperature and hot water have time to return to their usual levels.



NOTE!

Holiday settings finish on the selected date. If you want to repeat the holiday setting once the end date has passed, go into the menu and change the date.

MENU 6.2 - SCHEDULING

In this menu, you schedule repeated changes of heating and hot water, for example.

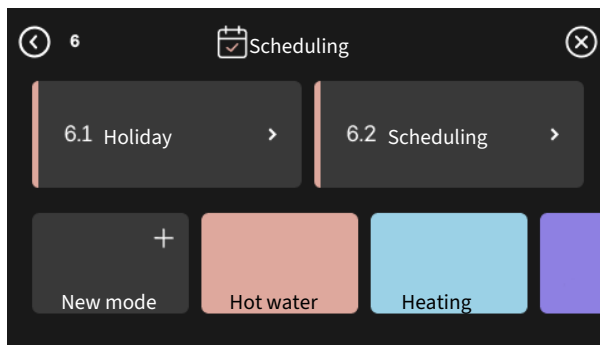
You can also schedule settings for certain installed accessories.



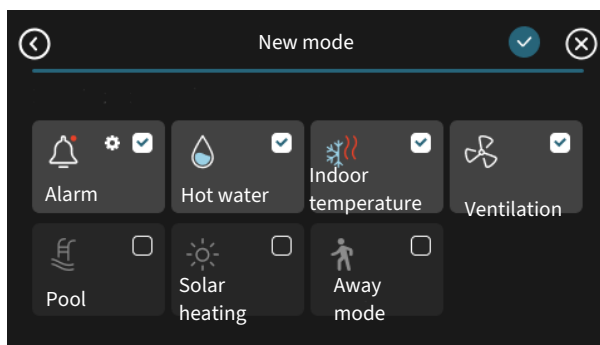
NOTE!

A schedule repeats according to the selected setting (e.g. every Monday) until you go into the menu and switch it off.

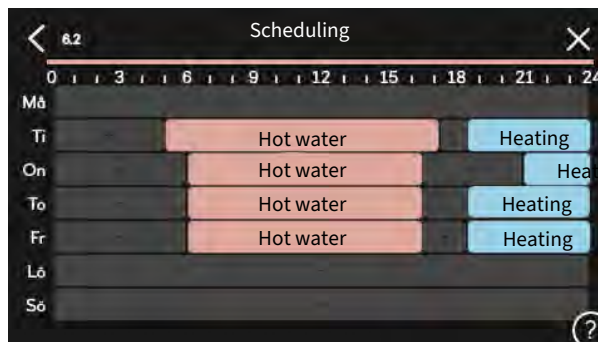
A mode contains settings that will apply to scheduling. Create a mode with one or more settings by pressing "New mode".



Select the settings that the mode will contain. Drag to the left with your finger to select mode name and colour to make it unique and to distinguish it from other modes.



Select an empty row and press it to schedule a mode, and adjust as required. You can enter a tick, if a mode is to be active during the day or overnight.



If a room sensor is installed and activated, the desired room temperature (°C) is set during the time period.

If a room sensor is not activated, the desired offset of the heating curve is set. One step is usually enough to change the room temperature by one degree, but in some cases several steps may be required.

Menu 7 - Service

OVERVIEW

7.1 - Operating settings	7.1.1 - Hot water	7.1.1.1 - Temperature setting
		7.1.1.3 - Domestic hot water settings
	7.1.2 - Circulation pumps	7.1.2.1 - Op. mode HM pump GP1
	7.1.2 - Circulation pumps	7.1.2.2 - Pp sp. heating medium GP1
		7.1.2.5 - Flow setting charge pump
	7.1.4 - Ventilation ¹	7.1.4.1 - Fan speed, exhaust air ¹
		7.1.4.2 - Fan speed, supply air ¹
		7.1.4.3 - Fine-tuning the ventilation ¹
		7.1.4.4 - Demand contr. ventilation ¹
	7.1.5 - Add. heat	7.1.5.1 - Int elec add heat
	7.1.6 - Heating	7.1.6.1 - Max diff supply temp
		7.1.6.2 - Flow settings, climate sys
		7.1.6.3 - Power at DOT
	7.1.7 - Cooling	7.1.7.1 - Cooling settings
		7.1.7.2 - Humidity control ¹
		7.1.7.3 - System settings cooling
		7.1.7.5 - Largest diff. cooling
	7.1.8 - Alarms	7.1.8.1 - Alarm actions
		7.1.8.2 - Emergency mode
	7.1.9 - Load monitor	
	7.1.10 - System settings	7.1.10.1 - Operating prioritisation
		7.1.10.2 - Auto mode setting
		7.1.10.3 - Degree minute settings
7.2 - Accessory settings ¹	7.2.1 - Add/remove accessories	
	7.2.19 - External energy meter	
7.3 - Multi-installation	7.3.1 - Configure	
	7.3.2 - Installed heat pump	
	7.3.3 - Name heat pump	7.3.2.1 - Heat pump settings
7.4 - Selectable in/outputs	7.4.1 - Enter a name BT37.x	
	7.4.2 - External power limiting	
7.5 - Tools	7.5.1 - Heat pump, test	7.5.1.1 - Test mode
	7.5.2 - Underfloor drying function	
	7.5.3 - Forced control	
	7.5.8 - Screen lock	
	7.5.9 - Modbus TCP/IP	
	7.5.13 - Third-party integration	7.5.13.1 - Modbus TCP/IP Ext.
		7.5.13.2 - EEBUS
7.6 - Factory setting service		
7.7 - Start guide		
7.8 - Quick start		
7.9 - Logs	7.9.1 - Change log	
	7.9.2 - Extended alarm log	
	7.9.3 - Black box	

¹ Consult the accessory's Installer Manual.

MENU 7.1 - OPERATING SETTINGS

Make operating settings for the system here.

MENU 7.1.1 - HOT WATER

This menu contains advanced settings for hot water operation.

MENU 7.1.1.1 - TEMPERATURE SETTING

Start temperature

Demand mode, small/medium/large

Setting range: 5 – 70 °C

Stop temperature

Demand mode, small/medium/large

Setting range: 5 – 70 °C

Start temp. and stop temp. demand mode, small/medium/large: Here, you set the start and stop temperature of the hot water for the different demand modes (menu 2.2).

MENU 7.1.1.3 - DOMESTIC HW SETTINGS

Setting range: 30 – 85 °C

Here you set the temperature for outgoing water. You can select between high or low flow.

An example of high flow is showering.

An example of low flow is washing up.

MENU 7.1.2 - CIRCULATION PUMPS

This menu contains sub-menus where you can make advanced circulation pump settings.

MENU 7.1.2.1 - OP. MODE HM PUMP GP1

Operating mode

Options: Auto, Intermittent

Auto: The heating medium pump runs according to the current operating mode for SVM S332.

Intermittent: The heating medium pump starts approx. 20 seconds before and stops 20 seconds after the compressor.

NOTE!

The selection "Intermittent" is only available in installations with external supply temperature sensor (BT25).

MENU 7.1.2.2 - PP SP. HEATING MEDIUM GP1

Heating

Auto

Alternative: on/off

Manual speed

Setting range: 1 – 100 %

Minimum permitted speed

Setting range: 1 – 50 %

Maximum permitted speed

Setting range: 80 – 100 %

Speed in wait mode

Setting range: 1 – 100 %

Cooling

Auto

Alternative: on/off

Auto

Alternative: on/off

Manual speed

Setting range: 1 – 100 %

Make settings here for the heating medium pump's speed in the current operating mode, for example in heating or hot water operation. Which operating modes can be changed depends on which accessories are connected.

Heating

Auto: Here, you set whether the heating medium pump is to be regulated automatically or manually.

Manual speed: If you have opted to control the heating medium pump manually, you set the desired pump speed here.

Minimum permitted speed: Here, you can restrict the pump speed to ensure that the heating medium pump is not allowed to operate at a lower speed in auto mode than the set value.

Maximum permitted speed: Here, you can restrict the pump speed to ensure that the heating medium pump is not allowed to operate at a higher speed than the set value.

Speed in wait mode: Here, you set the speed the heating medium pump will have in standby mode. Standby mode occurs when heating or cooling operation is permitted but there is no need for either compressor operation or electric additional heat.

Cooling

Auto: Here, you set whether the pump speed will be regulated automatically or manually.

Auto: Here, you set whether the heating medium pump is to be regulated automatically or manually.

Manual speed: If you have opted to control the heating medium pump manually, you set the desired pump speed here.

MENU 7.1.2.5 - FLOW SETTING CHARGE PUMP

Here, you activate flow calibration for heating medium pump (GP1)

Start flow calibration

A flow calibration can be started manually by pressing the "Start flow calibration" button. The system then schedules the measurement so that it affects regular operations as little as possible. If necessary, the measurement can also be started automatically, for example if deviations or problems are detected.

To optimise the system's performance for both heating and hot water, the product continuously measures the installation's flow characteristics. The results are used to control the charge pump in the most effective and resource-efficient way possible.

MENU 7.1.5 - ADD. HEAT

This menu contains sub-menus where you can make advanced additional heat settings.

MENU 7.1.5.1 - INT ELEC ADD HEAT

Max. set electrical power

Setting range 1x230 V: 0 – 7 kW

Setting range 3x400V: 0 – 9 kW

Max set el power (SG Ready)

Setting range 1x230 V: 0 – 4.5 kW

Setting range 3x400 V: 0 – 6.5 kW

Here you set the max electrical power for the internal electric additional heat in SVM S332, during normal operation and in overcapacity mode (SG Ready).

MENU 7.1.6 - HEATING

This menu contains sub-menus where you can make advanced settings for heating operation.

MENU 7.1.6.1 - MAX DIFF SUPPLY TEMP

Max diff compressor

Setting range: 1 – 25 °C

Max diff additional heat

Setting range: 1 – 24 °C

BT12 offset heat pump 1

Setting range: -5 – 5 °C

Here you set the maximum permitted difference between the calculated and actual supply temperature in the event of compressor or additional heat mode respectively. Max difference additional heat can never exceed max difference compressor

Max diff compressor: If the current supply temperature exceeds the calculated supply line by the set value, the degree minute value is set to 1. The compressor stops when there is only a heating demand.

Max diff additional heat: If "Additional heat" is selected and activated in menu 4.1 and the current supply temperature exceeds the calculated temperature by the set value, the additional heat is forced to stop.

BT12 offset: If there is a difference between the external supply temperature sensor (BT25) and condenser sensor, supply line (BT12), you can set a fixed offset here to compensate for the difference.

MENU 7.1.6.2 - FLOW SETTINGS, CLIMATE SYS

Setting

Options: Radiator, Underfl heating, Rad + Und. heat., Own setting

DOT

Setting range DOT: -40.0 – 20.0 °C

Delta temp at DOT

Setting range dT at DOT: 1.0 – 25.0 °C

The type of heating distribution system the heating medium pump works towards is set here.

dT at DOT is the difference in degrees between supply and return temperatures at design outdoor temperature.

MENU 7.1.6.3 - POWER AT DOT

Manually selected power at DOT

Alternative: on/off

Power at DOT

Setting range: 1 – 1,000 kW

Here, you set the power the property requires at DOT (dimensioned outdoor temperature).

If you choose not to activate "Manually selected power at DOT", the setting is made automatically, i.e. SVM S332 calculates suitable power at DOT.

MENU 7.1.7 - COOLING

This menu contains sub-menus where you can make advanced settings for cooling operation.

MENU 7.1.7.1 - COOLING SETTINGS

Super cooling

Alternative: on/off

Super cooling: With super cooling activated, the installation prioritises the production of cooling using the compressor, while hot water is produced by additional heating in the tank.

MENU 7.1.7.3 - SYSTEM SETTINGS COOLING

Delta at +20°C

Setting range: 3 – 10 degrees

Delta at +40 °C

Setting range: 3 – 20 degrees

Here you set the desired delta between supply and return lines during cooling operation.

MENU 7.1.7.5 - LARGEST DIFF. COOLING

Largest diff. cooling

Setting range: 0 – 4

Here, you set the permitted difference between the supply temperature and the lowest calculated supply temperature for cooling. The selected value determines how far below the value in menu 1.30.5 - "Lowest supply cooling" the supply line may operate before the compressor stops.

MENU 7.1.8 - ALARMS

In this menu, you make settings for the safety measures that SVM S332 will implement in the event of any operational disruption.

MENU 7.1.8.1 - ALARM ACTIONS

Reduce room temperature

Alternative: on/off

Stop producing HW

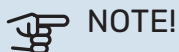
Alternative: on/off

Audio signal on alarm

Alternative: on/off

Select how you want the SVM S332 to alert you that there is an alarm in the display here.

The different alternatives are that SVM S332 stops producing hot water and/or reduces the room temperature.



NOTE!

If no alarm action is selected, this can result in higher energy consumption in the event of a malfunction.

MENU 7.1.8.2 - EMERGENCY MODE

Immersion heater output

Setting range 1x230 V: 4 – 4.5 kW

Setting range 3x400 V: 4 – 6.5 kW

Settings are made in this menu for how the additional heat will be controlled in emergency mode.



NOTE!

In emergency mode, the display is switched off. If you feel the selected settings are insufficient in emergency mode, you will not be able to change these.

MENU 7.1.9 - LOAD MONITOR

Fuse size

Setting range: 1 – 400 A

Transformer ratio

Setting range: 300 – 3,000

Detect phase sequence

Alternative: on/off

Here, you set fuse size and transformer ratio for the system. The transformer ratio is the factor that is used to convert the metered voltage to current.

Here, you can also check which current sensor is installed on which incoming phase to the property (this requires the current sensors to be installed). Perform the check by selecting "Detect phase sequence".



TIP!

Search again, if the phase detection fails. The detection process is very sensitive and is easily affected by other appliances in the property.

MENU 7.1.10 - SYSTEM SETTINGS

You make your various system settings for your installation here.

MENU 7.1.10.1 - OPERATING PRIORITISATION

Auto mode

Alternative: on/off

Min

Setting range: 0 – 180 minutes

Here, you select how long the installation will work with each demand, if there are several simultaneous demands.

"Operating prioritisation" is normally set in "Auto mode", but it is also possible to set prioritisation manually.

Auto mode: In auto mode, SVM S332 optimises operating times between different requirements.

Manual: You select how long the installation will work with each demand, if there are several demands at the same time.

If there is only one demand, the installation works with that demand.

If 0 minutes are selected, this means that the demand is not prioritised, but will instead only be activated when there is no other demand.

MENU 7.1.10.2 - AUTO MODE SETTING

Start cooling

Setting range: 15 – 40 °C

Stop heating

Setting range: -20 – 40 °C

Stop additional heat

Setting range: -25 – 40 °C

Filtering time heating

Setting range: 0 – 48 h

Filtering time, cooling

Setting range: 0 – 48 h

Time betw. cooling and heating

Setting range: 0 – 48 h

Cooling/heat sensor

Setting range: None, BT74, Zone 1 - x

Set point value cool/heat sensor

Setting range: 5 – 40 °C

Heating at subnormal room temp

Setting range: 0.5 – 10.0 °C

Cooling at excess room temp

Setting range: 0.5 – 10.0 °C

Start cooling, Stop heating, Stop additional heat: In these menu options, you set the temperatures that the system will use for control in auto mode.

NOTE!

It cannot be set "Stop additional heat" higher than "Stop heating".

Filtering time heating: You can set the time over which the average outdoor temperature is calculated. If you select 0, the current outdoor temperature is used.

Time betw. cooling and heating: Here, you can set how long SVM S332 will wait before it returns to heating mode when the cooling demand has ceased or vice versa.

Cooling/heat sensor: Here, you select the sensor that will be used for cooling/heating. If BT74 is installed, it will be preselected and no other option is possible.

Set point value cool/heat sensor: Here, you can set the indoor temperature at which SVM S332 will shift between heating and cooling operation.

Heating at subnormal room temp: Here, you can set how far the room temperature may drop below the desired temperature before SVM S332 switches to heating operation.

Cooling at excess room temp: Here, you can set how high the room temperature may rise above the desired temperature before SVM S332 switches to cooling operation.

MENU 7.1.10.3 - DEGREE MINUTE SETTINGS

Current value

Setting range: -3,000 – 3,000 DM

Heating, auto

Alternative: on/off

Start compressor

Setting range: -1,000 – (-30) DM

Relative DM start additional heat

Setting range: 100 – 2,000 DM

Diff. between add heat steps

Setting range: 10 – 1,000 DM

DM = degree minutes

Degree minutes (DM) are a measure of the current heating/cooling demand in the property and determine when the compressor or additional heat will start/stop.



NOTE!

Higher value on "Start compressor" gives more compressor starts, which increase wear on the compressor. Too low value can give uneven indoor temperatures.

MENU 7.2 - ACCESSORY SETTINGS

The operating settings for accessories that are installed and activated are made in the sub-menus for this.

MENU 7.2.1 - ADD/REMOVE ACCESSORIES

Here, you tell SVM S332 which accessories are installed.

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

MENU 7.2.19 - PULSE ENERGY METER

Activated

Alternative: on/off

Set mode

Alternatives: Energy per pulse / Pulses per kWh

Energy per pulse

Setting range: 0 – 10000 Wh

Pulses per kWh

Setting range: 1 – 10000

Up to two electricity meters or energy meters (BE6-BE7) can be connected to SVM S332.

Energy per pulse: Here you set the amount of energy to which each pulse will correspond.

Pulses per kWh: Here, you set the number of pulses per kWh that are sent to SVM S332.



TIP!

"Pulses per kWh" is set and presented in whole numbers. If a higher resolution is required, use "Energy per pulse".

MENU 7.3 - MULTI-INSTALLATION

You make settings for the outdoor unit that is connected to SVM S332 in the sub-menus.

MENU 7.3.1 - CONFIGURE

Search installed heat pumps: Here, you can search for, activate or deactivate the connected outdoor unit.

MENU 7.3.2 - INSTALLED HEAT PUMP

Here, you make settings that are specific for the installed outdoor unit.

MENU 7.3.2.1 - HEAT PUMP SETTINGS

Here, you make settings that are specific for the installed outdoor unit.

Cooling permitted

Alternative: on/off

Silent mode permitted

Alternative: on/off

Max. frequency 1

Setting range: 25 Hz -

The setting range depends on the outdoor unit's size and sound requirements.

Max. frequency 2

Setting range: 25 Hz -

The setting range depends on the outdoor unit's size and sound requirements.

Compressor phase

Setting range SVM S332 1 x 230 V: L1, L2, L3

Detect compressor phase

Alternative SVM S332 1 x 230 V: on/off

Current limit

Alternative SVM S332 1 x 230 V: on/off

Max. current

Setting range SVM S332 1 x 230 V: 6 - 32 A

Stop temperature compressor

Setting range -25 - -2 °C

BlockFreq 1 and 2

Setting range, heating: 25 - 120 Hz

Setting range, cooling: 25 - 120 Hz

Cooling permitted: Here, you can set whether the cooling function will be activated for the outdoor unit.

Silent mode permitted: Here, you set whether silent mode will be activated for the outdoor unit. Please note that you now have the option to schedule when silent mode will be active. The function should only be used for limited periods, because AMS 20 might not reach its dimensioned power.

Detect compressor phase: This shows the phase in which the outdoor unit has been detected if you have SVM S332 1x230 V. Phase detection is normally automatic in connection with start-up of the indoor module. This setting can be changed manually.

Current limitation: Here, you set whether the current limitation function will be activated for the outdoor unit, if you have SVM S332 1x230 V. During active function, you can limit the value of the maximum current.

BlockFreq 1-2: Here, you can select the frequency ranges within which the outdoor unit is not permitted to work. This function can be used if certain compressor speeds cause disruptive noise in the house. The setting range varies depending on heat pump model and size.

MENU 7.3.3 - NAME HEAT PUMP

Here, you give a name the outdoor unit that is connected to SVM S332.

MENU 7.4 - SELECTABLE IN/OUTPUTS

Here, you state where the external switch function has been connected, either to one of the AUX inputs on terminal block X28 or to the AUX output on terminal block X27.

MENU 7.4.1 - ENTER A NAME BT37.X

In this menu, you can change the name of your AUX-connected BT37 sensors.

The sensor's designation (BT37.1, BT37.2, BT37.3, BT37.4, BT37.5, BT37.6) will be added to the name you give the sensor.

MENU 7.4.2 - EXTERNAL POWER LIMITING

Power limiting

Setting range: 0.0 - 100.0 kW

For markets where the mains network operator requires dynamic control of the mains network's load.

In this menu, you set the fixed value to which the compressor's and the immersion heater's operating power will be limited.

This function is suitable for use during the hours when the property is using the most electricity.

MENU 7.5 - TOOLS

Here, you can find functions for maintenance and service work.

MENU 7.5.1 - HEAT PUMP, TEST



CAUTION!

This menu and its sub-menus are intended for testing the outdoor unit.

Use of this menu for other reasons may result in your installation not functioning as intended.

MENU 7.5.2 - UNDERFLOOR DRYING FUNCTION

Length period 1 - 7

Setting range: 0 - 30 days

Temperature period 1 - 7

Setting range: 15 - 70 °C

Set the function for under floor drying here.

You can set up to seven time periods with different calculated supply temperatures. If fewer than seven periods are to be used, set the remaining periods to 0 days.

When the underfloor drying function has been activated, a counter is displayed showing the number of full days the function has been active. The function counts degree minutes in the same way as during normal heating operation, but for the supply temperatures that are set for the respective period.



TIP!

If operating mode "Add. heat only"⁶ is to be used, select it in menu 4.1.

Once set under floor drying periods have finished, reset menu 4.1.

MENU 7.5.3 - FORCED CONTROL

Here you can force control the various components in the installation. The most important safety functions remain active however.



CAUTION!

Forced control is only intended to be used for troubleshooting purposes. Using the function in any other way may cause damage to the components in your installation.

MENU 7.5.8 - SCREEN LOCK

Here, you can choose to activate the screen lock for SVM S332. During activation, you will be asked to enter the required code (four digits). The code is used when:

- deactivating the screen lock.
- changing the code.
- starting up the display when it has been inactive.
- restarting/starting up SVM S332.

⁶ Only SVM S332 3x400 V with shunt valve QN11.

MENU 7.5.9 - MODBUS TCP/IP

Alternative: on/off

Here, you activate Modbus TCP/IP. Read more on page 73.

MENU 7.5.13 - THIRD-PARTY INTEGRATION

Here, you manage connections to external services.

MENU 7.5.13.1 - MODBUS TCP/IP EXT.

Alternative: on/off

Here, you activate Modbus TCP/IP for external services.

MENU 7.5.13.2 - EEBUS

Alternative: on/off

Here, you can activate EEBUS communication.

MENU 7.6 - FACTORY SETTING SERVICE

Here, you can reset all settings (including settings available to the user) to factory values

Here, you can also choose to reset the connected outdoor unit to the factory settings.



CAUTION!

When resetting, the start guide is displayed the next time SVM S332 restarts.

MENU 7.7 - START GUIDE

When SVM S332 is started for the first time, the start guide is automatically activated. From this menu, you can start it manually.

MENU 7.8 - QUICK START

You can quick start the compressor here.

One of the following demands for the compressor must exist for quick start:

- heating
- hot water
- cooling



NOTE!

For it to be possible to quick-start the compressor, it must have reached the correct temperature. It can take up to 30 minutes to preheat the compressor.



NOTE!

Too many quick starts in a short space of time may damage the compressor and its auxiliary equipment.

MENU 7.9 - LOGS

Under this menu, there are logs that collect information about alarms and changes made. The menu is intended to be used for troubleshooting.

MENU 7.9.1 - CHANGE LOG

Read off any previous changes to the control system here.



CAUTION!

The change log is saved at restart and remains unchanged after factory setting.

MENU 7.9.2 - EXTENDED ALARM LOG

This log is intended to be used for troubleshooting.

MENU 7.9.3 - BLACK BOX

Via this menu, it is possible to export all logs (Change log, Extended alarm log) to USB. Connect a USB memory and select the log(s) you want to export.

Service

Service actions



CAUTION!

Servicing and maintenance should only be carried out by persons with the necessary expertise.

When replacing components on SVM S332 only replacement parts from NIBE may be used.

EMERGENCY MODE



CAUTION!

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

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

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).

When SVM S332 is put in emergency mode, the display is switched off and the most basic functions are active:

- The immersion heater works to maintain the calculated supply temperature. If there is no outdoor temperature sensor (BT1), the immersion heater works to maintain the maximum supply temperature, set in menu 1.30.6 - "Highest supply heat"¹.
- Only the circulation pumps and electric additional heat are active. Max output for the immersion heater in emergency mode, limited according to the setting in menu 7.1.8.2 - "Emergency mode".

¹ Only SVM S332 3x400 V with shunt valve QN11.

DRAINING THE HOT WATER

Draining the hot water heat exchanger and the storage tank for hot water.

1. Close the shut-off valves to the climate system.
2. Connect a hose to the drain valve for heating medium (QM1).
3. Open the vent valves (QM23.2 – QM23.5).
4. Open the drain valve for the heating medium (QM1).



TIP!

If you only want to empty the hot water heat exchanger, you only need to drain approx 10 litres of water.

DESCALING THE HOT WATER HEAT EXCHANGER

1. Drain the hot water heat exchanger (EP3), see section "Draining the hot water". The siphon principle is used to drain the hot water heat exchanger.
2. Mix water and citric acid into a solution. Use a 5–10 % concentration of citric acid.
3. Pour the solution into the hot water heat exchanger. Make sure the hot water heat exchanger is completely filled and that there are no air pockets.
4. Allow the solution to work in the hot water heat exchanger for up to 1–2 hours, depending on the extent of the deposits. Avoid prolonged exposure, because the hot water heat exchanger could sustain damage.
5. Check at regular intervals (e.g. every 30 minutes) to see how the descaling is progressing.
6. After the solution has been allowed to work, rinse the hot water heat exchanger thoroughly with clean water to ensure that the citric acid solution is flushed out.

DRAINING THE CLIMATE SYSTEM

In order to carry out service on the climate system, it may be easier to drain the system first.



NOTE!

This does not drain the UKV vessel. When draining the UKV vessel, a siphon needs to be used in the heating medium connection, supply (XL1). All servicing can be carried out without draining the UKV vessel.



CAUTION!

There may be some hot water, risk of scalding.

1. Connect a hose to the drain valve for heating medium (QM1).
2. Open the vent valves (QM23.2 – QM23.5).
3. Open the drain valve for the heating medium (QM1).

REMOVING A UNIT

To remove a unit or replace the outdoor unit, the following steps need to be taken:

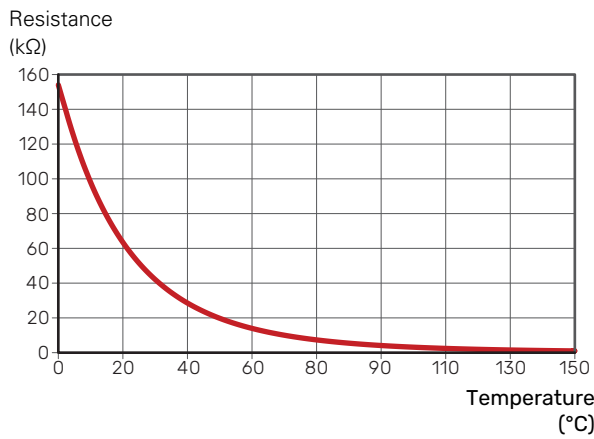
1. Set the machine in "Add. heat only" in menu 4.1 – Operating mode.
2. Select "Pump down start" in menu 7.3.2 – Installed heat pump.
3. When the compressor has finished working, the transfer of the refrigerant is complete.

DATA FOR TEMPERATURE SENSOR IN THE INDOOR UNIT

Temperature (°C)	Resistance (kOhm)	Voltage (VDC)
-10	56.20	3.047
0	33.02	2.889
10	20.02	2.673
20	12.51	2.399
30	8.045	2.083
40	5.306	1.752
50	3.583	1.426
60	2.467	1.136
70	1.739	0.891
80	1.246	0.691

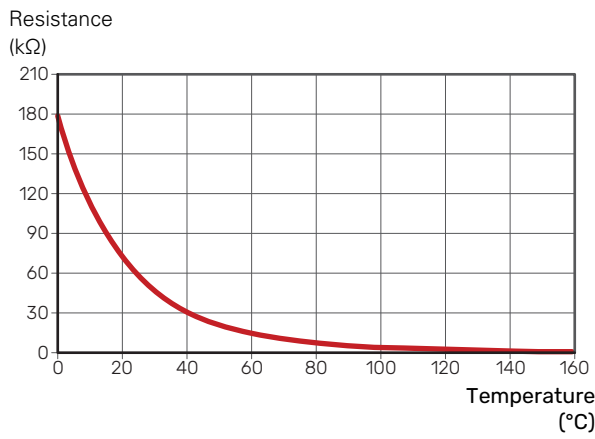
DATA FOR SENSOR IN AMS 20-6

Tho-D

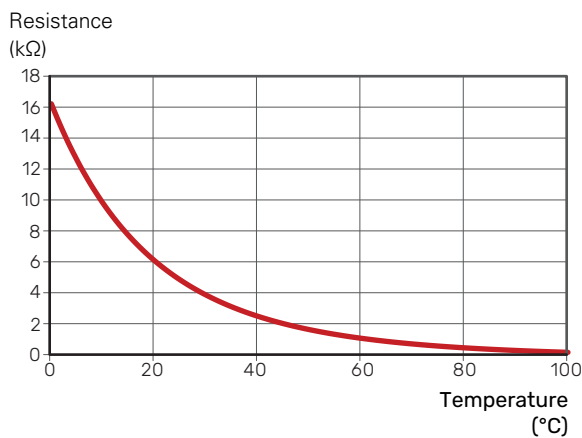


DATA FOR SENSOR IN AMS 20-10

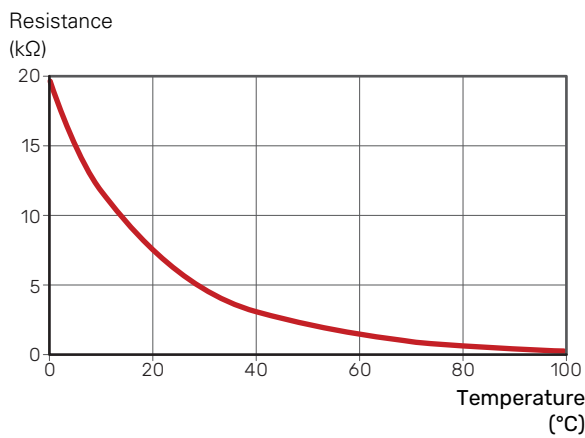
Tho-D



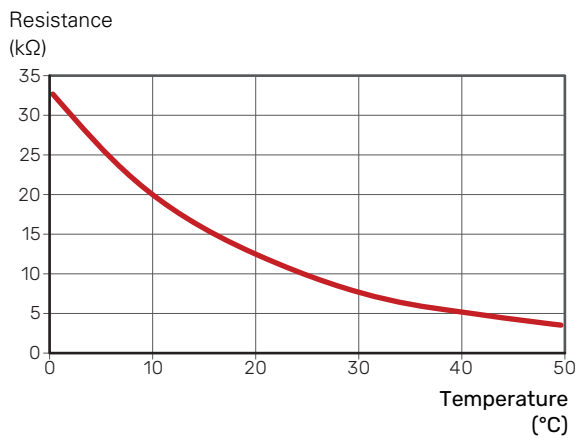
Tho-A, R



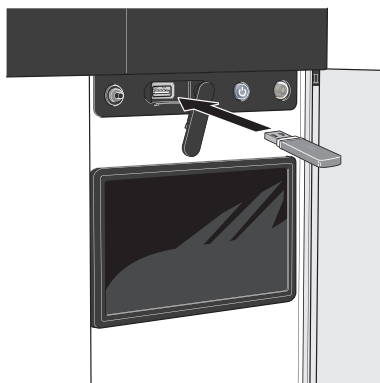
Tho-S, Tho-R1, Tho-R2



BT28 (Tho-A)



USB SERVICE OUTLET



When a USB memory is connected, a new menu (menu 8) appears in the display.

Menu 8.1 - "Update the software"

You can update the software with a USB memory in menu 8.1 - "Update the software".



CAUTION!

In order to update using a USB memory, the memory must contain a file with software for SVM S332 from NIBE.

Software for SVM S332 can be downloaded from myuplink.com.

One or more files are shown in the display. Select a file and press "OK".



TIP!

A software update does not reset the menu settings in SVM S332.



NOTE!

If the update is interrupted before it is complete (e.g. during a power cut), the software is automatically restored to the previous version.

Menu 8.2 - Logging

Interval

Setting range: 1 s – 60 min

Here you can choose how current measurement values from SVM S332 should be saved onto a log file on the USB memory.

1. Set the desired interval between loggings.
2. Select "Start logging".
3. The relevant measurement values from SVM S332 are now saved in a file on the USB memory at the set interval until you select "Stop logging".



NOTE!

Select "Stop logging" before removing the USB memory.

Logging floor drying

Here you can save a floor drying log on the USB memory and in this way see when the concrete slab reached the correct temperature.

- Make sure that "Underfloor drying function" is activated in menu 7.5.2.
- A log file is now created, where the temperature and the immersion heater output can be read off. Logging continues until "Underfloor drying function" is stopped.



NOTE!

Close "Underfloor drying function" before removing the USB memory.

Menu 8.3 - Manage settings

Save settings

Alternative: on/off

Display backup

Alternative: on/off

Restore settings

Alternative: on/off

In this menu, you save/upload menu settings to/from a USB memory stick.

Save settings: Here, you save menu settings in order to restore them later or to copy the settings to another SVM S332.

Display backup: Here, you save both menu settings and measurement values, such as energy data.



NOTE!

When you save menu settings to the USB memory, you replace any previously saved settings on the USB memory.

Restore settings: Here, you upload all menu settings from the USB memory stick.



NOTE!

Resetting of menu settings from the USB memory cannot be undone.

Manual restoring of software

If you want to restore the software to the previous version:

1. Switch off SVM S332 via the shutdown menu. The status lamp goes out, off/on button light up blue.
2. Press the on/off button once.

3. When the on/off button changes colour from blue to white, press and hold the on/off button.
4. When the status lamp changes to green, release the on/off button.



NOTE!

If the status lamp should turn yellow at any time, SVM S332 has ended up in emergency mode and the software has not been restored.



TIP!

If you have a previous version of the software on your USB memory, you can install that instead of manually restoring the version.

Menu 8.5 - Export energy logs

From this menu, you can save your energy logs to a USB memory.

MODBUS TCP/IP

SVM S332 has built-in support for Modbus TCP/IP, which is activated in menu 7.5.9 - "Modbus TCP/IP".

TCP/IP settings are set in menu 5.2 - "Network settings".

Only connections from IP addresses within the local address space as specified below:

10.0.0.0 - 10.255.255.255

172.16.0.0 - 172.31.255.255

192.168.0.0 - 192.168.255.255

Modbus protocol uses port 502 for communication.

Readable	ID	Description
Read	0x04	Input Register
Read writable	0x03	Holding Register
Writable multiple	0x10	Write multiple registers
Writable single	0x06	Write single register

Available registers are shown in the display for the current product and its installed and activated accessories.

Export register

1. Insert a USB memory.
2. Go to menu 7.5.9 and choose "Export most used registers" or "Export all registers". These will then be stored on the USB memory in CSV format. (These options are only shown when a USB memory is inserted in the display).

IP address restriction

1. Go to menu 7.5.9 and choose IP address restriction.
2. Enter the IP address that is allowed to communicate with the system.



CAUTION!

Modbus/TCP communication over the open internet is very risky and is not recommended.

MAC address

Go to menu 3.1.13 - "Connections" to see the MAC address.

Reading only

Reading Modbus only means that no values can be sent to the system, only reading of values is possible.

Local REST API

Go to menu 7.1.15 - "Local REST API" to activate the function. For more information see "myUplink".

Disturbances in comfort

In most cases, the SVM S332 notes a malfunction and indicates this with alarms and presents action instructions in the display.

Info-menu

All the indoor module's measured values are gathered under menu 3.1 - "Operating info" in the indoor module's menu system. Examining the values in this menu can often make it easier to identify the source of the fault.

Manage alarm

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.

ALARM

In the event of an alarm with a red status lamp, a malfunction has occurred that SVM S332 cannot remedy itself. On the display, you can see what type of alarm it is and reset it.

In many cases, it is sufficient to select "Reset alarm" for the installation to revert to normal operation.

If a white light comes on after selecting "Reset alarm", the alarm has been remedied.

"Auxiliary operation" is a type of emergency mode. This means that the installation tries to produce heat and/or hot water, even though there is some kind of problem. This could mean that the compressor is not in operation. In this case, any electric additional heating produces heat and/or hot water.



NOTE!

To select "Start auxiliary mode", an alarm action must be selected in the menu 7.1.8.1 - "Alarm actions".



NOTE!

Selecting "Start auxiliary mode" is not the same as correcting the problem that caused the alarm. Therefore, the status lamp will remain red.

Troubleshooting

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

BASIC ACTIONS

Start by checking the following items:

- Group and main fuses of the building.
- The building's earth circuit breaker.
- Indoor unit's RCD.
- Miniature circuit-breaker for SVM S332 (FC1)¹.
- Temperature limiter for SVM S332 (FQ10).
- Correctly set load monitor.

¹ Only SVM S332 1x230 V.

LOW HOT WATER TEMPERATURE OR A LACK OF HOT WATER

- Closed or throttled externally mounted filling valve for the hot water.
 - Open the valve.
- Mixing valve (if there is one installed) set too low.
 - Adjust the mixer valve.
- SVM S332 in incorrect operating mode.
 - Enter menu 4.1 - "Operating mode". If "Auto" mode is selected, select a higher value for "Stop additional heat" in menu 7.1.10.2 - "Auto mode setting".
 - Hot water is produced with SVM S332 in "Manual" mode. If there is no outdoor unit, "Additional heat" must ⁷ be activated.
- Large hot water consumption.
 - Wait until the hot water has heated up. Temporarily increased hot water capacity can be activated in the "Hot water" home screen, in menu 2.1 - "More hot water" or via myUplink.
- Too high domestic water flow.
 - Reduce the domestic water flow, see technical specifications for the hot water capacity in the "Technical specifications" section.
- Too low hot water setting.
 - Enter menu 2.2 - "Hot water demand" and select a higher demand mode.
- Low hot water access with the "Smart Control" function active.

⁷ Only SVM S332 with shunt valve QN11.

- If the hot water usage has been low for an extended period of time, less hot water than normal will be produced. Activate "More hot water" via the "Hot water" home screen, in menu 2.1 – "More hot water" or via my-Uplink.
- The supply temperature for the hot water is set too low.
 - Adjust the supply temperature in menu 7.1.1.3 – "Domestic HW settings".
- Too low or no operating prioritisation of hot water.
 - Enter menu 7.1.10.1 – "Operating prioritisation" and increase the time for when hot water is to be prioritised. Note that, if the time for hot water is increased, the time for heating production is reduced, which can give lower/uneven room temperatures.
- "Holiday" activated in menu 6.
 - Enter menu 6 and deactivate.
- The hot water heat exchanger is clogged
 - Clean the limescale deposits from the hot water heat exchanger (EP3) using water and citric acid. See how to do this in section "Descaling the hot water heat exchanger".

LOW ROOM TEMPERATURE

- Closed thermostats in several rooms.
 - Set the thermostats to max in as many rooms as possible. Adjust the room temperature via the "Heating" home screen, rather than turning down the thermostats.
 - SVM S332 in incorrect operating mode.
 - Enter menu 4.1 – "Operating mode". If "Auto" mode is selected, select a higher value for "Stop heating" in menu 7.1.10.2 – "Auto mode setting".
 - If mode "Manual" is selected, select "Heating". If this is not enough, also select "Additional heat"¹.
- ¹ Only SVM S332 3x400 V with shunt valve QN11.
- Too low set value on the automatic heating control.
 - Adjust via the smart guide or home screen "Heating"
 - If the room temperature is only low in cold weather, the curve slope in menu 1.30.1 – "Curve, heating" may need to be adjusted upwards.
 - Too low or no operating prioritisation of heat.
 - Enter menu 7.1.10.1 – "Operating prioritisation" and increase the time for when heating is to be prioritised. Note that if the time for heating is increased, the time for hot water production is reduced, which can give a smaller amount of hot water.
 - "Holiday" activated in menu 6 – "Scheduling".
 - Enter menu 6 and deactivate.
 - External switch for changing room temperature activated.
 - Check any external switches.

- Air in the climate system.
 - Vent the climate system.
- Closed valves to the climate system.
 - Open the valves.

HIGH ROOM TEMPERATURE

- Too high set value on the automatic heating control.
 - Adjust via the smart guide or home screen "Heating"
 - If the room temperature is only high in cold weather, the curve slope in menu 1.30.1 – "Curve, heating" may need to be adjusted downwards.
- External switch for changing room temperature activated.
 - Check any external switches.
- Value set too low on the automatic cooling control.
 - Adjust via the Smartguide or home screen "Cooling".
 - If the room temperature is only high in cold weather, the curve slope in menu 1.30.2 – "Curve, cooling" may need to be adjusted downwards.

UNEVEN ROOM TEMPERATURE.

- Incorrectly set heating curve.
 - Fine-tune the heating curve in menu 1.30.1.
- Too high set value on "DOT"..
 - Enter menu 7.1.6.2 – "flow set. climate system" and reduce the value of "DOT".
- Uneven flow over the radiators.
 - Adjust the flow distribution over the radiators.

LOW SYSTEM PRESSURE

- Not enough water in the climate system.
 - Fill the climate system with water and check for leaks (see chapter "Filling and venting").

THE OUTDOOR UNIT'S COMPRESSOR DOES NOT START

- There is no heating or hot water demand, nor cooling demand.
 - SVM S332 does not call on heating, hot water or cooling.
- Compressor blocked due to the temperature conditions.
 - Wait until the temperature is within the product's working range.
- Minimum time between compressor starts has not been reached.
 - Wait for at least 30 minutes and then check if the compressor has started.
- Alarm tripped.
 - Follow the display instructions.

Alarm list

Alarm SVM S332	Alarm text on the display	Description	May be due to
103	Sensor fault BT3	Sensor fault, Sensor incoming water in SVM S332 (BT3).	- Open circuit or short circuit on sensor input - Sensor does not work - Defective communication board AA23 in SVM S332
108	Sensor fault BT12	Sensor fault, Sensor outgoing water in SVM S332 (BT12).	- Open circuit or short circuit on sensor input - Sensor does not work - Defective communication board AA23 in SVM S332
	Sensor fault BT15	Sensor fault, Sensor liquid line in SVM S332 (BT15).	- Open circuit or short circuit on sensor input - Sensor does not work - Defective communication board AA23 in SVM S332
215	High condenser out	Too high temperature out from the condenser. Self-resetting.	- Low flow during heating operation - Too high set temperatures
216	High condenser in	Too high temperature into the condenser. Self-resetting.	Temperature generated by another heat source
221	Defrosting in progress	not an alarm, but an operating status instead.	Set when the heat pump runs the defrosting procedure
229	HP alarm	The high pressure switch (63H1) deployed 5 times within 60 minutes or for 60 minutes continuously.	- Insufficient air circulation or blocked heat exchanger - Open circuit or short circuit on input for high pressure switch (63H1) - Defective high pressure switch - Expansion valve not connected correctly - Service valve closed - Defective control board in AMS 20 - Low or no flow during heating operation - Defective circulation pump - Defective fuse, F(4A)
230	LP alarm	Too low a value on the low pressure sensor (LPT) 3 times within 60 minutes.	- Open circuit or short circuit on input for low pressure sensor - Defective low pressure sensor (LPT) - Defective control board in AMS 20 - Open circuit or short circuit on input for suction gas sensor (Tho-S) - Defective suction gas sensor (Tho-S) - Lack of refrigerant
232	OU Com. error	Communication between the control board and the communication board is interrupted. There must be 22 volt direct current (DC) at the switch CNW2 on the control board (PWB1).	- Any circuit breakers for AMS 20 off - Incorrect cable routing - Damaged cable - PWB1-board defective - Communication board defective - Lack of refrigerant.
233	Fan alarm	Deviations in the fan speed in AMS 20.	- The fan cannot rotate freely - Defective control board in AMS 20 - Defective fan motor - Fuse (F2) blown
238	Continuously high hot gas	Temperature deviation on the hot gas sensor (Tho-D) twice within 60 minutes or for 60 minutes continuously.	- Sensor does not work - Insufficient air circulation or blocked heat exchanger - If the fault persists during cooling, there may be an insufficient amount of refrigerant. - Defective control board in AMS 20
247	Communication error	Communication fault with accessory board	- AMS 20 not powered - Fault in the communication cable.
251	High temperature in heat exchanger	Temperature deviation on the heat exchanger sensor (Tho-R1/R2) five times within 60 minutes or for 60 minutes continuously.	- Sensor does not work - Insufficient air circulation or blocked heat exchanger - Defective control board in AMS 20 - Too much refrigerant
252	Power transistor too hot	When IPM (Intelligent power module) displays FO-signal (Fault Output) five times during a 60-minute period.	Can occur when 15V power supply to the inverter PCB is unstable.
253	Inverter error	Voltage from the inverter outside the parameters four times within 30 minutes.	- Incoming power supply interference - Service valve closed - Insufficient amount of refrigerant - Compressor fault - Defective circuit board for inverter in AMS 20

Alarm SVM S332	Alarm text on the display	Description	May be due to
254	Inverter error	Communication between circuit board for inverter and control board broken.	• Open circuit in connection between boards • Defective circuit board for inverter in AMS 20 • Defective control board in AMS 20
255	Inverter error	Continuous deviation on power transistor for 15 minutes.	• Defective fan motor • Defective circuit board for inverter in AMS 20
256	Not enough refrigerant	Not enough refrigerant is detected on start-up in cooling mode.	• Service valve closed • Loose connection sensor (BT15, BT3) • Defective sensor (BT15, BT3) • Too little refrigerant
257	Inverter error	Failed start for compressor	• Defective circuit board for inverter in AMS 20 • Defective control board in AMS 20 • Compressor fault
258	Inverter error	Overcurrent, Inverter A/F module	• Sudden power failure
260	Cold outdoor air	Temperature of BT28 (Tho-A) below the set value that permits operation	• Cold weather conditions • Sensor fault
261	Hot outdoor air	Temperature of BT28 (Tho-A) above the value that permits operation	• Warm weather conditions • Sensor fault
147	Sensor fault Tho-R	Sensor fault, heat exchanger in AMS 20 (Tho-R).	• Open circuit or short circuit on sensor input • Sensor does not work • Defective control board in AMS 20
148	Sensor fault Tho-A	Sensor fault, outdoor temperature sensor in AMS 20 BT28 (Tho-A).	• Open circuit or short circuit on sensor input • Sensor does not work • Defective control board in AMS 20
149	Sensor fault Tho-D	Sensor fault, hot gas in AMS 20 (Tho-D).	• Open circuit or short circuit on sensor input • Sensor does not work • Defective control board in AMS 20
150	Sensor fault Tho-S	Sensor fault, suction gas in AMS 20 (Tho-S).	• Open circuit or short circuit on sensor input • Sensor does not work • Defective control board in AMS 20
151	Sensor fault LPT	Sensor fault, low-pressure sensor in AMS 20.	• Open circuit or short circuit on sensor input • Sensor does not work • Defective control board in AMS 20 • Fault in the refrigerant circuit
269	Non-compatible outdoor air heat pump	Outdoor unit and indoor unit/control unit do not function together properly due to technical parameters.	• Outdoor module and indoor module/control module are not compatible.

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 required.

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

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

ELK 5

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

ELK 15

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

ELK 42

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

ELK 8

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

ELK 26

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

ELK 213

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 climate systems that require different supply temperatures.

ECS 40

Max 80 m²
Part no 067 287

ECS 41

Approx. 80–250 m²
Part no 067 288

HUMIDITY SENSOR HTS 40

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

Part no. 067 538

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 S10-400¹

Part no. 066 163

ERS 20-250²

Part no. 066 068

ERS 30-400³

Part no. 066 165

ERS S40-400

Part no. 066 242

¹ A preheater may be required.

² A preheater may be required.

³ 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

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

HR 10

Recommended max fuse for control current 10 A.
Part no 067 309

COMMUNICATION MODULE FOR SOLAR ELECTRICITY EME 20

EME 20 is used to enable communication and control between inverters for solar cells from NIBE and SVM S332.

Part no. 057 215

CONDENSATION WATER PIPE KVR

Condensation water pipe with heating cable, different lengths.

KVR 12-10

1 metres
Part no. 067 932

KVR 12-30

3 metres
Part no. 067 933

KVR 12-60

6 metres
Part no. 067 934

REFRIGERANT PIPE KIT

Refrigerant pipe, different lengths.

RPK 10-120

1/4" / 1/2", 12 metres, insulated, for SVM S332-6

Part no. 067 889

RPK 12-120

1/4" / 5/8", 12 metres, insulated, for SVM S332-10

Part no. 067 830

ROOM UNIT RMU S40

The room unit is an accessory with a built-in room temperature sensor and humidity sensor, which allows the control and monitoring of SVM S332 to be carried out in a different part of the property to where it is located.

Part no. 067 650

SOLAR PACKAGE NIBE PV

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

ACCESSORY CARD AXC 40

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

Part no. 067 060

WIRELESS ACCESSORIES

It is possible to connect wireless accessories to SVM S332, e.g. room, humidity, CO₂ sensors.

BUFFER VESSEL UKV

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

UKV 40

Part no. 088 470

UKV 100

Part no. 088 207

UKV 200

Part no. 080 300

UKV 300

Part no. 080 301

UKV 200 Cooling

Part no. 080 321

UKV 300 Cooling

Part no. 080 330

TOP CABINET TOC 30

Top cabinet, which conceals any pipes/ventilation ducts.

Height 245 mm

Part no. 067 517

Height 345 mm

Part no. 067 518

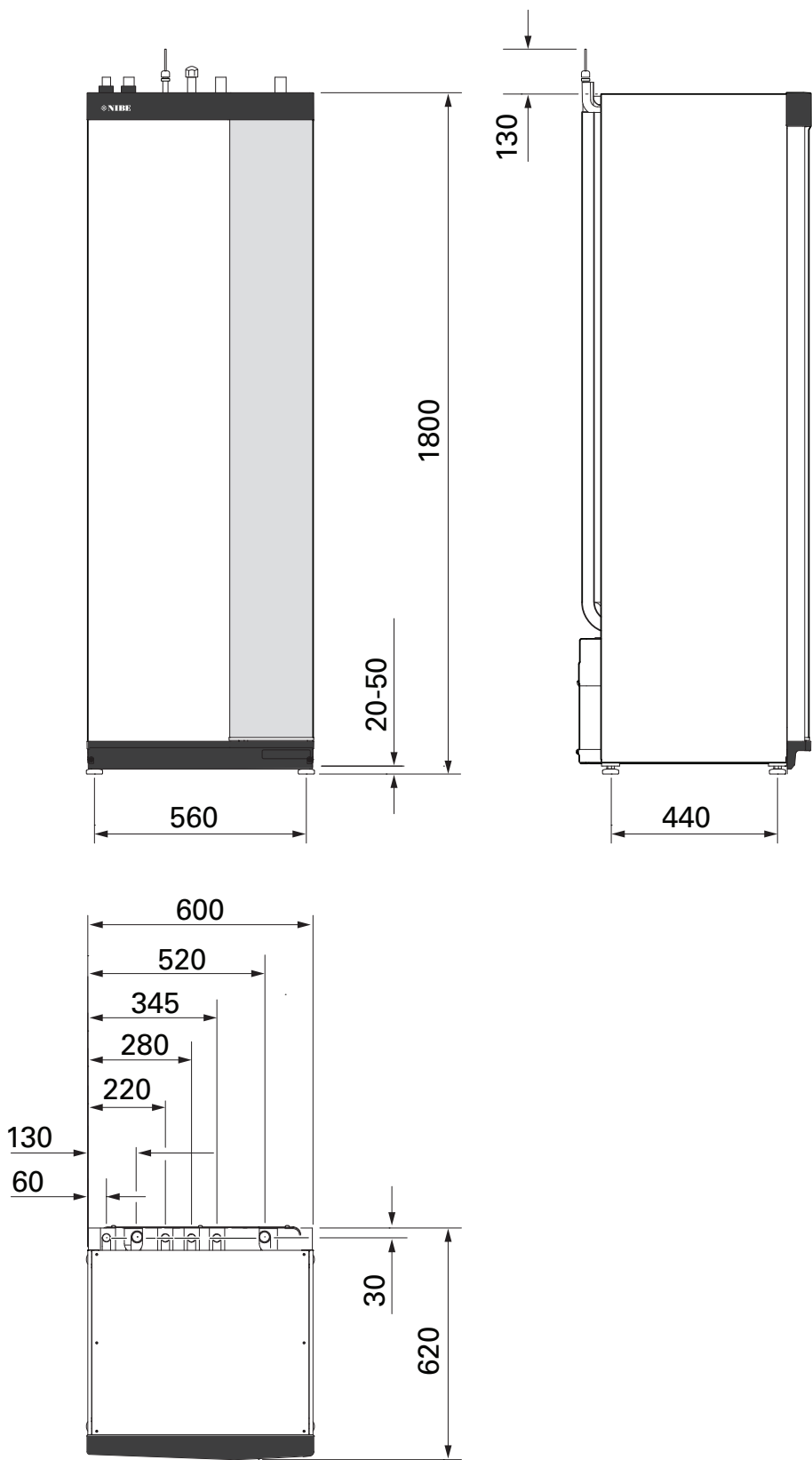
Height 385-635 mm

Part no. 067 519

Technical data

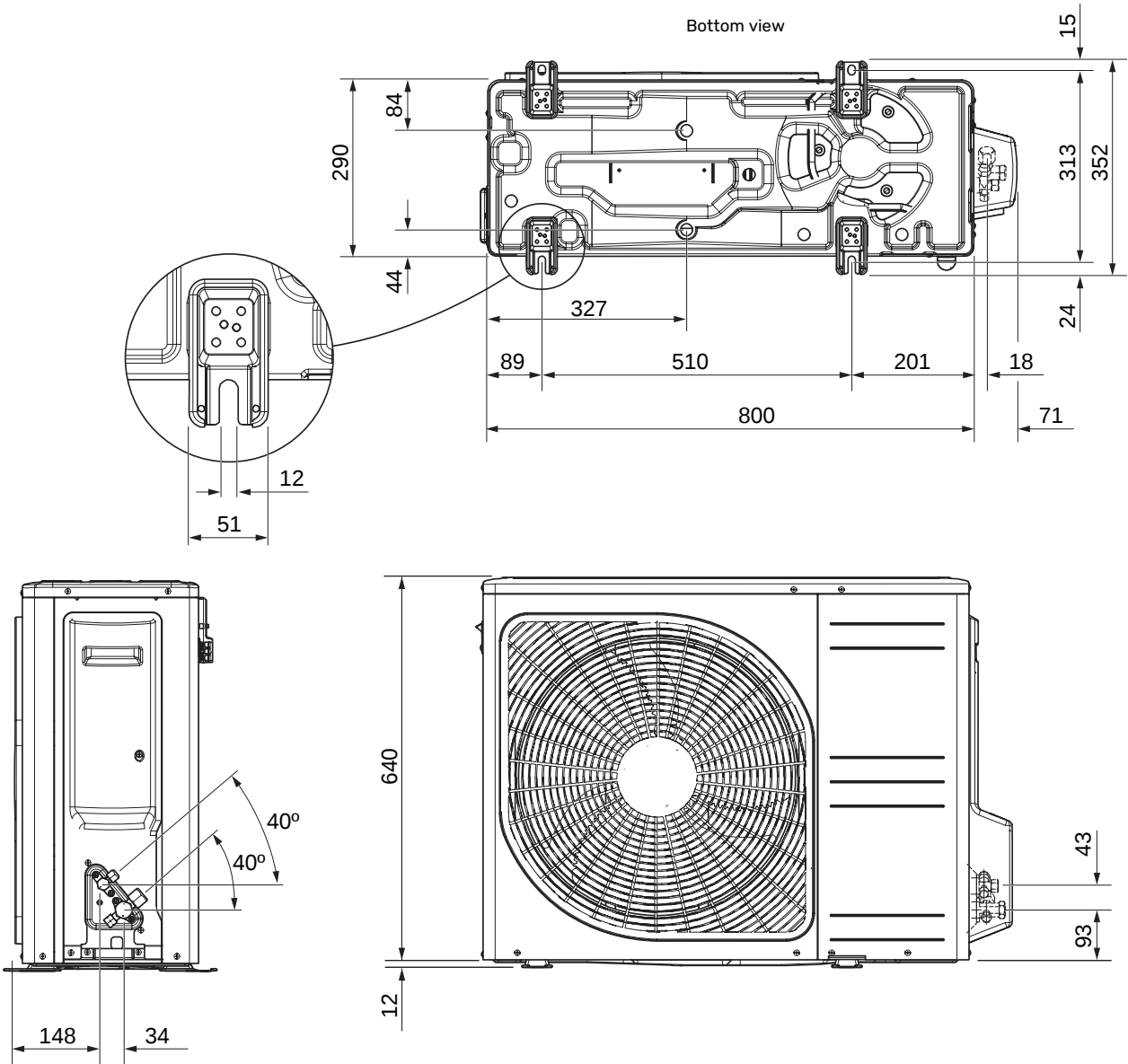
Dimensions

Dimensions, indoor unit

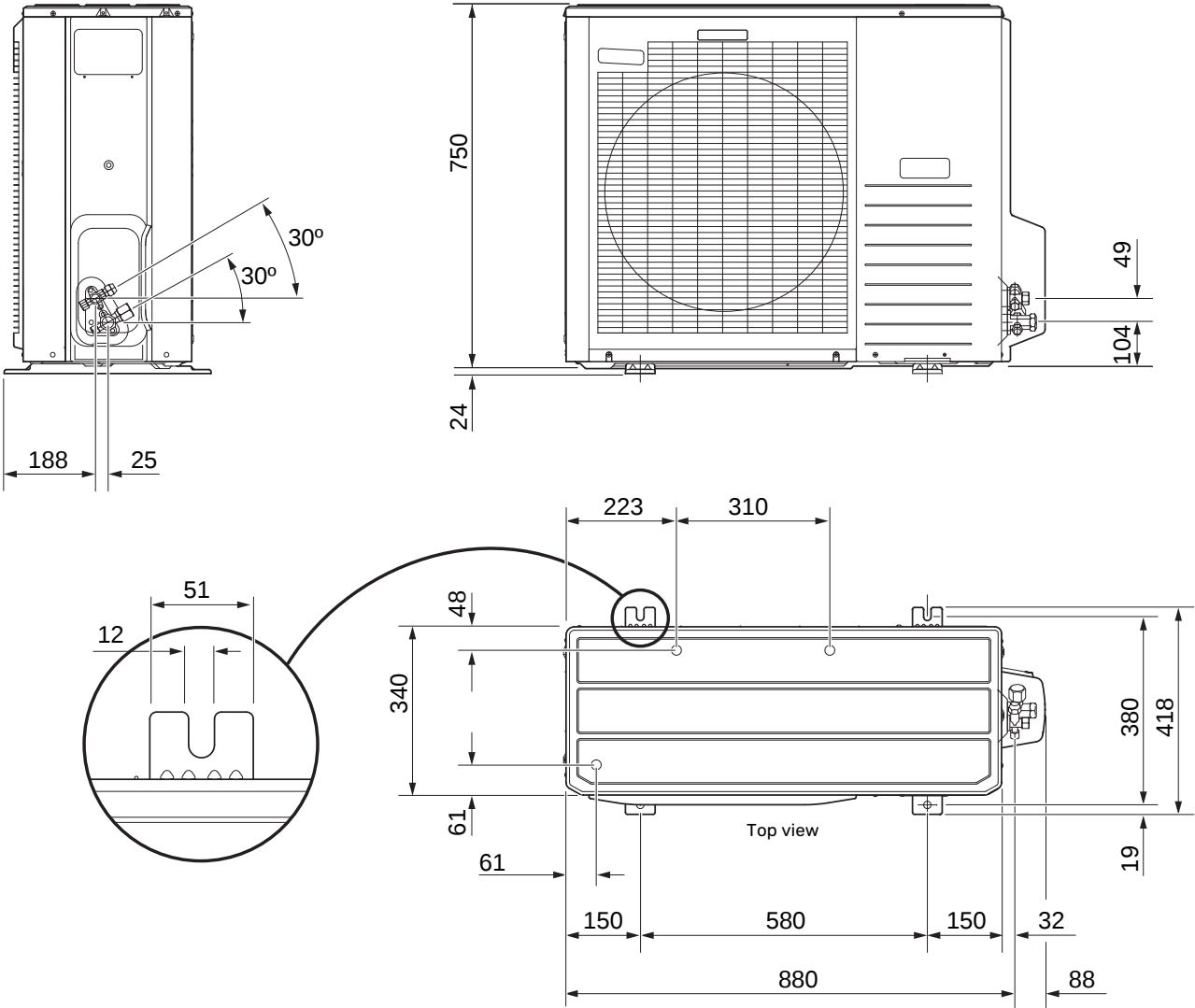


Dimensions, outdoor unit

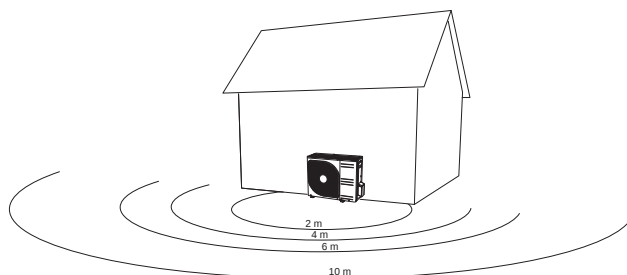
AMS 20-6



AMS 20-10



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 power ¹	Sound pressure at distance (m) ²									
			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 Hz	54	49.0	43.0	39.5	37.0	35.0	33.5	32.1	31.0	29.9	29.0

¹ Sound power level, $L_W(A)$, according to EN12102

² Sound pressure calculated according to directivity factor $Q=4$

Installation requirements

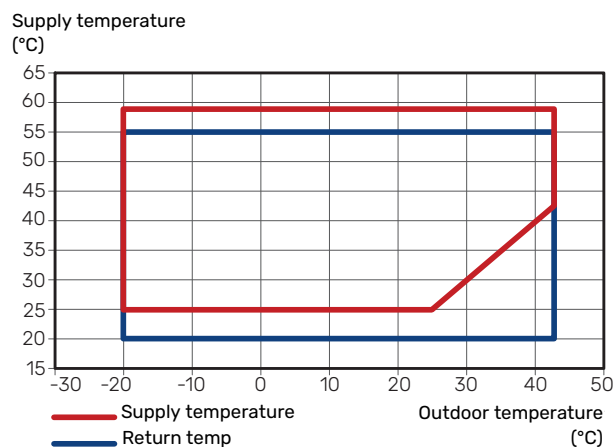
SVM S332	SVM S332-6	SVM S332-10
Compatible outdoor module	AMS 20-6	AMS 20-10
Requirements		
Max system pressure heating medium	0.3 (3)	
Highest recommended supply/return temperature at dimensioned outdoor temperature	55 / 45°C	
Max flow line temperature with compressor	58 °C	60 °C
Min supply temperature cooling	7 °C	
Max supply temp. cooling	25 °C	
Min flow, climate system, 100 % circulation pump speed (defrosting flow)	0.19 l/s	
Recommendations		
Heating/cooling: Min. circulating volume of climate system, in addition to internal buffer vessel (52 litres)	0 l	0 l
Under floor heating: Min. circulating volume of climate system, in addition to internal buffer vessel (52 litres)	0 l	30 l
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

Technical specifications

WORKING RANGE, HEATING

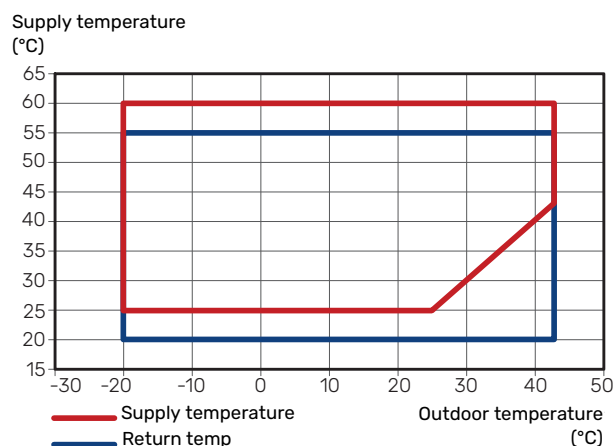
AMS 20-6

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

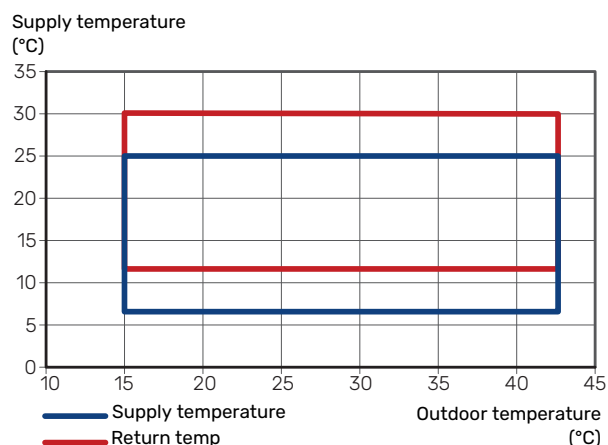


AMS 20-10

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



WORKING RANGE, COOLING



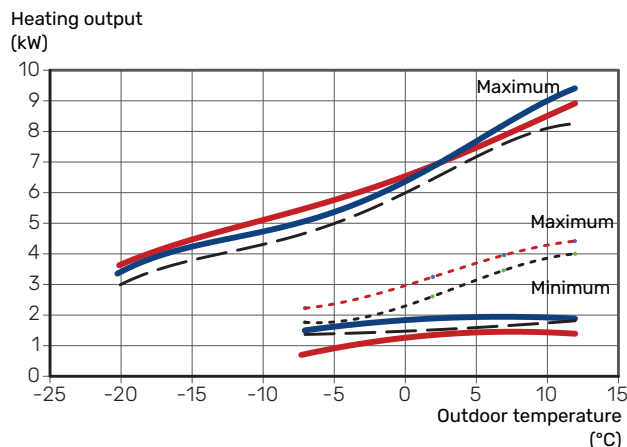
CAPACITY AND COP

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

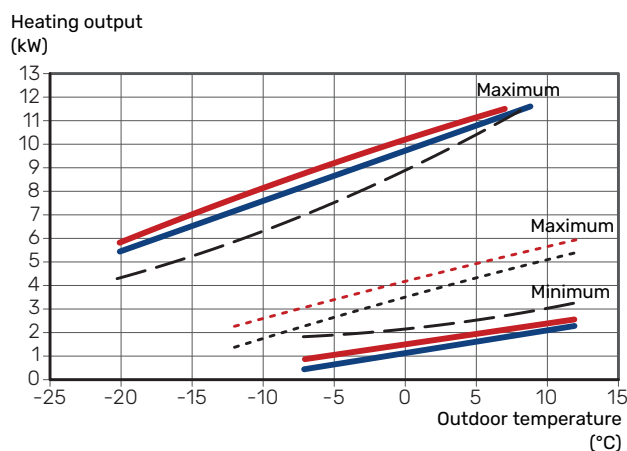
Power during heating operation

Maximum and minimum capacity during continuous operation.

AMS 20-6



AMS 20-10

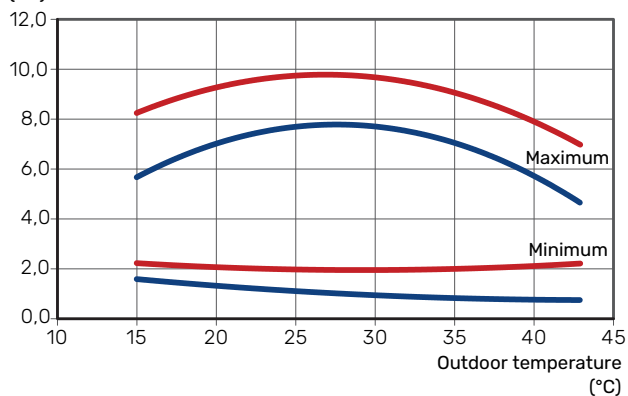


Power during cooling operation

Maximum and minimum capacity during continuous operation.

AMS 20-6

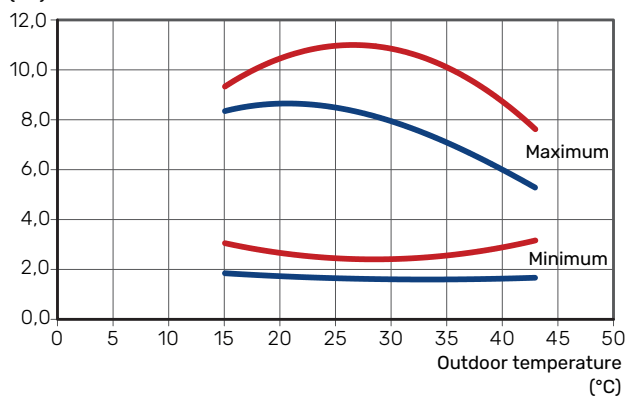
Cooling output
(kW)



— Supply temperature 18°C
— Supply temperature 7°C

AMS 20-10

Cooling output
(kW)

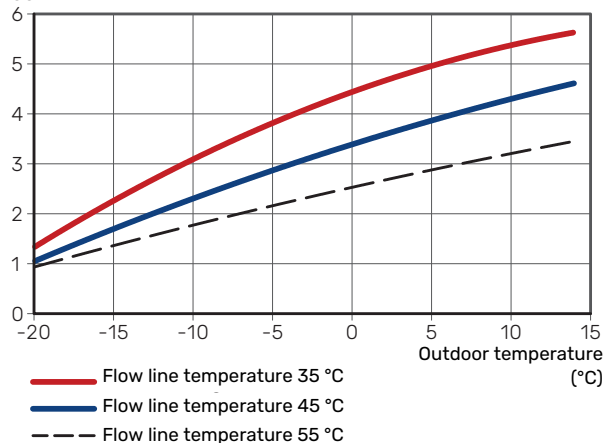


— Supply temperature 18°C
— Supply temperature 7°C

COP during heating operation

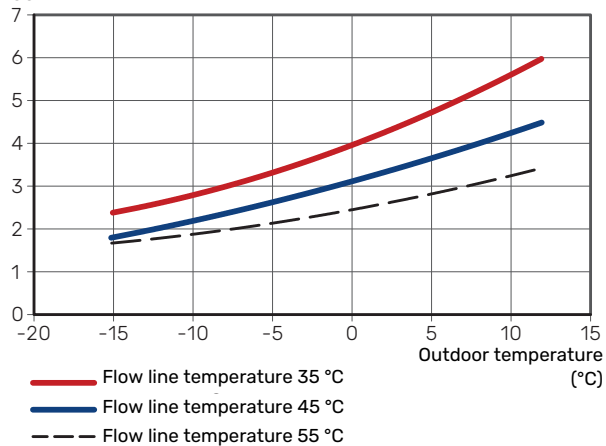
AMS 20-6

COP



AMS 20-10

COP



Indoor unit SVM S332		6	10	6	10
Voltage		1 x 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
Max operating current	A	30.1	30.1	13.5	13.5
Fuse	A	32	32	16	16
Output, heating medium pump (GP1)	W	2 – 75	2 – 75	2 – 75	2 – 75
Output, heating medium pump (GP1)	W	-			
Output, charge pump for hot water (GP8)	W	2 – 45	2 – 45	2 – 45	2 – 45
Enclosure class		IPX1B			
Equipment Compliant with IEC 61000-3-12					
For Connection Design Purposes, Compliant with IEC 61000-3-3 technical requirements					
WLAN					
2.412 - 2.484 GHz max power	dbm	11			
Wireless units					
2.405 - 2.480 GHz max power	dbm	4			
Heating medium circuit					
Min pressure in the heating medium circuit	MPa (bar)	0.05 (0.5)			
Max pressure in the heating medium circuit	MPa (bar)	0.3 (3)			
Max. pressure in brine system	MPa (bar)	4 (40)			
Opening pressure, safety valve	MPa (bar)	0.25 (2.5)			
Max. heating medium temperature	°C	80			
Pipe connections					
Heating medium ext Ø	mm	22			
Hot water connection ext Ø	mm	22			
Cold water connection ext Ø	mm	22			
Connection, gas pipe (Cu) Ø	mm	12.7 (1/2")	15.9 (5/8")	12.7 (1/2")	15.9 (5/8")
Connection, liquid pipe (Cu) Ø ¹	mm	6.35 (1/4")			
Hot water and heating section					
Volume storage tank hot water	litre	140			
Volume, total indoor	litre	192			
Volume buffer vessel	litre	52			
Min. permitted pressure in hot water heat exchanger	MPa (bar)	0.01 (0.1)			
Max. permitted pressure in hot water heat exchanger	MPa (bar)	1.0 (10)			
Capacity, hot water heating according to EN 16 147					
Tap volume 40 °C (comfort mode Medium) ²	litre	185			
Dimensions and weight					
Width	mm	600			
Depth	mm	620			
Height ³	mm	1,800			
Required ceiling height ⁴	mm	2,010			
Weight	kg	125	127	128	130
Corrosion protection in the hot water heat exchanger		Stainless			
Part no.					
Part no.		069 247	069 248	069 255	069 256

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

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

³ Enclosed filterball valve (QZ2.1) is 120 mm high.

⁴ 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 ¹				
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 _{designc} /SEER 7 / 12 / 35 °C	kW/-	5.3 / 4.12	7.1 / 4.03	
P _{designc} /SEER 18 / 23 / 35 °C	kW/-	7.6 / 6.08	10.8 / 5.17	
Nominal heat output (P _{designh}) average climate 35 °C / 55 °C (Europe)	kW	5.20 / 5.60	6.30 / 6.45	
Nominal heat output (P _{designh}) cold climate 35 °C / 55 °C	kW	5.80 / 5.70	6.50 / 6.20	
Nominal heat output (P _{designh}) warm climate 35 °C / 55 °C	kW	5.57 / 5.48	6.80 / 6.60	
SCOP average climate, 35 °C / 55 °C (Europe)		5.08 / 3.56	4.59 / 3.36	
SCOP cold climate, 35 °C / 55 °C		4.10 / 3.05	3.95 / 2.94	
SCOP warm climate, 35 °C / 55 °C		6.70 / 4.53	6.59 / 4.49	
Energy rating, average climate ²				
The product's room heating efficiency class 35 C / 55 C ³		A+++ / A++		
The system's room heating efficiency class 35 C / 55 C ⁴		A+++ / A++		
Electrical data				
Rated voltage		230 V ~ 50 Hz		
Max. operating current outdoor unit	A _{rms}	15	16	
Max operating current, compressor	A _{rms}	14	15	
Max. power, fan	W	50	86	
Drain pan heating (integrated)	W	110	100	
Fuse	A _{rms}	16		
Starting current	A _{rms}	5		
Enclosure class		IP24		
Refrigerant circuit				
Type of refrigerant		R32		
GWP refrigerant		675		
Filling amount	kg	1.3	1.84	
Type of compressor		Twin Rotary		
CO ₂ equivalent	t	0.88	1.24	
Cut-out value pressure switch HP (BP1)	MPa (bar)	-	4.15 (41.5)	
Cut-out value pressure switch LP (BP2)	MPa (bar)	-	0.079 (0.79)	
Max. length, refrigerant pipe, one way	m	30	50	
Max height difference, when AMS 20 is placed higher than SVM S332	m	20	30	
Max height difference, when AMS 20 is placed lower than SVM S332	m	20	15	
Dimensions, refrigerant pipes, Gas pipe/Liquid pipe (Cu) Ø ⁵	mm	12.7 (1/2") / 6.35 (1/4")	15.88 (5/8") / 6.35 (1/4")	
Airflow				
Max airflow	m ³ /h	2,530	3,000	
Working area				
Min./max. air temperature, heating	°C	-20 / 43		
Min./max. air temperature, cooling	°C	15 / 43		
Defrosting system		Reverse cycle		
Pipe connections				
Pipe connection option		Right-hand side		
Pipe connections		Flare		
Dimensions and weight				
Width	mm	800 (+71 valve protection)	880 (+88 valve protection)	
Depth	mm	290	340 (+ 110 with foot rail)	
Height with stand	mm	640	750	
Weight	kg	46	60	
Miscellaneous				
Part no.		064 235	064 319	
EPREL		174 28 96	175 65 17	

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.

- ³ Scale for the product's room heating efficiency class A+++ to D.
- 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.

Energy labelling

INFORMATION SHEET

Supplier		NIBE	
Model		AMS 20-6 / SVM S332-6	AMS 20-10 / SVM S332-10
Temperature application	°C	35 / 55	35 / 55
Declared load profile for water heating		XL	XL
Seasonal space heating energy efficiency class, average climate		A+++ / A++	A+++ / A++
Water heating energy efficiency class, average climate		A	A
Rated heat output (P_{designh}), average climate	kW	5 / 6	6 / 6
Annual energy consumption space heating, average climate	kWh	2,116 / 3,250	2,834 / 3,961
Annual energy consumption water heating, average climate	kWh	1,558	1,627
Seasonal space heating energy efficiency, average climate	%	200 / 139	181 / 132
Water heating energy efficiency, average climate	%	107	103
Sound power level L_{WA} indoors	dB	35	35
Rated heat output (P_{designh}), cold climate	kW	6 / 6	7 / 6
Rated heat output (P_{designh}), warm climate	kW	6 / 5	7 / 7
Annual energy consumption space heating, cold climate	kWh	3,487 / 4,604	4,059 / 5,204
Annual energy consumption water heating, cold climate	kWh	1,869	2,030
Annual energy consumption space heating, warm climate	kWh	1,110 / 1,617	1,379 / 1,964
Annual energy consumption water heating, warm climate	kWh	1,300	1,336
Seasonal space heating energy efficiency, cold climate	%	161 / 119	155 / 114
Water heating energy efficiency, cold climate	%	90	82
Seasonal space heating energy efficiency, warm climate	%	265 / 178	260 / 177
Water heating energy efficiency, warm climate	%	129	125
Sound power level L_{WA} outdoors	dB	54	54

DATA FOR ENERGY EFFICIENCY OF THE PACKAGE

Model		AMS 20-6 / SVM S332-6	AMS 20-10 / SVM S332-10
Temperature application	°C	35 / 55	35 / 55
Controller, class		VI	
Controller, contribution to efficiency	%	4.0	
Seasonal space heating energy efficiency of the package, average climate	%	204 / 143	185 / 136
Seasonal space heating energy efficiency class of the package, average climate		A+++ / A++	A+++ / A++
Seasonal space heating energy efficiency of the package, cold climate	%	165 / 123	159 / 118
Seasonal space heating energy efficiency of the package, warm climate	%	269 / 182	264 / 181

Reported efficiency for the system also takes the temperature regulator into account. If the system is supplemented with external additional heat or solar heating, the total efficiency of the system must be recalculated.

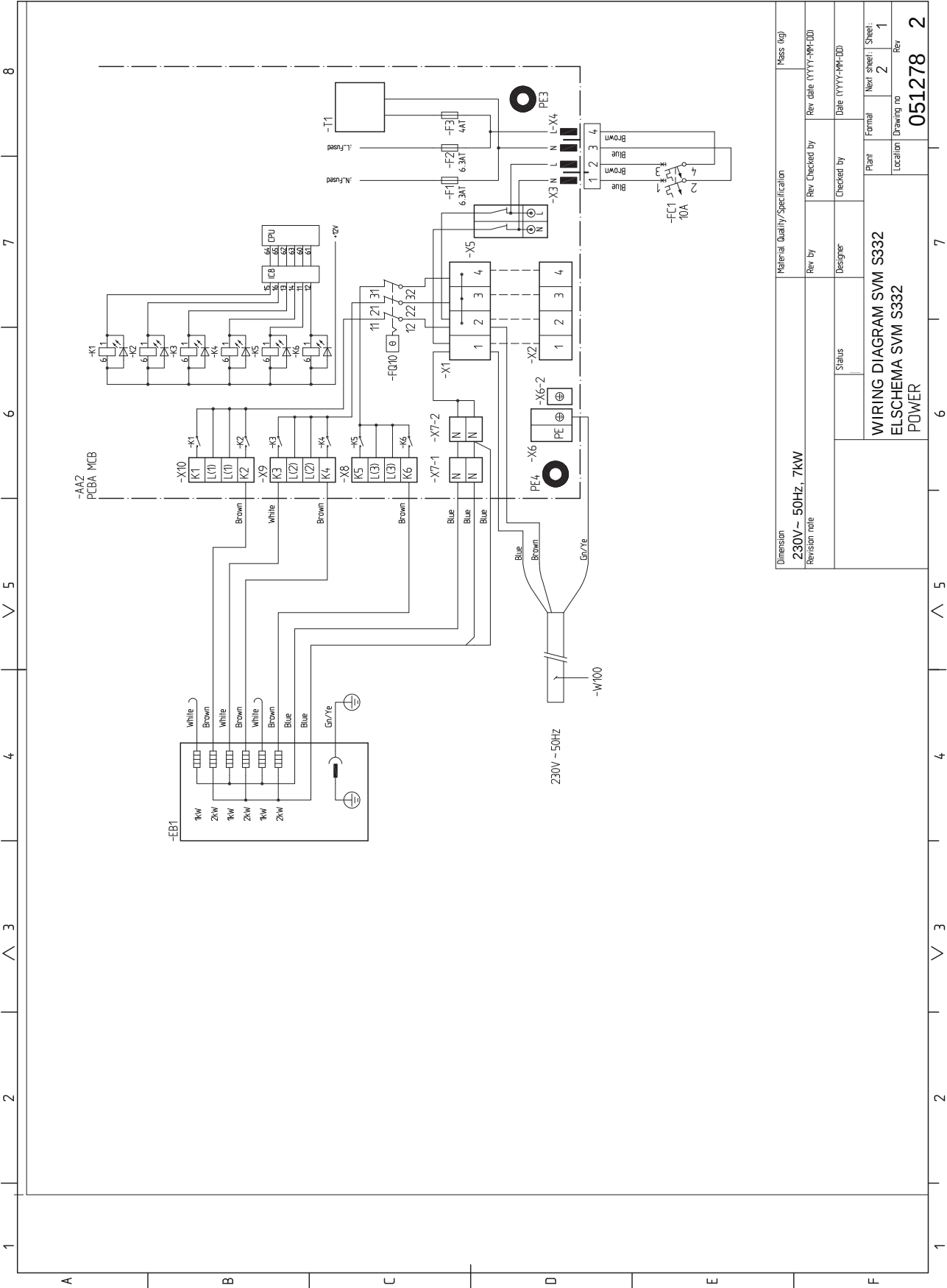
TECHNICAL DOCUMENTATION

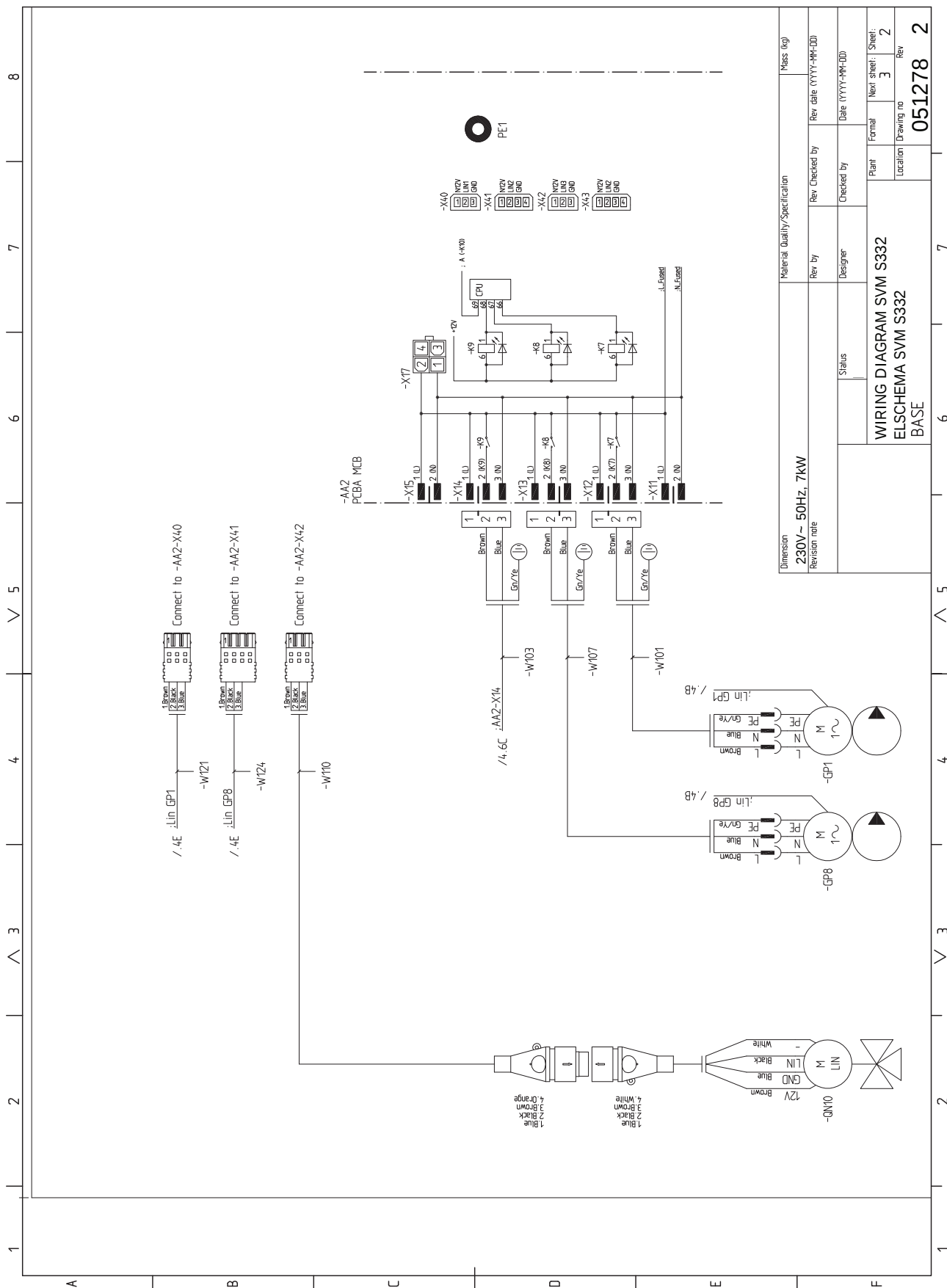
Model		AMS 20-6 / SVM S332-6					
Type of heat pump	☒ Air-water ☐ Exhaust-water ☐ Brine-water ☐ Water-water						
Low-temperature heat pump	☐ Yes ☒ No						
Integrated immersion heater for additional heat	☒ Yes ☐ No						
Heat pump combination heater	☒ Yes ☐ No						
Climate	☒ Average ☐ Cold ☐ Warm						
Temperature application	☒ Medium (55°C) ☐ Low (35°C)						
Applied standards	EN 14825:2022, EN 16147:2017+A1:2022, EN 12102-1:2022						
Rated heat output	Prated	5.6	kW	Seasonal space heating energy efficiency	η_s	139	%
Declared capacity for space heating at part load and at outdoor temperature T_j				Declared coefficient of performance for space heating at part load and at outdoor temperature T_j			
$T_j = -7^\circ\text{C}$	Pdh	5.0	kW	$T_j = -7^\circ\text{C}$	COPd	1.95	-
$T_j = +2^\circ\text{C}$	Pdh	2.9	kW	$T_j = +2^\circ\text{C}$	COPd	3.51	-
$T_j = +7^\circ\text{C}$	Pdh	1.9	kW	$T_j = +7^\circ\text{C}$	COPd	4.99	-
$T_j = +12^\circ\text{C}$	Pdh	1.7	kW	$T_j = +12^\circ\text{C}$	COPd	6.33	-
$T_j = \text{biv}$	Pdh	5.0	kW	$T_j = \text{biv}$	COPd	1.95	-
$T_j = \text{TOL}$	Pdh	4.6	kW	$T_j = \text{TOL}$	COPd	1.75	-
$T_j = -15^\circ\text{C}$ (if $\text{TOL} < -20^\circ\text{C}$)	Pdh		kW	$T_j = -15^\circ\text{C}$ (if $\text{TOL} < -20^\circ\text{C}$)	COPd		-
Bivalent temperature	T_{biv}	-7	°C	Min. outdoor air temperature	TOL	-10	°C
Cycling interval capacity	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation coefficient	Cdh	0.96	-	Max supply temperature	WTOL	58	°C
Power consumption in modes other than active mode				Additional heat			
Off mode	P_{OFF}	0.007	kW	Rated heat output	Psup	1.0	kW
Thermostat-off mode	P_{TO}	0.011	kW				
Standby mode	P_{SB}	0.011	kW	Type of energy input	Electric		
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	Variable			Rated airflow (air-water)		2,340	m³/h
Sound power level, indoors/outdoors	L_{WA}	35 / 54	dB	Nominal heating medium flow			m³/h
Annual energy consumption	Q_{HE}	3,250	kWh	Brine flow brine-water or water-water heat pumps			m³/h
For heat pump combination heater							
Declared load profile for water heating	XL			Water heating energy efficiency	η_{wh}	107	%
Daily energy consumption	Q_{elec}	7.357	kWh	Daily fuel consumption	Q_{fuel}		kWh
Annual energy consumption	AEC	1,558	kWh	Annual fuel consumption	AFC		GJ
Contact information	NIBE Energy Systems – Box 14 – Hannabadsvägen 5 – 285 21 Markaryd – Sweden						

Model		AMS 20-10 / SVM S332-10					
Type of heat pump	☒ Air-water ☐ Exhaust-water ☐ Brine-water ☐ Water-water						
Low-temperature heat pump	☐ Yes ☒ No						
Integrated immersion heater for additional heat	☒ Yes ☐ No						
Heat pump combination heater	☒ Yes ☐ No						
Climate	☒ Average ☐ Cold ☐ Warm						
Temperature application	☒ Medium (55°C) ☐ Low (35°C)						
Applied standards	EN 14825:2022, EN 16147:2017+A1:2022, EN 12102-1:2022						
Rated heat output	Prated	6.5	kW	Seasonal space heating energy efficiency	η_s	132	%
Declared capacity for space heating at part load and at outdoor temperature T_j				Declared coefficient of performance for space heating at part load and at outdoor temperature T_j			
$T_j = -7\text{ °C}$	Pdh	5.8	kW	$T_j = -7\text{ °C}$	COPd	1.98	-
$T_j = +2\text{ °C}$	Pdh	3.5	kW	$T_j = +2\text{ °C}$	COPd	3.17	-
$T_j = +7\text{ °C}$	Pdh	2.3	kW	$T_j = +7\text{ °C}$	COPd	4.98	-
$T_j = +12\text{ °C}$	Pdh	2.2	kW	$T_j = +12\text{ °C}$	COPd	5.50	-
$T_j = \text{biv}$	Pdh	5.8	kW	$T_j = \text{biv}$	COPd	1.98	-
$T_j = \text{TOL}$	Pdh	5.8	kW	$T_j = \text{TOL}$	COPd	1.69	-
$T_j = -15\text{ °C}$ (if $\text{TOL} < -20\text{ °C}$)	Pdh		kW	$T_j = -15\text{ °C}$ (if $\text{TOL} < -20\text{ °C}$)	COPd		-
Bivalent temperature	T_{biv}	-7	°C	Min. outdoor air temperature	TOL	-10	°C
Cycling interval capacity	Pcych		kW	Cycling interval efficiency	COPcyc		-
Degradation coefficient	Cdh	0.98	-	Max supply temperature	WTOL	60	°C
Power consumption in modes other than active mode				Additional heat			
Off mode	P_{OFF}	0.003	kW	Rated heat output	P_{sup}	0.7	kW
Thermostat-off mode	P_{TO}	0.008	kW				
Standby mode	P_{SB}	0.008	kW	Type of energy input	Electric		
Crankcase heater mode	P_{CK}	0.000	kW				
Other items							
Capacity control	Variable			Rated airflow (air-water)		3,000	m³/h
Sound power level, indoors/outdoors	L_{WA}	35 / 54	dB	Nominal heating medium flow			m³/h
Annual energy consumption	Q_{HE}	3,961	kWh	Brine flow brine-water or water-water heat pumps			m³/h
For heat pump combination heater							
Declared load profile for water heating	XL			Water heating energy efficiency	η_{wh}	103	%
Daily energy consumption	Q_{elec}	7.720	kWh	Daily fuel consumption	Q_{fuel}		kWh
Annual energy consumption	AEC	1,627	kWh	Annual fuel consumption	AFC		GJ
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Electrical circuit diagram

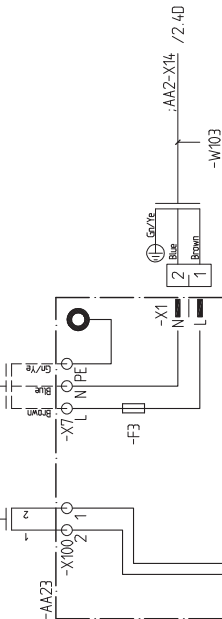
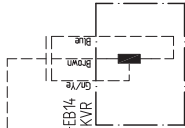
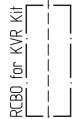
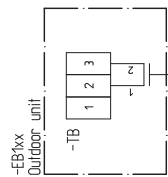
SVM S332, 1X230 V





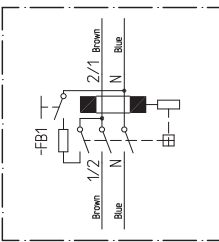
1 2 3 4 5 6 7 8

A B C D E F



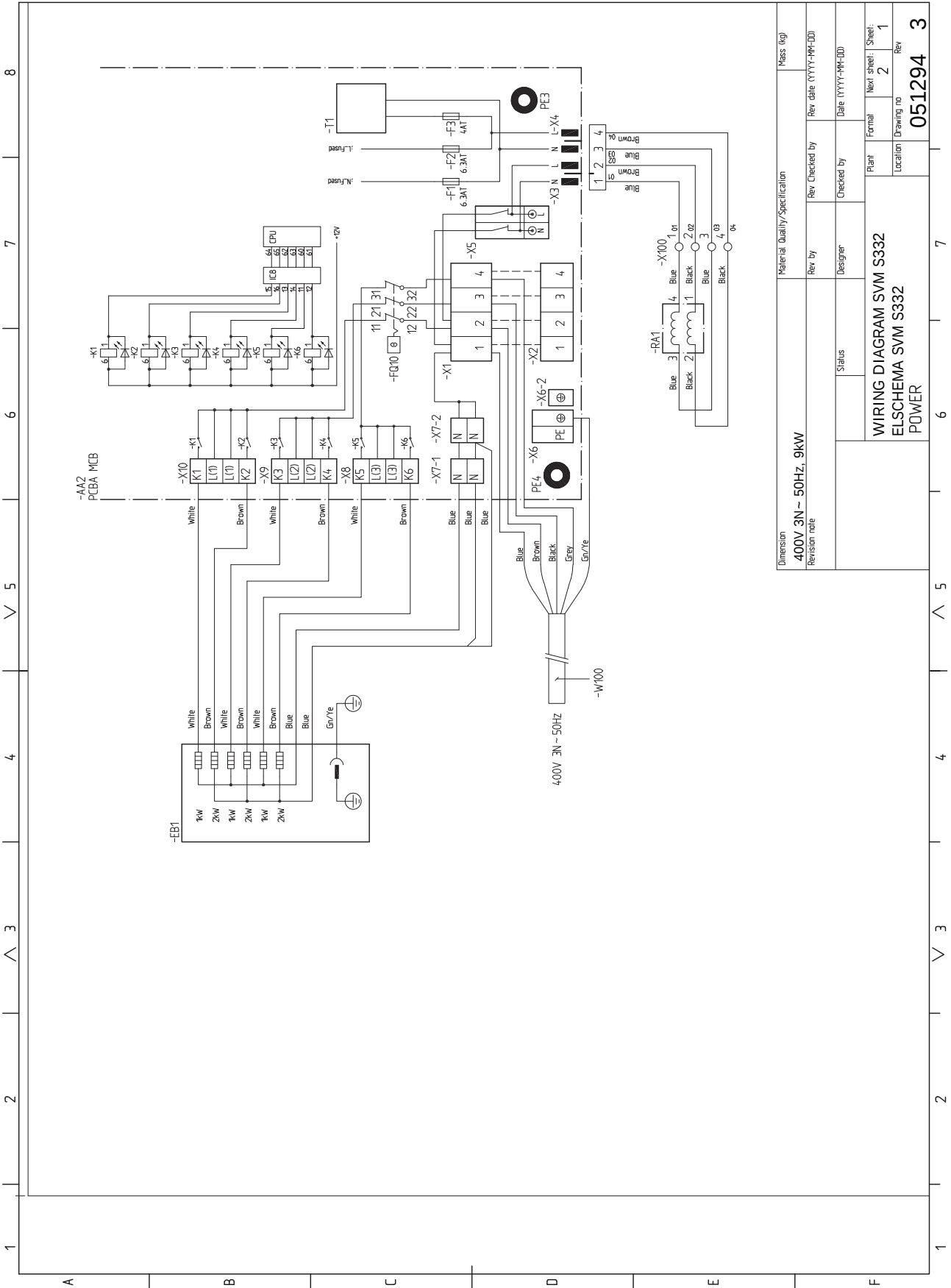
Installation of the RCB0
in the related KVR kit

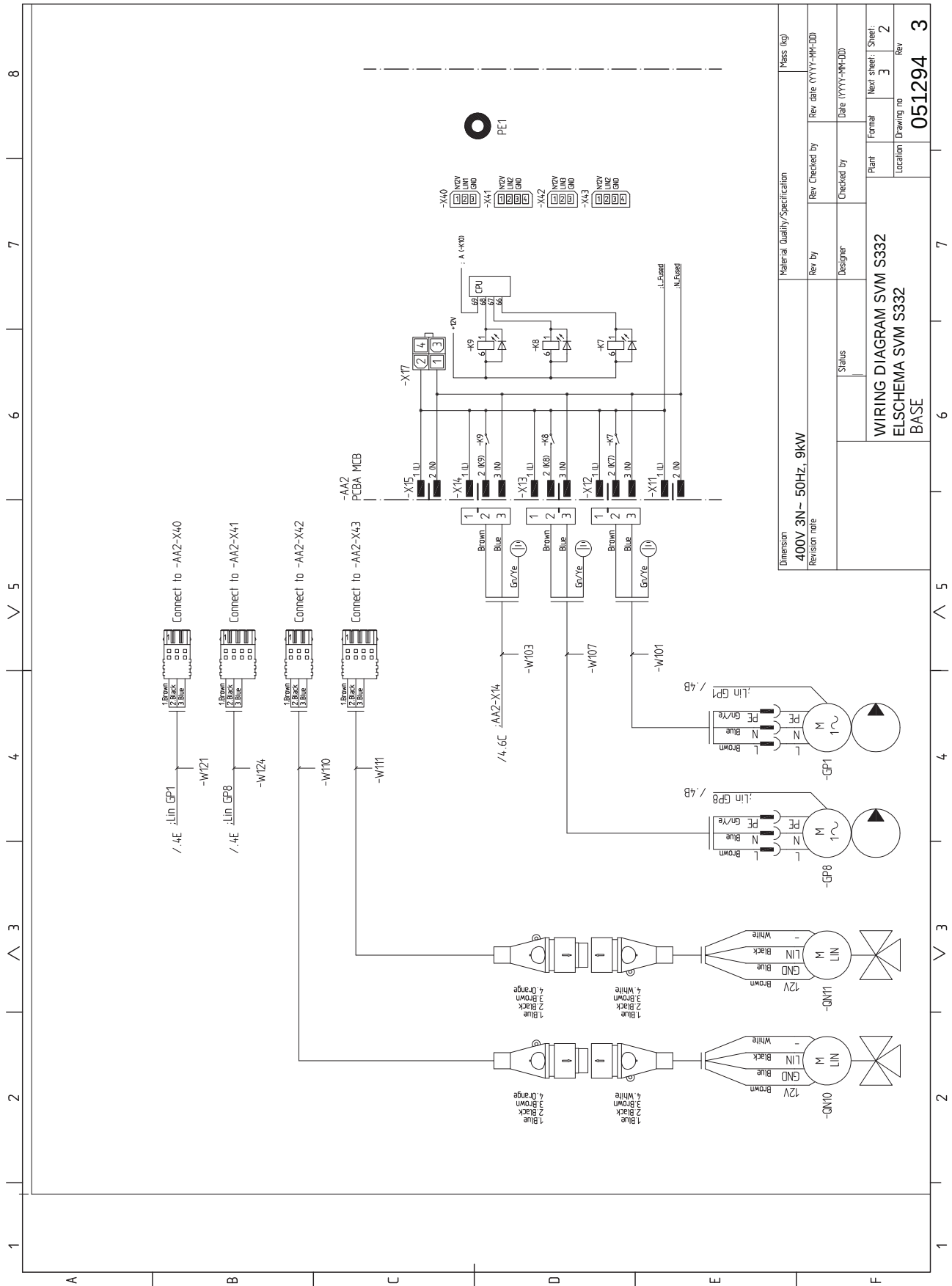
RCB0 FOR KVR KIT 230V ~ 50Hz

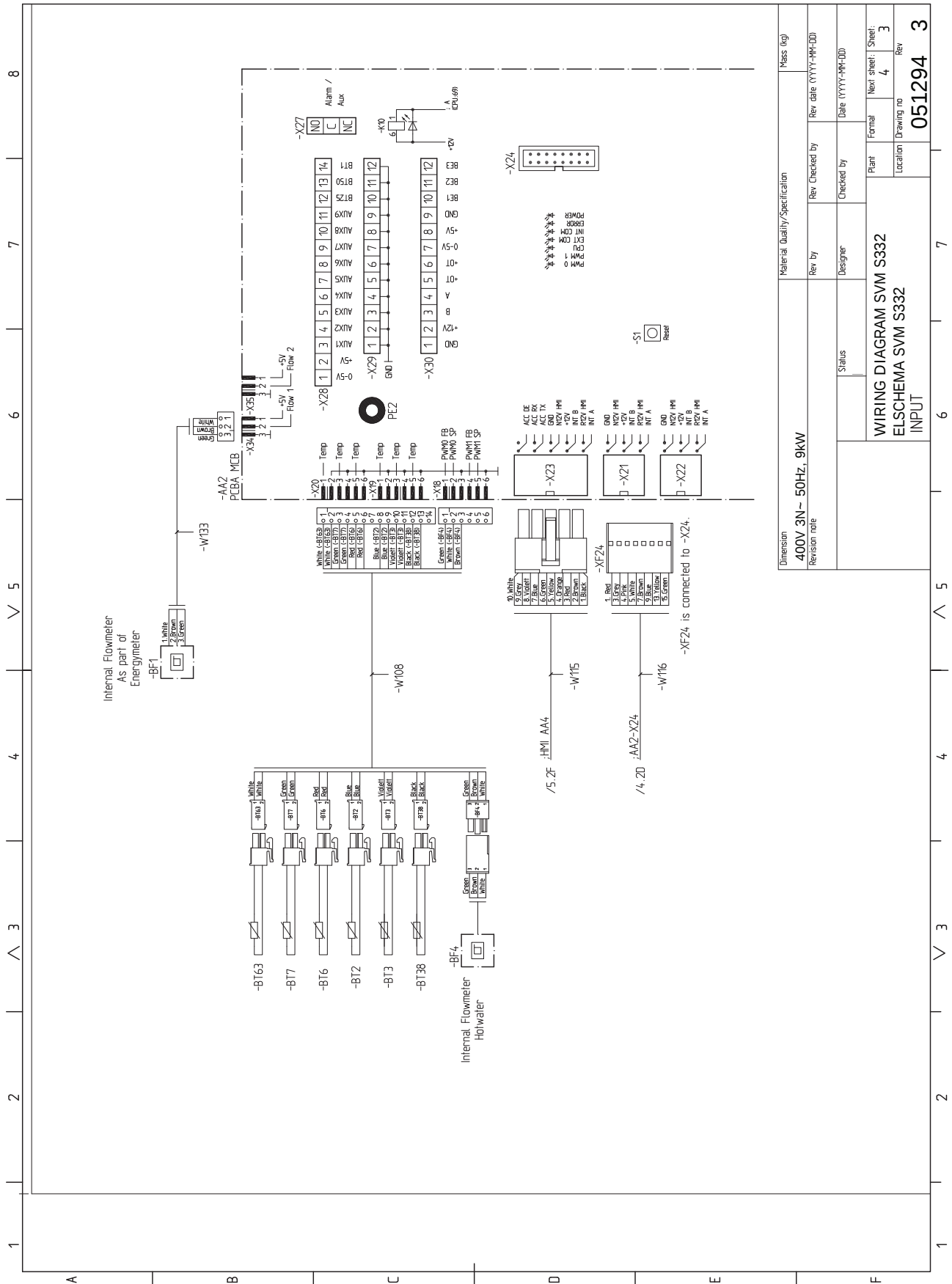


Material Quality/Specification		Mass (kg)	
Dimension		230V ~ 50Hz, 7kW	
Revision note		Rev. date (YYYY-MM-DD)	
Rev. by		Checked by	
Designer		Date (YYYY-MM-DD)	
Status		Plant	
WIRING DIAGRAM SVM S332 ELSCHEMA SVM S332		Formal	Next sheet: Sheet
		Drawing no	5
		Rev	4
051278		2	

SVM S332, 3X400 V

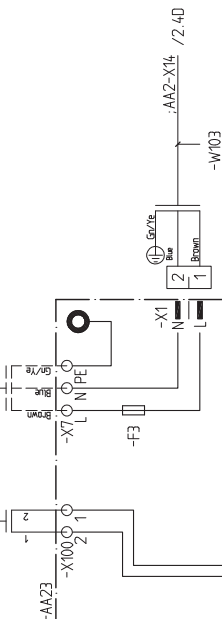
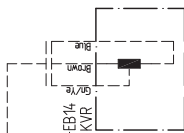
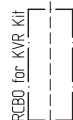
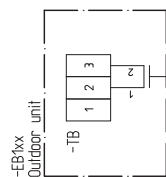






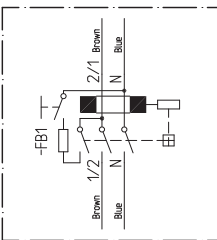
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A B C D E F



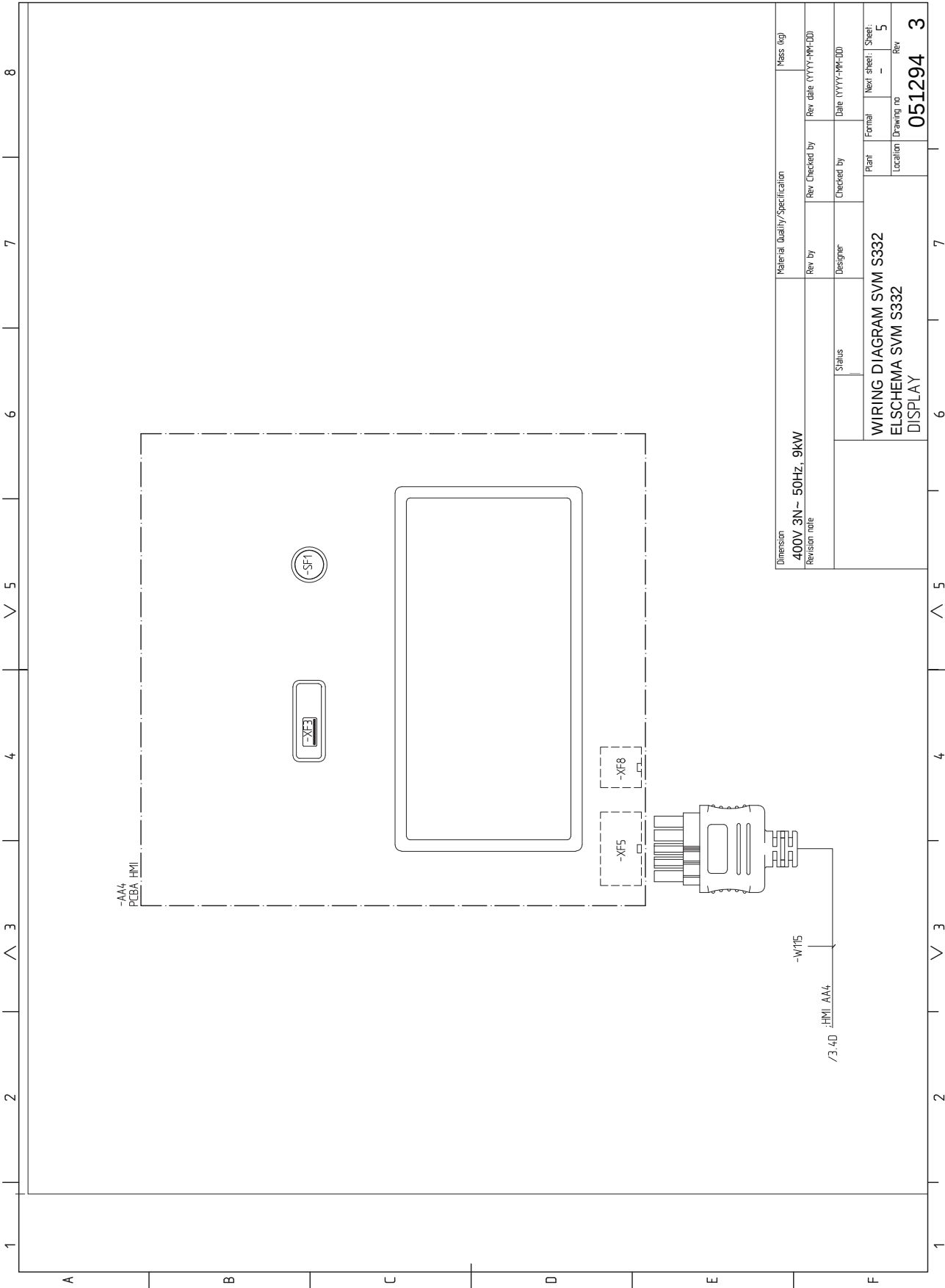
Installation of the RCB0
in the related KVR kit

RCB0 FOR KVR KIT 230V ~ 50Hz



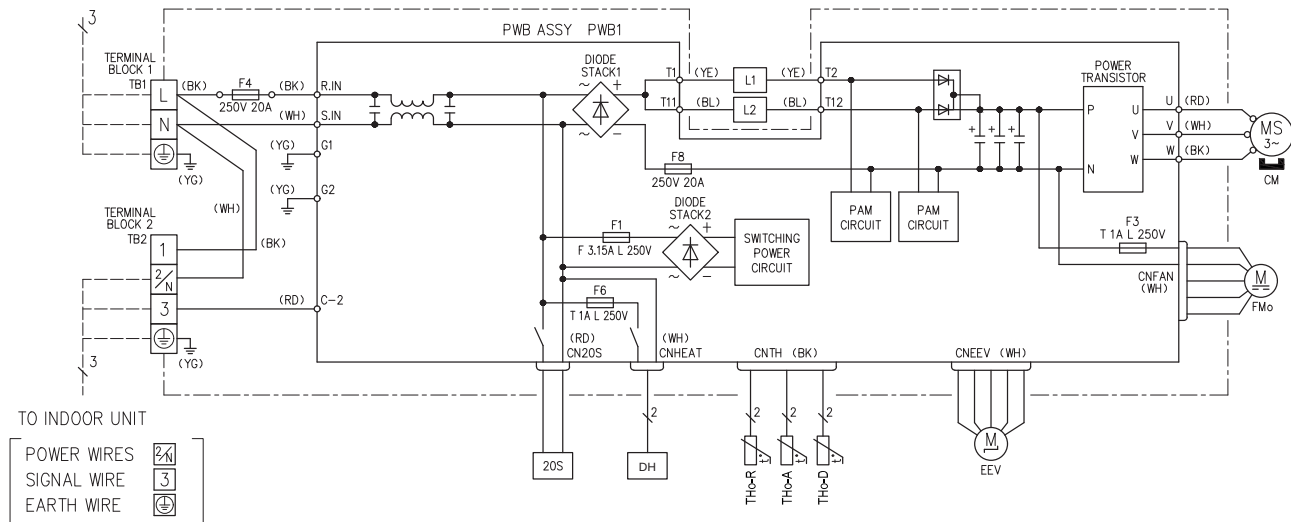
Material Quality/Specification		Mass (kg)
Dimension	400V 3N~ 50Hz, 9kW	
Revision note		
Rev by	Rev Checked by	Rev date (YYYY-MM-DD)
Designer	Checked by	Date (YYYY-MM-DD)
Status		
Plant	Formal	Next sheet: Sheet: 5
Location	Drawing no	Rev 4
051294		3

WIRING DIAGRAM SVM S332
ELSCHEMA SVM S332



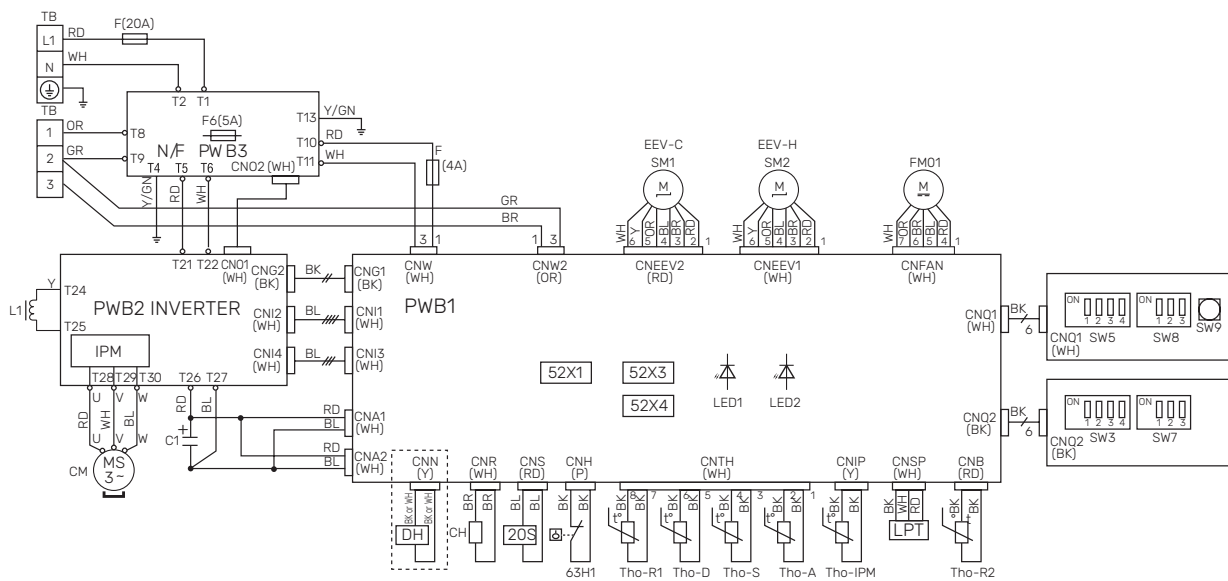
AMS 20-6

POWER SOURCE
1 PHASE
220-240V 50Hz
220V 60Hz



AMS 20-10

230V ~ 50Hz



Designation	Description
20S	Reversing valve
63H1	High pressure switch
C1	Capacitor
CH	Compressor heater
CM	Compressor
CnA-Z	Terminal block
CT	Current sensor
DH	Drip tray heater
F	Fuse
FM01	Fan
L/L1	Induction coil
LED1	Indication lamp (red)
LED2	Indication lamp (green)
LPT	Low-pressure sensor
EEV	Expansion valve
EEV-H	Expansion valve, heating
EEV-C	Expansion valve, cooling
TB	Terminal block, supply voltage and communication
BT28 (Tho-A)	Ambient sensor
Tho-D	Hot gas sensor
Tho-R	Evaporator sensor, out
Tho-R2	Evaporator sensor, in
Tho-S	Suction gas sensor

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