



## SMARTY XV S300

EN MOUNTING AND INSTALLATION INSTRUCTION



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**2. SYMBOLS AND MARKING**



**Warning – pay attention**



**Additional information**

Apply the auxiliary label on the unit (on an easily accessible location) or on the dashed location of the technical manual in order to keep the important information about the unit.

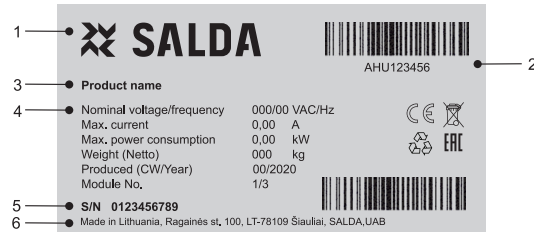


Figure 2.1. Technical label

1 - Logo; 2 - Product code (SKU); 3 - Product name; 4 - Technical data; 5 - Serial number; 6 - Production place.



Figure 2.2. Indication for duct connection.

ODA - outdoor air; SUP - supply air; ETA - extract air; EHA - exhaust air.

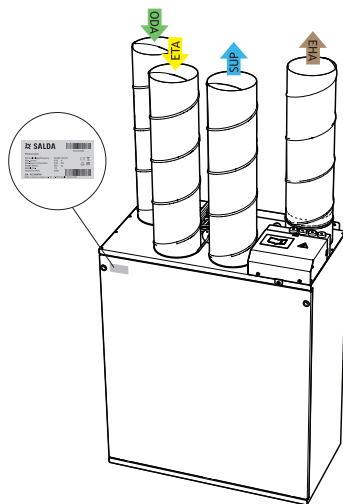


Figure 2.3. Smarty 2 XV S300 Technical label location and air duct indication

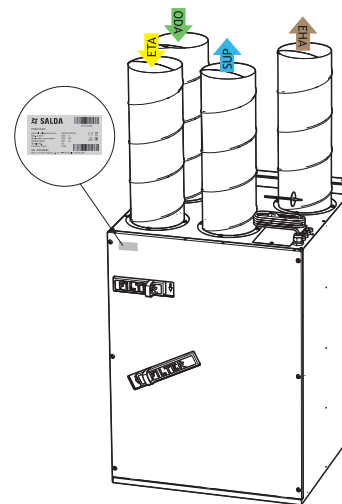


Figure 2.4. Smarty 3-4XV S300 Technical label location and air duct indication



**NOTE. Ducts are not the part of the unit.**

### 3. SAFETY INSTRUCTIONS AND PRECAUTIONS

Read these instructions very carefully before installing and using this equipment. Installation, connection and maintenance should be carried out by a qualified technician and in accordance with the local regulations and legislation.

The company shall take no responsibility for the injuries or damaged property if the safety requirements are not followed or the device is modified without the permission of the manufacturer.

#### Main safety rules

##### Danger



- Before carrying out any electrical or maintenance works, make sure that the device is disconnected from the mains and all moving parts of the device have stopped.
- Make sure that the fans are not accessible through air ducts or branch openings.
- If any liquids on electric parts or connections that bear voltage are noticed, stop the operation of the device.
- Do not plug the device into the mains that differ from the one indicated on the label or on the housing.
- Voltage of the mains should comply with the electro technical parameters indicated on the label.
- The device should be earthed in accordance with the regulations on the installation of electric devices. Turning on and using unearthed device is not allowed. Follow the requirements specified on the device's labels that indicate danger.

##### Warnings



- Connection of electricity and maintenance of the device should be performed by the qualified personnel only and in accordance with the manufacturer's instructions and safety requirements.
- In order to reduce the risk during installation and maintenance, suitable protective clothing must be worn.
- Beware of sharp angles while carrying out installation and maintenance works.
- Do not touch heating elements until they haven't cooled down.
- Some devices are heavy, you should be very careful while transporting and installing them. Use suitable lifting equipment.
- When connecting electricity to the mains, a circuit breaker of suitable size must be used.

##### Warning!



- If the device is installed in a cold environment, make sure that all connections and tubes are properly isolated. Intake and discharge air ducts should be isolated in all cases.
- Openings of the ducts should be covered during transportation and installation.
- Make sure not to damage the heater when connecting the piping of the water heater. For tightening up, use a wrench/spanner.

##### Before starting up the device



- make sure, that there are no strange objects inside;
- manually check fans to make sure they are not stuck or blocked;
- if rotary heat exchanger is installed in the device, make sure that it is not stuck or blocked;
- check the earthing;
- make sure that all components and accessories are connected in accordance with the wiring diagram or provided instructions.

##### Danger: Fumes



*Salda Antifrost* system uses dis-balancing of an airflow and it may cause negative pressure in premises. Care must be taken when using the device in the premises together with another heating appliance that depends on the air in the premises. Such appliances include gas, oil, wood or coal-fired boilers and heaters, fireplaces, continuous flow or other water heaters, gas hobs, cookers or ovens that draw the air in from the room and the duct-exhaust gases out through chimney or extraction ducting. The heating appliance can be starved of oxygen, impairing combustion. In exceptional cases, harmful gases could be drawn out of the chimney or extraction ducting back into the room. In such case we strictly recommend to turn off *Salda Antifrost* and use an external preheater for heat exchanger anti-frost protection (see *Salda Antifrost* function in the Remote Controller Operation Manual).

## 4. INFORMATION ABOUT THE PRODUCT

### 4.1. DESCRIPTION

Smarty XV is the residential air handling unit with a high efficiency (up to 90%) counter flow heat exchanger. The unit supplies ventilation in home and takes the heat from exhaust air. AHU complies with ErP 2018 and Passivhaus requirements. The unit is operated by a separate remote control panel. Remote control panel is optional and not included in the standard package.

Product name	Control board	Type	Heat recovery	Temperature control	Bypass damper	Optional heating elements	
						Duct based Air Pre-Heater	Duct based Air Heater
Smarty 2X V S300	Siemens S300	Advanced	+	+	+	+*	+*
Smarty 3X V S300	Siemens S300	Advanced	+	+	+	+*	+*
Smarty 4X V S300	Siemens S300	Advanced	+	+	+	+*	+*

\*- only pre-heater or heater



Not suitable for operation in pools, saunas and other similar premises.

### 4.2. DIMENSIONS AND WEIGHT

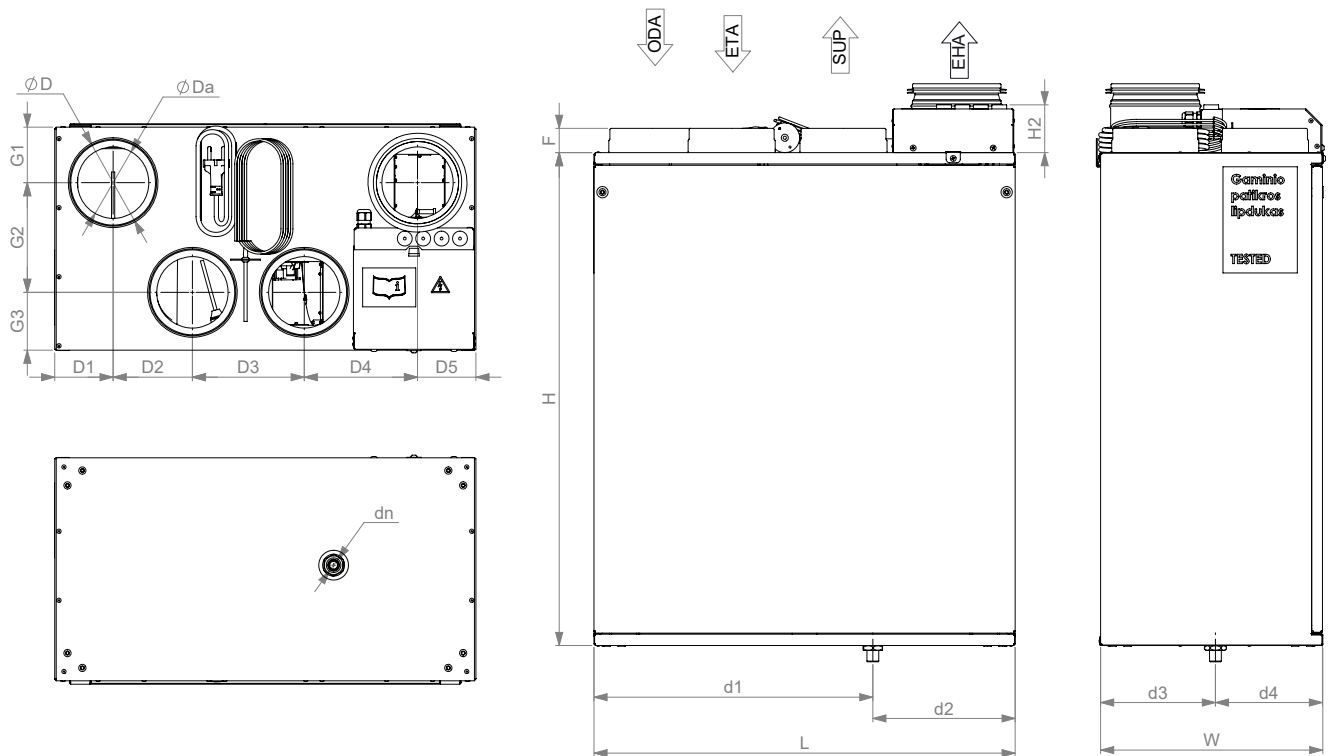


Figure 4.2.1. Smarty 2XV S300 dimension

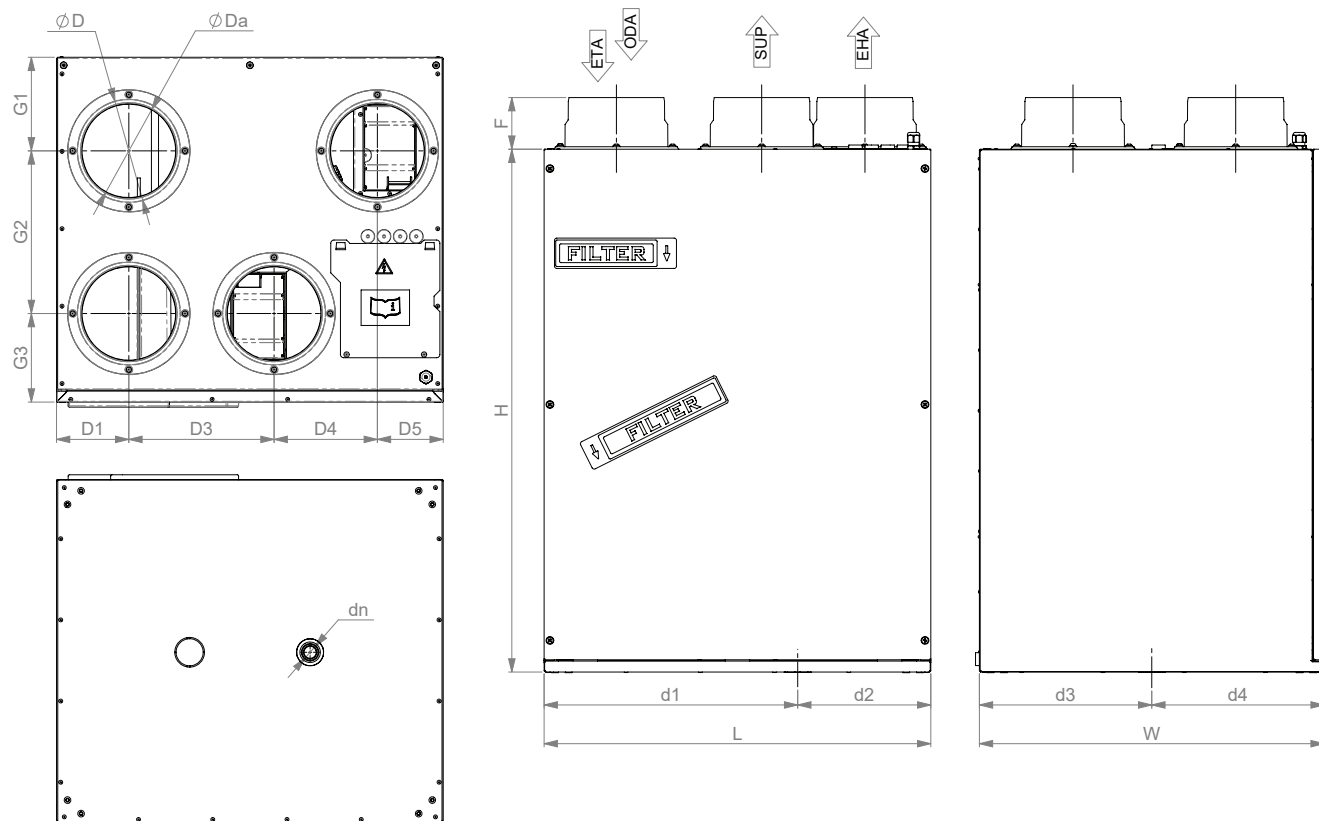


Figure 4.2.2. SMARTY 3-4XV S300 dimension

SMARTY		2XV S300	3XV S300	4XV S300
L	[mm]	595	599	599
W	[mm]	315	538	538
H	[mm]	698	810	810
H2	[mm]	68	-	-
ØD	[mm]	125	160	160
ØDa	[mm]	100	150	150
F	[mm]	34	80	80
dn		G3/8	G1/2	G1/2
d1	[mm]	394	391	391
d2	[mm]	201	206	206
d3	[mm]	163	267	267
d4	[mm]	152	271	271
D1	[mm]	83	112	112
D2	[mm]	112	112	112
D3	[mm]	158	225	225
D4	[mm]	160	160	160
D5	[mm]	83	102	102
G1	[mm]	77	145	145
G2	[mm]	155	252	252
G3	[mm]	81	137	137
Weight	[kg]	25	46	46

### 4.3. TECHNICAL DATA

SMARTY		2XV S300	3XV S300	4XV S300
<b>Exhaust air fan</b>				
phase/voltage	[50 Hz/VAC]	1/230	1/230	1/230
power/current	[kW/A]	0,04/0,35	0,08/0,75	0,17/1,35
speed	[min <sup>-1</sup> ]	4060	3200	4600
control input	[VDC]	0-10	0-10	0-10
protection class		IP54	IP54	IP54
<b>Supply air fan</b>				
phase/voltage	[50 Hz/VAC]	1/230	1/230	1/230
power/current	[kW/A]	0,04/0,35	0,08/0,75	0,17/1,35
speed	[min <sup>-1</sup> ]	4060	3200	4600
control input	[VDC]	0-10	0-10	0-10
protection class		IP54	IP54	IP54
Integrated electrical preheater	[kW]	0,6	1,2	1,2
Total power/current consumption	[kW/A]	0,13/0,95	0,22/1,72	0,39/2,9
Automatic control integrated		Siemens S300	Siemens S300	Siemens S300
Insulation of walls	[mm]	30	30	30
Exhaust air filter (class, dimensions LxWxH)	[mm]	MPL 270x187x25 Coarse 65%	MPL 475x180x25 Coarse 65%	MPL 475x180x25 Coarse 65%
Supply air filter (class, dimensions LxWxH)	[mm]	MPL 270x121x25 Coarse 65%	MPL 475x134x25 Coarse 65%	MPL 475x134x25 Coarse 65%
Device protection class		IP 34	IP 34	IP 34

According to EN 13141-7.

Acoustic data: check the product page on <https://select.salda.it>



**Not suitable for installation in living rooms: additional noise insulation required.**

### 4.4. OPERATING CONDITIONS

SMARTY	2XV	3XV	4XV
Outdoor air temp. without frost protection	-2 .. 40 °C	-2 .. 40 °C	-2 .. 40 °C
Ambient air temp.	5 .. 40 °C	5 .. 40 °C	5 .. 40 °C
Min extracted air temp	16 °C	16 °C	16 °C
Max extracted air humidity	70 %	70 %	70 %
Max. ambient air humidity	70 %	70 %	70 %
Operation environment	indoor	indoor	indoor

### 4.5. STANDART PACKAGE OF COMPONENTS

SMARTY	2XV	3XV	4XV
Bush caps BFG15	2	-	-
Key M4 Z-type	1	-	-
Outlet pipe G3/8	1	-	-
Siphon D25 202.085	-	1	1
Bracket 2281027	1	1	1
Fix - PV gasket 6x20 (white)	605 mm	1300 mm	1300 mm
Sealing rubber 15x8x7 427021	66 mm	610 mm	610 mm
Straight Fiting With O-ring F 1/2 M/M	-	1	1
Rubber gasket d20xD28 s2mm	-	1	1



**4.6. DESCRIPTION OF COMPONENTS**

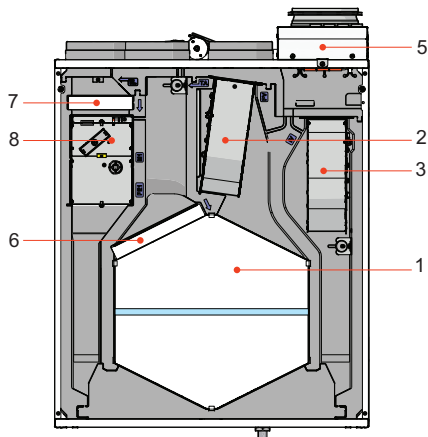


Figure 4.6.1. Smarty 2XV S300

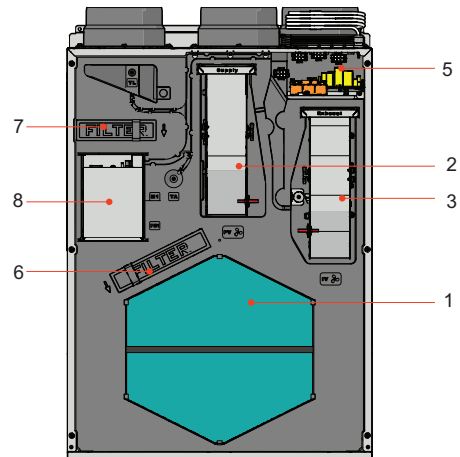


Figure 4.6.2. Smarty 3-4XV S300

1 - Plate heat exchanger; 2 - Supply fan; 3 - Exhaust fan; 5 - Control board; 6 - Extract air filter (panel); 7 - Supply air filter (panel); 8 - By-Pass damper.

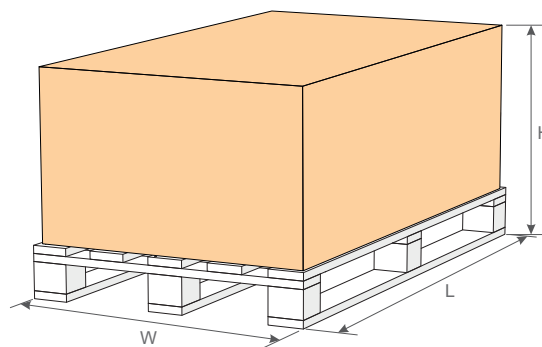
## 5. INSTALATION

### 5.1. RECEPTION OF GOODS

Each device is carefully checked before transportation. When receiving the goods, checking the devices for any damage made during transportation is recommended. If any damage to the unit is observed, immediately contact the representatives of a transport company. Please inform the representative of the manufacturer, if any deviation of the device is noticed.

### 5.2. TRANSPORTATION AND STORAGE

- All units are factory-packaged to withstand normal conditions of transportation.
- When unpacking, check the unit for any damage made during transportation. Installing of damaged units is not allowed!
- **The packaging is used for protection purpose only!**
- When unloading and storing the units, use suitable lifting equipment to avoid damage and injuries. Do not lift units by holding on power supply cables, connection boxes, air extract or exhaust flanges. Avoid hits and shock overloads. Before installation, the units must be stored in a dry room with the relative air humidity not exceeding 70% (at +20°C) and with an average ambient temperature ranging between +5 °C and +30 °C. The storage place must be protected against dirt and water.
- The units must be transported to the storage place or installation site using forklifts.
- The recommended storage period should not be longer than one year. In case of storing the units for a period longer than one year, checking if the fan bearings and motor rotate without difficulty (turning the impeller by hand) and if the electric circuit insulation is not damaged or the moisture has not accumulated must be performed before the installation of the unit.



	H	W	L	Max. number of transported packages
SMARTY	[mm]	[mm]	[mm]	[pcs.]
2 XV	2160	700	800	6
3 XV	1060	730	585	1
4 XV	1060	730	585	1

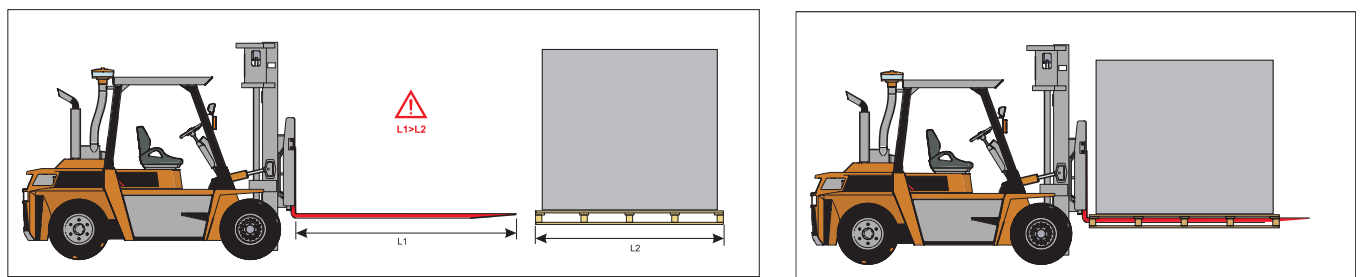


Figure 5.2.1. Lifting by forklift.



In order to prevent damage to the casing, only a product placed on a pallet should be lifted.

### 5.3. UNPACKING



Accessories may be packed together with the product. Prior to transporting the unit, the accessories should be unpacked first.

- Remove the film from the unit.
- Remove the bracing packaging tape that keeps the protective profiles in place.
- Remove the protective profiles.
- After unpacking the unit, examine it to make sure that no damage was made during transportation. Installing of damaged units is not allowed!
- Before commencing the installation of the unit, please check if all ordered equipment have been delivered. Any variation from the ordered equipment list must be reported to the product supplier.

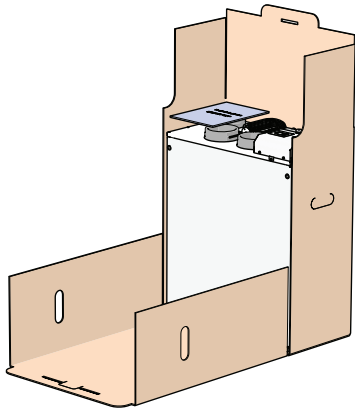


Figure 5.3.1. Smarty 2XV S300

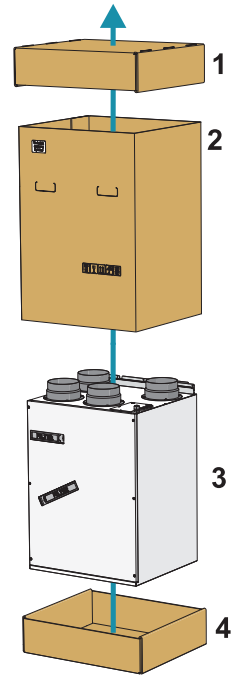


Figure 5.3.2. Smarty 3-4XV S300

#### 5.4. PIPING AND INSTRUMENTATION DIAGRAM

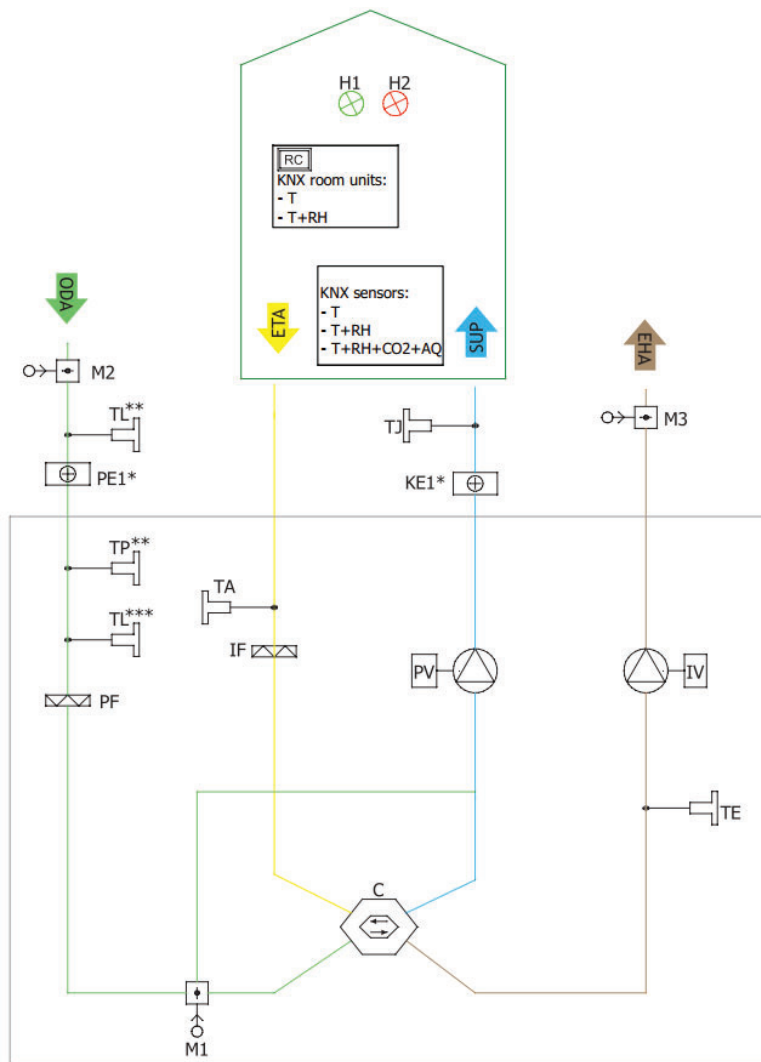



Figure 5.4.1. SMARTY XV S300 (\* Only heater or preheater can be connected at a time; \*\* Components connection only with PE1; \*\*\* Components connection only without PE1)

**THE LIST OF COMPONENTS**


<b>C</b>	Plate heat exchanger	<b>PV</b>	Supply air fan
<b>IF</b>	Extract air filter	<b>PF</b>	Supply air filter
<b>IV</b>	Exhaust fan	<b>TA</b>	Extract air temperature sensor
<b>TE</b>	Exhaust air temperature sensor	<b>TJ</b>	Supply air temperature sensor
<b>RH</b>	Air humidity sensor	<b>CO<sub>2</sub></b>	CO <sub>2</sub> sensor
<b>KE1</b>	Electric heater	<b>PE1</b>	Electric pre-heater
<b>M1</b>	By-pass damper	<b>M2</b>	Outdoor air damper actuator
<b>M3</b>	Exhaust air damper actuator	<b>TL</b>	Outdoor air temperature sensor
	Ventilated premises	<b>RC</b>	POS8.4420 or POS8.4440 remote control panel
<b>AQ</b>	Air quality sensor	<b>TP</b>	Air temperature after pre-heater sensor
<b>T</b>	Temperature sensor		


**POSSIBLE PCB INPUTS/OUTPUTS**

<b>FA</b>	Fire alarm	<b>FPP</b>	Fireplace protection
<b>H1</b>	Operation indication output	<b>H2</b>	Alarm indication output
	System mode switch		Rapid ventilation switch

**5.5. MOUNTING**

- Installation should be carried out by qualified and trained staff only.
- When connecting air ducts, consider the labels on the casing of the unit.
- Before connecting to the air duct system, the connection openings of ventilation unit should be closed.
- When connecting the ducts, the air-flow direction indicated on the device housing should be observed.
- Do not connect the bends close to connection flanges of the unit. The minimum distance of the straight air duct between the unit and the first branch of the air duct in the supply air duct must be 1xD, in air exhaust duct 3xD, where D is the diameter of the air duct.
- It is recommended to use the brackets (accessories). This will reduce the vibration transmitted by the unit to the air duct system and environment.
- Sufficient space must be provided for opening of the manhole and filter covers.
- If the ventilation unit is wall-mounted wall, it may transmit noise vibrations to the premises. Though the level of noise generated by the fans is admissible, mounting the unit at the distance of 400 mm from the nearest wall is recommended. Where this is not possible, mounting of the unit on the wall of the room where the level of noise is not significant is recommended.
- Ducts are connected to the unit in such way that they could be easily disassembled and the heater could be removed from the unit when carrying out maintenance, servicing and/or repairs

 **The protective film is used to protect the unit during transportation. It is recommended to remove the film; otherwise, oxidation signs may occur.**

 **Before every heating season, the condensate tube must be filled with water as indicated during the first start-up!**

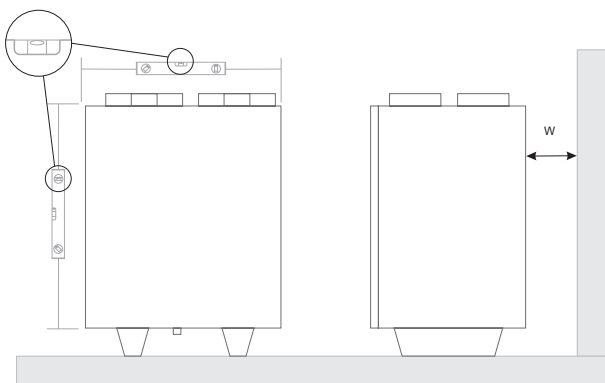


Figure 5.5.1. Horizontal floor-mounting positions on floor (W=400 mm)

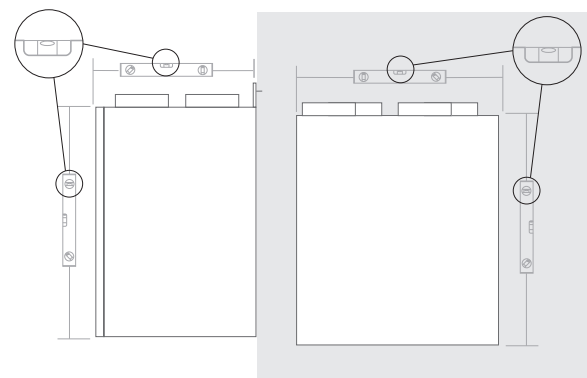


Figure 5.5.2. Ceiling-mounting positions

### 5.6. UNIT PLACING AND MOUNTING POSITIONING REQUIREMENTS

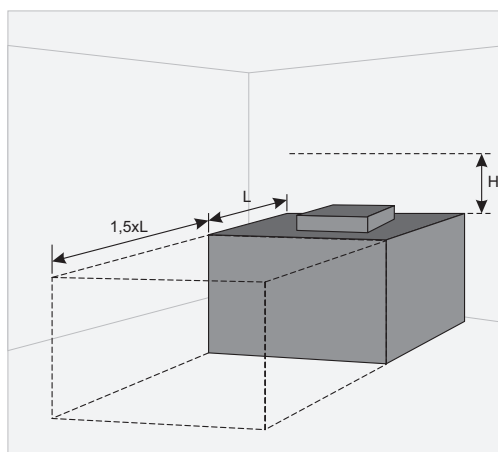


Figure 5.6.1. Min. distance to open the door -  $1,5xL$ ; Min. distance to open the control box door -  $H > 400$  mm.

### 5.7. FLOOR MOUNTING

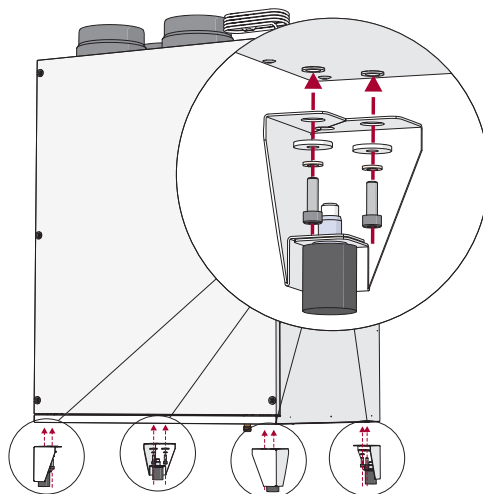


Figure 5.7.1. floor mounting (optional accessory required)

### 5.8. WALL-MOUNTING OF THE UNIT

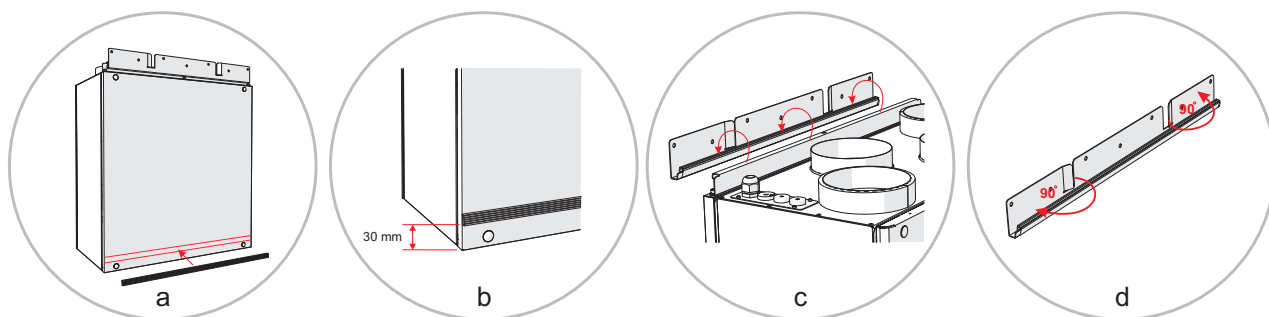


Figure 5.8.1. mounting on the wall

### 5.9. DRAINAGE



Before every heating season the condensate tube shall be filled with water as indicated during the first start-up! Before every heating season the condensate tube shall be filled with water as indicated during the first start-up!

**DRAINAGE SYSTEM INSTALLATION SMARTY 2XV S300**

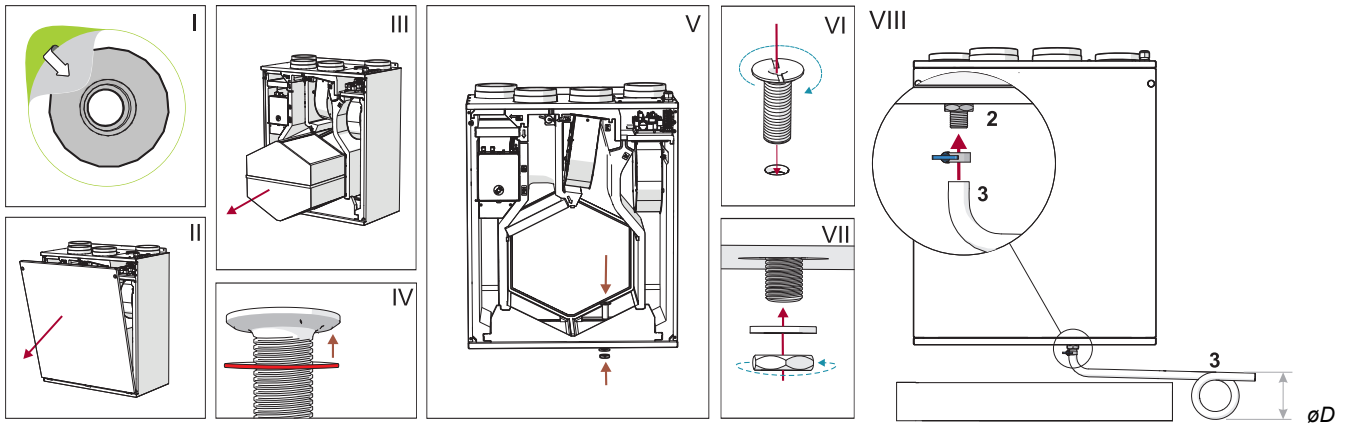


Figure 5.9.1. Drainage system installation (øD=150 mm)

It's required to connect condensate drainage system after hanging or placing of air handling unit. Insert condensate draining into AHU. Condensate draining must be lubricated with a sealant (I-VII) and connected to a condensate removal system.

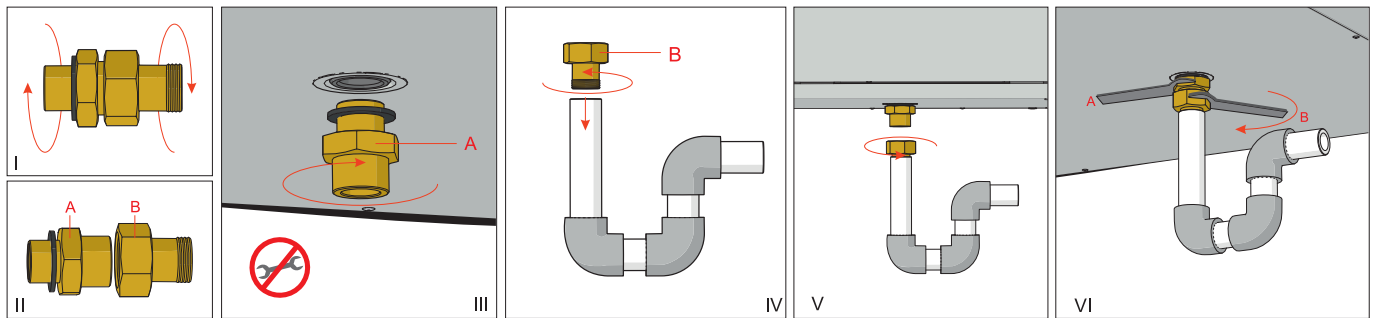
Remove the sticker on the bottom of the unit, which covers a drainage hole. Then open the unit cover (II) and take out the heat exchanger. Put condensate outlet pipe to EPP casing through intended hole (V), use silicon gasket (IV). Place from the bottom side gasket and screw a brass nut on (VII). Screw the nut by holding the pipe with a hand in order prevent spinning (it's possible to hold with a screwdriver or 1 Euro coin by putting it in the notch on the pipe). Screw the nut with a wrench (No. 27) until a top part presses in the EPP casing (level with a surface or slightly enters into it). **Attention: Screwing force may not exceed 2 Nm.**

Pipe (3) (metal pipe should be connected with G3/8 elbow, plastic pipe – with G3/8 elbow or rubber hose – with strap if the unit is placed on the legs, in other cases condensate hose can be connected in any direction) should be connected by following order: AHU (1), pipe (2), and drainage system. Pipes (3) should be bended not less than 3° degrees (1 meter of pipe must be bended 60 mm downwards)! Before turning on AHU (1) the draining system should be filled up with at least 0.5 l of water (pipe loop (3) must be always filled with water), also check if water reaches sewerage system! In other case premise can be flooded during AHU operation!

Draining system must be installed in the premise where the temperature is not lower than 1°C. If temperature falls below 0°C the draining system should be isolated with thermal isolation. The pipe loop 2) not necessarily must be mounted below the AHU (1), but below the AHU (1) level.

**Note.** If the collector is situated upstream, install a system with a condensate pump (offered as an accessory).

**DRAINAGE SYSTEM INSTALLATION SMARTY 3-4XV S300**



1. Connect the drain couplings (ZPGGM056) part A (G ½ male) to drainage connection into the unit, by turning it clockwise by hand. Do not use any tools (I-III)!
2. Connect drain couplings part B (G ½ male) to condensate syphon or looped sanitary hose (IV-V).
3. Connect drain couplings A and B parts. Hold back the part A with the key during connection (VI).

**5.10. CONNECTION OF THE AIR DUCT**

- The connected air ducts must not be bent and have separate fixing.
- Make sure that the fans can not be accessed through air duct heads. Otherwise, protective grid should be installed. You may choose the grid from the range of products provided in our website.
- Do not reduce the diameter of the piping near air inlet or exhaust ducts. If you want to reduce the airflow speed in the system, drop of pressure and noise level, you can increase the diameter.
- In order to reduce the level of the noise in the air supply system, install dampers (see the chapter on air supply system installation).
- In order to reduce air loss in the system, the air ducts and profile components should be of class C and higher. The catalog on the above-mentioned items can be found in our website.
- External air and exhaust system piping should be isolated in order to prevent heat loss and condensation.
- Maintaining the distance of up to 8 meters between air intake and air exhaust ducts is recommended. Air supplying system should be installed away from potential air pollution sources.
- When installing air ducts next to the ventilation equipment, brackets must be used. They suppress vibration and assure secure installation of the various system parts. The necessary brackets can be found in our catalog or website.
- Air ducts are often mistakenly connected in inappropriate location. The ventilation units bear the labels indicating the correct air duct connection layout. Before starting up the system, carefully check if all related works have been performed properly.

**i** For flange diameters see chapter " DIMENSIONS AND WEIGHT".

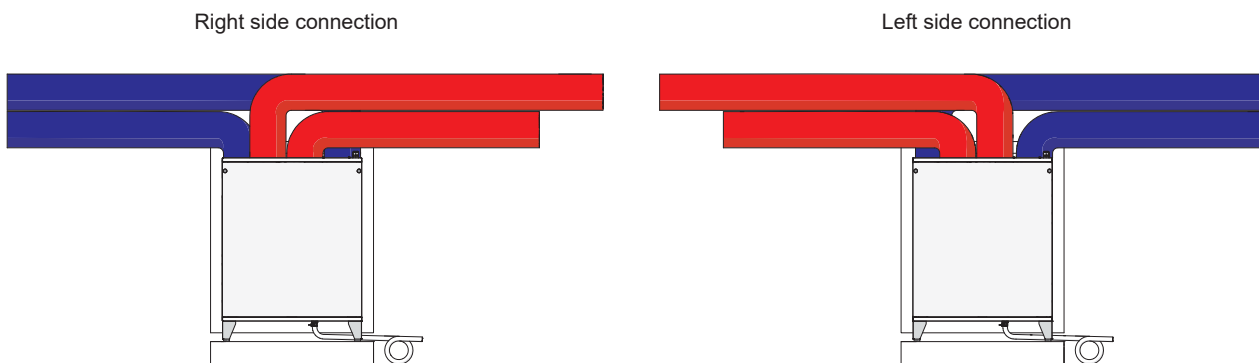


Figure 5.10.1. SmartY XV S300 side connection

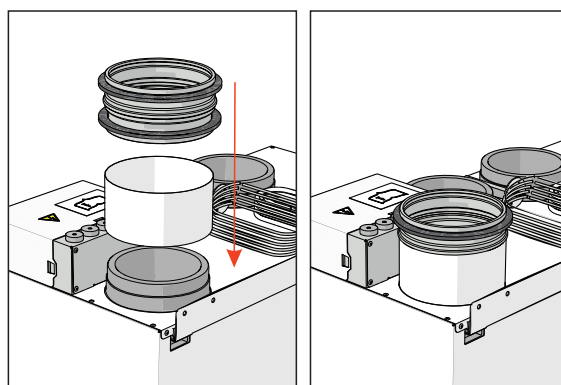


Figure 5.10.2. SmartY 2XV S300 connection of the air duct

## 5.11. CONNECTION OF THE UNIT TO ELECTRIC NETWORK

- Supply voltage to the unit must be connected by a qualified specialist following the manufacturer's instructions and applicable safety guidelines.
- The unit's power network voltage must correspond to electro technical specifications of the unit indicated in the technical decal.
- The unit's voltage, power and other technical specifications are provided in the unit's technical decal (on the unit casing). The unit must be connected to the voltage plug socket of the grounded power network in accordance with the applicable requirements.
- The unit must be earthed according to electrical equipment installation regulation.
- Using extension wires (cables) and power network plug socket distribution devices is not allowed.
- Prior to carrying out any ventilation unit installation and connection works (before the unit is commissioned), the unit must be disconnected from the power network.
- After installation of the ventilation unit, the power network plug socket must be accessible at any time and disconnection from the power network must be performed through the two-pole circuit breaker (by disconnecting phase pole and neutral).
- Before it is connected to the power network, the unit must be carefully checked for any damage (execution, control, and measurement nodes) made during transportation.
- The power cable can be replaced only by a qualified technician, having evaluated the rated power and current.

**!** The manufacturer does not assume any liability for personal injuries and property damage due to nonconformance with the provided instructions.

## 5.12. START-UP RECOMMENDATIONS

### 5.12.1. SYSTEM PROTECTION

Unit must be used with external protection device.

SMARTY	2XV S300	3XV S300	4XV S300
Mains Fuse	16A	16A	16A

**!** To ensure safe maintenance of the unit, it is necessary to turn off main switch and/or external protection device.

**5.12.2. PRE-STARTUP RECOMENDATIONS OF THE UNIT (IN THE PRESENCE OF THE ENDUSER)**

Prior to start-up, the system must be carefully cleaned. Check for the following:

- operation systems and unit elements as well as automation and automation devices were not damaged during installation,
- all electrical devices are connected to power supply and fit for service,
- all necessary automation elements are installed and connected to power supply and S300 controller's terminal blocks,
- cable and wire connection to S300 controller's terminal blocks comply with the existing wiring diagrams,
- all electrical equipment protection components are properly connected (if they are additionally used),
- cables and wires correspond to all applicable safety and functional requirements, diameters, etc.,
- earthing and protection systems are properly installed,
- condition of all seals and sealing surfaces is proper.



## 6. MAINTENANCE

### 6.1. SAFETY INSTRUCTIONS



Unplug the unit from the mains before opening the door (disconnect the power plug from the outlet or in case a two-pole automatic circuit breaker installed, disconnect it as well. Make sure that it cannot be turned on by third parties) and wait until the fans completely stop (for about 2 min.).

### 6.2. GENERAL RECOMMENDATIONS FOR VENTILATION SYSTEM MAINTENANCE

In order to ensure proper functioning of the system, maintenance requirements and its periods should be observed. Otherwise, the warranty shall be void. Some recommendations are provided in the table below, but they are just advisory, as the need for system maintenance depends on the location of the unit installation, the pollution of atmosphere, population, working hours, etc.

COMPONENT	DURING START-UP	AT LEAST EVERY 6 MONTHS
Filters	Check the cleanliness of the filters	Replace filters every 3 to 4 months or according to the control device indications.
Fans	Check the connections and the direction of rotation	Check cleanliness. Clean, if necessary
		Make sure that the impellers are not unbalanced.
		Make sure that the impellers do not cause noise when rotated by hand.
		Make sure that the fastening screws are not loose and free of mechanical damage.
Plate Heat exchanger	Check the cleanliness of the heat exchanger	Check cleanliness and clean, if necessary
Control panel	Check the connections	Check the connections
Electric heater	Check the connections	Clean off dust, and check the electrical components and connections of the heater
Pressure sensor	Check electrical connections	Check the operation
Temperature sensor	Check electrical connections	Check the operation
Air supply and extract system	Check the connections	Clean
Air duct system	Check the tightness	Clean
Dampers, diffusers, grid	Check the tightness of connections	Clean
Switching unit (contactor)		Every 3 to 4 months, visually assess the functioning of the switching unit (contactor), i.e. make sure that its casing has no signs of melting or is not thermally damaged in any way and does not produce any unusual sounds. All the contactors in the product or in its accessories must be checked.
Condensate trap and discharge assembly	Check the condensate discharge assembly and make sure that water runs from the drip tray properly.	Clean

### 6.3. COVER OPENING

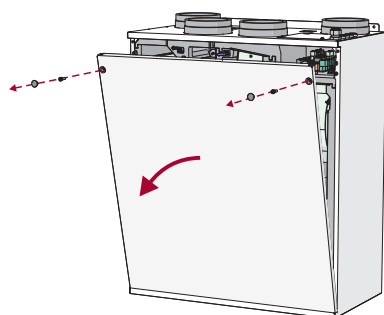


Figure 6.3.1. Smarty 2XV S300

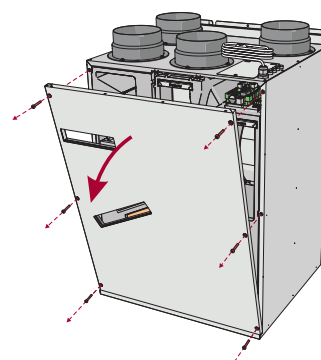


Figure 6.3.2. Smarty 3-4XV S300

## 6.4. FILTERS MAINTENANCE

- In order to remove the filters, open filter cover by pulling the strap and take out the filters. Use Coarse 65% filters or optionally the ePM1 70% filter for outdoor air filtration and the Coarse 65% filter for the exhaust air filtration.
- Dirty filters increase air resistance, this decreases the airflow into the rooms.

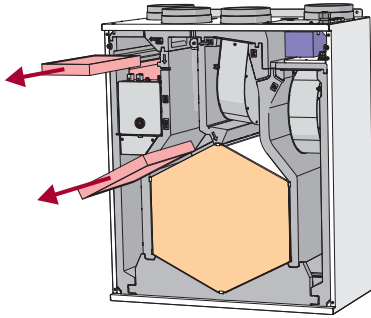


Figure 6.4.1. SmartY 2XV S300

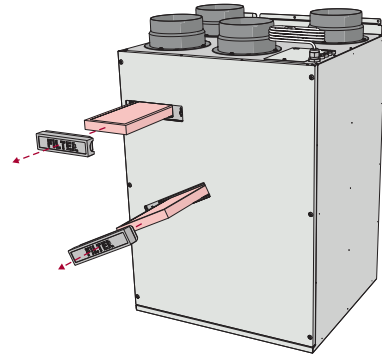


Figure 6.4.2. SmartY 3-4XV S300



**After changing the filters, please reset the filter timer. The instruction on reloading can be found on particular unit's control environment's documentation. Operation of the unit without filters is not allowed.**



**Change the filters every 3-4 months or according to the notification on the control device.**

## 6.5. FAN MAINTENANCE

- Fan maintenance should be performed by experienced and trained staff only.
- The fan should be inspected and cleaned at least once per year.
- Observe staff safety regulations during maintenance and repairs.
- The fans features a heavy-duty ball bearing design. The motor is completely sealed and free of maintenance.
- Detach the fan from the unit.
- The impeller should be particularly checked for built-up material or debris that may cause an imbalance. Excessive imbalance may lead to accelerated wear on motor bearings and vibration.
- Clean the impeller and inside housing with a mild detergent, water and damp, soft cloth.
- Do not use high-pressure cleaner, abrasives, sharp tools or caustic solvents that may scratch or damage the housing and impeller.
- Do not plunge the motor into any fluid while cleaning the impeller. Make sure the impeller's balance weights are not moved.
- Make sure the impeller is free of any obstacles.
- Install the fan back into the unit. Connect fan power and control signals.
- In case the fan after maintenance does not automatically start up or stop, contact the manufacturer. In case of any fault in the fan motor, a notice will appear on the control panel.



**Prior to commencing any maintenance or repairs , make sure the ventilation units is disconnected from the power source.**

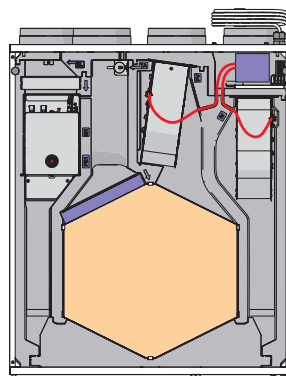
SMARTY 2-3XV S300:

- \* Disconnect X1F and X2F connectors (located in the control board compartment) from the control board harness.
- \* Remove cables of fans from the casing;
- \* Pull out fans assemblies.

SMARTY 4XV S300:

- \* Disconnect cables of the AHU harness from fans connectors (X32, X33);
- \* Pull out fans assemblies.

\* Reassembling must be executed in the reverse order.



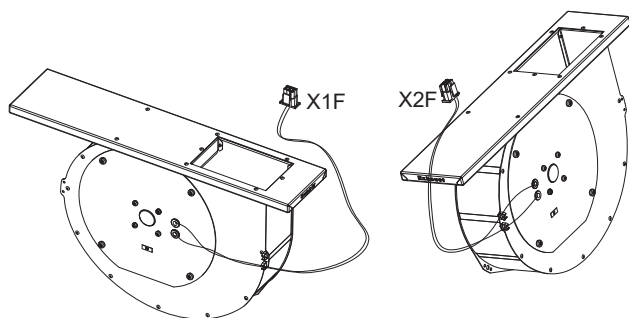


Figure 6.5.1. SmartY 2-3XV S300

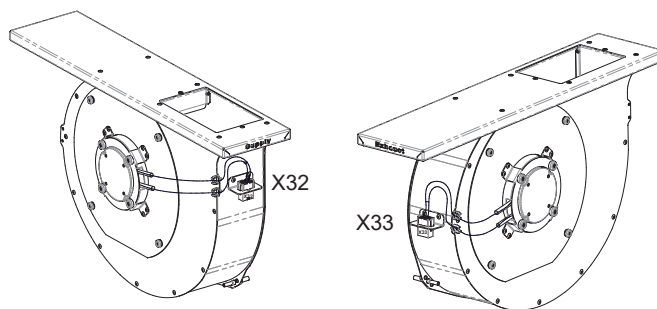


Figure 6.5.2. SmartY 4XV S300

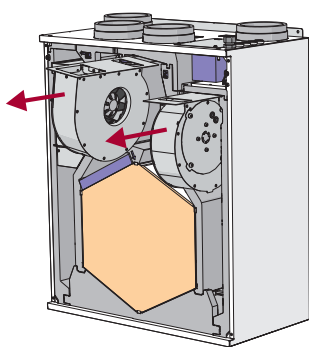


Figure 6.5.3. SmartY 2XV S300

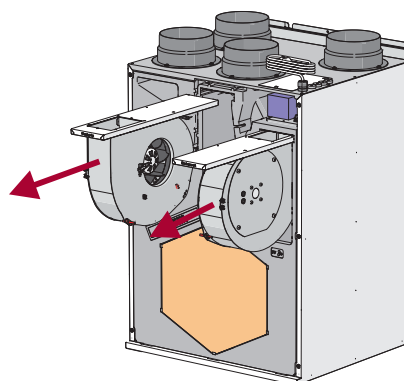


Figure 6.5.4. SmartY 3-4XV S300

## 6.6. HEAT EXCHANGER MAINTENANCE

- Proceed to maintenance and repair after any rotation in the fan stopped.
- Clean the heat exchanger once a year.
- Firstly take out heat exchanger cassette carefully. Submerge it into a bath and wash with warm soapy water (do not use soda). Then rinse it with weak hot water stream (too strong stream can fold the plates). Place back the heat exchanger only when it is completely dry.

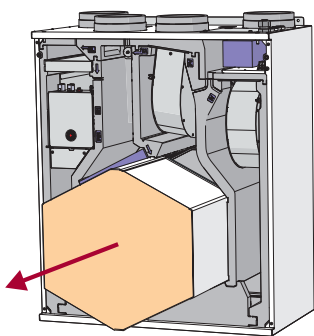


Figure 6.6.1. SmartY 2XV S300

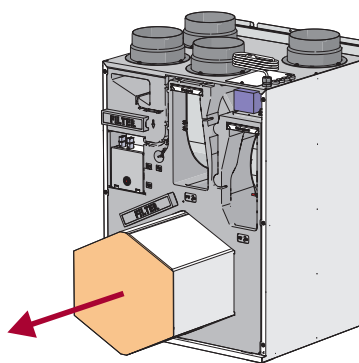


Figure 6.6.2. SmartY 3-4XV S300



**CAUTION:** the heat exchanger can not be used when the filters are removed!

## 6.7. BYPASS DAMPERS MAINTENANCE

To remove Bypass damper follow these steps:

- Unscrew damper actuator's cover bolt and remove cover.
- Disconnect connector (X4) from the actuator.
- Unattach actuator's wires from bypass damper's case.
- Remove bypass damper.
- To reassemble follow steps in reverse order.

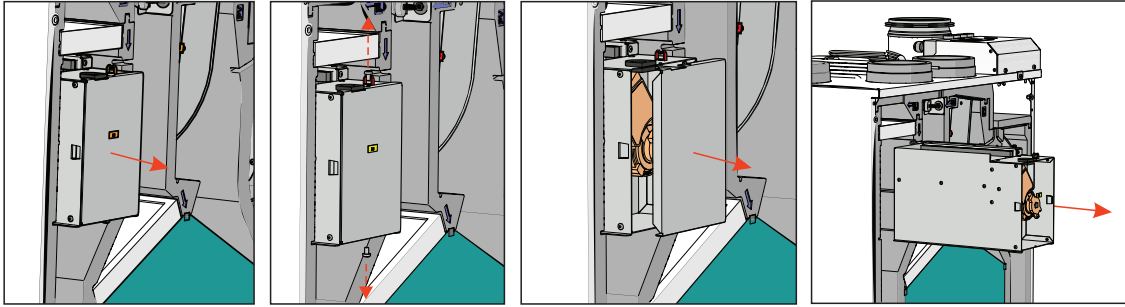


Figure 6.7.1. Smarty 2XV S300

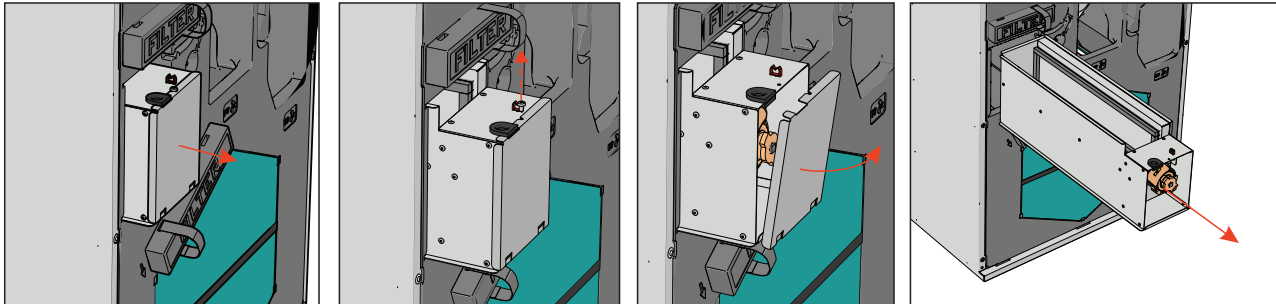


Figure 6.7.2. Smarty 3-4XV S300

## 6.8. CONTROL BOARD MAINTENANCE

To remove control board follow these steps:

- Unscrew control board cover and mounting bolt(s).
- Remove control board cover.
- Disconnect X1, X2, X3 and X4 connectors. They are located above or below the control board assembly, depending on the unit.
- Remove control board.

Power supply cable for AHUs with S300 is connected permanently and needs to be cut of from the power distribution terminals and recrimped with PKC sleeves when reconnecting.

To reassemble follow steps in reverse order. When reconnecting connectors make sure to match each male connector with corresponding female connector.

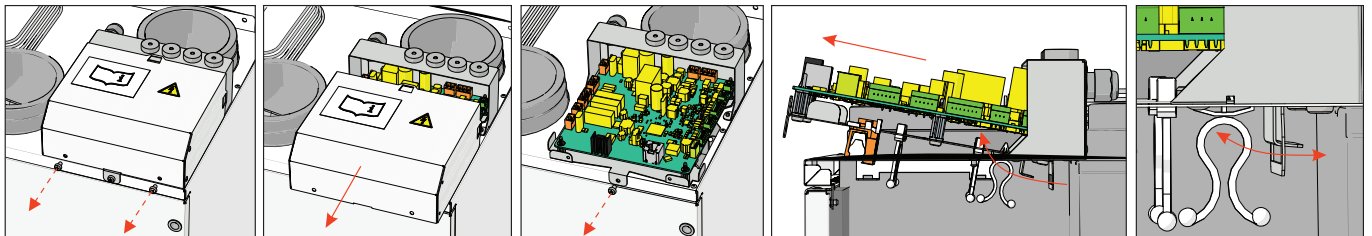


Figure 6.8.1. Smarty 2XV S300 control board

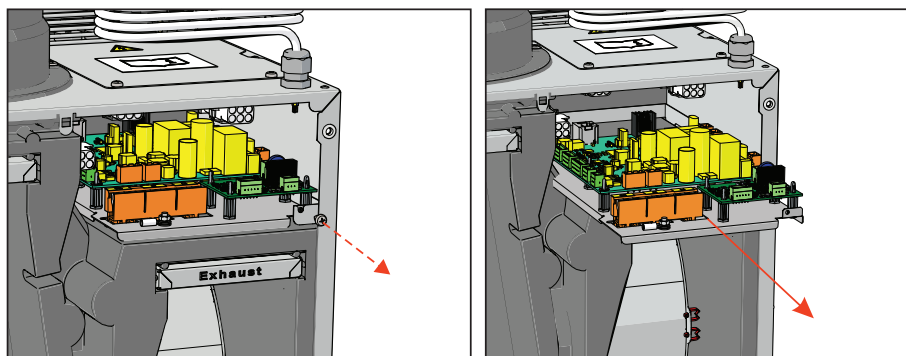


Figure 6.8.2. Smarty 3-4XV S300 control board

## 7. CONTROL

### 7.1. DEVICE CONTROL

Air Handling unit can be controlled with remote control panel, mobile app via WIFI and BMS (Building Management System). More information provided in the table below

With MB-GATEWAY	Remote control panels	BMS direct connection	Wireless communication
BMS over Modbus TCP/IP	POS8.4420 POS8.4440	Modbus RTU (485) BACnet IP	WIFI stick + mobile app

### 7.2. DEVICE FUNCTIONS

Smarty XV S300 units have integrated efficient microprocessor-based Siemens S300 controller (full controller's function list and description you can find on the Siemens S300 technical manual). All unit's active components are controlled by Siemens controller. It has a lot of functions that can efficiently operate air handling unit. Users have access to the controller configuration where the control settings can be changed or new controllable devices can be added to the air control system. Users can also connect to the controller and monitor unit's status or change preferred environment settings.

Operation and control of the device depends on the following factors:

1. Selected control interface. The selected interface affects access to the information and settings, however, it does not affect the logic of the control. Remote controller have access of only basic user functions. Full access to the unit's configuration settings is available on ABT Go mobile application for installer and service users.
2. Unit configuration (internal/external components, sensors and controller settings).



**For unit control instructions, refer to the operation manual of the existing control device.**

## 8. CONNECTION OF ACCESSORIES

### 8.1. HEATER AND PRE-HEATER

SMARTY XV air handling units are able to control one heater or preheater coil at a time. When the preheater is used, one more temperature sensor has to be installed to the system. After connection, configuration has to be performed. For more information see section **ACCESSORIES SETUP**.

#### 8.1.1. HEATER

In order to use a heating coil, following signals are required to be connected to the control board:

1. Electric heating coil command;
2. Heating coil overtemperature detector;
3. Heating coil position signal.

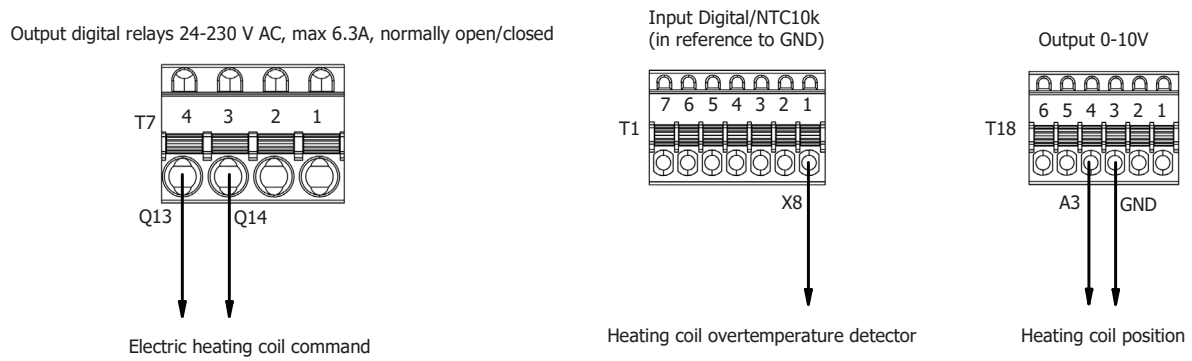


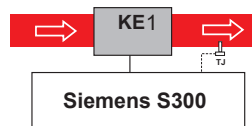
Figure 8.1.1.1. Signals for electrical heater



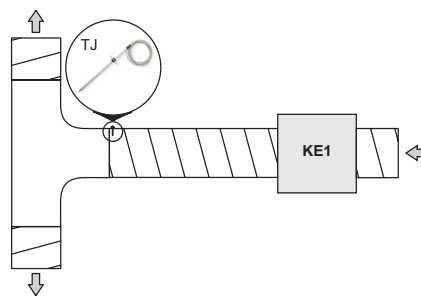
**NOTE: Power supply for the heater is not shown.**

#### Heater Installation Diagram

Electric heater must be installed inside the air duct. The layout is based on airflow direction **ELECTRIC HEATER > SUPPLY AIR SENSOR (TJ)**.



**When using the supply air heater, the supply air sensor (TJ) must be installed downstream the heater (or cooler) at the length of sensor cable allows or up to the first branching or bend of air transportation system.**



#### 8.1.2. PREHEATER

In order to use a preheating coil, following signals are required to be connected to the control board:

1. Electric preheating coil command;
2. Air temperature after preheating coil;
3. Preheating coil overtemperature detector;
4. Preheating coil position signal.

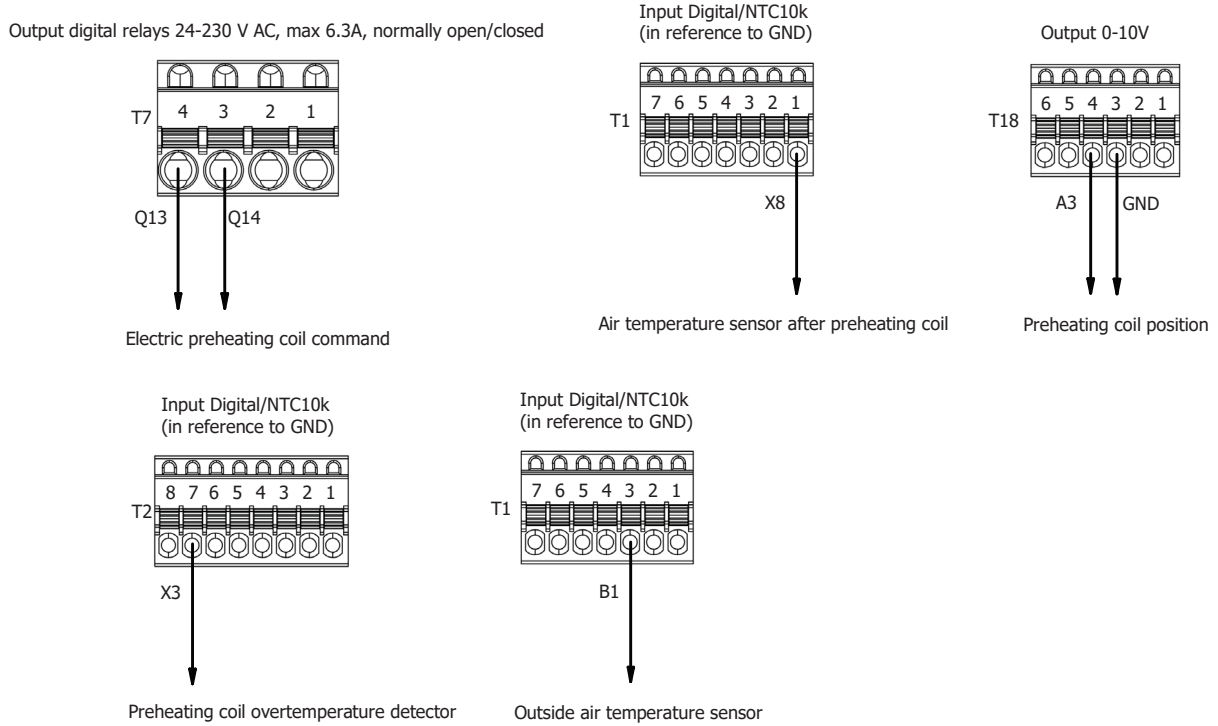


Figure 8.1.2.1. Signals for electrical preheater

Air temperature after preheater can be measured by TL sensor, which is already installed in AHU. For this purpose, its signal has to be switched to T1:1 (X8 analog input) from T1:3 (B1). This sensor then is called TP, see the piping and instrumentation diagram. Additionally, temperature sensor before preheater must be installed and connected to T1:3 (B1 analog input). It will become TL (Outside air temperature) sensor.

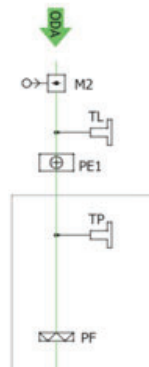


Figure 8.1.2.2. Temperature sensors when preheater is used

## 8.2. OUTSIDE AIR DAMPERS

Outside air dampers can be used with Smarty XV products. Dampers should be controlled by On/Off or Spring-return actuators. Upon activation of output Q34 (T14:1), dampers shall open. Upon deactivation of output, dampers shall close. When activated, 230V voltage is applied to Q34 output. By default, damper control output is already activated in configuration.

Output digital relay 24-230 V AC, max 6.3A, normally open/closed

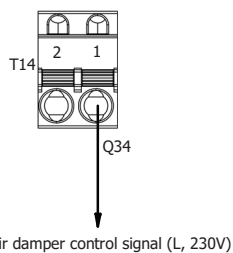


Figure 8.2.1. Connection for outside dampers



**WARNING: High voltage on output.**

### 8.3. SMOKE DETECTOR

For fire safety function it is available to connect smoke detector to T3 connector by principle, shown in the figure below.

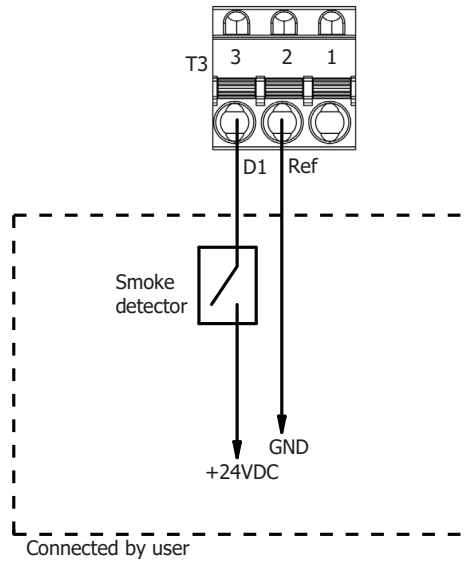


Figure 8.3.1. Connection of smoke detector

By default, D1 digital input is configured as Smoke detector input and set to NO, if needed NC contact type, then it must be reconfigured. See section **ACCESSORIES SETUP**.

### 8.4. FIREPLACE PROTECTION/SYSTEM MODE SWITCH/RAPID VENTILATION SWITCH INPUT

T3 connector can be used for connecting one of the following function to D2 digital input:

1. Fireplace protection;
2. System mode switch;
3. Rapid ventilation switch.

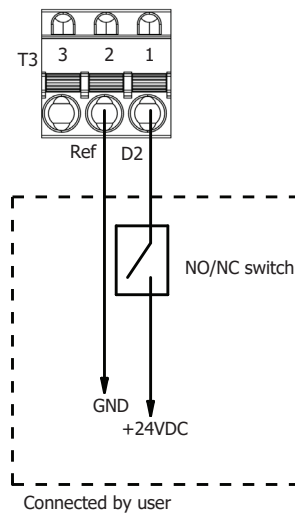


Figure 8.4.1. D2 digital input connection

After connection, configuration has to be performed. For more information see section **ACCESSORIES SETUP**.

### 8.5. OPERATION INDICATION OUTPUT

If indication about the status of the air handling unit is needed, it can be connected to dedicated Q24 signal on T7:1. When AHU is ON, indication output will provide voltage for indicating device.



Output digital relays 24-230 V AC, max 6.3A, normally open/closed

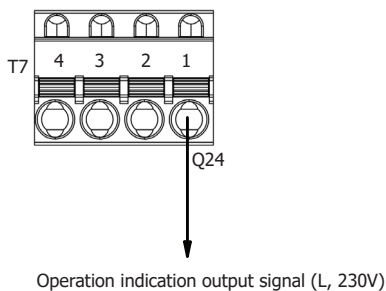


Figure 8.5.1. Operation indication output connection



**WARNING: High voltage on output.**

After connection, configuration has to be performed. For more information see section **ACCESSORIES SETUP**.

### 8.6. ALARM INDICATION OUTPUT

In the same way as operation indication, alarm indication signal can be provided by the control board. Indicator has to be connected to Y1 output on T19:1.

Output triac, 230V AC, max. 10A (<1s), nominal current: 0,05-1A.

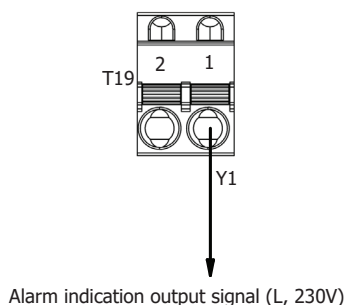


Figure 8.6.1. Alarm indication output connection



**WARNING: High voltage on output.**



**NOTE: lower than 0,05A loads can operate incorrectly.**

### 8.7. REMOTE CONTROLLER, KNX ROOM SENSORS AND MODBUS

Air Handling unit can be controlled with remote control panel POS8. Remote controller connects with S300 controller via KNX PL-Link interface. T15:1;2 – terminals of AHU's controller for KNX devices. Same interface and controller terminals are used for QMX3 room sensors P30, P40 and P70 connection.

Air Handling unit can be connected to the Building Management System via BACnet IP or Modbus (RS485). BACnet is connected to the T5 connector (RJ45) of S300 controller which has default BACnet settings:  
 BACnet Vendor Identifier: 7  
 BACnet Vendor Name: Siemens Building Technologies  
 Default BACnet/IP port: 47808 (0xBAC0)  
 Default Device Object Instance number: 1



**All S300 devices of the same BACnet system must have different device object instance numbers.**

Modbus RTU connects to the T12:1;2;3 terminals (Modbus Slave Port1) of the S300 controller which has default RS485 port1 settings:  
 Baudrate: 19200 bps  
 Data: 8 Bit  
 Parity: Even  
 Stop bit: 1  
 Slave address: 1

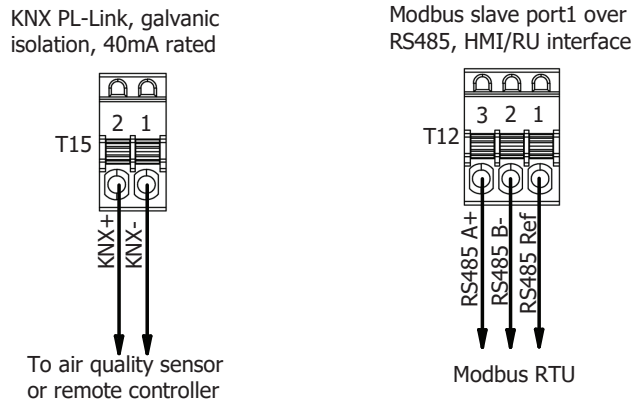


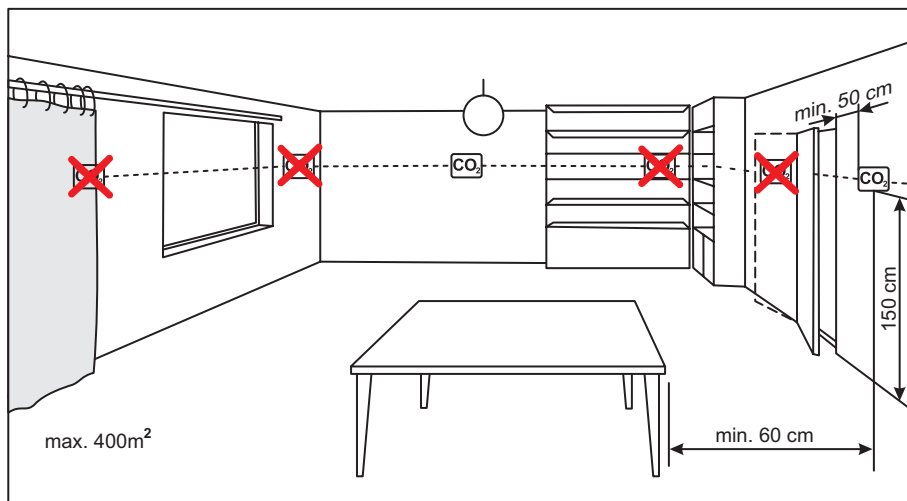
Figure 8.7.1. Air quality sensor, remote controller and BMS connection to the S300 controller

After connection of air quality sensor or remote controller, configuration has to be performed. For more information see section **ACCESSORIES SETUP**.

Modbus TCP/IP connection can only be implemented via additional device - MB-Gateway. Controller's Modbus Slave Port1 or Port2 can be used for Modbus TCP/IP connection (see section **PINOUT OF THE CONTROLLER** for location of the Port2).

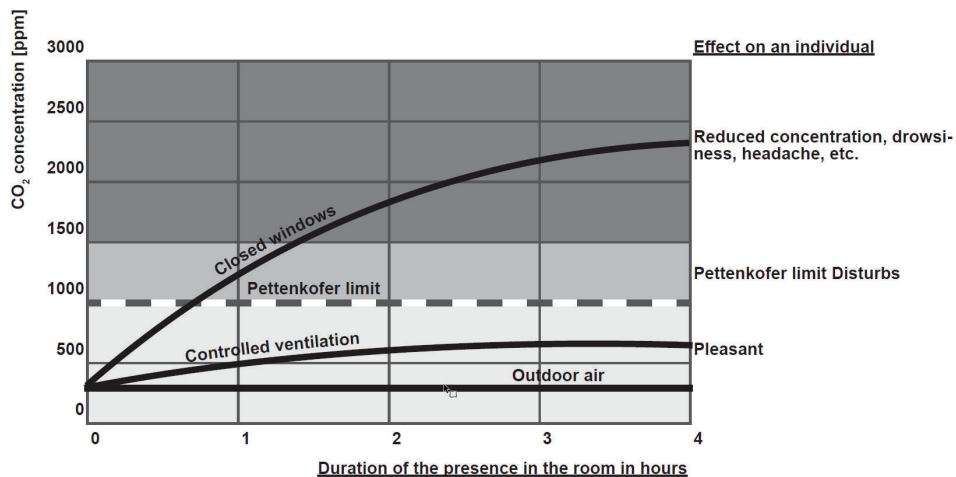
USB connector for S300 controller is used to connect WIFI stick and make controller as WIFI access point to control the unit with smartphone or tablet using ABT Go application. USB connector can also be used for S300 controller firmware updates.

### 8.8. ROOM CO<sub>2</sub> TRANSMITTER INSTALLATION RECOMMENDATION



If the duct CO<sub>2</sub> transmitter is used, it must be installed in the extract air duct. To install duct transmitters, hole drilling tools are required.

### 8.9. CO<sub>2</sub> CONCENTRATION ACCORDING TO PETTENKOFER LIMIT



**9. PINOUT OF THE CONTROLLER**

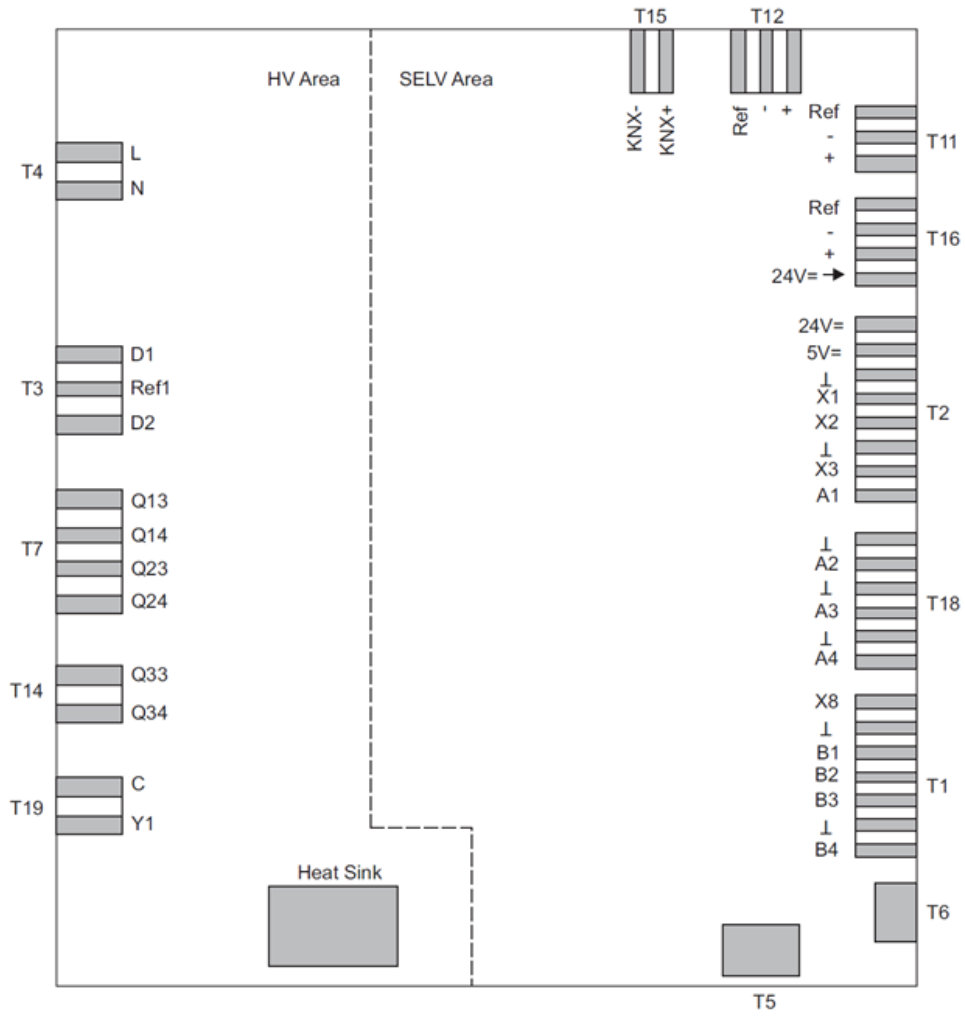


Figure 9.1. S300 controller

## 10.ACCESSORIES SETUP

Some accessories or functions of connected external components must be additionally configured to work properly in the Air Handling unit's system.

Configuration is performed via ABT Go application which can be found on [play.google.com/store/apps](https://play.google.com/store/apps).

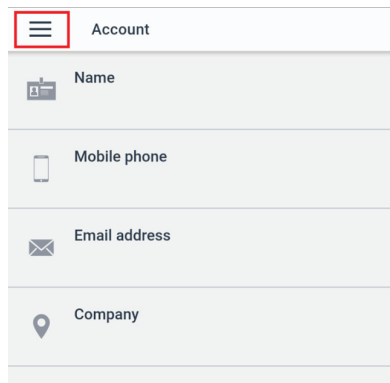
### 10.1. ACCESS OF CONFIGURATION PARAMETERS

To access configuration parameters follow these steps:

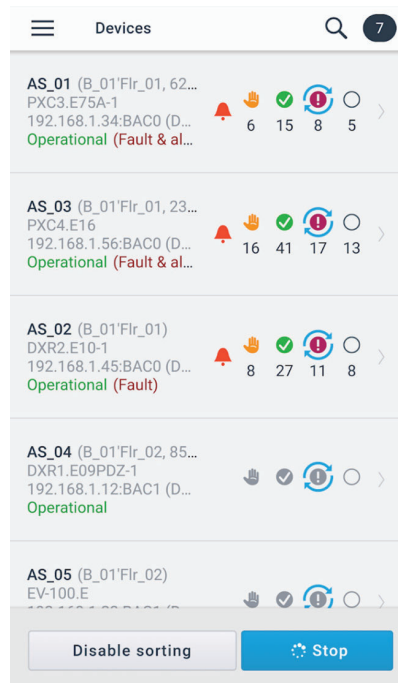
- Connect Siemens WLAN stick (POL903.00/100) to the Air Handling unit's controller's USB connector T6 or connect wifi router to the Air Handling unit's controller's RJ45 connector T5 using UTP cable.
- Download and install ABT Go application on smartphone or tablet.



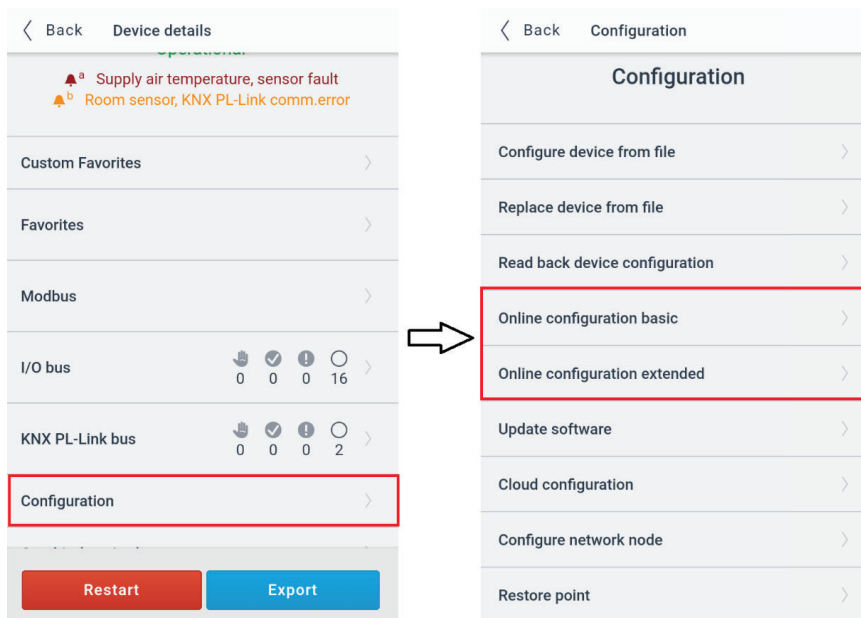
- Turn on the unit.
- Connect to the WLAN stick's or router's wifi network (default password of Siemens WLAN stick is *SIBPAdmin*).
- Start ABT Go application and open menu.



- Open Devices and select product you want to change configuration for.



- Log in to access the device (by default: user name is *Administrator*, password is *OneBT*). It is required to change password when you connect to the device for the first time.
- Go to **CONFIGURATION** window. All necessary parameters for setting up accessories are located in **ONLINE CONFIGURATION BASIC** and **ONLINE CONFIGURATION EXTENDED**.



## 10.2. HEATER

In order to control electrical heater, it has to be configured by following steps:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION BASIC** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Set **HEATING COIL** parameter to **ELECTRIC HEATING COIL 21Y**.
- Press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation, press **DONE**.
- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Select **Q1** as **ELECTRIC HEATING COIL COMMAND**, **X8** as **HEATING COIL OVERTEMPERATURE DETECTOR** and **A3** as **HEATING COIL ELECTRIC POSITION**.
- Press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation press **DONE**.

## 10.3. PREHEATER

In order to control electrical preheater, which has been connected as required in section **PREHEATER**, it has to be configured by following steps:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION BASIC** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Set **PREHEATING COIL** parameter to **ELECTRIC PREHEATING COIL 21Y**.
- Press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation, press **DONE**.
- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Select **Q1** as **ELECTRIC PREHEATING COIL COMMAND**, **X8** as **SUPPLY AIR TEMP. AFTER PREHEATING COIL**, **B1** as **OUTSIDE AIR TEMPERATURE**, **A3** as **PREHEATING COIL ELECTRIC POSITION** and **X3** as **PREHEATING COIL OVER-TEMPERATURE DETECTOR**.
- Press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation press **DONE**.

## 10.4. SMOKE DETECTOR

By default, smoke detector input is activated and configured as NO input. In order to use a NC switch, input must be reconfigured to NC by following steps:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Select **D1** as **SMOKE EXTRACTION NORMALLY CLOSED**.

## 10.5. FIREPLACE PROTECTION, SYSTEM MODE SWITCH OR RAPID VENTILATION SWITCH INPUT

In order to configure D2 input as Fire place protection:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Select **D2** as **FIREPLACE VENTILATION INPUT**.

System mode switch function can be used to enable one pre-selected system mode. System mode for this switch can be set by following steps:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Select **D2** as one of the selections available:
  1. **INPUT ROOM OPERATING MODE COMFORT**;
  2. **INPUT ROOM OPERATING MODE ECONOMY**;
  3. **INPUT ROOM OPERATING MODE UNOCCUPIED**;
  4. **INPUT ROOM OPERATING MODE PROTECTION**.

Rapid ventilation switch function can be used to boost fan speed. In order to configure D2 input as Rapid ventilation switch:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Select **D2** as **RAPID VENTILATION INPUT**.

After **D2** input is configured press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation press **DONE**.

## 10.6. ALARM INDICATION OUTPUT

By default, indication output is configured to indicate if any type of unit's alarm (A or B) is triggered. It is possible to reconfigure output to indicate triggered only B type alarm, only:

- In **CONFIGURATION** window select **ONLINE CONFIGURATION EXTENDED** and press **OK** on warning. Wait for the device to switch in configuration mode.
- Change **Y1** with value **A-ALARM INDICATION OUTPUT**, **B- ALARM INDICATION OUTPUT** (depending on preferred indication function).
- Press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation press **DONE**.

## 10.7. REMOTE CONTROLLER AND KNX ROOM SENSORS

- In **CONFIGURATION** window select **ONLINE CONFIGURATION BASIC** and press **OK** on warning. Wait for the device to switch in configuration mode.

### To configure remote controller:

- Set **SELECTION FOR ROOM OPERATOR UNIT POS8** parameter with value **POS8.4420** or **POS8.4440** (depending on remote controller type).

### To configure QMX3.P30 room sensor:

- Set **SELECTION FOR ROOM SENSOR QMX3.P30** as **ACTIVE**.

### To configure QMX3.P40 room sensor:

- Set **SELECTION FOR ROOM SENSOR QMX3.P40** as **ACTIVE**.

### To configure QMX3.P70 room sensor:

- Set **SELECTION FOR ROOM SENSOR QMX3.P70** as **ACTIVE**.

- Press **APPLY – RESTART DEVICE** button and wait for configuration to be applied. After confirmation of successful device activation, press **DONE**.

## 11. OPERATING THE UNIT

The air handling unit can be controlled via POS8 remote control panel or ABT Go application. The unit has three different control modes:

- **Auto** – operating modes are controlled via time switch program which changes between operating modes. Time switch program can be set by user.
- **Manual** – operating modes are switched manually by user.
- **Temporary** – control mode used for special operating modes (Fan boost, Fire place). These operating modes can be activated for a limited, configurable time.

Four different operating modes can be selected when unit is in *MANUAL* control mode:

- **Comfort** – used when building is occupied and the system operates to the needs of the user.
- **Economy** – used when the building is occupied but the system operates saving energy.
- **Unoccupied** – used when building is unoccupied and only with the needed most essential settings of the system.
- **Protection** – this mode switches the system into off where the fans no longer run.



More advanced details of operating and control modes can be found in Air Handling unit's controller (S300) manual, section **APPLICATION FUNCTIONALITIES**. Follow the link on the last page of this document.



If the unit is going to be started for the first time be aware to follow instructions on section **PRE-STARTUP RECOMMENDATIONS OF THE UNIT (IN PRESENCE OF THE ENDUSER)**.

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**12.ELECTRICAL WIRING DIAGRAMS**

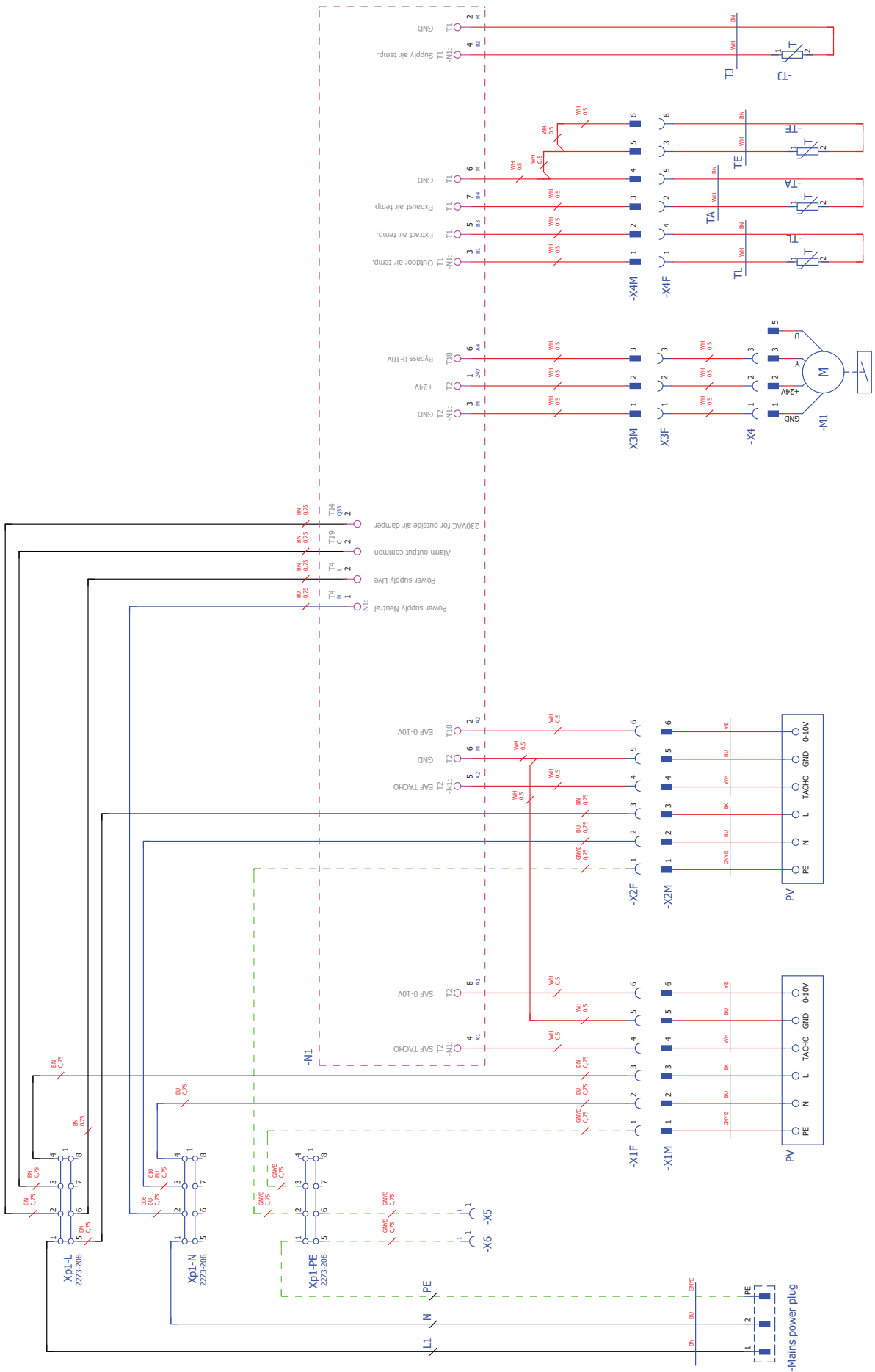


Figure. 12.1. Smarty 2-3X V S300



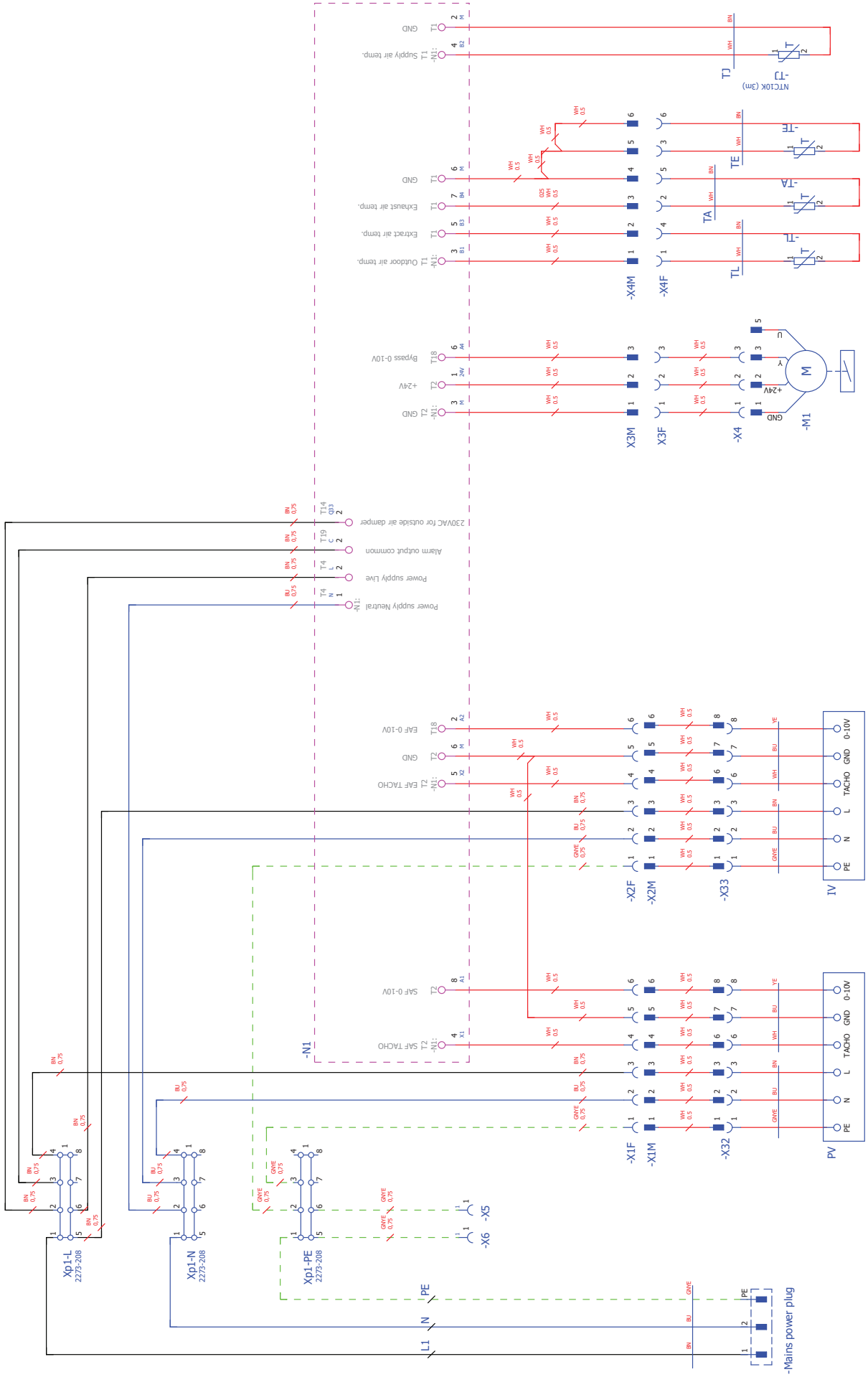


Figure. 12.2. Smarty 4X V S300

### 13. POSSIBLE FAULTS AND TROUBLESHOOTING

FAILURE	CAUSE	EXPLANATION / CORRECTIVE ACTIONS
Unit is not operating	No supply voltage	Check whether the device is connected to the power network
	Protection device is off or the current leakage relay is active (if installed by the installer)	Switch on only if the unit condition has been evaluated by a qualified electrician. If the system failed, the failure <b>MUST BE</b> rectified prior to switching it on
Air supply heater or pre-heater is not operating or malfunctioning (if installed)	Too low airflow in air ducts activates automatic protection	Check if air filters are not clogged Check if fans are rotating
	Manual safety device is activated	Possible heater or unit failure. Service staff <b>MUST</b> be contacted to identify and eliminate the failure .
Too low air flow at rated fan speed	Clogged supply and/or extract air filter(s)	Filter replacement needed
Filters are clogged and no message is shown on the remote control panel	Wrong time on filter timers or their switch is broken, or its pressure is set improperly.	Shorten filter timer time to the message of clogged filters or replace the pressure switch of the filters, or set their proper pressure.

## 14.ECODESIGN DATA TABLE

MODEL			SMARTY 2XV S300			
Climate zone	Control typology	Control factor	Specific energy consumption (SEC)	SEC Class	AEC	AHS
			[ kWh/m <sup>2</sup> /a ]			
Average	Clock control (standard)	0,95	-36,9	A	395	4610
	Central demand control (opt. with 1 sensor)	0,85	-38,9	A	326	4641
Cold	Clock control (standard)	0,95	-75,6	A+	932	9018
	Central demand control (opt. with 1 sensor)	0,85	-77,9	A+	863	9078
Warm	Clock control (standard)	0,95	-12,1	E	350	2085
	Central demand control (opt. with 1 sensor)	0,85	-14,0	E	281	2098
Declared typology			Bidirectional			
Type of drive installed (fan)			Variable			
Type of heat recovery system			Recuperative			
Thermal efficiency of heat recovery		[ % ]	90,4			
Maximum flow rate		[ m <sup>3</sup> /h ]	182			
Electric power input of the fan drive at maximum flow rate		[ W ]	82			
Sound power level (Lwa)		[ dB(A) ]	51			
Reference flow		[ m <sup>3</sup> /s ]	0,035			
Reference pressure difference		[ Pa ]	50			
SPI		[ W/(m <sup>3</sup> /h) ]	0,31			
Declared maximum internal leakage rates		[ % ]	1,2			
Declared maximum external leakage rates		[ % ]	1,2			
Position and description of visual filter warning for RVU's			Timer			
ErP Compliance			2018			
Internet address for disassembly instructions			<a href="https://select.salda.lt">https://select.salda.lt</a>			

MODEL			SMARTY 3XV S300			
Climate zone	Control typology	Control factor	Specific energy consumption (SEC)	SEC Class	AEC	AHS
			[ kWh/m <sup>2</sup> /a ]			
Average	Clock control (standard)	0,95	-37,2	A	339	4504
	Central demand control (opt. with 1 sensor)	0,85	-39,1	A	280	4546
Cold	Clock control (standard)	0,95	-74,9	A+	876	881
	Central demand control (opt. with 1 sensor)	0,85	-77,2	A+	817	8893
Warm	Clock control (standard)	0,95	-13,0	E	294	2037
	Central demand control (opt. with 1 sensor)	0,85	-14,7	E	235	2056
Declared typology			Bidirectional			
Type of drive installed (fan)			Variable			
Type of heat recovery system			Recuperative			
Thermal efficiency of heat recovery		[ % ]	86,9			
Maximum flow rate		[ m <sup>3</sup> /h ]	394			
Electric power input of the fan drive at maximum flow rate		[ W ]	170			
Sound power level (Lwa)		[ dB(A) ]	50			
Reference flow		[ m <sup>3</sup> /s ]	0,077			
Reference pressure difference		[ Pa ]	50			
SPI		[ W/(m <sup>3</sup> /h) ]	0,26			
Declared maximum internal leakage rates		[ % ]	1,2			
Declared maximum external leakage rates		[ % ]	1,2			
Position and description of visual filter warning for RVU's			Timer			
ErP Compliance			2018			
Internet address for disassembly instructions			<a href="https://select.salda.lt">https://select.salda.lt</a>			

MODEL			SMARTY 4XV S300			
Climate zone	Control typology	Control factor	Specific energy consumption (SEC)	SEC Class	AEC	AHS
			[ kWh/m <sup>2</sup> /a ]		[ kWh/a ]	[ kWh/a ]
Average	Clock control (standard)	0,95	-34,6	A	439	4495
	Central demand control (opt. with 1 sensor)	0,85	-37,0	A	361	4538
Cold	Clock control (standard)	0,95	-72,3	A+	976	8793
	Central demand control (opt. with 1 sensor)	0,85	-75,1	A+	898	8877
Warm	Clock control (standard)	0,95	-10,5	F	394	2033
	Central demand control (opt. with 1 sensor)	0,85	-12,6	E	316	2052
Declared typology			Bidirectional			
Type of drive installed (fan)			Variable			
Type of heat recovery system			Recuperative			
Thermal efficiency of heat recovery		[ % ]	86,6			
Maximum flow rate		[ m <sup>3</sup> /h ]	565			
Electric power input of the fan drive at maximum flow rate		[ W ]	351			
Sound power level (Lwa)		[ dB(A) ]	59			
Reference flow		[ m <sup>3</sup> /s ]	0,11			
Reference pressure difference		[ Pa ]	50			
SPI		[ W/(m <sup>3</sup> /h) ]	0,349			
Declared maximum internal leakage rates		[ % ]	1,2			
Declared maximum external leakage rates		[ % ]	1,2			
Position and description of visual filter warning for RVU's			Timer			
ErP Compliance			2018			
Internet address for disassembly instructions			<a href="https://select.salda.it">https://select.salda.it</a>			

## 15. DECLARATION OF CONFIRMITY

Manufacturer

**SALDA, UAB**  
**Ragainės g. 100**  
**LT-78109 Šiauliai, Lithuania**  
**Tel.: +370 41 540415**  
**https://select.salda.lt**

Hereby confirms that the following products - Air handling units:

**Smarty XV\***

**(where by „\*“ indicates possible unit installation type and modification)**

Provided it was delivered and installed in the facility in accordance with the included installation instructions, comply with all applicable requirements in the following directives:

**Machinery Directive 2006/42/EC**  
**EMC Directive 2014/30/EU**  
**Low Voltage Directive 2014/35/EU**  
**Ecodesign Directive 2009/125/EC**  
**RoHS 2 Directive 2011/65/EU**

The following regulations are applied in applicable parts:

**Ecodesign requirements for ventilation units Nr. 1253/2014**  
**Energy labeling of residential units Nr. 1254/2014**

The following harmonized standards are applied in applicable parts:

EN 13141-7:2010 - Ventilation for buildings - Performance testing of components/products for residential ventilation - Part 7: Performance testing of a mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings.  
 EN ISO 12100:2012 - Safety of machinery - General principles for design - Risk assessment and risk reduction.  
 EN 60204-1:2018 - Safety of machinery - Electrical equipment of machines - Part 1: General requirements.  
 EN 60335-1:2012 - Household and similar electrical appliances. Safety. Part 1: General requirements.  
 EN 60529:1999/A2:2014/AC:2019 - Degrees of protection provided by enclosures (IP code).  
 EN IEC 61000-6-1:2019-03 - Electromagnetic compatibility (EMC) -- Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments.  
 LST EN 61000-6-3:2008 - Electromagnetic compatibility (EMC) -- Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments.

Should any alterations be made in the products, this declaration will no longer apply.

**Quality:** SALDA UAB activities are in line with the international quality management system standard **ISO 9001:2015**.

Date 2020-10-23



Giedrius Taujenis  
 Director product development

**16. WARRANTY**

1. All equipment manufactured in our factory is checked in operating conditions and tested before delivery. Test protocol is supplied together with the unit. The equipment is shipped in good working condition to the end-client. The unit is warranted for the period of two years from the invoice date.
2. If equipment is found to have been damaged during transportation, a claim should be made against carrier, as we assume no responsibility for such damage.
3. This warranty does not apply:
  - 3.1. when transportation, storage, installation and maintenance instructions of the unit are violated;
  - 3.2. when the equipment is improperly maintained, mounted - inadequate maintenance;
  - 3.3. when the equipment without our knowledge and permission has been upgraded or unskilled repairs were made;
  - 3.4. when the unit was used not for its original purpose.
  - 3.5. Company SALDA UAB is not responsible for potential loss of property or personal injury in cases where AHU is manufactured without a control system and the control system will be installed by the client or third parties. The manufacturer's warranty does not cover devices that will be damaged by installing the control system.
4. This warranty does not apply at these malfunction cases:
  - 4.1. mechanical damage;
  - 4.2. damage caused by entering outside objects, materials, liquids;
  - 4.3. damage caused by natural disaster, accident (voltage change in the electricity network, lightning, etc..).
5. The company assumes no liability for its products either directly or indirectly damage, if the damage is caused by failure to comply with installation and mounting regulations, deliberate or careless users or third-party behavior.

These conditions are readily discernable when the equipment is returned to our factory for inspection. If the direct client determines that equipment is found to be faulty, or a breakdown occurred, he should inform the manufacturer within five working days and deliver the equipment to manufacturer. Delivery costs should be covered by customer.



**Manufacturer reserves the right to change this technical passport any time without prior notice, if some typographic errors or inaccurate information is found, as well as after improving the apps and/or the devices. Such changes will be included in the new issues of the technical passport. All illustrations are just for information and thus may differ from the original device.**

**16.1. LIMITED WARRANTY COUPON**

Warranty term  
**24 months\***

I received complete package and technical manual of the product ready for use. I have read and agreed with the warranty terms and conditions:

.....  
 Customer's signature

\*Refer to the WARRANTY CONDITIONS

*Dear User, we appreciate your choice and do hereby guarantee that all ventilation equipment manufactured by our Company is inspected and thoroughly tested. An operational and high-quality product is sold to the direct buyer and shipped from the territory of the factory. It is provided with a 24-month warranty since invoice issue date. Your opinion is important to us, thus we always look forward to hearing your comments, feedback, or suggestions regarding technical and operational characteristics of the Products. In order to avoid any misunderstandings, please read the instructions for installation and operation of the product as well as other technical documents of the product carefully. The number of the Limited Warranty Coupon and serial number of the product specified on the silver identification sticker attached to the housing must match. The Limited Warranty Coupon shall be valid provided that the seller's stamps and records are clear. It is not allowed to change, delete, or rewrite the data specified on it in any manner – such a coupon shall be invalid. With this Limited Warranty Coupon the manufacturer confirms one's obligations to implement the imperative requirements established by effective laws on protection of consumer rights in the event of identification of any defects of the products. The manufacturer reserves the right to refuse provision of free warranty servicing in cases when the warranty conditions listed below are disregarded.*



## PRODUCT MAINTENANCE TABLE

Product name*		
SERIAL number*		
installation	interval	Date
Fan cleaning	Once per year**	_____
Heat-exchanger cleaning	Once per year**	_____
Filter replacement	Every 3-4 months**	_____
		_____
		_____
		_____
		_____
		_____
		_____

\* - Look at the product label.

\*\* - At least.

**NOTE. The customer shall be required to complete the Product Maintenance Table.**

### LINKS TO OTHER DOCUMENTS

AHU'S CONTROLLER (S300)

ROOM OPERATOR UNIT POS8

LT MANUAL



<https://select.salda.lt/file/siemens-climatix-s300en>



<https://select.salda.lt/file/siemens-room-operator-unit-pos8en>



<https://select.salda.lt/file/smartyxvs300lt>



MAN000378



Ragainės g. 100  
Šiauliai LT-78109, LITHUANIA

+370 41 540 415  
office@salda.lt