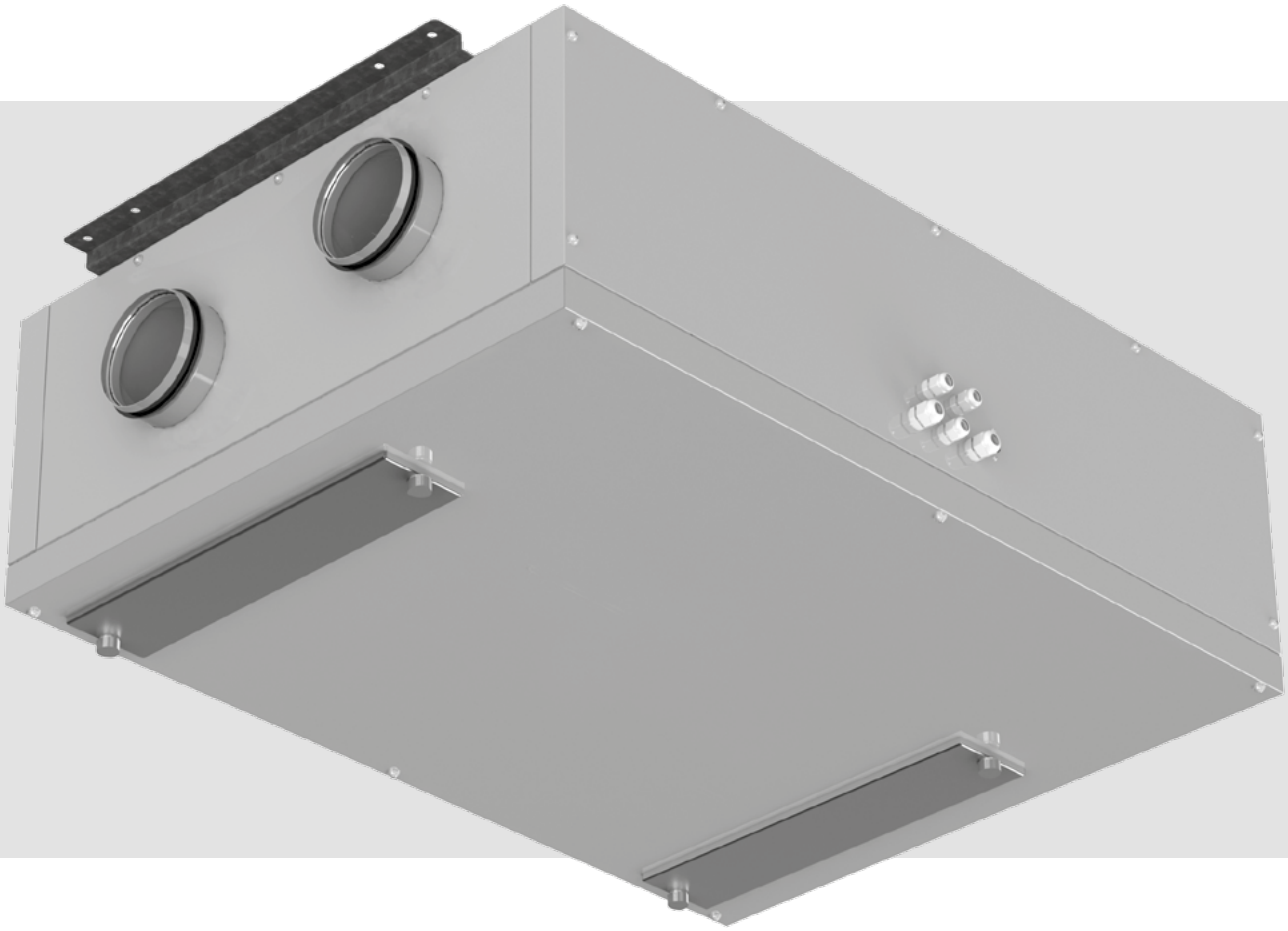
USER'S MANUAL

VUT 160 PB EC L A11
VUT 160 PB EC R A11
VUT 250 PB EC L A11
VUT 250 PB EC R A11
VUT 350 PB EC L A11
VUT 350 PB EC R A11

VUT 160 PB EC L A14
VUT 160 PB EC R A14
VUT 250 PB EC L A14
VUT 250 PB EC R A14
VUT 350 PB EC L A14
VUT 350 PB EC R A14



Heat recovery air handling unit

VENTS

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This user's manual is a main operating document intended for technical, maintenance, and operating staff.
The manual contains information about purpose, technical details, operating principle, design, and installation of the VUT 160/250/350 PB EC L/R A11/A14 unit and all its modifications.
Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.
The information in this user's manual is correct at the time of the document's preparation.
The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

SAFETY REQUIREMENTS

- Please read the user's manual carefully prior to installing and operating the unit.
- All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.
- The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information.
- Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.
- After a careful reading of the manual, keep it for the entire service life of the unit.
- While transferring the unit control, the user's manual must be turned over to the receiving operator.

UNIT INSTALLATION AND OPERATION SAFETY PRECAUTIONS

- Disconnect the unit from power mains prior to any installation operations.

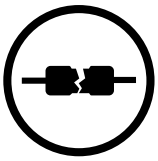
- Unpack the unit with care.

- The unit must be grounded!

- While installing the unit, follow the safety regulations specific to the use of electric tools.

- Do not change the power cable length at your own discretion. Do not bend the power cable. Avoid damaging the power cable. Do not put any foreign objects on the power cable.

- Do not lay the power cable of the unit in close proximity to heating equipment.

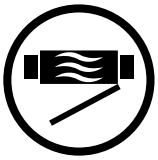


- Do not use damaged equipment or cables when connecting the unit to power mains.

- Do not touch the unit controls with wet hands. Do not carry out the installation and maintenance operations with wet hands.

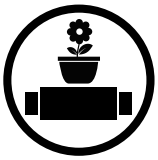
- Do not allow children to operate the unit.

- Do not store any explosive or highly flammable substances in close proximity to the unit.



- Do not open the unit during operation.

- Do not block the air duct when the unit is switched on.



- Do not sit on the unit and avoid placing foreign objects on it.

- Do not operate the unit outside the temperature range stated in the user's manual. Do not operate the unit in aggressive or explosive environments.

- Do not wash the unit with water. Protect the electric parts of the unit against ingress of water.

- Disconnect the unit from power mains prior to any technical maintenance.

- When the unit generates unusual sounds, odour, or emits smoke, disconnect it from power supply and contact the Seller.

- Do not direct the air flow produced by the unit towards open flame or ignition sources.

- In case of continuous operation of the unit, periodically check the security of mounting.

- Use the unit only for its intended purpose.

THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.

PURPOSE

The unit is designed to ensure continuous mechanical air exchange in houses, offices, hotels, cafés, conference halls, and other utility and public spaces as well as to recover the heat energy contained in the air extracted from the premises to warm up the filtered stream of supply air.
The unit is not intended for organizing ventilation in swimming pools, saunas, greenhouses, summer gardens, and other spaces with high humidity.
Due to the ability to save heating energy by means of energy recovery, the unit is an important element of energy-efficient premises.
The unit is a component part and is not designed for stand-alone operation.

THE UNIT SHOULD NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL, OR SENSORY CAPACITIES, OR THOSE WITHOUT THE APPROPRIATE TRAINING.

THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.

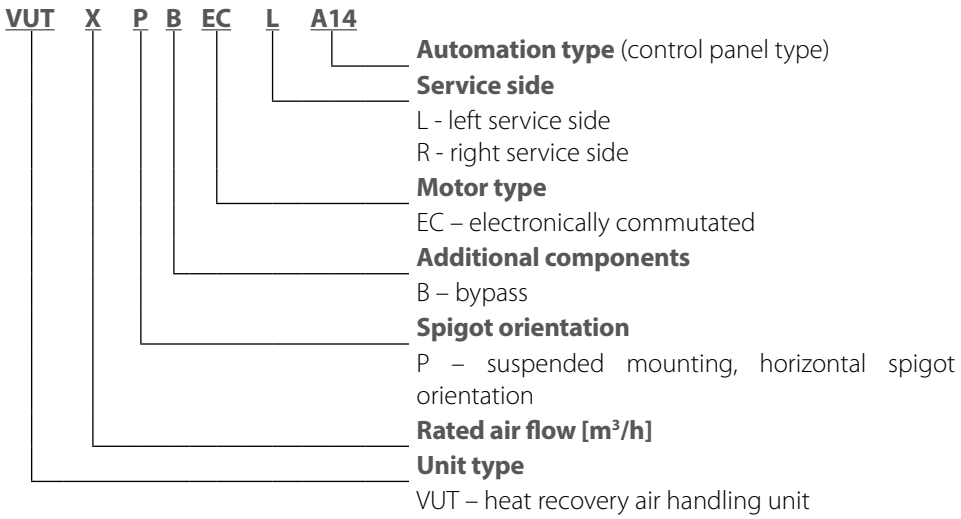
THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.

It is rated for continuous operation.
Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).
Relative humidity of transported air must not exceed 80 % at an ambient temperature of +20 °C.

DELIVERY SET

VUT 160/250/350 PB EC L/R A11			VUT 160/250/350 PB EC L/R A14	
Name	**Number**		**Name**	**Number**
Air handling unit	1 pc.		Air handling unit	1 pc.
User's manual	1 pc.		User's manual	1 pc.
Control panel	1 pc.		Control panel	1 pc.
Control panel user's manual	1 pc.		Mounting box for wall flush mounting	1 pc.
Packing box	1 pc.		Mounting box for wall surface mounting	1 pc.
			Fastening kit	1 pc.
			Packing box	1 pc.

DESIGNATION KEY



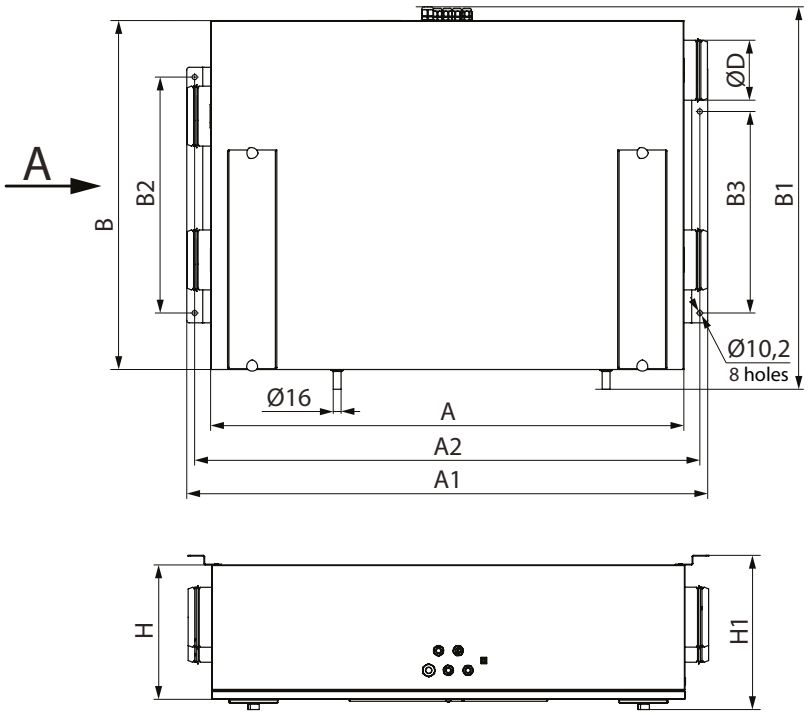
The unit is designed for indoor application with the ambient temperature ranging from +1 °C up to +40 °C and relative humidity up to 80 %. In order to prevent condensation on the internal walls of the units, it is necessary that the surface temperature of the casing is 2-3 °C higher than the dew point temperature of the transported air.
The unit is rated as a Class I electrical appliance.
Hazardous parts access and water ingress protection rating:

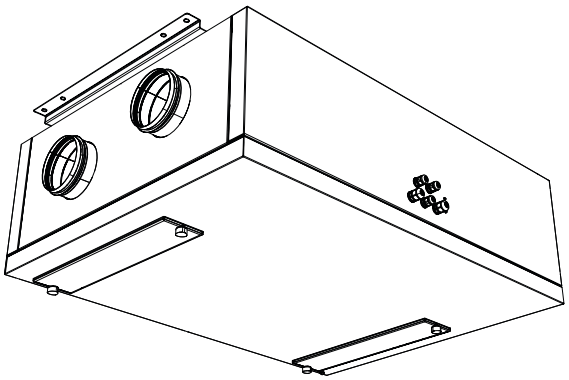
- IP22 for the unit connected to the air ducts
- IP44 for the unit motors

The unit design is constantly being improved, thus some models may be slightly different from those described in this manual.

TECHNICAL DATA

MODEL	VUT 160 PB EC	VUT 250 PB EC	VUT 350 PB EC
Supply voltage, 50 (60) Hz [V]	1~ 220 – 240		
Nominal power consumption [W]	50	101	170
Current [A]	0.4	0.8	1.3
Maximum air flow [m^3/h]	190	270	410
RPM, min^{-1}	3770	4480	3200
Sound pressure level at 3 m distance [dBA]	26	28	34
Transported air temperature [°C]	from -25 up to +40		
Casing material	aluzinc steel		
Insulation	40 mm mineral wool	40 mm mineral wool	40 mm mineral wool
Extract filter	G4		
Supply filter	F7		
Connected air duct diameter [mm]	Ø 125	Ø 125	Ø 160
Weight [kg]	48	48	70
Heat recovery efficiency	from 82 up to 94 %	from 80 up to 98 %	from 80 up to 91 %
Heat exchanger type	counter-flow		
Heat exchanger material	aluminium		

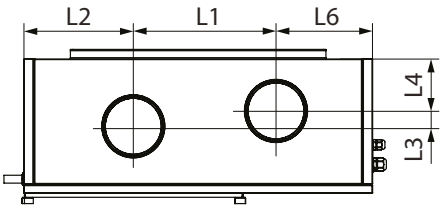




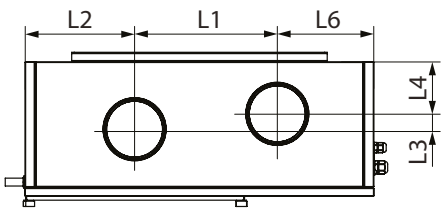
LEFT-HANDED MODIFICATION

RIGHT-HANDED MODIFICATION

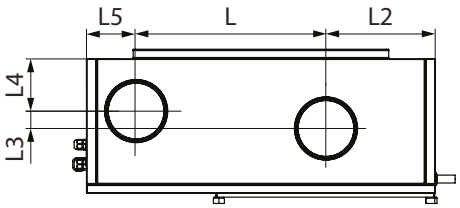
A view (indoor connection)



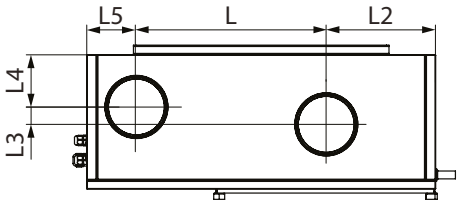
A view (outdoor connection)



B view (outdoor connection)



B view (indoor connection)

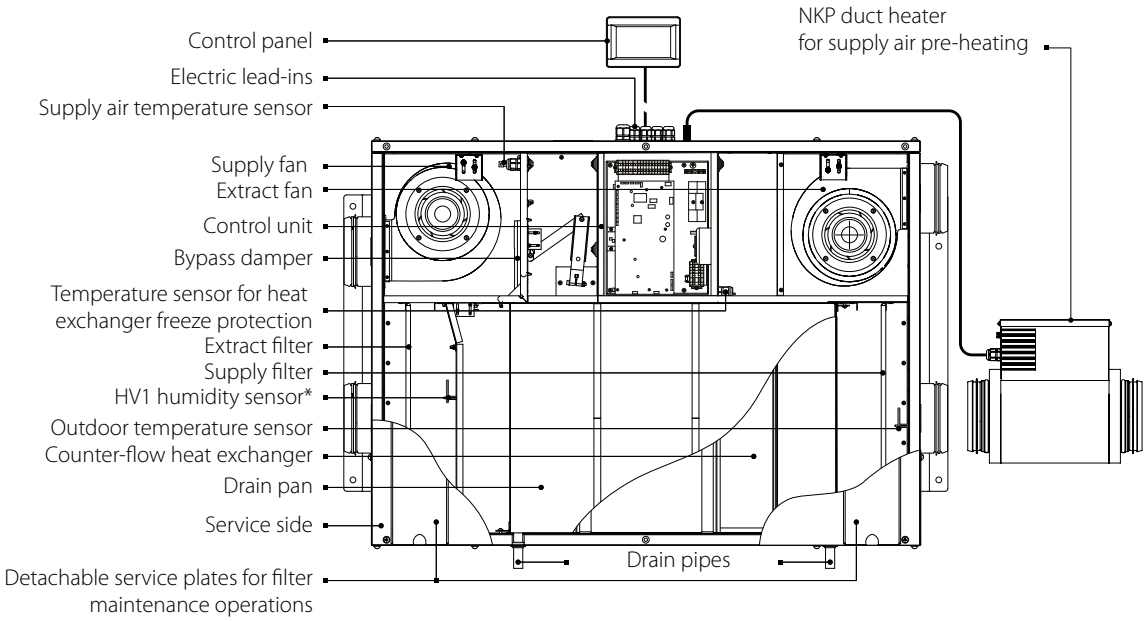


Model	Dimensions [mm]																
	ØD	A	A1	A2	B	B1	B2	B3	H	H1	L	L1	L2	L3	L4	L5	L6
VUT 160 PB EC L/R A11/A14	125	1008	1105	1073	754	822	480	410	320	361	386	293	245	31	128	123	216
VUT 250 PB EC L/R A11/A14	125	1008	1105	1073	754	822	480	410	320	361	386	293	245	31	128	123	216
VUT 350 P2B EC A11/A14	160	1093	1190	1158	1000	1068	680	610	273	316	555	417	323	29	108	122	260

UNIT DESIGN AND OPERATING PRINCIPLE

The unit has the following operating logic: warm stale extract air from the room flows into the unit, where it is filtered by the extract filter, then air flows through the heat exchanger and is exhausted outside by the extract fan. Cold fresh air from the outside flows into the unit, where it is cleaned by the supply filter.
Then the air flows through the heat exchanger and is directed to the room with the supply fan. Heat energy of warm extract air is transferred to clean intake fresh air from the outside and warms it up. The air flows are fully separated while flowing through the heat exchanger. Heat recovery minimizes heat losses, which reduces the cost of space heating in the cold season.
The difference between the supply and extract air flow temperature leads to condensate generation. Condensate is collected in the drain pan and is removed outside through the drain pipe.

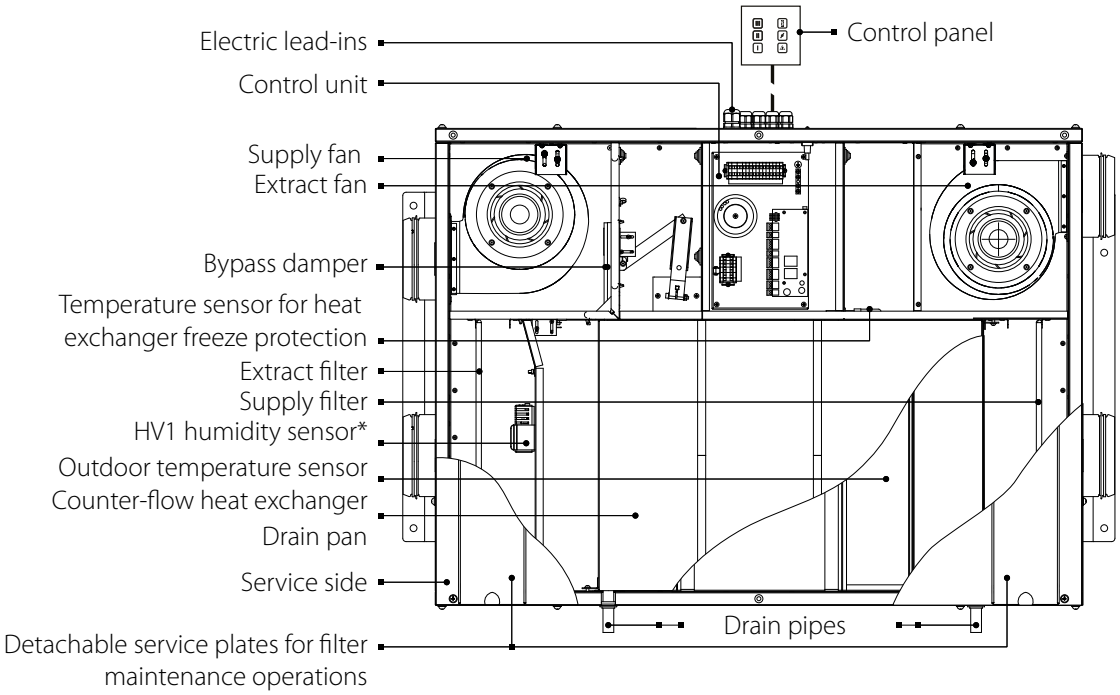
The VUT 160/250/350 PB EC L/R A11 unit assembly



* Accessories for the unit available on separate order

- HV1 humidity sensor. The unit with the installed humidity sensor maintains a set indoor humidity level. As the humidity level of the extract air reaches the set point, the unit switches to the maximum speed automatically. As the humidity drops down below the set point, the unit returns to the previous mode. Installation and connection of the humidity sensor (see page 10) is carried out on site by the service technician.
- NKP duct heater for supply air pre-heating.
- The heater maintains the duct air temperature at a point that prevents the heat exchanger freezing. An automation system regulates heater operation.

The VUT 160/250/350 P(2)B EC L/R A14 unit assembly



The service side of the unit is equipped with detachable plates fixed by screws for filter cleaning and replacement operations. The control unit is positioned inside the unit casing .

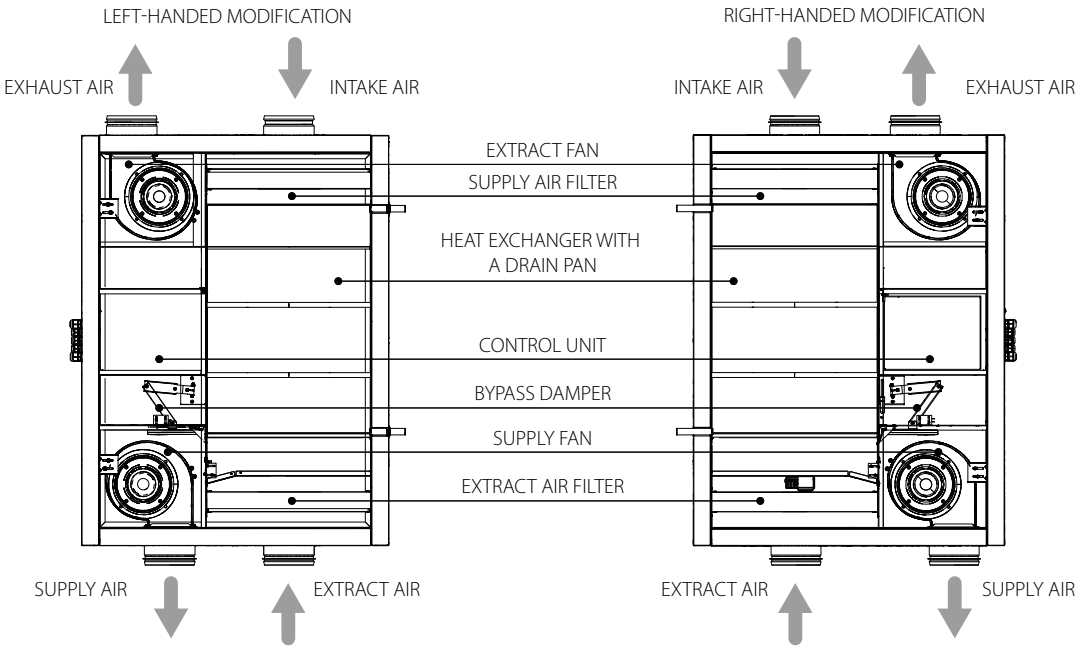
The power cable and grounding cables are connected to the control unit via the electric lead-ins placed at the side of the unit. The difference between the supply and extract air flow temperature leads to condensate generation. Condensate is collected in the drain pan and is removed outside through the drain pipes.

*At the request of the customer the unit can be equipped with an HV2 humidity sensor. The humidity sensor is purchased separately as an accessory.

The unit with the installed humidity sensor maintains a set indoor humidity point. As the extract air humidity rises above the set point, the system automatically switches to the maximum speed. As the humidity drops down below the set point, the unit returns to the previous mode. Installation and connection of the humidity sensor is carried out on site by the service technician.

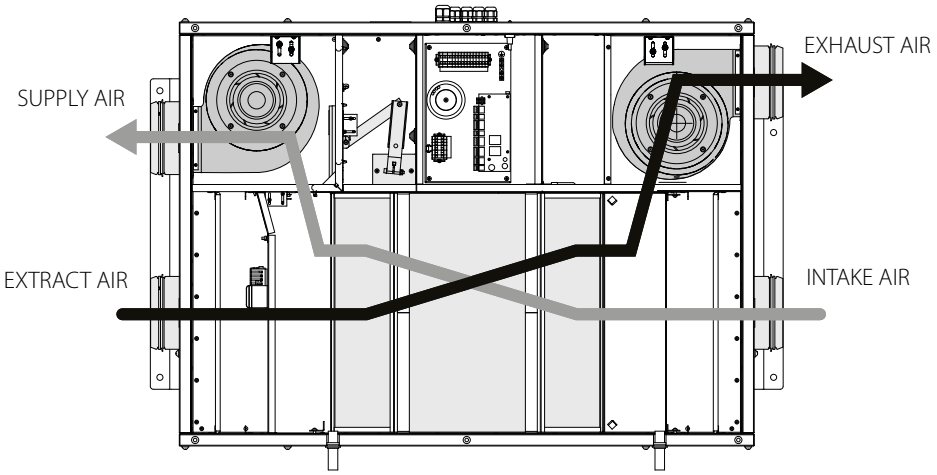
RIGHT-HANDED AND LEFT-HANDED MODIFICATIONS

The figure below shows the arrangement of spigots for left- and right-handed modifications. Choosing the right arrangement can improve the ease of installation, shorten the length of the ducts and reduce the number of air duct bends.

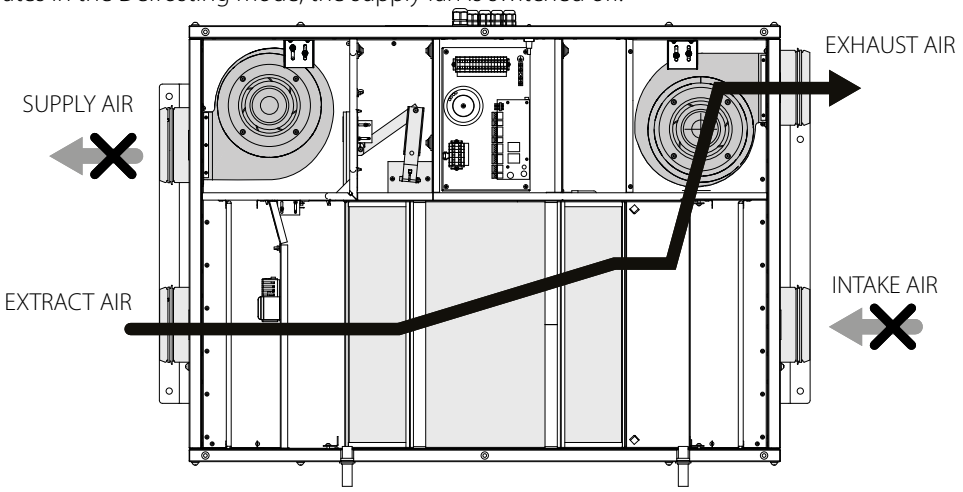


UNIT OPERATION MODES

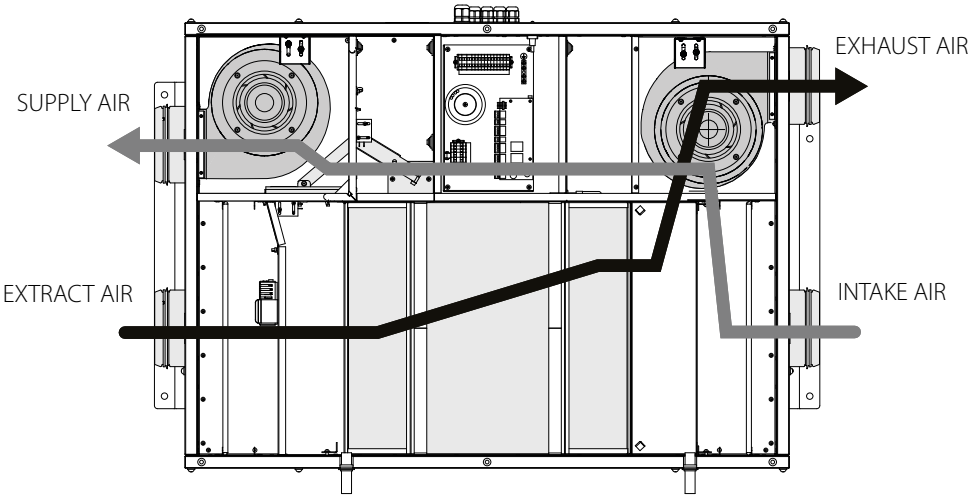
Heat recovery mode: warm stale extract air from the room flows into the unit, where it is filtered by the extract filter, then air flows through the heat exchanger and is exhausted outside by the extract fan.
Cold fresh air from the outside flows into the unit, where it is cleaned by the supply filter.
Then the air flows through the heat exchanger and is directed to the room with the supply fan.
Supply air is heated in the heat exchanger by transferring the heat energy of warm and humid extract air to the cold fresh air. The air flows are fully separated while flowing through the heat exchanger. Heat recovery minimizes heat losses, which reduces the cost of space heating in the cold season.



Defrosting mode: to prevent the heat exchanger freezing in the cold season the unit has an automatic Defrosting mode. This mode is activated by the freeze protection temperature sensor located in the exhaust air duct downstream of the heat exchanger. The unit switches to the Defrosting mode at the extract air temperature +3 ° C. As the temperature rises the unit returns to the previous mode. Only the extract fan operates in the Defrosting mode, the supply fan is switched off.



Summer Cooling mode: the bypass damper is opened, the intake air that is supplied to the premises bypasses the heat exchanger. The intake air temperature remains constant.

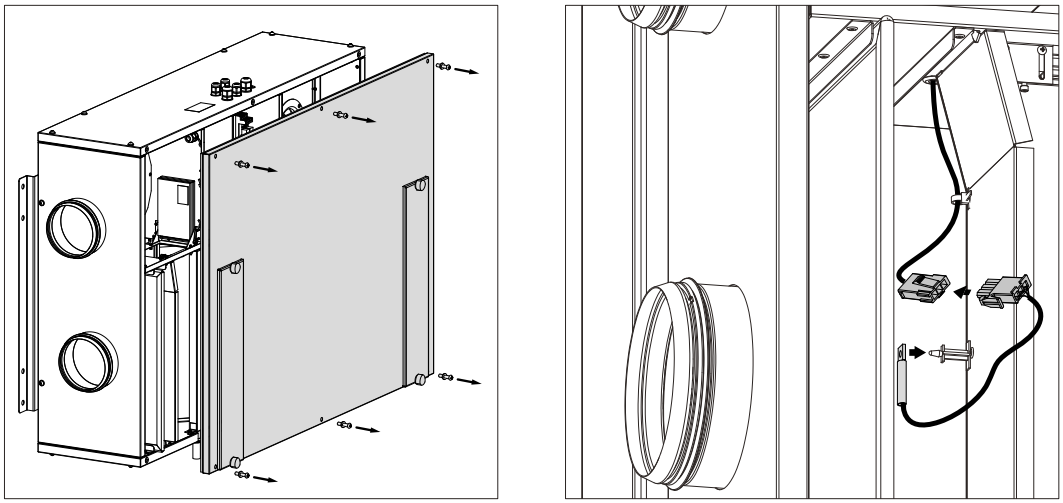


INSTALLATION AND SET-UP

READ THE USER'S MANUAL BEFORE INSTALLING THE UNIT.

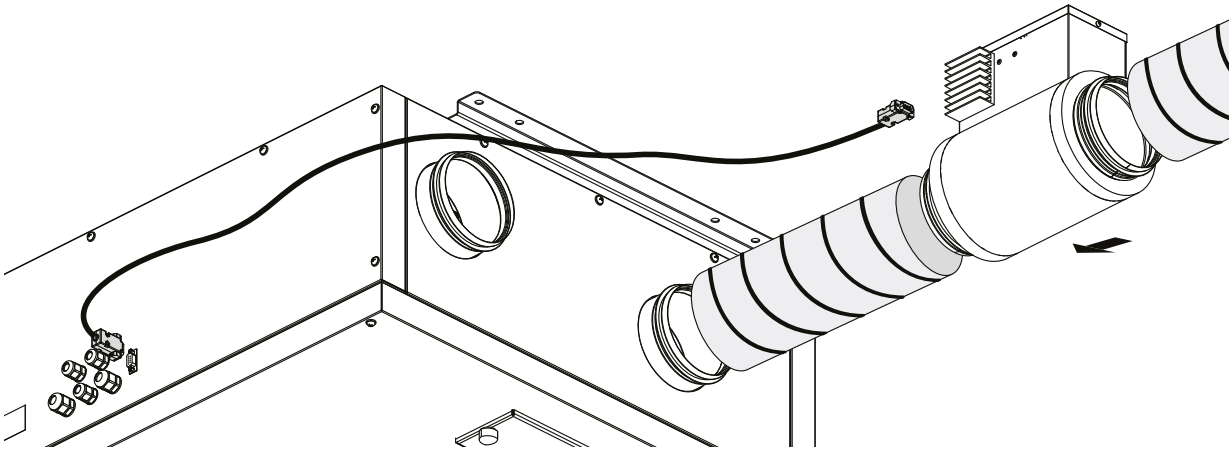
HV1 HUMIDITY SENSOR INSTALLATION AND CONNECTION IN VUT 160/250/350 PB EC L/R A11 UNITS

The HV1 humidity sensor is not included in the delivery set and can be ordered separately.
Remove the service panel and install the humidity sensor into the mount from the side of the extract air duct and connect the humidity sensor connector to the respective contact socket coming from the control unit.



NKP HEATER MOUNTING IN VUT 160/250/350 P(2)B EC L/R A11 UNITS

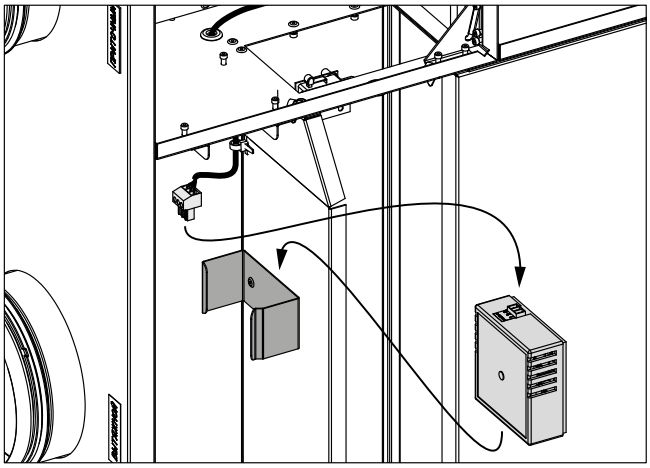
The NKP heater is not included in the delivery set and can be ordered separately.
The heater is rated for connection to single-phase AC 230 V/50 (60) Hz.
Attach the heater to the air duct connected to the supply air spigot.
The electric heater an the air handling unit must be connected via the cable with the prewired connectors DB-9F.

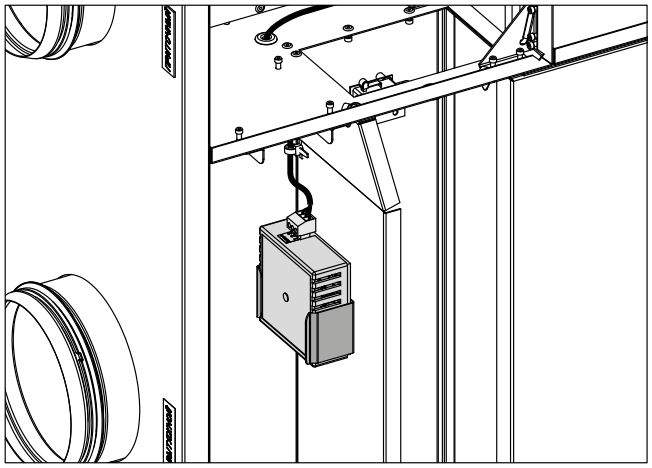


HUMIDITY SENSOR INSTALLATION AND CONNECTION IN VUT 160/250/350 PB EC L/R A14 UNITS

The humidity sensor is not included in the delivery set and can be ordered separately.
Mounting sequence:

- Remove the mounting screws of the service side panel and take it off. Install the humidity sensor into the mount on the inner side of the casing near the extract air duct and connect the connector to the respective contact socket coming from the control unit, refer to the External wiring diagram.
- Install the service panel back to the unit.





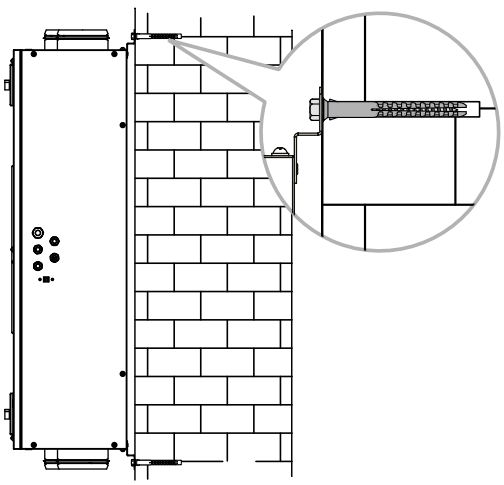
UNIT INSTALLATION

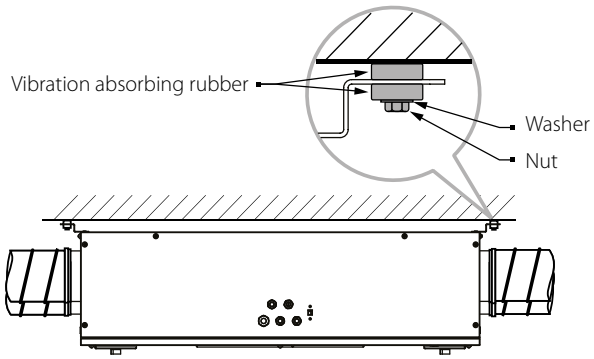
To attain the best performance of the unit and to minimise turbulence-induced air pressure losses connect the straight air duct section to the spigots on both sides of the unit while mounting.
Minimum straight air duct length:

- equal to 1 air duct diameter on the intake side
- equal to 3 air duct diameters on the outlet side

If the air ducts are too short or not connected, protect the unit parts from ingress of foreign objects. To prevent uncontrollable access to the fans, the spigots may be covered with a protecting grille or other protecting device with mesh width not more than 12.5 mm.
While installing the unit, ensure convenient access for subsequent maintenance and repair.
Fasteners for ceiling mounting are not included in the delivery set and should be ordered separately. While choosing fasteners consider the material of the mounting surface as well as the weigh of the unit, refer to the Technical data section. Fasteners for unit installation should be selected by a qualified technician.

Wall and ceiling mounting examples



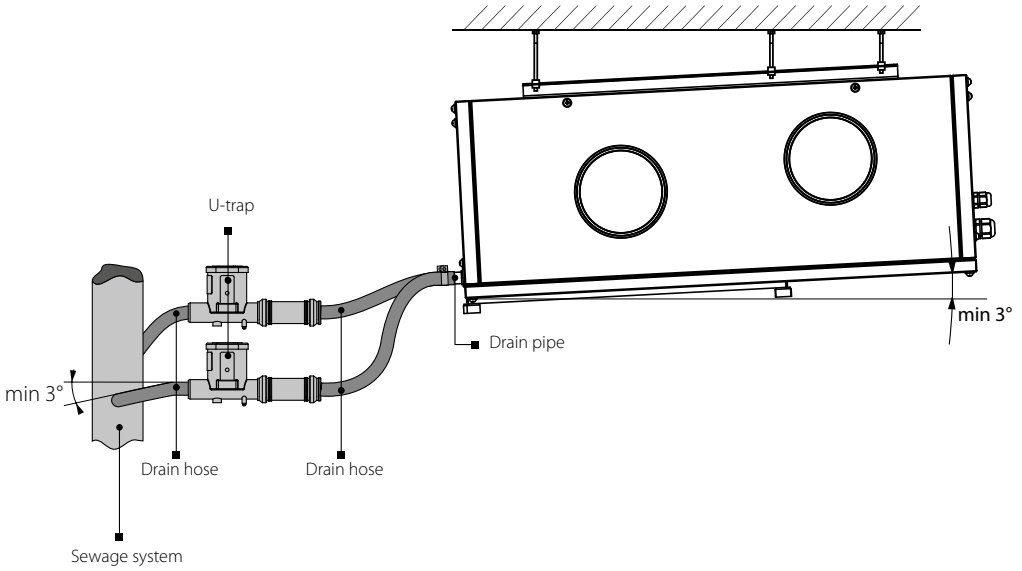


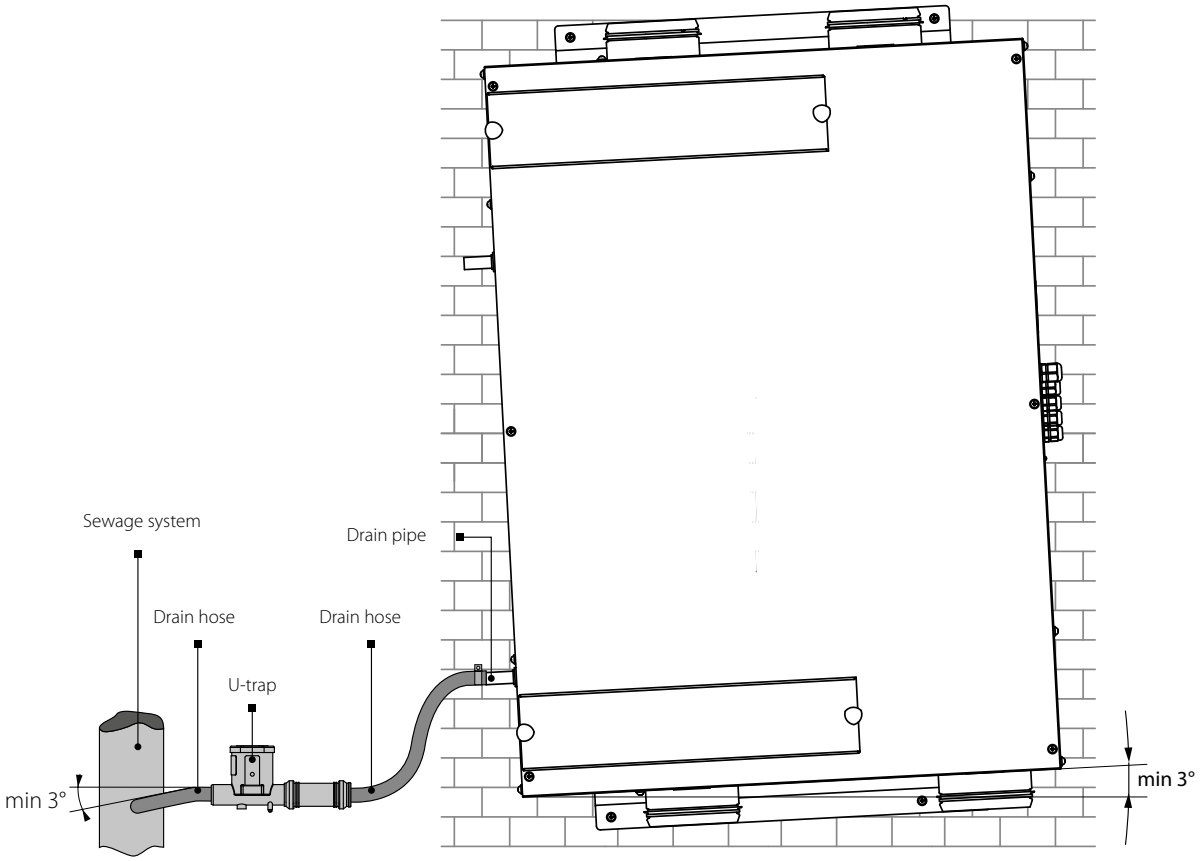
WALL-MOUNTED CONTROL PANEL INSTALLATION

Control panel wall surface or flush mounting are available.
Examples of wall flush mounting using a mounting box are shown in the control panel user's manual.
The mounting box and the fastening kit for the units with an A11 automation are purchased separately.

CONDENSATE DRAINAGE

Connect the drain pipe to the sewage system using the SG-32 U-trap kit (available upon separate order). The pipe slope downwards must be at least 3°.





The condensate drainage system is designed for normal operation in premises with air temperatures above 0 °C!
If the expected ambient air temperatures are below 0 °C, the condensate drainage system must be equipped with heat insulation and pre-heating facilities.

CONNECTION TO POWER MAINS AND UNIT CONTROL

POWER OFF THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
THE UNIT MUST BE CONNECTED TO POWER SUPPLY BY A QUALIFIED ELECTRICIAN.
THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE MANUFACTURER'S LABEL.

ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED AND WILL VOID THE WARRANTY.

The air-handling unit is rated for connection to single-phase AC 230 V/50 (60) Hz mains. The unit has a power cord with a plug to connect to a standard grounded outlet. The power cord is pre-wired to the terminal block.
The external power input must be equipped with an automatic circuit breaker built into the stationary wiring to open the circuit in the event of overload or short-circuit. The circuit breaker trip current is selected based on data of the "Technical data" section.
The position of the circuit breaker must ensure free access for quick unit power-off.

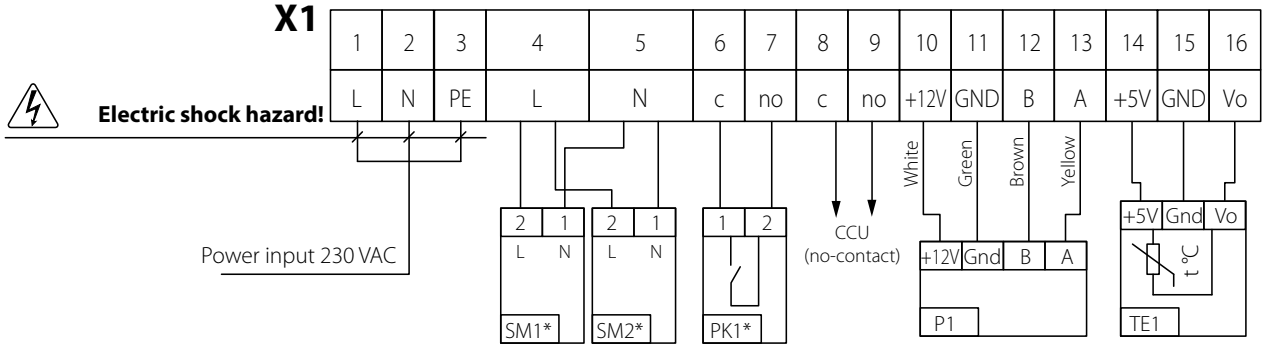
CONNECTION OF ADDITIONAL EXTERNAL CONTROLS TO THE VUT 160/250/350 PB EC L/R A11 UNITS

The unit has an option of connection of additional external controls

- DX cooler
- Electric actuator of outer supply and exhaust air dampers
- Fire alarm panel

The unit controls must be connected to the X1 terminal block, which is located in the control unit. The cables are connected to the control unit via the electric lead-ins.
If intake air cooling is needed, the DX cooler operating signal closes the contacts 8 and 9 to allow operating of the cooler and opens them to block the operation. The permissible current via the power contacts must not exceed 2 A, 230 V.
When connecting the supply and/or exhaust air dampers to the contacts 4 and 5 of the external connection terminals, electric voltage 230 V/50 (60) Hz is supplied to the above terminals when the air dampers must be opened and is cut off when the air dampers must be closed. The automatic fire extinguishing system contact is connected to the contacts 6 and 7 (X1 terminal). The contact must be normally open. If the fire alarm signal turns on, the contact closes that results in equipment shutdown.

External control units wiring diagram



Designation	Name	Model	Wire**
CCU*	DX cooler	N0	2x0.75 mm²
SM1*	Supply air damper actuator	LF 230	2x0.75 mm²
SM2*	Extract air damper actuator	LF 230	2x0.75 mm²
PK1*	Contact from a fire alarm panel	N0	2x0.75 mm²
P1	Control panel		
TE1	Outdoor temperature sensor		The sensor is installed by the manufacturer in the intake air duct.
*Is not included in the delivery set		** Maximum connecting cable length is 20 m!	

CONNECTION OF ADDITIONAL EXTERNAL CONTROLS TO THE VUT 160/250/350 PB EC L/R A14 UNITS

The unit has an option of additional external controls connection to the X2 terminal block, which is located on the hinged electrical mounting plate of the control unit. Extra connections to the unit are shown in dotted lines in the External wiring diagram.

Connection of the automatic fire fighting system contact (PK).

Upon connecting the automatic fire extinguishing system contact remove the jumper between the terminals 1 and 2. In case of fire the normally closed dry contact breaks the control circuit from the central fire-fighting board and cuts off power supply to the unit.

Connection of the external control unit contact, such as CO_2 sensor (NO, C terminals).

Connect the CO_2 sensor to the terminals 6 and 7 by using a normally closed dry contact. If the dry contact is closed, the unit turns to the maximum speed.

HV2 (+U, 0-10V, GND) humidity sensor connection.

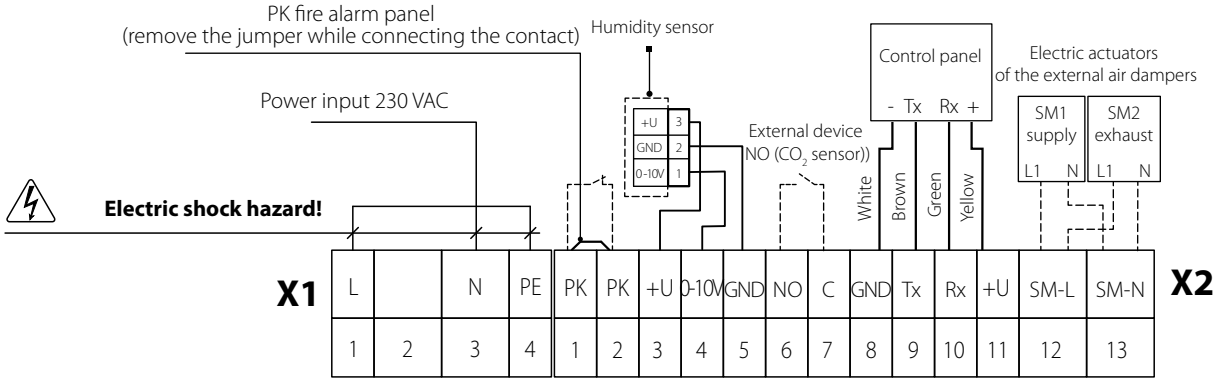
Connect the HV2 humidity sensor (not included in the delivery set, can be ordered separately) to the contact socket located on the side panel of the control unit from the side of the extract pipe in accordance with the External wiring diagram.

Connection of outer air dampers (SM1 supply air damper, SM2 exhaust air damper).

The air dampers and the actuator are not included in the delivery set and can be purchased separately.

For controlling the air dampers use the LF 230 BELIMO electric actuator with a voltage of 230 V and an open-close controlling. Connect the electric actuators to the 12 and 13 terminals (refer to the External wiring diagram).

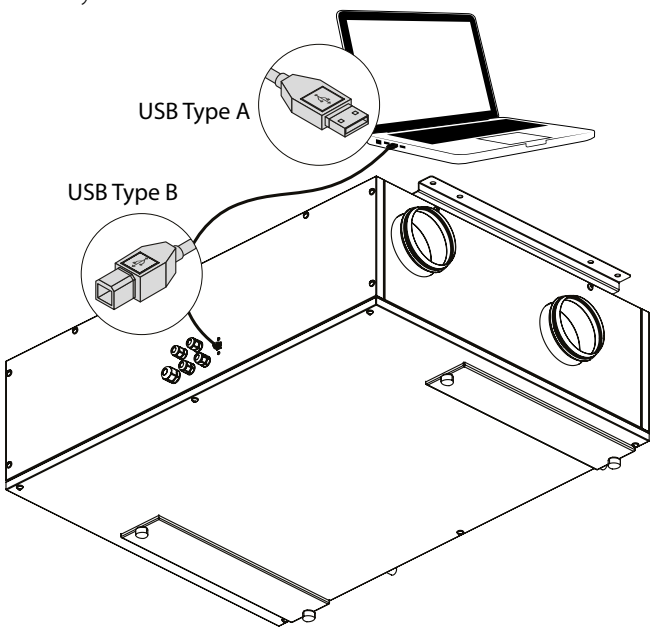
External control units wiring diagram:



The unit is operated with the control panel. For detailed information, read the control panel user's manual.

To work with the pre-installed software connect the VUT 160/250/350 PB EC L/R A14 unit to a laptop or to a PC via a USB cable with the Type A and Type B contact sockets.

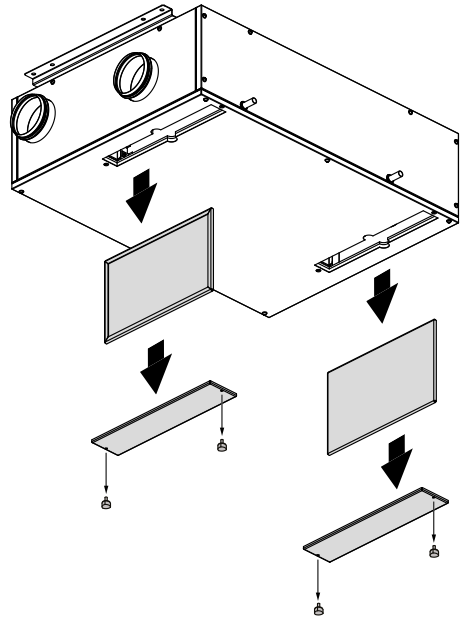
The USB cable is not included in the delivery set.



TECHNICAL MAINTENANCE

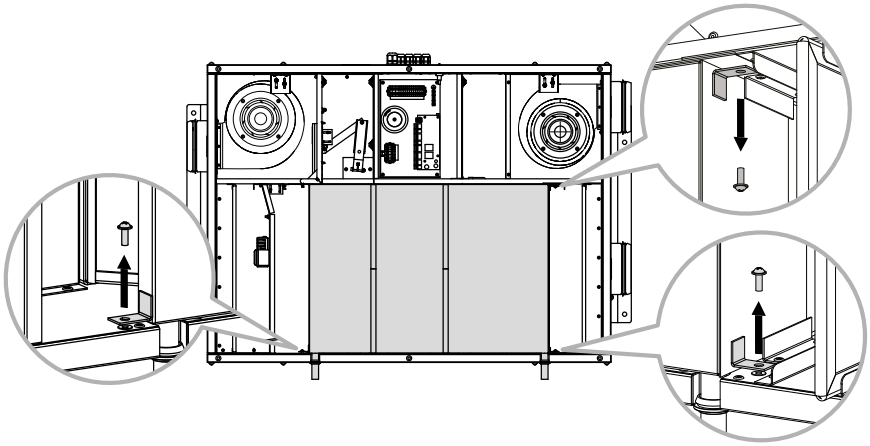
DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!

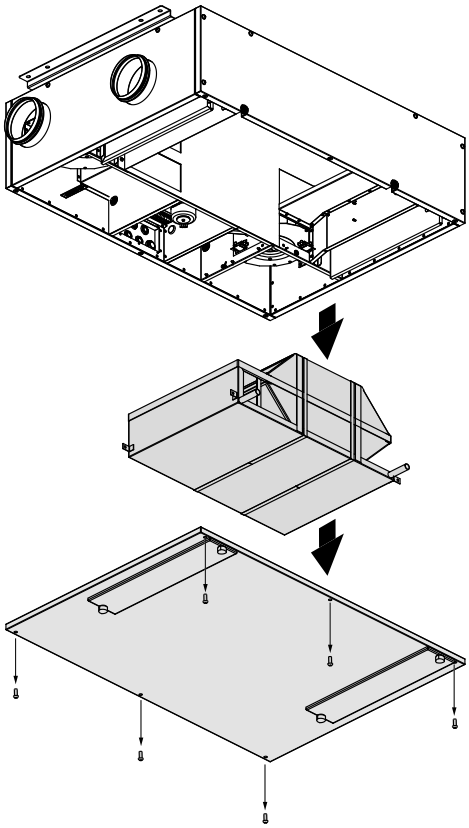
Maintenance operations of the unit are required 3-4 times per year. Maintenance includes general cleaning of the unit and the following operations:



1. Filter maintenance (3-4 times per year).
Dirty filters increase air resistance in the system and reduce supply air volume. The filters require cleaning not less than 3-4 times per year. Vacuum cleaning is allowed. After two consecutive cleanings filters must be replaced. For new filters, contact the Seller.
To clean or replace the filters, detach the removable plates located on the service side of the unit. After cleaning install the filters and the detachable plates in the reverse order.

2. Heat exchanger maintenance (once per year).
Some dust may accumulate on the heat exchanger even in case of regular maintenance of the filters. To maintain the high heat recovery efficiency, regular cleaning is required.
The heat exchanger is connected with the drain pan by the fixing bands that should be removed only in case of heat exchanger replacement.
The drain pan is fixed to the unit casing using three screws.
To clean the heat exchanger pull it and the drain pan out, drain the water through the pipes, then flush the heat exchanger with warm detergent solution. After cleaning install the dry heat exchanger with the drain pan back to the unit.





3. Fan maintenance (once per year).
Even in case of regular maintenance of the filters, some dust may accumulate inside the fans and reduce the fan performance and supply air flow. Clean the fans with a soft brush or cloth. Do not use water, aggressive solvents, or sharp objects as they may damage the impeller.
4. Technical maintenance of condensate drainage system (once a year).
The condensate drainage (drain line) may get clogged by dirt and dust particles contained in the exhaust air. Pour some water inside the drain pan to check the pipe for clogging. Clean the U-trap and the drain pipe if required.
5. Ductwork system maintenance (once in 5 years).
Even regular fulfilling of all the maintenance operations prescribed above may not completely prevent dirt accumulation in the air ducts, which leads to air pollution and reduces the unit capacity. Duct maintenance means regular cleaning or replacement.
6. Control unit maintenance (if necessary).
The control unit is positioned inside the unit casing. For accessing the control unit remove the fixing screws on the service panel and remove it.
CAUTION! The control unit maintenance must be performed by an expert qualified for unassisted operations with electrical installations with the voltage up to 1000 V after careful reading of the user's manual.

TROUBLESHOOTING		
Problem	**Possible reasons**	**Troubleshooting**
The fan(s) do(es) not get started.	No power supply.	Make sure the power supply line is connected correctly, otherwise troubleshoot a connection error.
Low air flow.	Filters, fans or the heat exchanger are soiled.	Clean or replace the filters, clean the fans, and the heat exchanger.
	The ventilation system is soiled or damaged.	Make sure the air ducts are clean and intact.
Noise, vibration.	The fan impeller is soiled.	Clean the impellers.
	Fan screw connection is loose.	Check tightening torques.
Water leakage.	The drainage system is soiled, damaged, or installed incorrectly.	Clean the drain line if necessary. Check the drain line slope angle. Make sure that the U-trap is filled with water and the drain pipes are frost protected.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 ˚C to +40 ˚C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures allow the unit to warm up at operation temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Council Directive 2014/30/EU, Low Voltage Directive 2014/35/EU and CE-marking Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above. The manufacturer hereby warrants normal operation of the unit for 24 month after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase. The unit model must comply with the one stated in the user's manual. Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismounted by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.

FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.

USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

CERTIFICATE OF ACCEPTANCE

Unit Type	Heat recovery air handling unit
Model	VUT _____ PB EC __ A___
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

SELLER INFORMATION

Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	

Seller's Stamp

INSTALLATION CERTIFICATE

The VUT _____ PB EC __ A___ unit has been connected to power mains pursuant to the requirements stated in the present user's manual.		
Seller		
Address		
Phone Number		
Installation Technician's Full Name		
Installation Date:	**Signature:**	
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.		
Signature:		

Installation Stamp

WARRANTY CARD

Unit Type	Heat recovery air handling unit
Model	VUT _____ PB EC __ A___
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	

Seller's Stamp

V108EN-03