



## AIR HANDLING UNIT



*KOMFORT EC S160*  
*KOMFORT EC S160-E*  
*KOMFORT EC SB160*  
*KOMFORT EC SB160-E*  
*KOMFORT EC S1 160*  
*KOMFORT EC S1 160-E*  
*KOMFORT EC S1B160*  
*KOMFORT EC S1B160-E*  
*KOMFORT EC S2B300*

*KOMFORT EC S2B300-E*  
*KOMFORT EC SB350*  
*KOMFORT EC SB350-E*  
*KOMFORT EC S1B350*  
*KOMFORT EC S1B350-E*  
*KOMFORT EC SB550*  
*KOMFORT EC SB550-E*  
*KOMFORT EC S2B550*  
*KOMFORT EC S2B550-E*

**EN**

**USER'S MANUAL**



**BLAUBERG**  
Ventilatoren

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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 KOMFORT EC S(1/2)(B)(-E) 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.

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## SAFETY REQUIREMENTS

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.

Disconnect the unit from power supply prior to any connection, servicing, maintenance, and repair operations.

**Only qualified electricians with a work permit for electrical units up to 1000 V are allowed for installation and maintenance. The present user's manual should be carefully read before beginning works.**

- Single-phase power mains must comply with the acting local electrical norms and standards.
- Fixed electrical wiring must be equipped with an automatic circuit breaker.
- The unit must be connected to power mains through a double pole circuit breaker of suitable rating integrated into the fixed wiring system with opening of contacts at all poles. The gap between the circuit breaker contacts at all poles must be not less than 3 mm.
- If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.

- While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.
- Misuse of the unit and any unauthorized modifications are not allowed.
- Do not expose the device to adverse atmospheric agents (rain, sun, etc.).
- Take steps to prevent ingress of smoke, carbon monoxide, and other combustion products into the room through open chimney flues or other fire-protection devices. Sufficient air supply must be provided for proper combustion and exhaust of gases through the chimney of fuel burning equipment to prevent back drafting.
- Transported air must not contain any dust or other solid impurities, sticky substances, or fibrous materials.
- Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.
- For effective functioning of the unit, it is necessary to ensure an appropriate fresh air supply into the room. Do not close or block the intake or extract vents in order to ensure the efficient air flow.
- Do not sit on the unit and do not put objects on it.
- The unit is allowed to be used by children aged from 8 years old and above and persons with reduced physical, sensory, or mental capabilities or no experience and knowledge provided that they have been given supervision or instruction regarding safe use of the unit and understand the risks involved.
- Do not allow children to play with the unit.
- Cleaning and user maintenance shall not be made by children without supervision.
- The information in this user's manual was 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.
- No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means in any information search system or translated into any language in any form without the prior written permission of the Company.

**WARNING! Similar to the use of any other household electrical appliances when operating this fan, the following basic rules must be followed:**

- Never touch the fan with wet or damp hands.
- Never touch the fan when barefoot.



**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, cafes, 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 intake 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. 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).



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

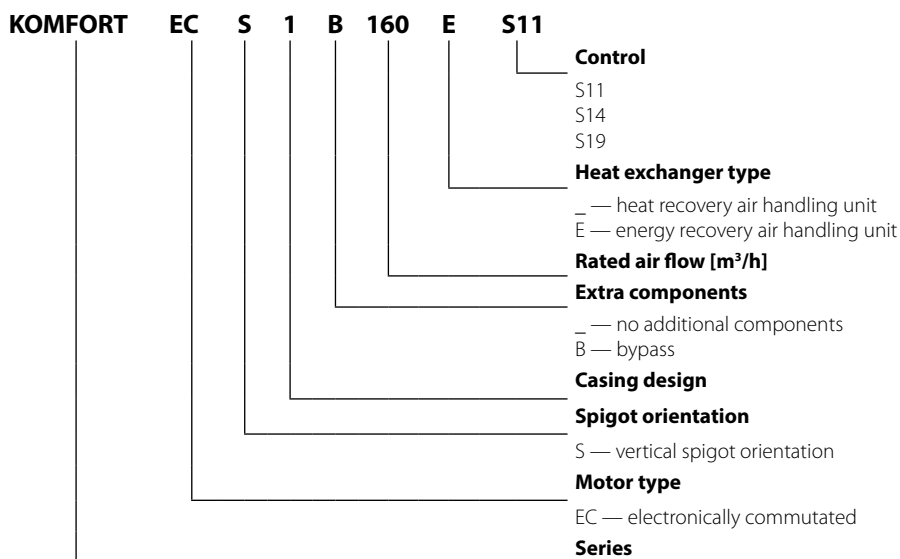
**THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.**

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

**DELIVERY SET**

Name	Number
Air handling unit	1 pc.
User's manual	1 pc.
Control panel user's manual	1 pc.
Control panel	1 pc.
Fastening kit	1 pc.
Packing box	1 pc.

**DESIGNATION KEY**



**TECHNICAL DATA**

The unit is designed for application with the ambient temperature ranging from +1 °C to +40 °C and relative humidity up to 80 %. In order to prevent condensation on the internal walls of the unit, it is necessary that the surface temperature of the casing is 2-3 °C above 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.

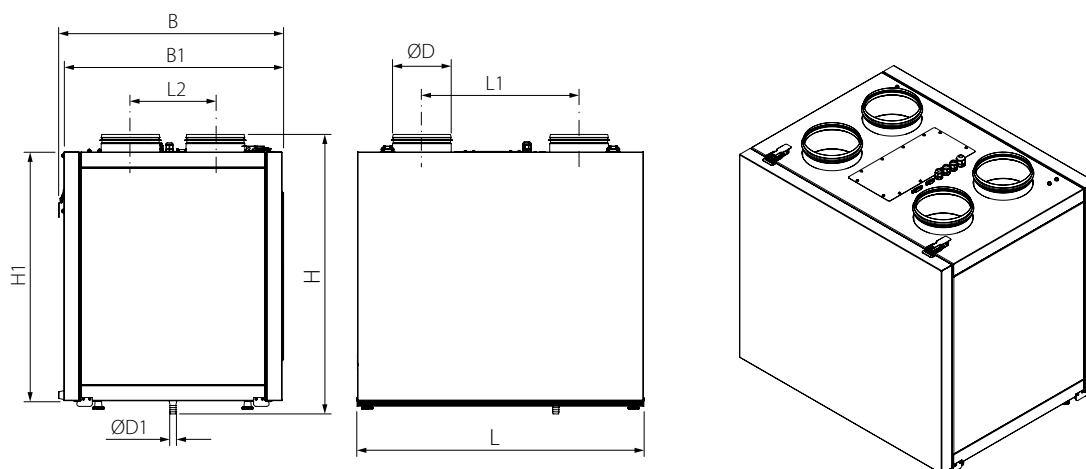
**TECHNICAL DATA**

MODEL	KOMFORT EC S160	KOMFORT EC S160-E	KOMFORT EC SB160	KOMFORT EC SB160-E	KOMFORT ECS1 160	KOMFORT ECS1 160-E	KOMFORT EC S1B160	KOMFORT EC S1B160-E
Power supply voltage [V/50 (60) Hz]	1~ 230							
Maximum unit power [W]	51							
Maximum unit current [A]	0.4							
Maximum air capacity [m³/h]	180							
RPM	3770							
Sound pressure level at 3 m distance [dBA]	24				22			
Transported air temperature [°C]	-25...+40							
Casing material	painted steel							
Insulation, mineral wool	20 mm				40 mm			
Extract filter filtration class	G4							
Intake filter filtration class	F7 (G4 optionally)							
Connected air duct diameter [mm]	125							
Weight [kg]	42		44		47		49	
Recovery efficiency [%]	88-98	80-94	88-98	80-94	88-98	80-94	88-98	80-94
Heat exchanger type	counter-flow							
Heat exchanger material	polystyrene	enthalpy*	polystyrene	enthalpy*	polystyrene	enthalpy*	polystyrene	enthalpy*

\*The units are equipped with an enthalpy heat exchanger requiring no condensate removal.

MODEL	KOMFORT EC S2B300	KOMFORT EC S2B300-E	KOMFORT EC S1B350	KOMFORT EC S1B350-E	KOMFORT EC SB350	KOMFORT EC SB350-E	KOMFORT EC S2B550	KOMFORT EC S2B550-E	KOMFORT EC SB550	KOMFORT EC SB550-E
Power supply voltage [V/50 (60) Hz]	1~230									
Maximum unit power [W]	170		170		147		370		333	
Maximum unit current [A]	1.30		1.30		1.2		2.5		2.3	
Maximum air capacity [m³/h]	330		380		380		625		750	
RPM	3200						3230			
Sound pressure level at 3 m distance [dBA]	30		28				30		26	
Transported air temperature [°C]	-25...+40									
Casing material	painted steel									
Insulation, mineral wool	20 mm		40 mm				20 mm		40 mm	
Extract filter filtration class	G4						G4			
Intake filter filtration class	F7 (G4 optionally)		F7 (G4 optionally)				F7 (G4 optionally)			
Connected air duct diameter [mm]	160						200			
Weight [kg]	53		55		60		62		83	
Recovery efficiency [%]	85-93	76-90	84-94	74-90	80-89	76-89	73-88	71-88	85-88	72-92
Heat exchanger type	counter-flow									
Heat exchanger material	polystyrene	enthalpy*	polystyrene	enthalpy*	polystyrene	enthalpy*	polystyrene	enthalpy*	polystyrene	enthalpy*

\*The units are equipped with an enthalpy heat exchanger requiring no condensate removal.

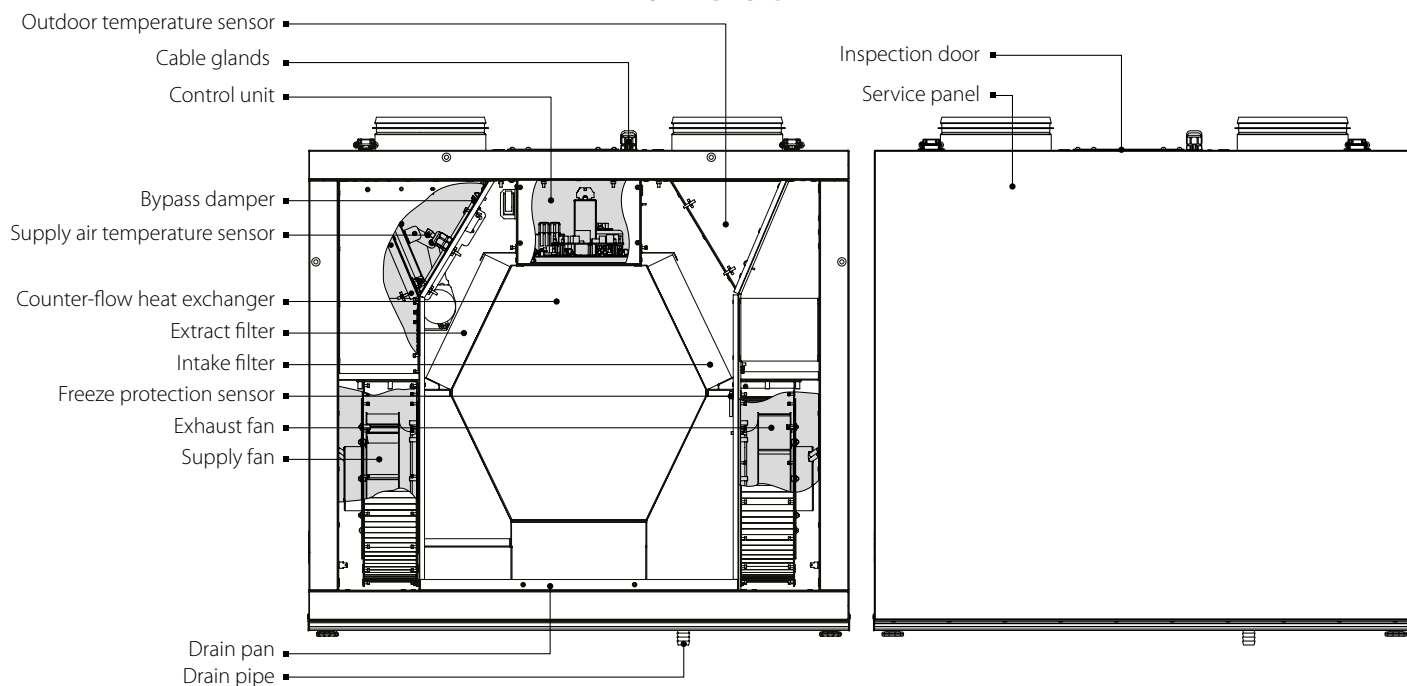


MODEL	Dimensions [mm]								
	Ø D	Ø D1	B	B1	H	H1	L	L1	L2
KOMFORT EC S(B)160(-E)	124	18	343	330	690	580	600	388	143
KOMFORT EC S1(B)160(-E)	124	18	385	370	712	620	640	388	143
KOMFORT EC S2B300(-E)	159	18	465	451	737	634	735	426	190
KOMFORT EC SB350(-E)	159	18	604	590	758	675	730	426	230
KOMFORT EC S1B350(-E)	159	18	488	475	758	673	730	426	190
KOMFORT EC SB550(-E)	199	18	736	722	758	674	823	493	284
KOMFORT EC S2B550(-E)	199	18	566	550	737	634	810	493	259

## DESIGN AND OPERATING PRINCIPLE

The unit has the following operating principle: 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 exhaust fan. Cold fresh air from the outside flows into the unit, where it is cleaned by the intake 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.

### UNIT DESIGN



The air handling unit is equipped with a removable front service panel for repair and maintenance operations. The removable service panel design enables to change the service side location.

The control unit is accessible for mounting and wiring operations through the inspection door on top of the unit. For accessing the control unit remove the service panel after mounting and wiring operations. The control unit is accessible for service operations through the hinged mounting plate. The power cable and ground cable are connected to the control unit via the cable glands.

The bypass damper is open or closed depending on operation mode of the unit. The temperature difference between the supply and extract air flows results in condensate generation. Condensate is collected in the drain pan and is removed outside through the drain pipe.

#### **Additional components (not included in the delivery set, optionally available for purchase):**

- **Humidity sensor**

Based on the humidity sensor readings the unit keeps the set indoor humidity level.

When the extract air humidity crosses the set humidity point, the unit goes automatically on the high speed. When the indoor humidity drops down below the set point, the unit reverts to the previous operation mode.

- **EVH duct preheater (for S11 and S19 automation)**

The heater maintains the supply duct air temperature at the point to provide freeze protection for the heat exchanger.

The heater is controlled by the ventilation unit control system.

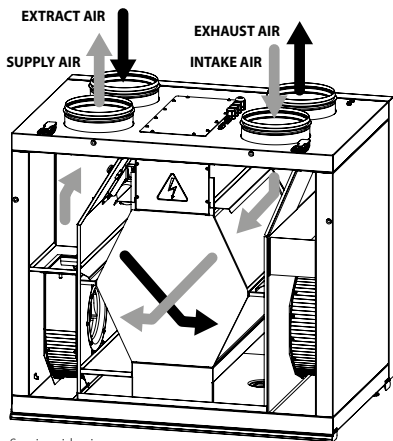
- **ENH duct reheater (for S19 automation)**

The heater maintains the room temperature set by the temperature sensor in the control panel. The heater is controlled by the ventilation unit control system.

**UNIT OPERATION MODES**

**Heat recovery**

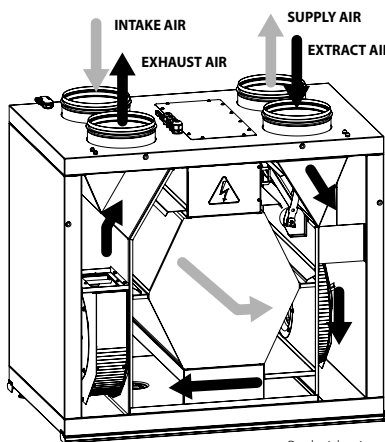
Warm extract air from the room flows into the unit and is cleaned in the extract filter. Then the air is moved through the heat exchanger and is exhausted outside with the exhaust fan. Cold fresh air from outside flows into the unit, where it is cleaned in the intake filter. Then the air flows through the heat exchanger and is moved 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.



Service side view

**Summer Cooling mode (only for the units with a bypass)**

The bypass damper is opened, the extract air that is removed from the premises bypasses the heat exchanger. The intake air temperature remains constant after passing the heat exchanger.



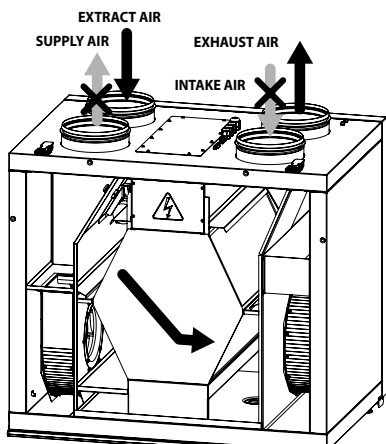
Back side view

**Heat Exchanger Freeze Protection**

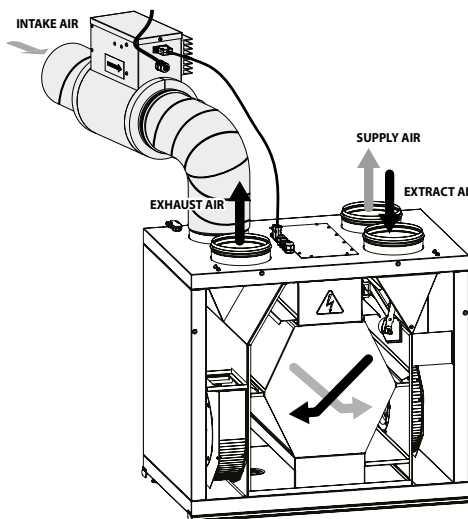
The unit has two automatic heat exchanger freeze protection modes depending on the unit model.

In case of a freezing danger\*, the supply fan is turned off. To activate the Freeze Protection mode, refer to the user's manual for the control panel, the "Engineering menu", "Additional options" and "Supply fan shutdown" sections.

In case of a freezing danger\*, the electric preheater (EVH) is activated. To activate the Freeze Protection mode, refer to the user's manual for the control panel, the "Engineering menu", "Additional options" and the "Heating control" sections.



Service side view



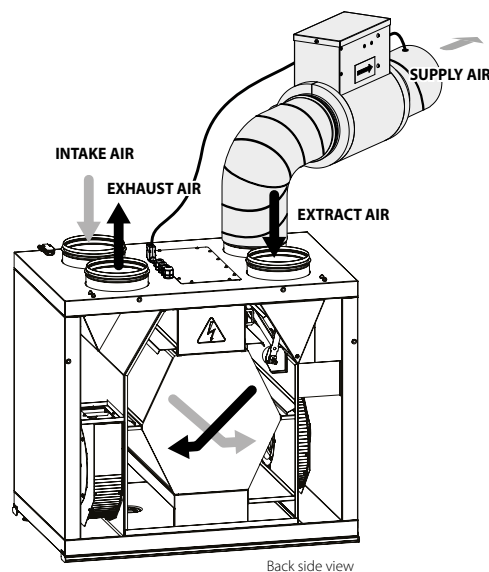
Back side view

\*Freezing danger appears when the exhaust air temperature downstream of the heat exchanger falls below +5 °C and the intake air temperature upstream of the heat exchanger is lower than -3 °C. As the temperature rises the unit returns to the previous mode.




**Reheating**

The process of supply air reheating by the EVH duct heater is described in the user's manual for the control panel. For details, refer to the "Engineering menu", "Additional options" and the "Heating control" sections.



**MOUNTING AND SET-UP**



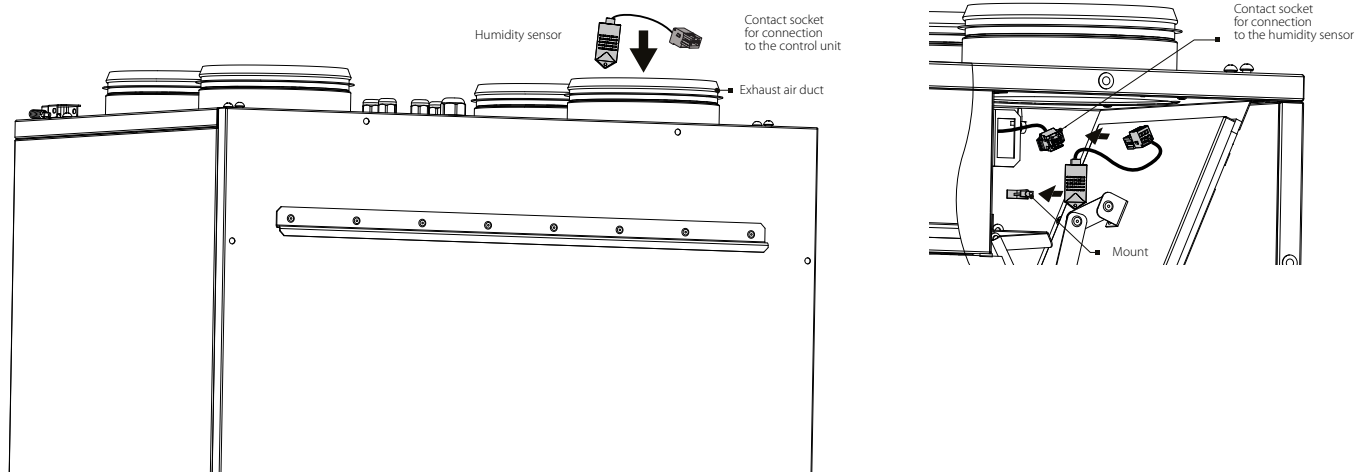
**READ THE USER'S MANUAL BEFORE INSTALLING THE UNIT.**

**FS1 HUMIDITY SENSOR INSTALLATION AND CONNECTION (FOR S11 AND S19 CONTROL PANELS)**

The FS1 humidity sensor is not included in the delivery set and can be ordered separately.

The humidity sensor must be installed prior to unit mounting.

Install the humidity sensor through the extract spigot into the mount on the extract air duct panel. After that connect the humidity sensor connector to the respective connector on the control unit, refer to the External wiring diagram.



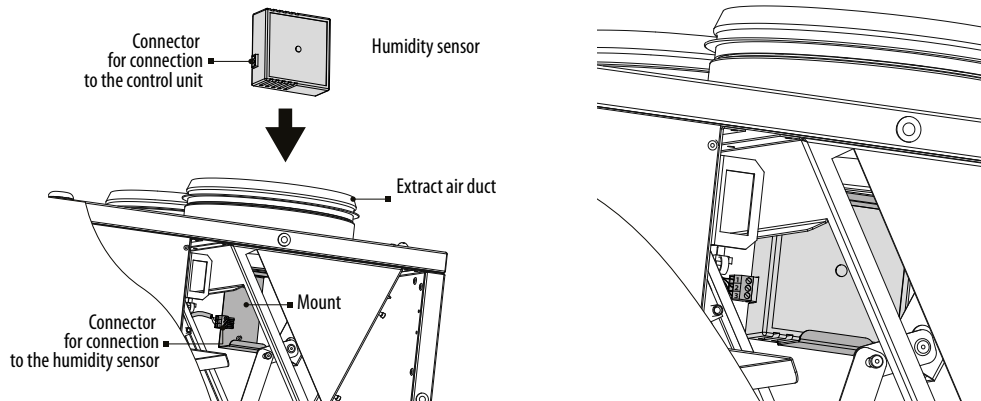
**FS2 HUMIDITY SENSOR INSTALLATION AND CONNECTION (FOR S14 CONTROL PANELS)**

The FS2 humidity sensor is not included in the delivery set and can be ordered separately.

**Mounting of the FS2 sensor in the extract air duct**

The FS2 humidity sensor must be installed prior to unit mounting.

Install the humidity sensor through the extract spigot into the mount on the extract air duct panel. Connect the humidity sensor connector to the respective connector with the cable from the control unit, refer to the External wiring diagram. Connector with the cable from the control unit is pre-wired at the factory.

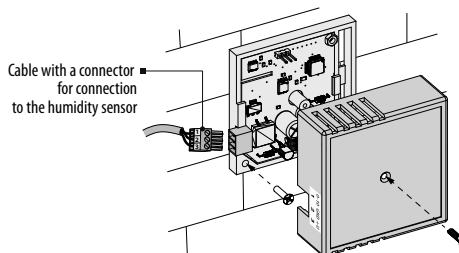
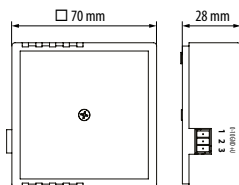


**Indoor mounting of the FS2 sensor**

The FS2 sensor must be mounted in a room where the unit will maintain the set humidity level.

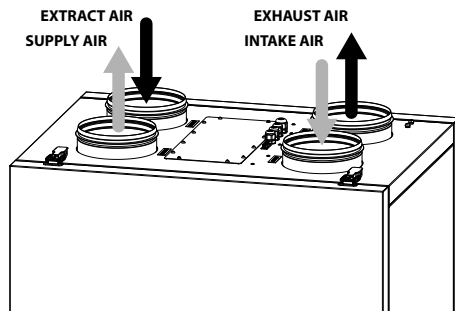
The sensor is fixed on the wall or ceiling surface using a screw or a double-sided adhesive tape. The mounting accessories are not included in the delivery set.

To connect the sensor to the unit, use the cable with the connector which is supplied with the ventilation unit.

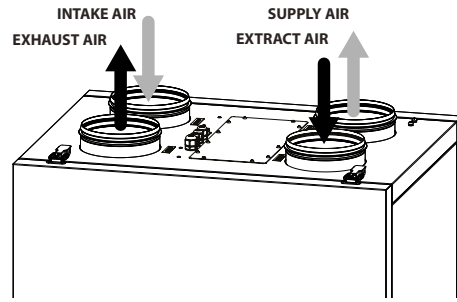


**SERVICE SIDE CHANGE**

Make sure that the service panel provides sufficient access for maintenance and servicing.

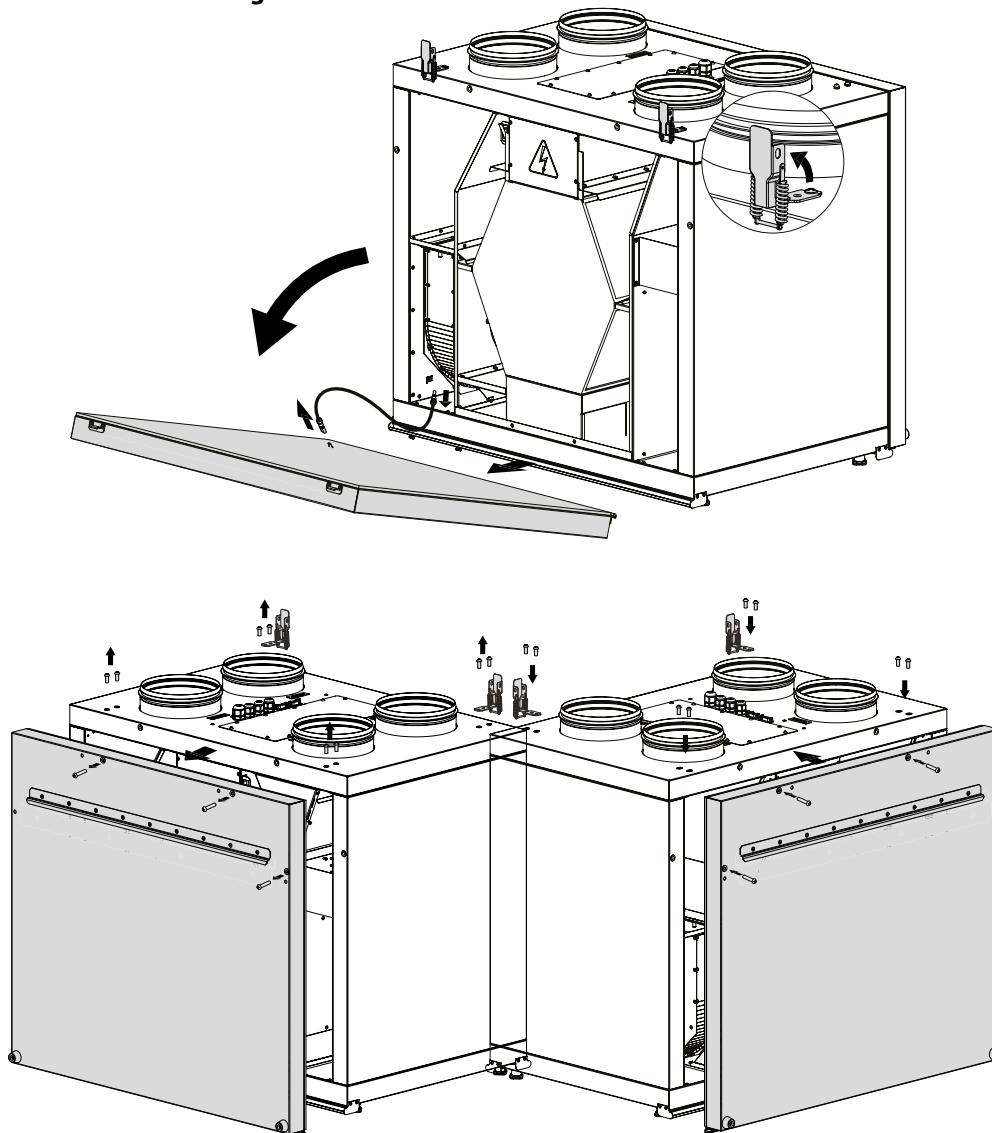


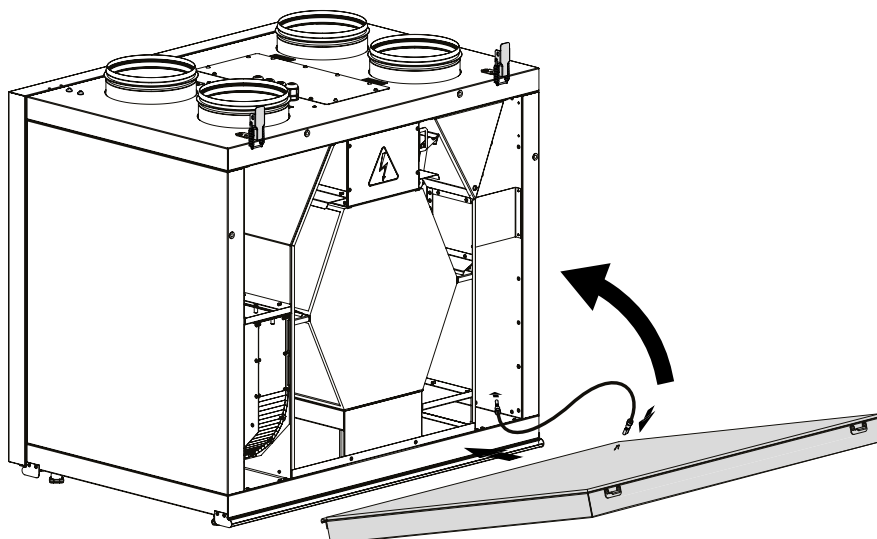
Left-handed modification



Right-handed modification

**Service side change before unit mounting:**





### UNIT MOUNTING

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 intake side
- equal to 3 air duct diameters on outlet side

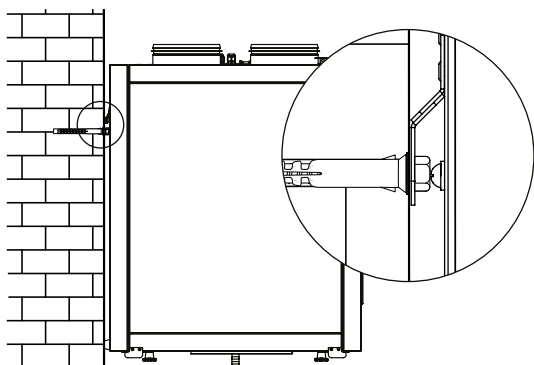
If the air ducts are too short or not connected, protect the unit parts from ingress of foreign objects. To prevent uncontrollable access to the fans, the spigots may be covered with a protecting grille or other protecting device with mesh width not more than 12.5 mm.

While installing the unit ensure convenient access for subsequent maintenance and repair.

The unit must be mounted on a plane wall. Mounting of the unit to an uneven surface can lead to the unit casing distortion and operation disturbance.

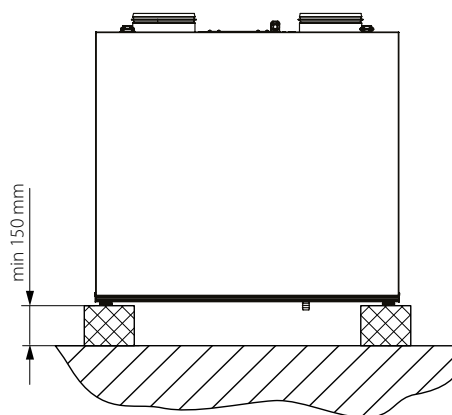
#### Unit wall mounting

Fasteners for wall mounting are not included in delivery and must 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 mounting must be selected by the Customer Service technician. Fix the wall bracket on the required height and hang the unit on it.



#### Unit floor mounting

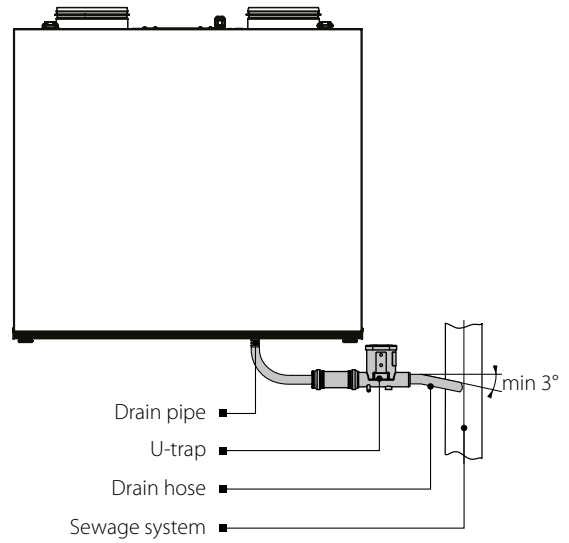
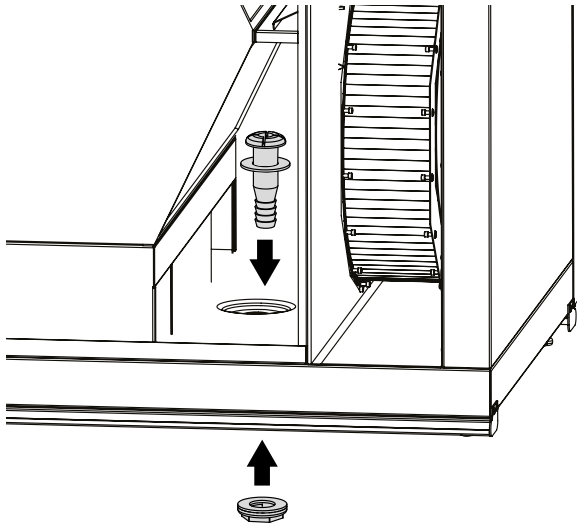
Install the unit on the pre-mounted floor supports, minimum 150 mm height, to ensure sufficient access for the drain pipe connection to the U-trap and for condensate drain system mounting.



**CONDENSATE DRAINAGE**

The KOMFORT EC S(1/2)(B) heat recovery units require condensate drainage.

The hole for the drain pipe is at the bottom of the unit. Remove the plug from the hole, open the service panel and install the supplied drain pipe into the hole, then connect the drain pipe to the sewage system using the SFK 20x32 U-trap kit (available upon separate order). While laying the hoses provide the slope downwards min 3°.



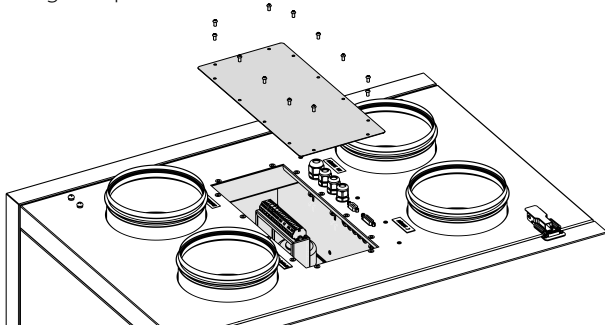
**CONNECTION TO POWER MAINS**

**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.**

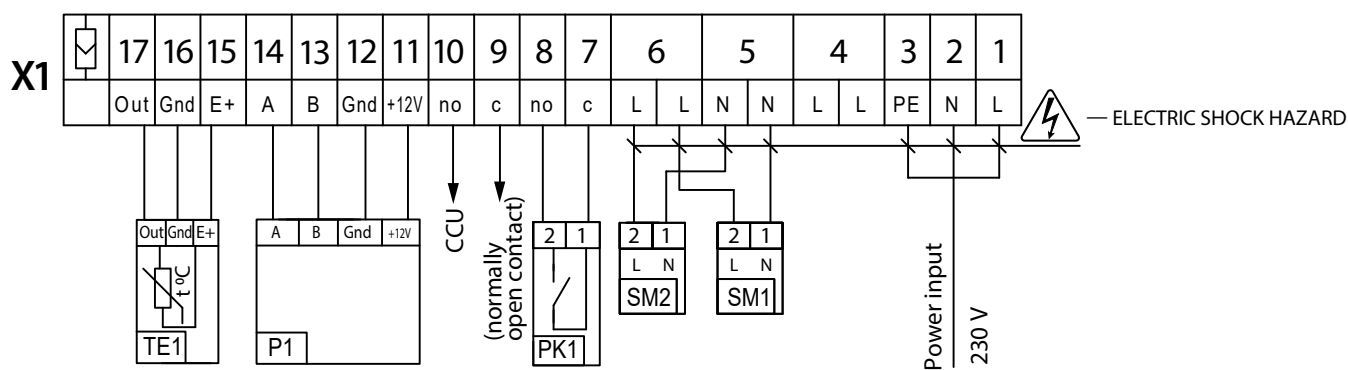
**ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED  
AND WILL VOID THE WARRANTY.**

- The unit is rated for connection to 1~230 V/50 (60) Hz power mains.
- The unit must be connected to power mains using insulated electric conductors (cables, wires). The actual wire cross section selection must be based on the maximum load current, maximum conductor temperature depending on the wire type, insulation, length and installation method.
- The external power input must be equipped with an automatic circuit breaker built into the stationary wiring to open the electric circuit in case of overload or short-circuit. The circuit breaker installation place must provide quick access for emergency shutdown of the unit. The trip current of the automatic circuit breaker **QF** must exceed the maximum current consumption of the unit (refer to the technical data table). The recommended trip current of the circuit breaker is the next current in the standard trip current row following the maximum current of the connected unit. The automatic circuit breaker is not included in the delivery set.

Accessing the control unit when connecting it to power mains:



**EXTERNAL WIRING DIAGRAM FOR S11 AUTOMATION**

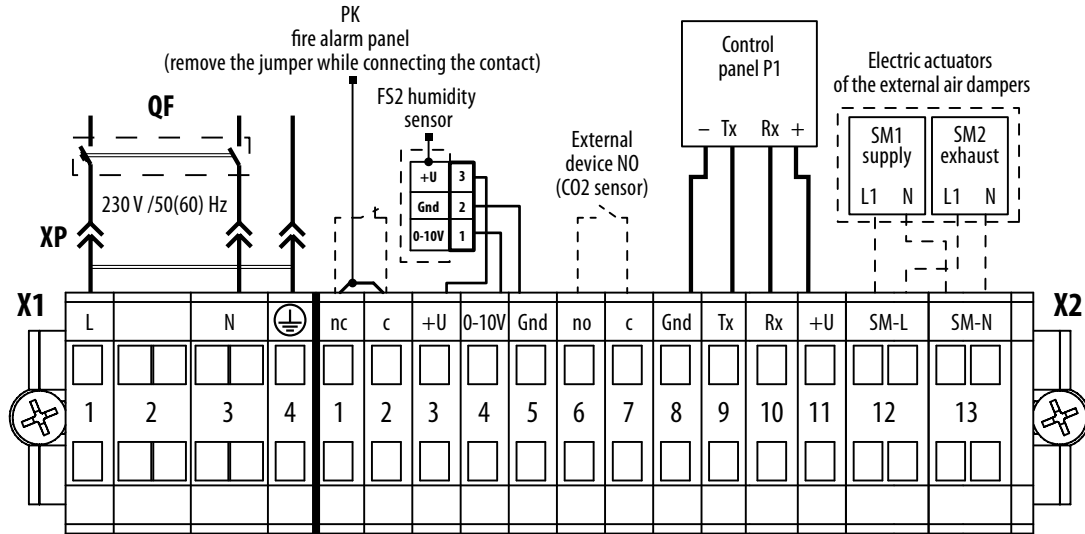


Designation	Name	Type	Wire**
CCU*	DX-cooler	N0	2 x0.75 mm <sup>2</sup>
SM1*	Supply air damper actuator	LF230	2 x0.75 mm <sup>2</sup>
SM2*	Extract air damper actuator	LF230	2 x0.75 mm <sup>2</sup>
PK1*	Contact of fire alarm panel	N0	2 x0.75 mm <sup>2</sup>
P1	Control panel		
TE1	Outdoor temperature sensor		

\*Is not included in the delivery set.

\*\* Maximum connecting cable length is 20 m!

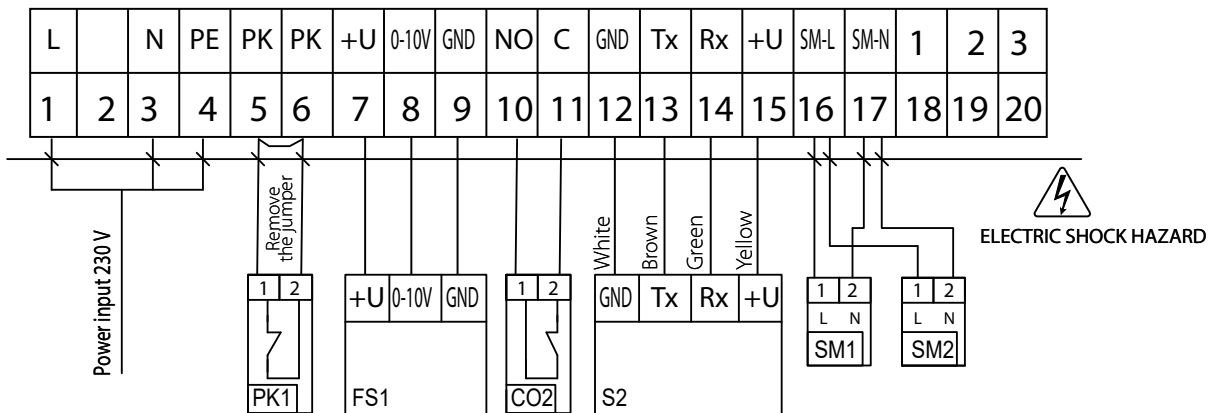
**EXTERNAL WIRING DIAGRAM FOR S14 AUTOMATION**



Designation	Name	Type	Wire**
NO*	External control device contacts, such as CO <sub>2</sub> sensor (NO, C)	NO	2 x 0.75 mm <sup>2</sup>
SM1*	Supply air damper actuator	LF230	2 x 0.75 mm <sup>2</sup>
SM2*	Extract air damper actuator	LF230	2 x 0.75 mm <sup>2</sup>
PK*	Contact of fire alarm panel	NC	2 x 0.75 mm <sup>2</sup>
P1	Control panel		

\*Is not included in the delivery set.

\*\* Maximum connecting cable length is 20 m!



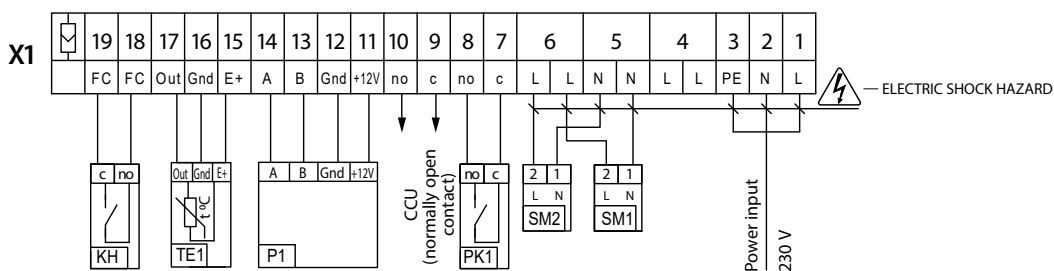
**ELECTRIC SHOCK HAZARD**

Designation	Name	Type	Wire**
SM1*	Supply air damper actuator		2 x 0,75 mm <sup>2</sup>
SM2*	Extract air damper actuator		2 x 0,75 mm <sup>2</sup>
PK1*	Contact of fire alarm panel	NC	2 x 0,75 mm <sup>2</sup>
CO2*	CO <sub>2</sub> sensor	NO	2 x 0,75 mm <sup>2</sup>
S2	Control panel		4 x 0,75 mm <sup>2</sup>

\*Is not included in the delivery set.

\*\* Maximum connecting cable length is 20 m!

EXTERNAL WIRING DIAGRAM FOR S19 AUTOMATION



Designation	Name	Type	Wire**
CCU*	DX-cooler	N0	2 x 0.75 mm <sup>2</sup>
SM1*	Supply air damper actuator	LF230	2 x 0.75 mm <sup>2</sup>
SM2 *	Extract air damper actuator	LF230	2 x 0.75 mm <sup>2</sup>
PK1*	Contact of fire alarm panel	N0	2 x 0.75 mm <sup>2</sup>
P1	Control panel		
TE1	Outdoor temperature sensor		
KH *	Kitchen hood contact	N0	2 x 0.5 mm <sup>2</sup>

\*Is not included in the delivery set.

\*\* Maximum connecting cable length is 20 m!



## TECHNICAL MAINTENANCE



**BEFORE MOUNTING MAKE SURE THE CASING DOES NOT CONTAIN ANY FOREIGN OBJECTS (E.G. FOIL, PAPER).**

The unit must undergo technical maintenance 3 to 4 times a year. Maintenance includes general cleaning of the unit and the following operations:

### 1. Filter maintenance (3-4 times per year).

Clogged filters increase air resistance in the system and reduce supply air volume. Clean the filters as required, but not less than 3-4 times per year. Clean the filter with a vacuum cleaner or replace with a new filter. For new filters, contact the Seller.

### 2. Heat exchanger maintenance (once a 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. To clean the heat exchanger pull it out of the air handling unit, clean it with compressed air or a vacuum cleaner. After that install the heat exchanger back into the unit. To remove the filters and the heat exchanger, follow the steps as shown on the right.

### 3. Fan maintenance (once a year).

Even in case of regular maintenance of the filters and the heat exchanger, some dust may accumulate inside the fans and reduce the fan performance and supply air flow volume.

To clean the fan use a soft cloth, brush or compressed air.

Do not use water, aggressive solvents or sharp objects as they may damage the impeller.

### 4. Technical maintenance of the condensate drainage system (four times a year).

The condensate drainage (drain line) may get clogged by 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. Technical maintenance of air intake devices (twice per year).

The supply duct grille may get clogged with leaves and other objects reducing the unit performance and supply air delivery. Check the supply grille twice per year and clean it as required.

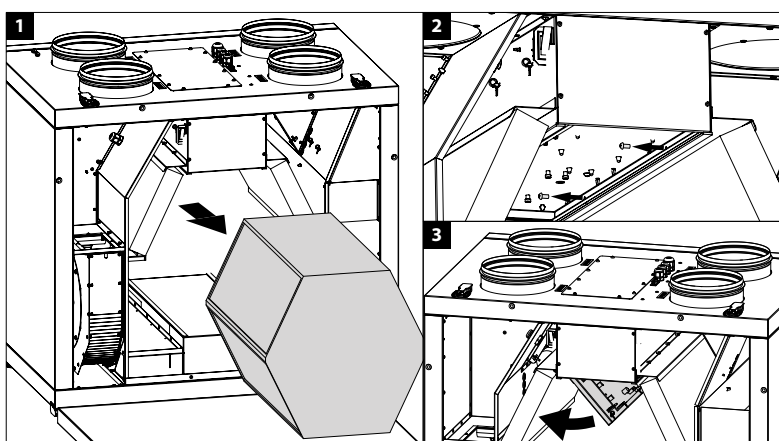
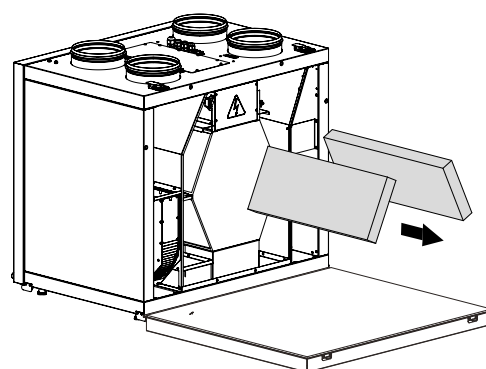
### 6. Technical maintenance of air duct system (every 5 years).

Even regular fulfilling of all the stated above maintenance operations described above may not completely prevent dirt accumulation in the air ducts which reduces the unit capacity. Duct maintenance consists in regular cleaning or replacement.

### 7. Control unit maintenance (if necessary).

The control unit is positioned inside the unit casing. To access the control unit, remove the fixing screws on the panel and remove the control unit lid.

Access to the control unit:



## TROUBLES AND TROUBLESHOOTING

Trouble	Possible reasons	Troubleshooting
The fan(-s) does not start when the unit is on.	No power supply.	Make sure the power supply line is connected correctly, otherwise troubleshoot a connection error.
	The motor is jammed, the impeller blades are soiled.	Turn the unit off. Troubleshoot the motor jam and the impeller clogging. Clean the blades. Restart the unit.
	Alarm in the system.	Turn the unit off. Contact the Seller.
Automatic circuit breaker trips following the unit turning on.	Overcurrent as a result of short circuit in the electric circuit.	Turn the unit off. Contact the Seller.
Low air flow.	Low set fan speed.	Set higher speed.
	The filters and the fans are clogged, the heat exchanger is clogged.	Clean or replace the filters, clean the fans and the heat exchanger.
	Ventilation system elements (air ducts, diffusers, louver shutters, grilles) are clogged, damaged, or closed.	Clean or replace the ventilation system elements, such as air ducts, diffusers, louver shutters, grilles.
Low supply air temperature.	The extract filter is clogged.	Clean or replace the extract filter.
Noise, vibration.	The impeller(s) is (are) contaminated	Clean the impeller(s).
	The fan or casing screw connection is loose.	Tighten the fan or the casing screws against stop.
	No anti-vibration connectors on air duct spigots.	Install anti-vibration connectors.
Water leakage (only for the KOMFORT EC S(1/2)(B) units).	The drainage system is clogged, damaged or incorrect installed.	Clean the drain line. Check the drain line slope angle. Make sure that the U-trap is filled with water and the drain pipes are frost protected.
The DI1 or DI3 errors are displayed on the control panel (the errors are identical for both heaters).	Missing heater during activated heating mode.	For error troubleshooting deactivate the heating mode. If the errors are displayed after that please contact the product Seller.

## 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 up 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 operating 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 Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council 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 months 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 dismantled 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.**



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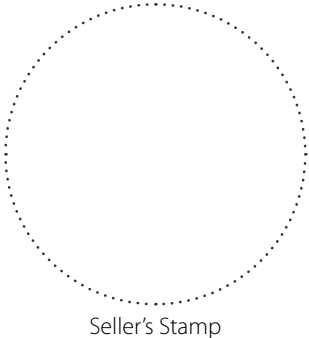


**CERTIFICATE OF ACCEPTANCE**

<b>Unit Type</b>	Air handling unit
<b>Model</b>	KOMFORT EC _____
<b>Serial Number</b>	
<b>Manufacture Date</b>	
<b>Quality Inspector's Stamp</b>	

**SELLER INFORMATION**

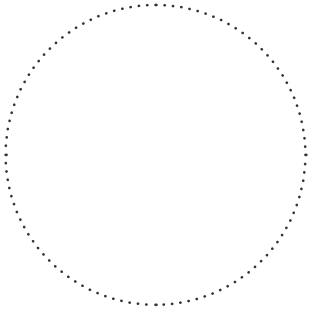
<b>Seller</b>	
<b>Address</b>	
<b>Phone Number</b>	
<b>E-mail</b>	
<b>Purchase Date</b>	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
<b>Customer's Signature</b>	



Seller's Stamp

**INSTALLATION CERTIFICATE**

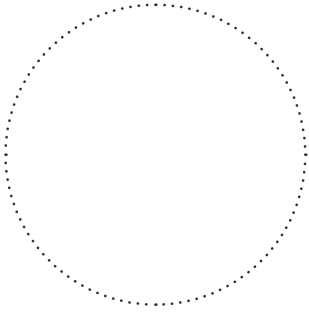
The KOMFORT EC _____ unit is installed pursuant to the requirements stated in the present user's manual.	
<b>Company name</b>	
<b>Address</b>	
<b>Phone Number</b>	
<b>Installation Technician's Full Name</b>	
<b>Installation Date:</b>	<b>Signature:</b>
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
<b>Signature:</b>	



Installation Stamp

**WARRANTY CARD**

<b>Unit Type</b>	Air handling unit
<b>Model</b>	KOMFORT EC _____
<b>Serial Number</b>	
<b>Manufacture Date</b>	
<b>Purchase Date</b>	
<b>Warranty Period</b>	
<b>Seller</b>	



Seller's Stamp



**BLAUBERG**  
*Ventilatoren*

