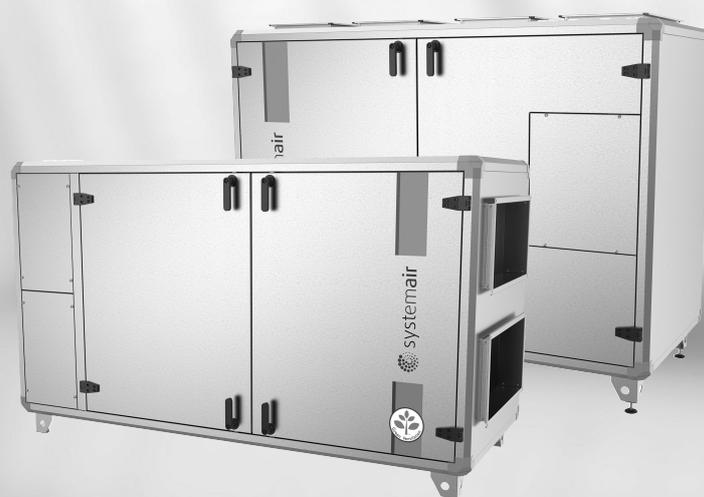


# Pre-heater Topvex counterflow units

Installation instructions

GB

Document in original language | 134351 · A003





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## 1 Warnings



### Danger

- Make sure that the mains supply to the unit is disconnected before performing any maintenance or electrical work!
- All electrical connections must be carried out by an authorized installer and in accordance with local rules and regulations.

## 2 General

A pre-heater is available as an accessory for Systemair Topvex units with counterflow heat exchanger. A pre-heater can be installed in the outdoor duct to prevent icing in the heat exchanger.

The kit contains of 1 expansion module, 1 pre-heater, 1 outdoor air sensor and 1 instruction.

## 3 Installation

### 3.1 Outdoor air sensor

Mount the enclosed outdoor air sensor to the outdoor air duct (OS in figure 1) before the pre-heater and assign it as an outdoor air sensor in Corrigo (see chapter 3.3). Configure the previous installed outdoor air sensor located in the unit to **Extra unit temp.**

Replace the existing OS-label inside the air handling unit with the new EUT-label. Attach the new OS-label next to the added outdoor sensor.

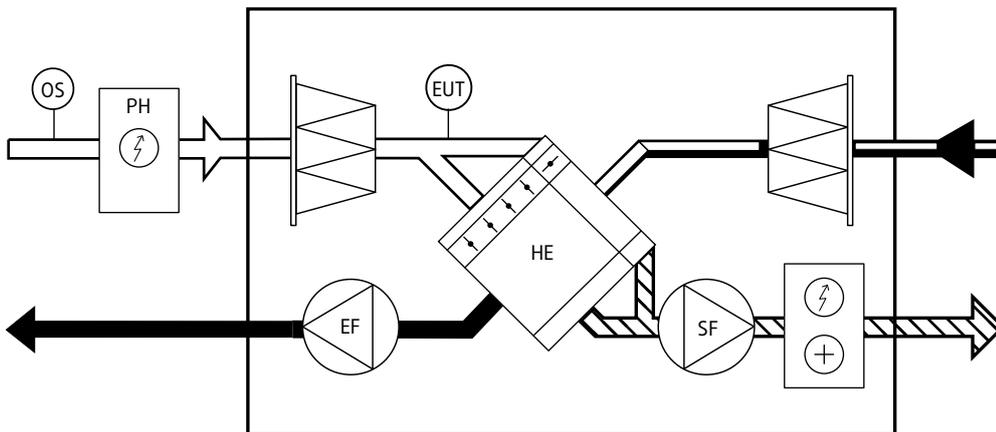


Fig. 1

	Outdoor air
	Supply air
	Extract air
	Exhaust air
OS	Outdoor air sensor
PH	Pre-heater
EUT	Extra unit temp
EF	Extract air fan
SF	Supply air fan
HE	Heat exchanger

### 3.2 Wiring diagram

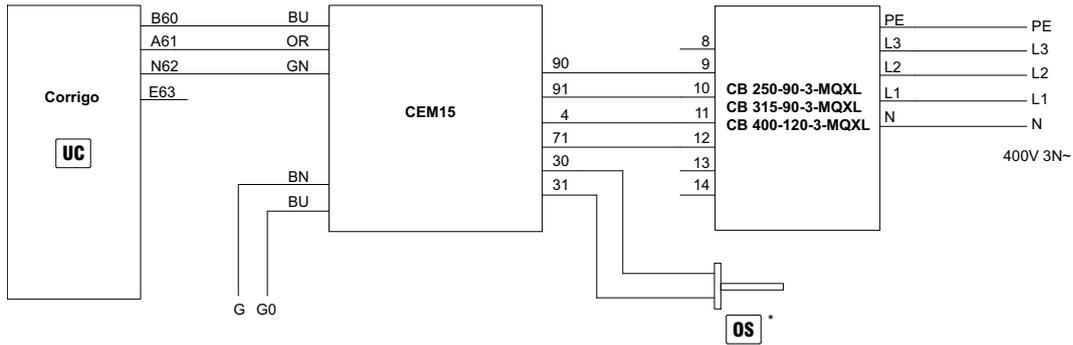


Fig. 2 Wiring CB-CEM15

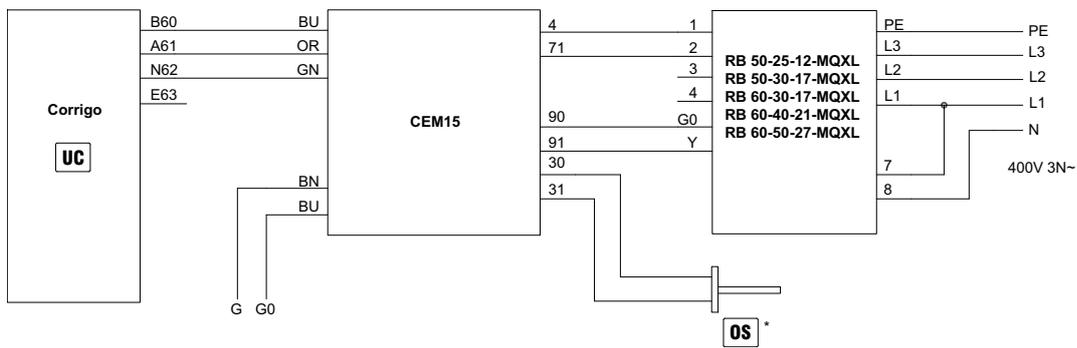


Fig. 3 Wiring RB-CEM15

\* See chapter 3.1

BU	Blue
OR	Orange
GN	Green
BN	Brown

### 3.3 Corrigo

Function via expansion unit.

Log on with admin rights in Corrigo.

Main menu item	Sub-menu item 1	Sub-menu item 2	Explanations
→ Access rights	→ Log on	Log on Enter password xxxx Actual level: None	<b>Log on</b> to service level by entering a 4-digit code. After reaching the desired level go back with "LEFT" arrow (press 2 times) on the control panel. Standard code from factory to enter service level is 2222. Back to operator level: 1111. To enter Admin level code: 3333.
→ Configuration	→ Communication	Function port2 Exp and ext display	→ Corrigo E15
	→ Input/Output	→ AI	AI3: Extra unit temp Raw value: NaN Compensation: 0.0 °C
		→ AI exp1	AI1 Exp1: Sign: Outd temp Raw value: 0.0 Compensation: 0.0 °C
		→ DI exp 1	DI1 Exp1: NO/NC: NC Signal: Ext alarm1 Status: Off Overheat pre-heater is presented in the display when the alarm is active.
		→ AO exp1	AO1 Exp1: Sign: Extra unit Auto Value: 0, 0 V Control signal for heater 0-10V
		→ DO exp1	DO1 Exp1: Sign: ExtraUnitActi Auto Status: Off Activated during defrosting sequence.
	→ Extra control unit	Mode extra unit Run if defrosting	Activated during defrosting sequence. <b>See Example 1.</b>
		Mode extra unit Run if units us running	Activated during normal run. <b>See Example 2.</b>  Option: Running if unit is running is to avoid defrosting if unbalanced airflow is not permitted.
		Control mode extra unit Heating	
→ Settings	→ Control extra unit	Control extra unit P-band: 33.0 °C I-time: 100.0 s	Set P-band and I-time for Control extra unit.
→ Temperature	Extra unit Actual: NaN °C Setp: 18.0 °C		Set the pre-heater temperature

**Example 1:** *Run if defrosting.* If pre-heater is used in order to maintain supply temperature at desired level. For example, desired supply temperature is +20°, the outside air is -4° and the heater has an capacity of 10°. This is enough during normal operation on these units but during bypass defrosting the heater needs an capacity of 24°. This is a lack of 14°. In this example a set point for the pre-heater needs to be +10°. Set point must be chosen according to heat capacity and airflow.

**Example 2:** *Run if units is running.* In this case you need to have a set point at 0°. Pre-heater will be active below 0° during normal operation. To use this option configuration must be changed. Same extra sensor as above is used. It can also be used for a unit in a very cold location when heating capacity isn't enough. For example -30°. Set point depending of heat capacity and airflow. In this case a set point can be, for example -18°.





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