Air Handling Unit

NEW!

REC Temovex Blue 4

Experts on indoor climate in low-energy houses

REC INDOVENT

Air Handling Unit

RT Blue 4

REC Temovex Blue 4

- *Third generation of our Temovex units!*
  - *Dual counterflow heat exchangers with over 90% efficiency **
  - *SFP < 1,0 **
  - *Special features for air heating (ECO2)*
  - *Unique solution to avoid defrosting*
  - *Extremely low noise*
  - *Qualified for passive buildings*

** Normal house 150 m2, 75 Pa in external channels*

Overview

REC Temovex Blue is the third generation of REC's Temovex units. Just as before the unit is designed as a white goods appliance and intended to be placed on the floor in a bathroom, laundry room, utility room or similar.

REC Temovex Blue 4 has dual counter-flow heat exchangers that are connected in parallel to provide high efficiency, not only at a specific point but over a wide flow range.

Like before with 160 mm connections on the top. One and the same design for connections, the unit is however delivered with right or left hung door.

REC Temovex Blue 4 consists of energy efficient EC fans, filters, after-heater (electric or water), automatic bypass as well as integrated control panel.

The front and the sides are powder coated in white (RAL 9016) with 30 mm insulation. The door is equipped with a magnetic strip. The new dual counter-flow exchanger has a triangular channel structure that allows us to reach in excess of 90% efficiency. By using a counter-flow heat exchanger we also ensure that air leakage between used and fresh air does not occur. Overall, this gives a cost-effective operation, an excellent comfort and a good indoor climate.

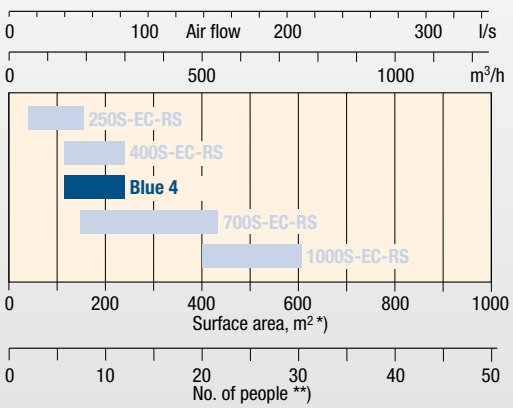
Fans

REC Temovex Blue 4 is equipped with EC fans with external rotor motor. Each fan is individually set, continuous from 0-100% (to dimension, use approx. 70-80% of maximum flow). The fan motors have integrated overheating protection. The fans have backwards-curved blades.

Control panel

The unit is equipped with a user friendly control panel which is integrated in the front of the unit (behind the door). Separate remote panels can optionally be purchased. The remote panels are available in 2 different designs (see image and information on the back of the brochure).

Guide to setting air flow (in relation to floor area & number of persons)



In all units supply air and extract air fans respectively are individually adjustable.

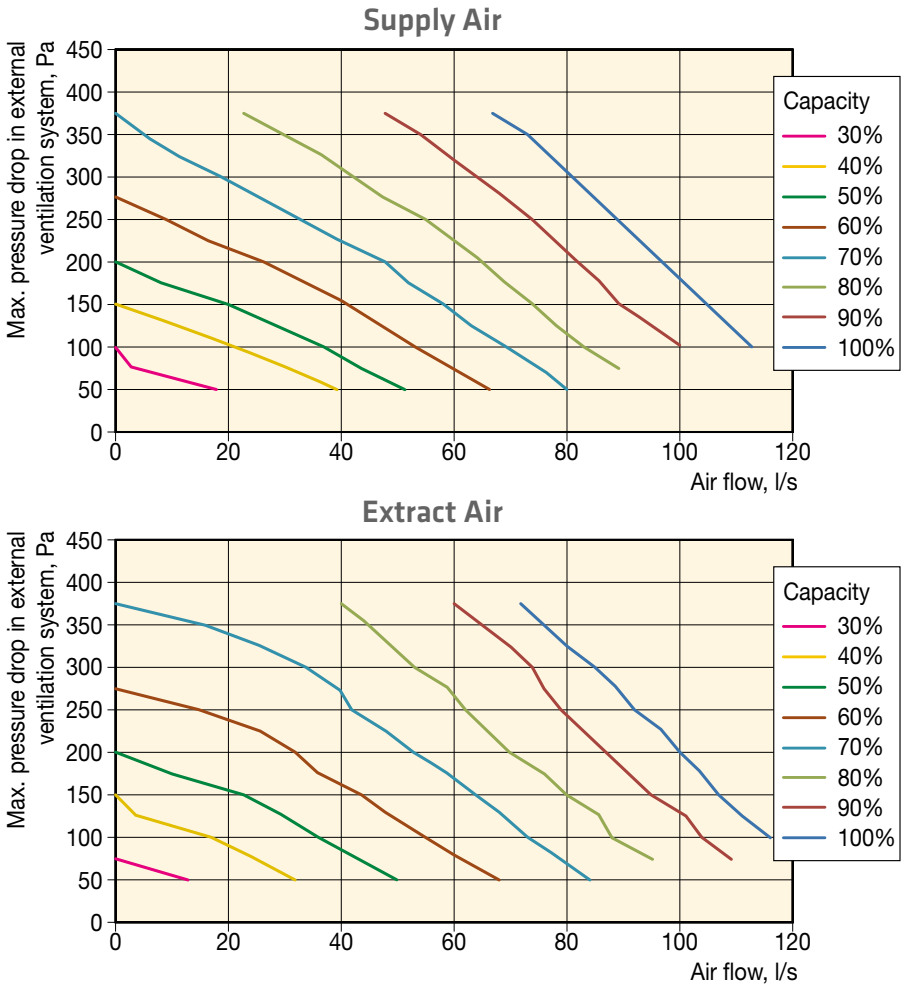
The table shows 80% of max capacity at 100 Pa external pressure.

**) Calculated using minimum air flow 0,35 l/s /m² acc. to BBR 99 "General for housing"*

***) Calculated using air flow 7 l/s per person acc. to BBR 99 "Minimum air intake flow"*

** According to Swedish Energy Agency's test in February 2010. Read more at energimyndigheten.se/hushall/tester FTX units*

Dimensioning Graph



Technical specification

	After-heater – Electrical	After-heater – Water water temp. 55/45°C
Rated output unit	1165 W	265 W
Rated output after-heater	900 W, (1800 W option)	1500 W, (2800 W option) at 85 l/s
Rated output fans	169 x 96 W	169 x 96 W
Voltage/frequency	230 V, 50 Hz	230 V, 50 Hz
Fuse	10 A	10 A
Filter supply air / extract air	Bag ePM1 50% / bag Coarse 60%	Bag ePM1 50% / bag Coarse 60%
Weight	97 kg	97 kg
Water connection	–	DN12
Dimensions (WxDxH)	485x620x1940 mm*)	485x620x1940 mm*)
Duct connections	4 x 160 mm	4 x 160 mm
Condensate drain	8 mm	8 mm

*) *Unit has adjustable feet. Min height = 1920 mm, Max height = 1940 mm*

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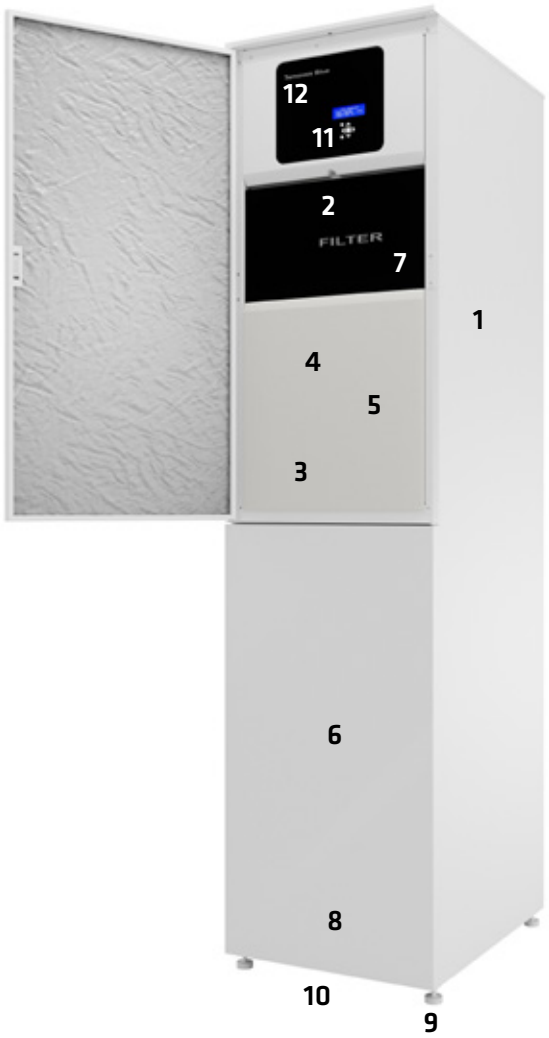
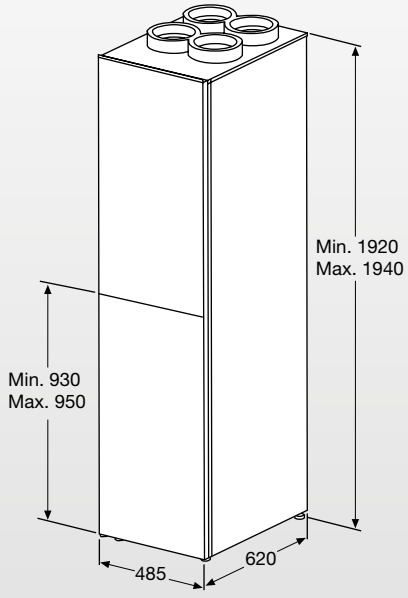
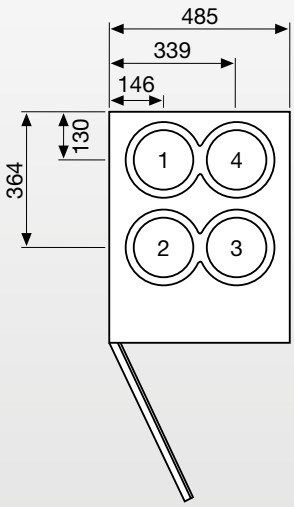
1. Cover
2. Extract air filter (behind hatch)
3. Bypass damper
4. Extract air fan (behind)
5. Supply air fan
6. Heat exchanger
7. Supply air filter (behind hatch)
8. Lifting device
9. Adjustable feet
10. Condensate drain
11. Control panel
12. After-heater



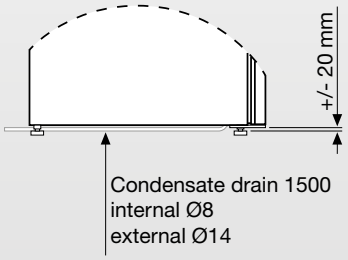
Dimensions





Connections

1. Exhaust Air Ø160 mm (Out from building)
2. Supply Air Ø160 mm (From system to unit)
3. Outdoor Air Ø160 mm
4. Extract Air Ø160 mm



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Defrost Function

REC Temovex Blue has two different methods for defrosting or to avoide freezing of the heat exchanger.

Default setting is "stop defrosting", which means that the supply air fan stops for short periods when risk of freezing is high (normally 10-15 hours/year in the middle of Sweden, as an example).

Another possibility (chosen in settings) is a method when the supply air fan does not stop. A part of the cold outside air then bypasses the exchanger, to allow the warm extract air to heat the exchanger.

**More information is available in the technical manual.*

After-Heater (Electric or Water)

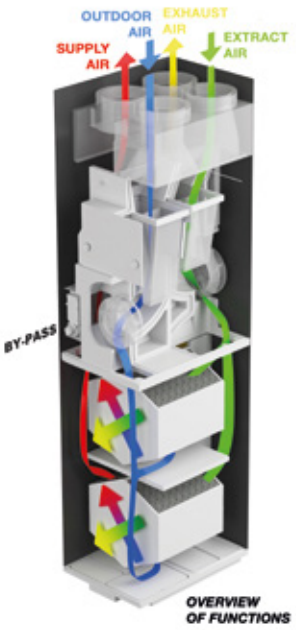
REC Temovex Blue 4 is equipped with a continuously stepless electric after-heat-er battery of 0.9 kW. The after-heater ensures that the supply air tempera-ture is not lower than the set temper-ature. Optionally, the unit can be fitted with: reinforced electric after-heater 1.8 kW, water coil of up to 1.6 kW or reinforced water coil of up to 2.8 kW. If a water coil is used, we recommend that an automatic outdoor air damper is mounted on the outdoor air duct to protect the water coil against frost dam-ages in case of potential malfunctions. The unit is supplied ready for electrical connection of an outdoor air damper.

Condensation

REC Temovex Blue 4 has a water outlet in the bottom for the condensation. This should be connected to the drains or fed to a floor drain. If a drain is not available the unit may be equipped with a condensation boiler as an option.

Bypass/ Summer Bypass

REC Temovex Blue 4 is equipped with an automatic summer bypass. The control system also utilizes cool air recovery during hot summer days.



Control functions

Standard Design:

- Highly efficient counter-flow heat exchanger
- Built-in electrical after-heater battery 0,9 kW. (Continuously stepless 0-100%)
- Automatic bybass with recovery of cool air (Continuously stepless 0-100%)
- Individually adjustable minimum, normal and maximum air flows.
- EC fans
- Supply air control
- Bag filter Coarse 60% (extract air), ePM1 50% (supply air)
- Alarm output
- Power supply for outdoor air damper
- 4 (digital) inputs for external control
- Night cooling
- Freely adjustable time programs
- Modbus or EXOline (RS485)

Options (in addition to Standard Design):

- After-heater battery electrical (reinforced) 1,8 kW, built-in
- After-heater water coil, built in (incl. 2 way valve and 0-10V actuator)
- After-heater water coil (reinforced), built-in (incl. 2 way valve and 0-10V actuator)
- Cooling coil, external (incl. 2 way valve and 0-10V actuator)
- Cooling coil (reinforced), external (incl. 2 way valve and 0-10V actuator)
- Condensation boiler, built-in
- Outdoor air damper with spring return
- ECO2 Control system for air heating
- Fireplace compensation incl. timer and switch
- Protection class IPX5
- Remote panel (with or without display)
- Web connection
- Top cover for lining
- Fire function
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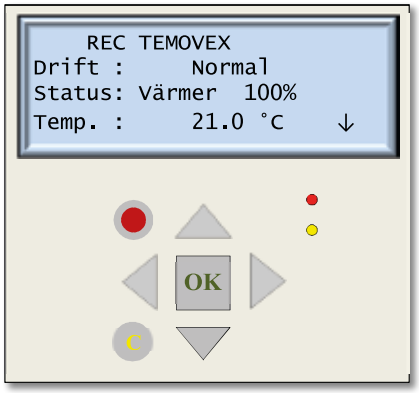
Control unit main screen



	UP
	DOWN
	RIGHT
	LEFT
	CONFIRM
	ALARM
	CORRECT/UNDO

Alarm	Flashing	There are one or several alarms that have not been acknowledged.
	Not flashing	There are one or several alarms that have been acknowledged, but not dealt with.
Setting	Flashing	User may adjust the settings in this menu screen.
	Not flashing	Settings cannot be adjusted by the user.

Remote Panels (option)

Remote Panel - Simple

Contains a temperature sensor and a set point. The unit is used as a room thermo-stat, but you may also shift the set-point. Analogue signals.

Remote Panel - With Display

The remote panel with display is the most advanced remote panel where you can both see different temperatures and set them. You can also adjust the fan speeds. In addition it has an ”away” button and shows a variety of information regarding the unit status.

Medlem i Svensk Ventilation
Bransch i samverkan

A member of Svensk Ventilation
(REC is a member of this Trade organization)

REC Indovent AB reserves the right to make alterations to specification and construction without prior notification.

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Certified acc. to ISO 9001/14001

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