

Air handling unit

REC Temovex 1000S-EC-RS



*Partner of climate smart solutions
for buildings of the future*



Air handling unit

RT 1000S-EC-RS



REC Temovex 1000S-EC-RS

- **Suitable as a staircase unit**

- Up to 8 apartments
- Compact
- Easy to place
- Cost effective

Overview

REC Temovex 1000S-EC-RS is a compact air handling unit with highly efficient heat recovery.

It is designed as a part of the white goods, and ready to be installed in for example staircases, storage rooms, boiler rooms, broom etc.

RT1000S-EC-RS consists of fans, filters, after-heater (electrical or water, option), automatic by-pass, control panel and energy efficient counter-flow heat exchangers. The casing is made of double hot-dip galvanized sheet metal with 30 mm insulation between the sheets.

The front and the side panels are white (RAL 9016, powder painted) and the front door has a magnetic strip to keep it closed. Our counter-flow heat exchanger makes it possible to utilize the thermal energy in the used indoor air and use it to heat the fresh incoming air. The counter-flow heat exchanger also ensures that there is no leakage between used air and fresh air. As a result, you get a good operating economy and a sound and comfortable indoor climate.

RT1000S-EC-RS comes with a plug, which makes installation easy (3-phase battery/water coil single phase).

The unit is suitable for a staircase unit for up to 15 apartments. Based on Swedish regulations, there is a fire function solution where the exhaust fan is replaced by a fire-gas extractor on the roof. Please contact REC for more information.

Fans

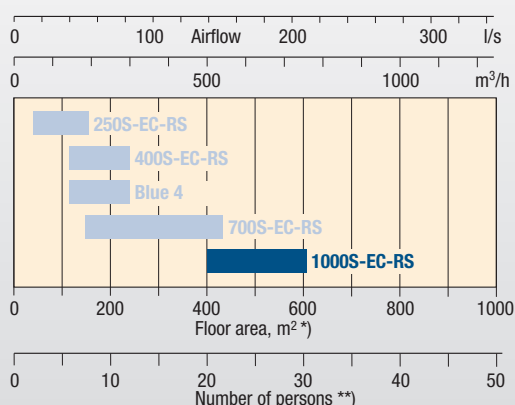
RT1000S-EC-RS has EC fans (electronic commutation) with external rotor motor. Each fan is individually set, continuous from 0-100% (to dimension, use approx. 70-80% of maximum flow). The fan motors have integrated overheating protection. The impellers have blades that are bent backward.

Control units

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 3 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)



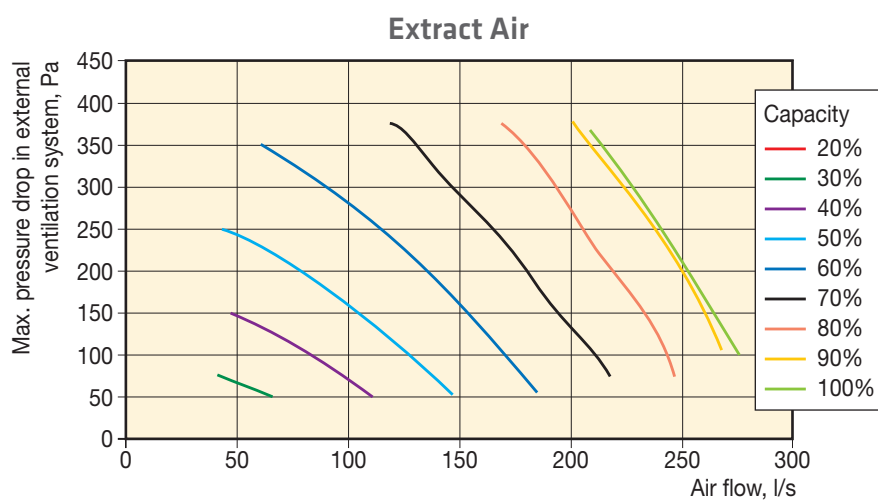
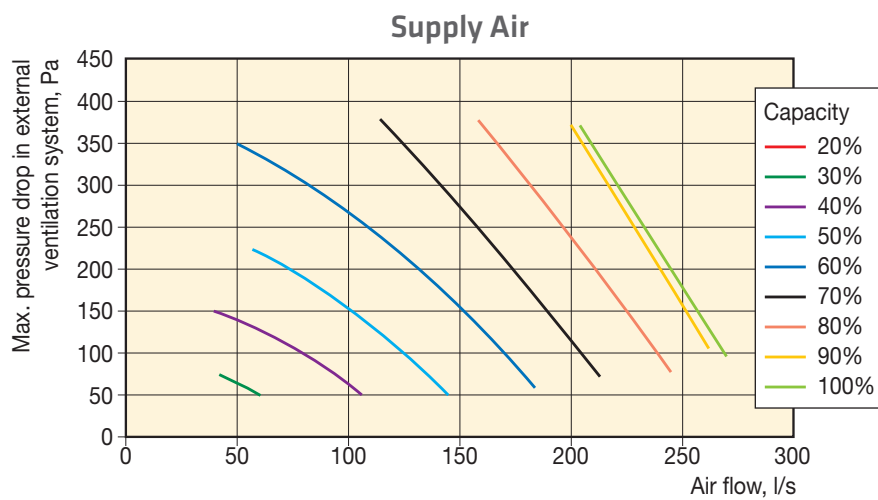
The supply air fan and exhaust air fan are individually set.

All models indicate min. flow at 100 Pa external pressure drop. Max. flow 80% of max. capacity.

*) Calculated on min. air flow 0,35 l/s / m² (acc. to BBR 99: the Swedish Board of Housing, Building and Planning's Building Regulations, "Dwellings, general")

**) Calculated on air flow 7 l/s / person (acc. to BBR 99 - see above - "Min. flow, supply air")

Dimensioning Graph

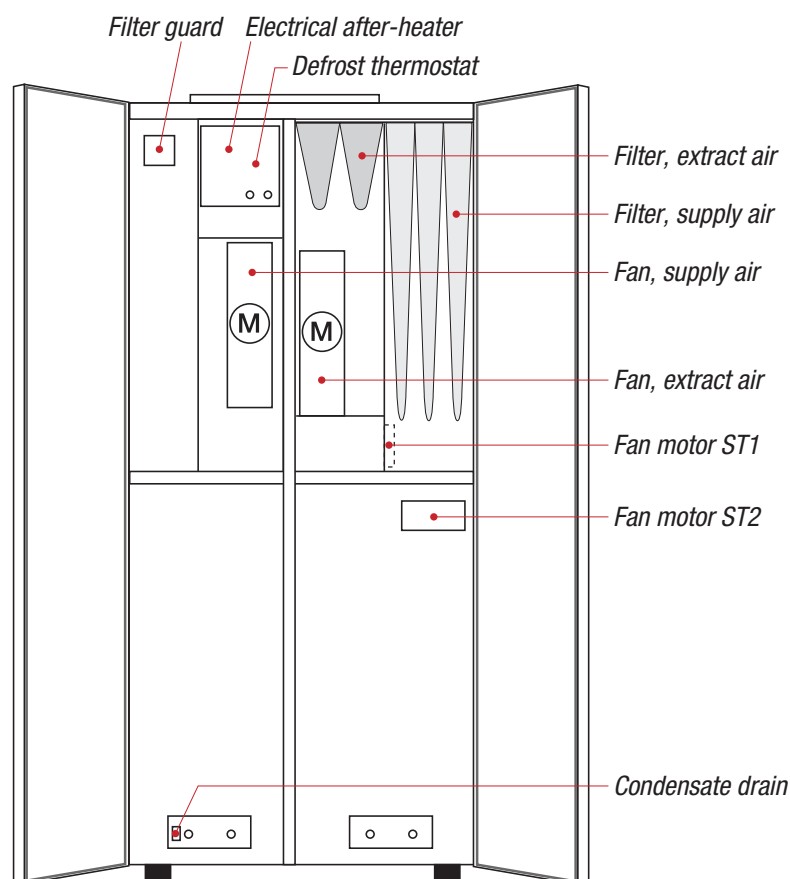


Technical specification

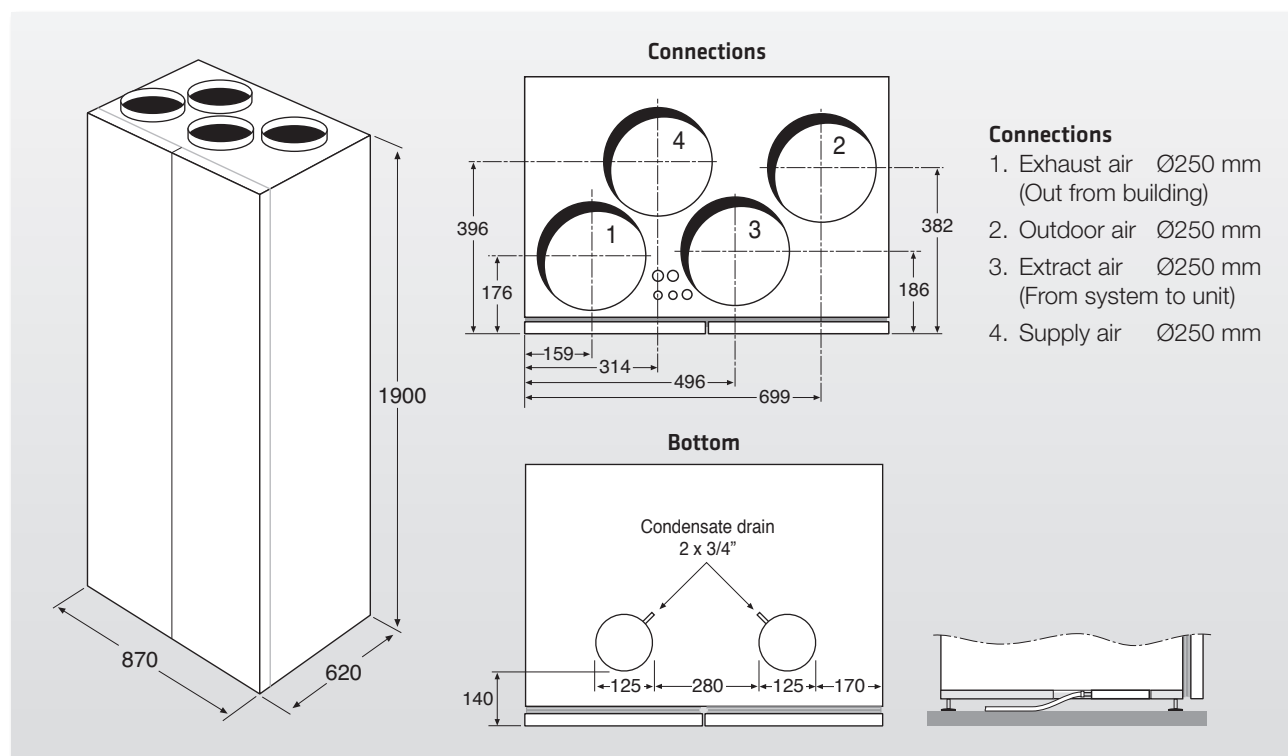
	After-heater - Electrical	After-heater - HW Water temp. 55/45°C
Rated output, unit	3190 W (5690 W optional)	690 W
Rated output, standard heater	2500 W (5000 W optional)	2900 W at 220 l/s
Rated output, fans	2 x 340 W	2 x 340 W
Voltage/Frequency input	3 x 400 V, 50 Hz	230 V, 50 Hz
Fuse	10 A	10 A
Filter, supply air / extract air	Bag ePM1 50%/ Bag Coarse 60%	Bag ePM1 50%/ Bag Coarse 60%
Weight	195 kg	195 kg
Water connection	X	3/8"
Fire classification	A15	A15
Measurements (WxDxH)	870x620x1900 mm	870x620x1900 mm
Duct connections	4 x 250 mm	4 x 250 mm
Condensate drain	3/4"	3/4"

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Dimensions



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Filters

A filter alarm is integrated in the control system. Once a year, a signal lamp indicates that it is time to control/exchange the filters.

New filters can be ordered at www.rec-indovent.se

After-heater (electric or water)

RT1000S-EC-RS is fitted with an electric after-heating battery, 2,5 kW. The afterheater ensures that the supply air temperature does not go below the set temperature. As an optional extra, the AHU may be fitted with a reinforced electric after-heater, 5,0 kW or a water coil, 3,0 kW. If a water coil is used, we recommend that an automatic outdoor air damper is mounted on the outdoor air

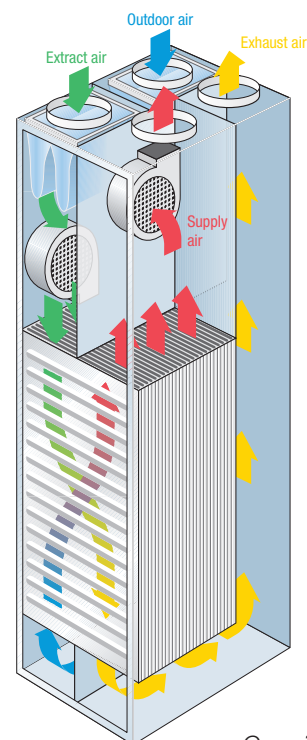
duct, so as to protect the battery against frost damages in case of a possible operational disturbance. When delivered, the AHU is prepared for an electric connection of an outdoor air damper.

Condensate drain

RT400S-EC-RS is fitted with a condensate drain, which should be connected to a drain or fed to a floor drain. If there is no drain to connect to, the AHU may be fitted with a condensation boiler as an optional extra.

By-pass

RT400S-EC-RS is equipped with an automatic summer by-pass. On warm summer days, the control system makes sure cool indoor air is recovered by using cooling recovery.



Overview
of functions



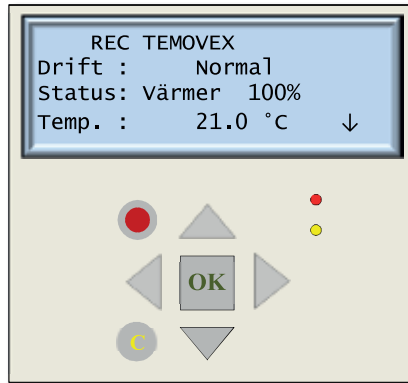
Standard AHU:

- Highly efficient counter-flow heat exchanger
- Built-in after-heater, electric 2,5 kW (continuous regulation by pulses)
- Automatic by-pass with recovery of cool air (continuous regulation)
- Individually adjustable air flows; minimum, normal and maximum
- Supply air regulation
- Filter bags: Coarse 60% (extract air), ePM1 50% (supply air)
- Alarm output
- Power supply 230 V for outdoor air damper
- 4 (digital) inputs for external control
- Modbus or EXOline (RS485)
- Night cooling
- Freely configurable time programs

Optional extras:

- Built-in reinforced after-heater, electric 5,0 kW
- Built-in after-heater, water (incl 2-way valve and 0-10 V valve actuator)
- External cooling coil (incl 2-way valve and 0-10 V valve actuator)
- External reinforced cooling coil (incl 2-way valve and 0-10 V valve actuator)
- Built-in condensation boiler (60W)
- Built-in condensation boiler (240W)
- Outdoor air damper with spring return
- ECO2 Control system for air heating
- Fireplace compensation incl. timer and switch
- Remote panel (with or without display)
- Web connectivity
- Fire function

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 - Single

Contains a temperature sensor and a set-point. The unit is used as a room thermostat, but where you can also shift setpoint +/- 3 C. Analog signals.



Remote panel - Without display

Same features as our Remote panel - Single, but work with serial transfer of data to the AHU.



Remote panel - With display

Remote control with display is the most advanced Remote panel where you can both see different temperatures and set them. You can also adjust the fan speed. The Remote panel has also an "away" button and show a variety of information about the status of the AHU.

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.

REC Indovent AB

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Certified acc. to ISO 9001/14001