

Air Handling Unit

REC Temovex 1500S-EC-RS



- **Compact air handling unit with highly efficient heat recovery**
- **Serves up to 15 apartments or premises like e.g. daycare and offices**

Experts on indoor climate in low-energy houses

Air Handling Unit

RT 1500S-EC-RS



REC Temovex 1500S-EC-RS

- *Suitable as a staircase unit*
 - *Up to 15 apartments and smaller premises*
 - *Compact*
 - *Easy to place*
 - *1,16 m² floor space*
 - *Highly efficient double counter-flow heat exchangers*



Overview

REC Temovex 1500S-EC-RS is a compact air handling unit with highly efficient heat recovery.

The unit may be installed in an office, day-care, small premises, staircases, storage rooms, boiler rooms, broom etc.

RT1500S-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 40 mm insulation between the sheets. 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. By using a counter-flow heat exchanger we ensure that there is no leakage between used air and fresh air. As a result, you get a good operating economy and excellent comfort with a good indoor climate.

RT1500S-EC-RS comes with a plug, which makes installation easy (3-phase battery/water coil single phase).

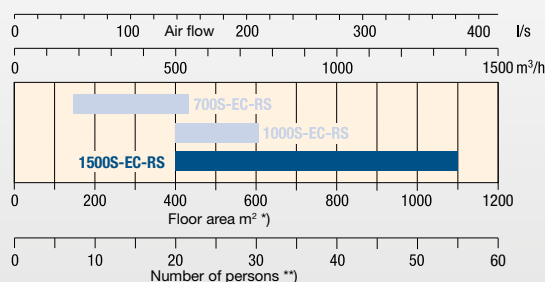
The unit is suitable for premises, day-care, smaller shops but may well be used as a staircase unit for up to 15 apartments.

Based on Swedish regulations, there is a fire function solution where the EA fan is replaced by a firegas extractor on the roof. Please contact REC for more information

Counter-flow heat-exchangers

RT1500S-EC-RS has double counter-flow heat exchangers connected in parallel to achieve a higher efficiency, not just in a specific point, but over a wide flow area.

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

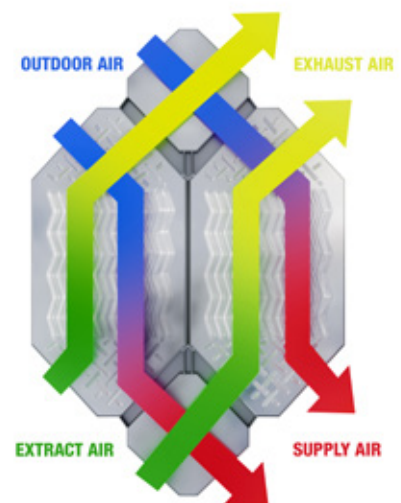


In all units supply air and extract air fans respectively are individually adjustable.

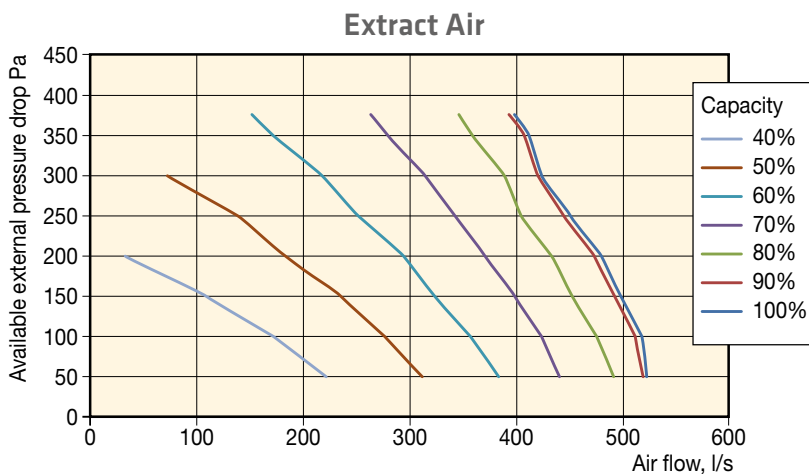
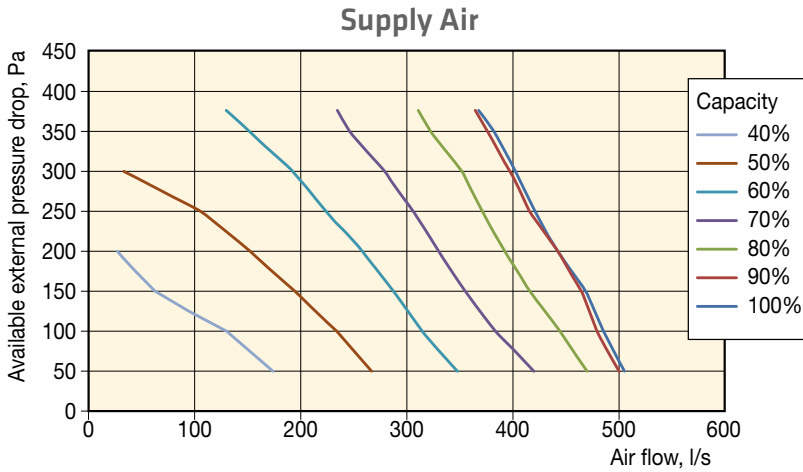
The table shows 80% of max capacity at 100 Pa external pressure.

*) 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 flow, supply air"



Dimensioning graphs

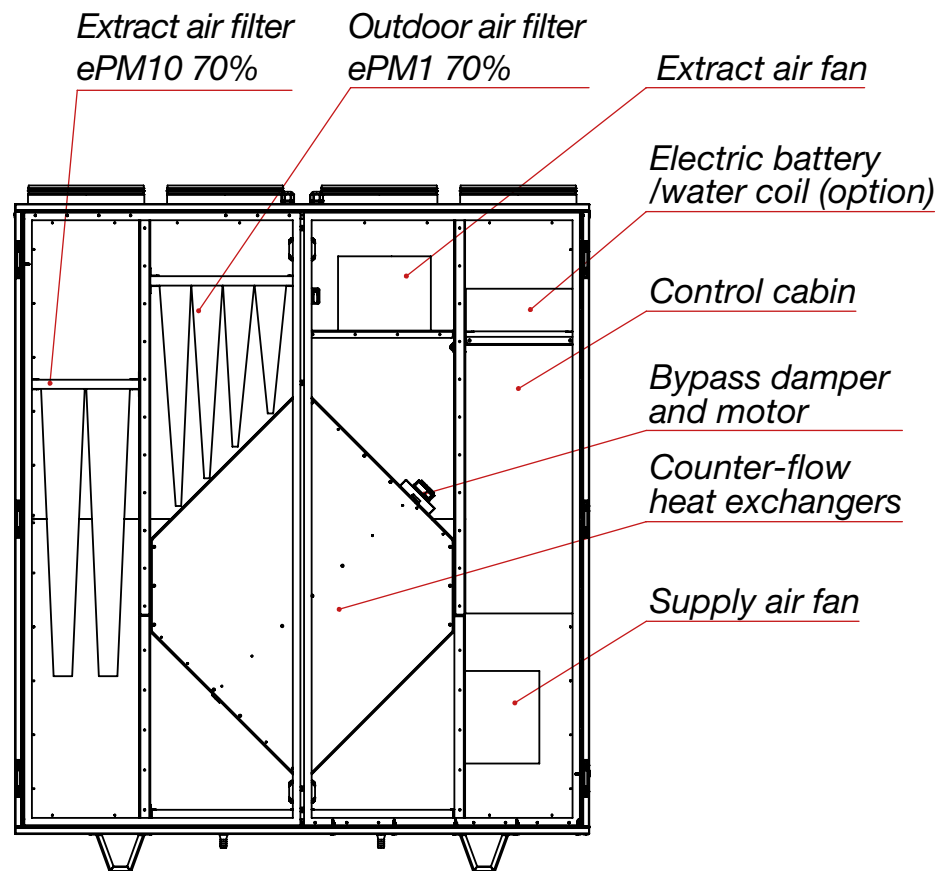


Technical data

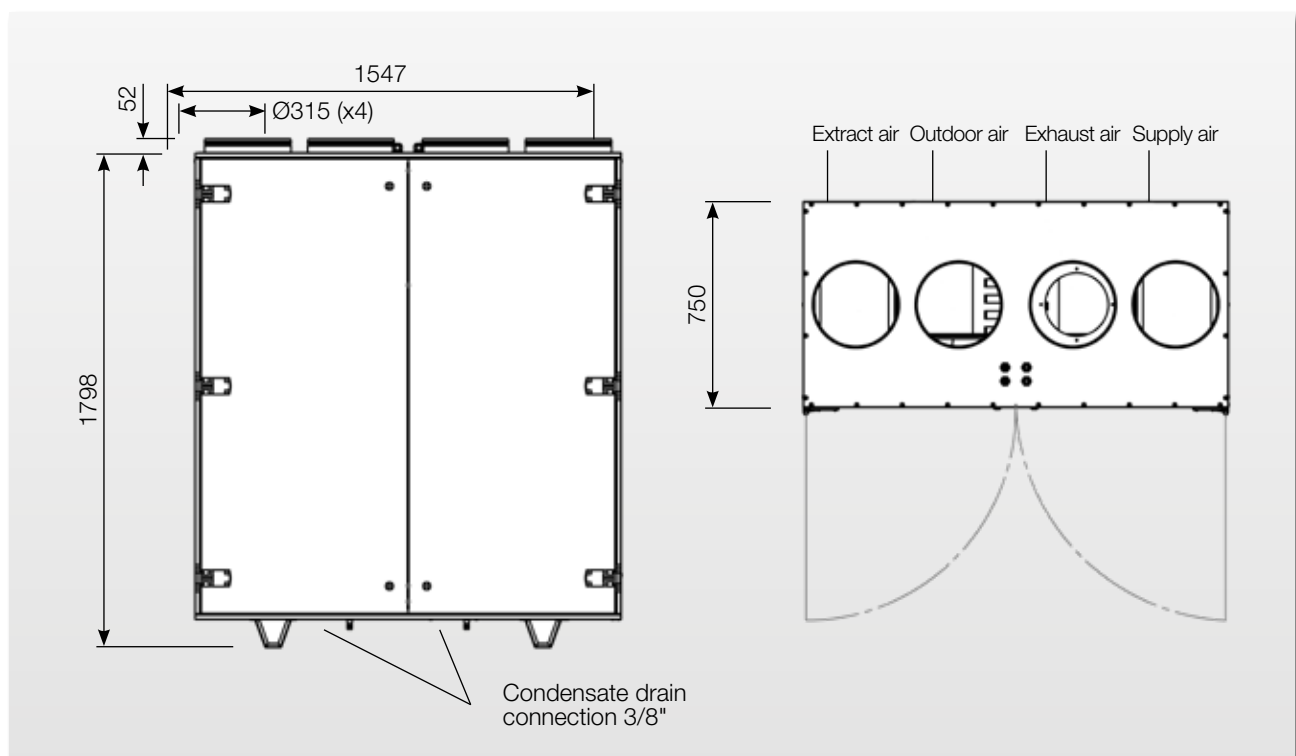
	Standard	Electric heating	Water heating
Rated output electricity	900 W	3400 W	900 W
of which after-heater	–	2500 W	–
of which fans	2 x 450 W	2 x 450 W	2 x 450 W
Therma effect water coil	–	–	3500 W ¹⁾
Voltage / Frequency	230 V, 50 Hz	400 V, 50 Hz	230 V, 50 Hz
Fuse	10 A	3 x 10 A	10 A
Filter TL / FL	Bag ePM1 70% / bag ePM10 70%	Bag ePM1 70% / bag ePM10 70%	Bag ePM1 70% / bag ePM10 70% ^t
Weight	255 kg	255 kg	255 kg
Water connection	–	–	DN15
Fire class	EI30	EI30	EI30
Dimensions (WxDxH)	1547x750x1798 mm	1547x750x1798 mm	1547x750x1798 mm
Duct connections	4 x Ø315 mm	4 x Ø315 mm	4 x Ø315 mm
Condensate drain	3/8"	3/8"	3/8"
Temperature range storage/transport	-20 ... +50°C	-20 ... +50°C	-20 ... +50°C
Operational temperature range	0 ... +40°C	0 ... +40°C	0 ... +40°C

Air Handling Unit

RT 1500S-EC-RS



Dimensions



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By-pass/summer by-pass

RT1500S-EC-RS is equipped with automatic stepless by-pass. The control system recovery for hot summer days.

Fans

RT1500S-EC-RS is equipped with EC fans with external rotor motors. Each fan is individually set, continuous between 0-100% (to dimension use approx. 70-80% of the maximum flow). The motors have integrated overheating protection. The impellers have blades that are bent backwards.

After-heater (electric or water)

The standard version of RT1500S-EC-RS is not fitted with an after-heater. As an option the unit may be fitted with a

stepless electric after-heater battery of 2.5 kW, or a water coil of up to 3.5 kW. The after-heater ensures that the supply air temperature does not go below the set temperature. If a water coil is used, we recommend that an automatic outdoor air damper is mounted on the outdoor air duct, to protect the coils against frost damages in the case of potential malfunctions. The unit is supplied ready for electrical connection of an outdoor air damper.

Filters, exchange intervals

The recommended exchange interval is once a year at least or more often if needed. An indication on the control panel will show when it is time for the filter exchange.

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

Condensate drain

RT1500S-EC-RS is fitted with a condensate drain. This should be connected to the drains or fed to a floor drain.

Control panel

The unit is equipped with a user-friendly control panel. There is an option to buy separate remote panels. The remote panels are supplied in 3 different versions (see image and information on the back of this brochure).



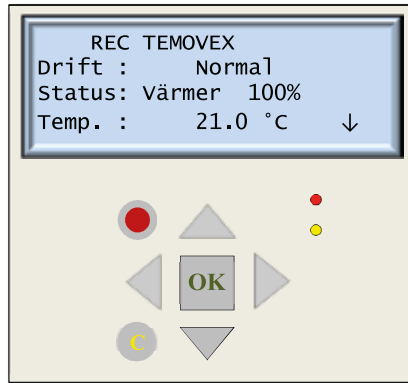
Standard design:

- Highly efficient heat exchangers
- Automatic by-pass with recovery of cool air (Continuous regulation)
- Individually adjustable air flows, minimum, normal, and maximum
- Supply air control
- Filter bags ePM10 70% (extract air), ePM1 70% (supply air)
- Power supply for outdoor extract air damper (230 V)
- Alarm output, sum alarm
- 4 digital inputs for external control
- 4 temperature sensors
- Modbus or EXOline (RS485) included
- Night cooling
- Freely configurable time programs

Option (in addition to Standard):

- Built-in after-heater battery electrical, 2.5 kW. (steplessly regulated)
- Built-in after-heater water coil (incl 2-way valve and 0-10 V valve actuator)
- Outdoor-/extract air damper with spring return
- Remote panel (with or without display)
- Web connection
- Fire function
- VAV (Variable Air Volume)

Control Panel



	Up
	Down
	Right
	Left
	Confirm
	Alarm
	Correct/Undo

	Larmlampa	Flashing	There are one or more unacknowledged alarms.
		Not flashing	There are one or more acknowledged alarms that have not been dealt with.
	Ändringslampa	Flashing	You are in a menu where you may go to the settings menu.
		Not flashing	User may adjust the settings.

Remote Panels (Option)



Remote Panel Simple

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



Remote Panel - 3way

Simple remote panel for easy connection of normal mode, minimum mode and forced mode.



Remote Panel With display

Remote panel with display is the most advanced remote panel, where you can both see different temperatures and set them. You may also set the fan speeds. In addition it has an "away" button and it shows various information about the unit status.

Medlem i

 **Svensk Ventilation**
Bransch i samverkan

REC Indovent reserves the right to make changes in the specification and design without prior notification. .

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