

REVENT RDS 500 - 800

Decentralized ventilation unit for school buildings, offices, commercial spaces



Technical and construction features

REVENT RDS 500 - 800 is composed of 2 models, for ceiling or wall installation, these units have a special static air-air recuperator with very high efficiency countercurrent flows in polystyrene, complete with motorized by-pass system.

REVENT RDS 500 - 800 has been designed for installations in school buildings or in the tertiary sector or in any case for the energy requalification of existing replacement building assets.

Using the same unit, both vertical and horizontal installation are possible.

The condensation drain will always be in the lower part, without the need for any additional intervention.

MAIN CHARACTERISTICS OF THE SYSTEM

Unit with special static air-air recuperator with very high efficiency countercurrent flows in polystyrene, complete with motorized by-pass system.

Use:

For installations in school buildings or in the tertiary sector or in any case for the energy requalification of existing replacement building assets. Using the same unit, both vertical and horizontal installation are possible.

The condensation drain will always be in the lower part, without the need for any additional intervention.

Electric fans:

Free-impeller fans in polyamide and reinforced glass fiber, directly coupled to an EC electric motor. Power supply 230V/1/50Hz.

Air filtration:

Filtration sections made up of compact filters, with low pressure drop polypropylene media, removable via doors, in efficiency class ISO 16890 with ePM1=70% (F7 of EN779) in the renewal flow and ePM10=50% (G4) in expulsion.

Air pressure switches:

Integrated dirty filter signalling pressure switches.

Structure:

Self-supporting galvanised sheet metal structure (externally pre-painted), internally insulated in polyester fibre; double panel front and side structure.

Connections:

Air renewal and expulsion collars to be connected to the wall (FOR VERTICAL INSTALLATION) or arranged on the "bottom" (FOR HORIZONTAL INSTALLATION).

Heat recovery by-pass:

Motorized heat recovery by-pass system, automatically activated by the electronic control to ensure free cooling from the outside air when convenient.

Electrical panel:

Built-in electrical panel with electronic board for controlling the ventilation and free-cooling functions.

The internal electronic control is complete with 2 probes (ambient air temperature probe and external air temperature probe) on board for managing ventilation, free-cooling and free-heating.

Regulation:

Regulation via control panel.

Possibility of regulating fan speed via CO2 probe or air humidity probe.

Possible integration with existing heating or cooling systems.



ECO
DESIGN



HEAT RECOVERY
HIGH EFFICIENCY



NON-CHANNELED
APPLICATIONS



INSTALLATION
HORIZ/VERT



INSTALLATION
PLUG AND PLAY



FANS EC



BY PASS SYSTEM
MOTORIZED



ENERGY
CLASS A



REVERSAL OF FLOWS
IN THE BUILDING PLAN



VERY FLAT
UNIT

Model	Air flow m ³ /h	Winter thermal efficiency	Code	€
REVENT RDS 500	500	85,4%	37010600	5.395,00
REVENT RDS 800	780	85,2%	37010601	6.424,00

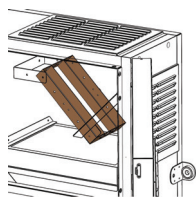
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REVENT RDS 500 - 800 accessories

Code

€



Electric Pre-Heating, the resistance, complete with safety thermostats and control relays, is of the filament type to contain pressure drops.

mod. 500 (1,0 kW)

37010602 591,00

mod. 800 (1,5 kW)

37010603 692,00



Anodized aluminum delivery nozzle with double row of adjustable fins

mod. 500

37010604 217,00

mod. 800

37010605 236,00



Anti-vibration rubber support feet for vertical installation, with threaded stem for height adjustment

mod. 500

37010606 140,00

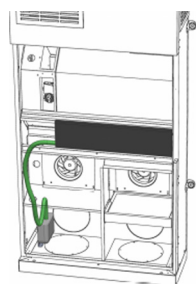
mod. 800

37010607 159,00



BIOXIGEN system for air sanitization in work environments

37010608 451,00



Nebulizer of condensation expelled through the air flow without causing drips.

37010609 591,00



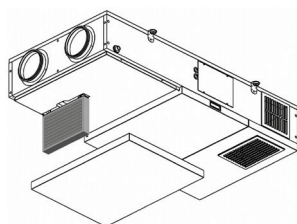
Intake/expulsion duct kit with external galvanized steel grilles equipped with spring and flap recall

mod. 500

37010610 405,00

mod. 800

37010611 471,00



ePM1 80% renewal filter, is mounted in place of the ePM1 80% cell in the renewal air flow allowing for better air quality

mod. 500

37010612 77,00

mod. 800

37010613 89,00



Unit control panel with LCD display

37010615 311,00

CONTROL PANEL with LCD display unit ready to be connected to the MODBUS RTU connection port

37010616 393,00



Inlet and outlet probes allow adequate management of active temperature regulation devices Feedback

37010614 42,00

Wall mounted CO₂ probe suitable for controlling ventilation based on changes in humidity in the environment

37010617 624,00

Wall humidity probe, suitable for controlling ventilation based on changes in humidity in the environment

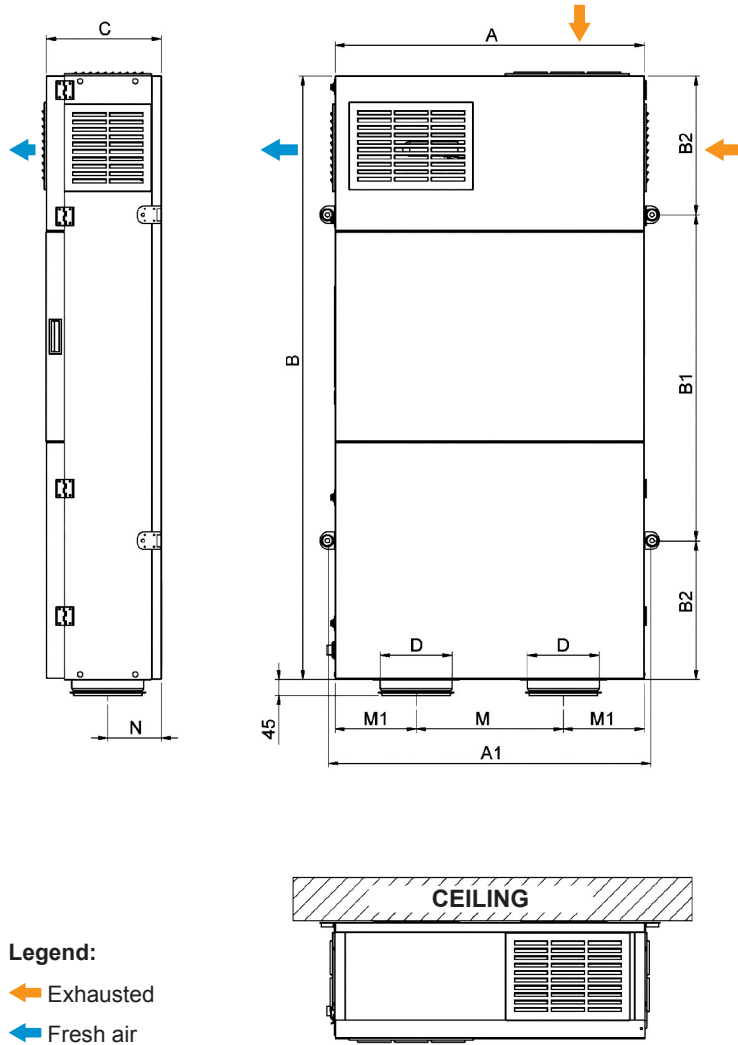
37010618 311,00

REVENT RDS 500 - 800

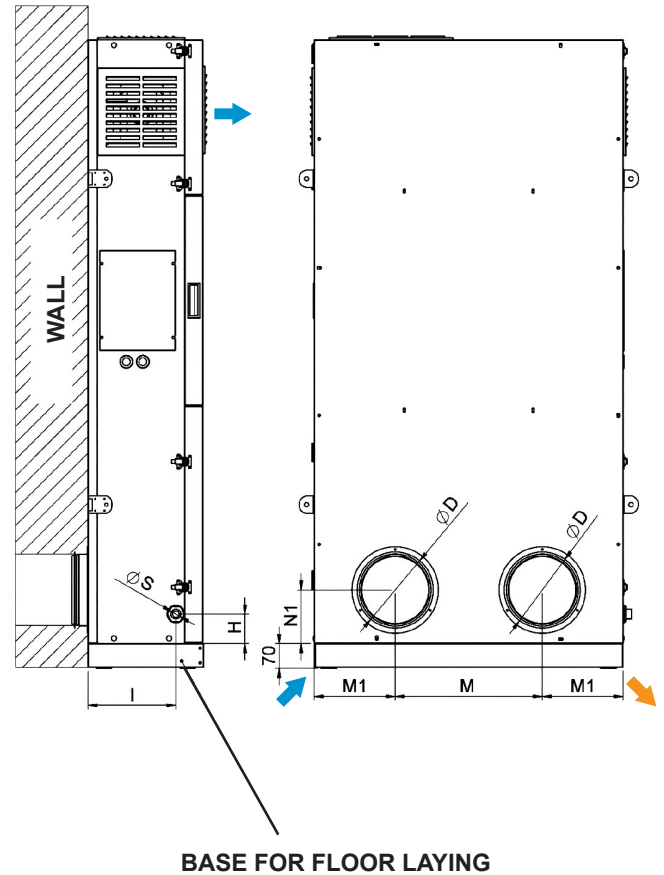
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Dimensions and weights REVENT RDS 500 - 800

CEILING MOUNTING CONFIGURATION



WALL MOUNTING CONFIGURATION REAR VIEW



Model	U.M.	REVENT RDS 500	REVENT RDS 800
A	mm	840	1220
A1	mm	875	1255
B	mm	1635	1735
B1	mm	855	835
B2	mm	375	450
C	mm	310	340
I	mm	240	265
M	mm	400	700
M1	mm	220	260
N	mm	145	165
N1	mm	145	145
ØD	mm	195	195
ØS		3/4"M	3/4"M
Weight	Kg	110	180

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Technical data table REVENT RDS 500 - 800

Model	U.M.	REV. RDS 500	REV. RDS 800
Nominal air flow	m³/h	500	780
Useful static pressure	Pa	10	10
Electrical power supply		230V/1/50Hz	
Total nominal absorbed power	W	196	340
Total nominal absorbed current	A	1,5	2,6
Maximum absorbed electrical power	W	238	476
Maximum total absorbed current	A	1,7	3,4

OPERATIONAL LIMITS

External temperature-humidity limit conditions	°C / %	-5 +45 °C / 5 95%
External temperature-humidity limit conditions with electric pre-heating	°C / %	-15 +45 °C / 5 95%
Internal temperature-humidity limit conditions	°C / %	+10 +35 °C / 10 90%

HEAT RECOVERY UNIT

Winter thermal efficiency ⁽¹⁾	%	85,4	85,2
Supply air temperature ⁽¹⁾	°C	16,3	16,2
Summer thermal efficiency ⁽²⁾	%	80,1	80,0
Delivery air temperature ⁽²⁾	°C	27,2	27,2

ECODESIGN SPECIFIC DATA ⁽³⁾

Declared type		RVU - BVU non canalizzata	
Installed or prescribed drive type		>3 Multispeed	>3 Multispeed
HRS recovery system type		Recuperative	Recuperative
SEC Class Temperate Climate		A	A
Specific energy consumption temperate climate	kWh/(m²a)	-36,5	-36,1
SEC class cold climate		A+	A+
Specific energy consumption cold climate	kWh/(m²a)	-73,0	-72,5
SEC class hot climate		E	E
Specific energy consumption hot climate	kWh/(m²a)	-12,9	-12,6
Dry thermal efficiency of the system	%	83,0	82,5
Reference air flow rate	m³/s	0,097	0,152
Specific absorbed power	W/(m³/h)	0,246	0,242
Reference pressure	Pa	10	10
Control factor and type	Temporizzatore	0,95	0,95
Annual electricity consumption per 100 m2	kWh/a	323	333
Annual heating savings temperate climate per 100 m2	kWh/a	4386	4371
Annual heating savings cold climate per 100 m2	kWh/a	8580	8551
Annual heating savings hot climate per 100 m2	kWh/a	1984	1976
Maximum external leakage of the casing	%	< 4,5	< 4,8
Maximum internal leakage or residual flow	%	< 5,3	< 5,5
Sound power level radiated by the casing	dB(A)	37	39
Sensitivity of the air flow to pressure variations at +20 Pa and -20 Pa	%)	4,4	6,7

(1) External air -5 °C 80% RH; ambient air 20 °C 50% RH

(2) External air 32 °C 50% RH; ambient air 26 °C 50% RH

(3) According to EU regulation 1253/2014: at the reference flow rate equal to 70% of the maximum, at 10 Pa useful