REVENT PRH - OXYVENT PRH

Heat recovery and air exchange system for horizontal and vertical installation

Optional user interface

ERP 2018 COMPLIANT

BIOXGEN SYSTEM (MOD. OXIVENT)

DUCTED UNIT

AIR FILTRATION

AIR RENEWAL

EC INVERTER FANS

ENERGY SAVING

HIGH EFFICIENCY HEAT RECOVERY

ENERGY RECOVERY

COMPACT DIMENSIONS

Technical and construction characteristics

REVENT PRH

The REVENT PRH heat recovery unit extracts stale air and introduces fresh air with high efficiency heat recovery for residential applications. It is possible to integrate REVENT PRH units with existing heating and air conditioning systems.

The REVENT PRH recovery units are the ideal solution to facilitate installations of any type, allowing easy handling and reducing assembly times.

The range is made up of four models for horizontal ceiling or vertical wall installation, consisting of:

- Casing and lid in expanded polypropylene equipped with metal sheets
  external reinforcements for sealing the elements and for fixing to the ceiling/wall; internal aerodynamic shaping of the air circuits designed to minimize pressure drops and noises.
- Synthetic filters in efficiency class ISO 16890 ePM10 50% (optional and in addition, compact ePM1 70% polypropylene filters low pressure drop).
- Very high counter-current air-to-air static recuperator efficiency in polystyrene complete with motorized bypass system.
- Free-running fans in polyamide and reinforced glass fibre directly coupled to an EC electric motor.
- Circular aeraulic connections in plastic material equipped with additional sealing gasket.
- Recovery unit complete with motorized partial by-pass system
- Electronic control complete with NTC probes and user interface
- User interface and wireless remote sensors.

OXYVENT PRH

The OXYVENT PRH unit differs from the REVENT PRH series due to the presence of the Bioxigen® sanitization system with channel module. Bioxigen® is the only ionization technology to have obtained the validation of the TÜV-PROFI CERT effectiveness tests.

Model	Air flow m³/h	Winter thermal efficiency	Code	€
REVENT PRH 150	**170**	**90,2%**	**75800853**	**2.340,00**
REVENT PRH 280	**260**	**90,0%**	**75800854**	**2.700,00**
OXYVENT PRH 150	**170**	**90,2%**	**75800855**	**2.840,00**
OXYVENT PRH 280	**260**	**90,0%**	**75800856**	**3.200,00**

Accessories REVENT PRH - OXYVENT PRH

PRE/POST electric heating — **mod. PRE 150 - 280** — **75800857** — **568,00**
PRE/POST electric heating — **mod. POST 150 - 280** — **75800858** — **568,00**

POST water cooling/heating coil — **75800859** — **604,00**

Valve 2 ways on-off — **75800860** — **146,00**

Valve 3 ways modulant — **75800861** — **440,00**

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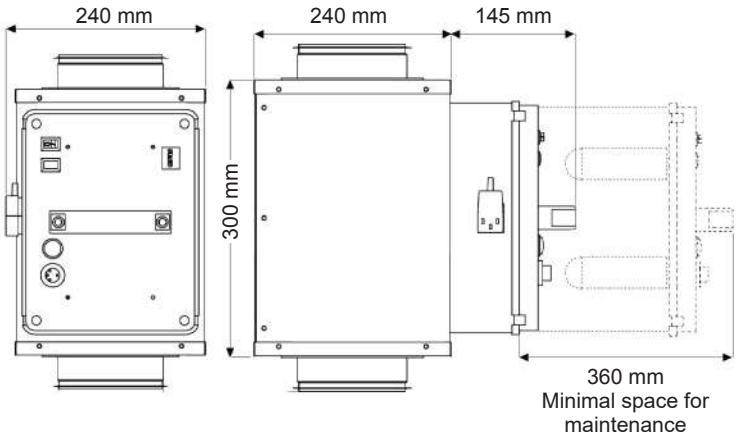
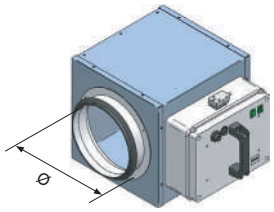
Accessories REVENT PRH - OXYVENT PRH			Code	€
	Circular channel silencer		**75800864**	**124,00**
	Compact filter ePM1 e70%	**mod. 150** **mod. 280**	**75800862** **75800863**	**76,00** **88,00**
	Electronic wall panel for controlling the unit PCUS		**75800897**	**310,00**
	Electronic wall panel for control of the unit complete with Modbus port for remote management PCUSM		**75810021**	**392,00**
	Wall-mounted CO2 probe for monitoring ventilation in operation of the quality of the ambient air		**75800867**	**1.142,00**
	Wall-mounted humidity probe for ventilation control based on the humidity detected in the environment		**75800868**	**310,00**
	Duct probes for electronic measurement of the air intake and exhaust temperature		**75810020**	**82,00**

Technical characteristics of the Bioxigen® module as standard in the OXYVENT PRH models





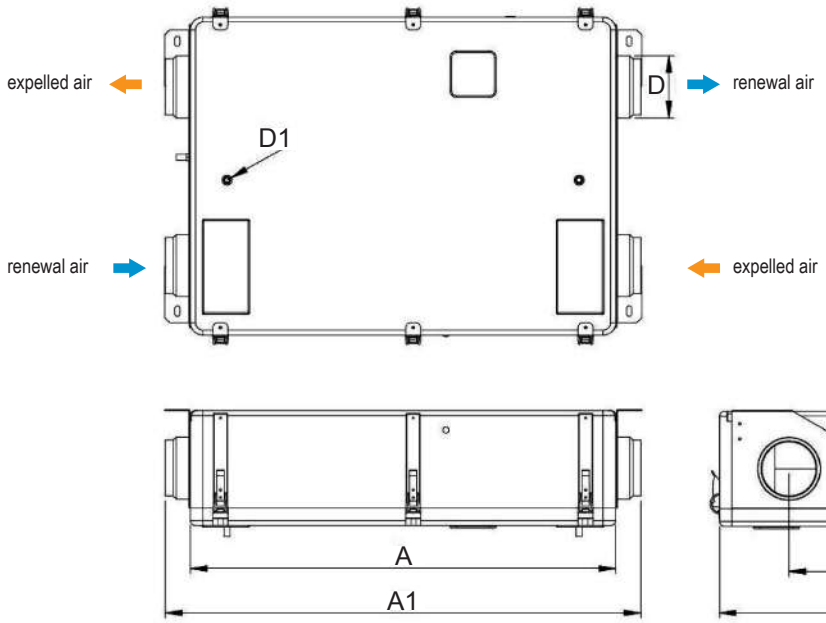
Model	Ø mm
150	125
280	125

Stainless steel duct module, active when the unit is turned on, capable of achieving effective antibacterial removal, ensuring perfect sanitization of the treated air.
It is inserted into the external/inlet air circuit, in correspondence with the air delivery channel. The insertion of the module does not induce appreciable pressure losses; take into account a maximum electrical power absorbed of 20 W.
BIOX AIR technology drastically reduces the microbial load in the air and on surfaces, reduces fine dust and maintains the correct ionic balance thanks to the special quartz condenser.
In particular, the benefits are due to the active ionization process, the condenser triggers controlled oxidation-reduction reactions on volatile organic compounds (VOCs), thus reducing airborne pollutants, furthermore the oxygen ions generated by the oscillating electric field can reach all points, producing a effect microbicide in all areas where air can pass.
The developments of BIOX AIR technology were conducted in collaboration with important universities and research institutes, testing its effects even in critical conditions.
Modern bioclimatology has clearly demonstrated that the ideal condition of environmental psychophysical well-being for human beings corresponds to an ionic concentration of 1800 small ions per cm3 of air, divided between positive and negative with a ratio of 80 to 100. In indoor environments , where the natural ionization processes catalyzed by sunlight cannot take place and human activity causes its negative effects to be felt, it is essential to restore the ionic balance artificially. The BIOX AIR system, by releasing calibrated quantities of negative oxygen ions, allows you to re-establish the correct ionic balance of the air, a necessary condition for recreating an optimal habitat.

REVENT PRH - OXYVENT PRH

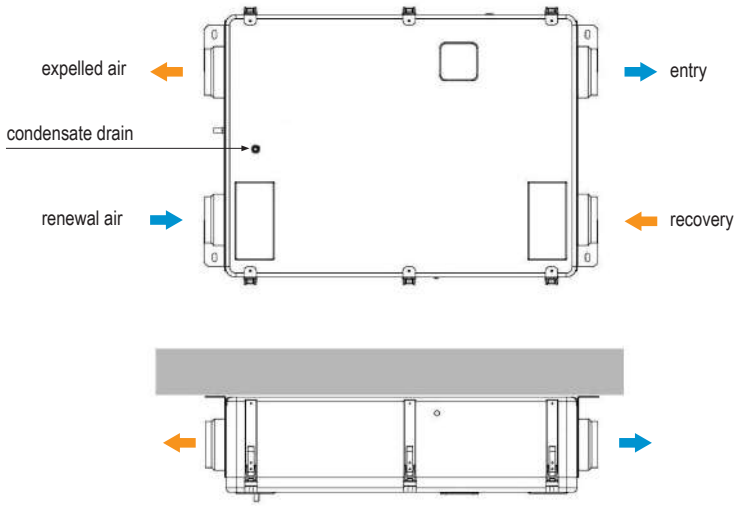
Heat recovery and air exchange system for horizontal and vertical installation

Dimensions REVENT PRH - OXYVENT PRH



Model	U.M.	150	280
A	mm	874	874
A1	mm	972	972
B	mm	240	300
C	mm	655	655
C1	mm	360	360
Ø D	mm	125	125
D1	mm	16	16
Weight	Kg	12	17

Configuration for horizontal ceiling installation REVENT PRH - OXYVENT PRH

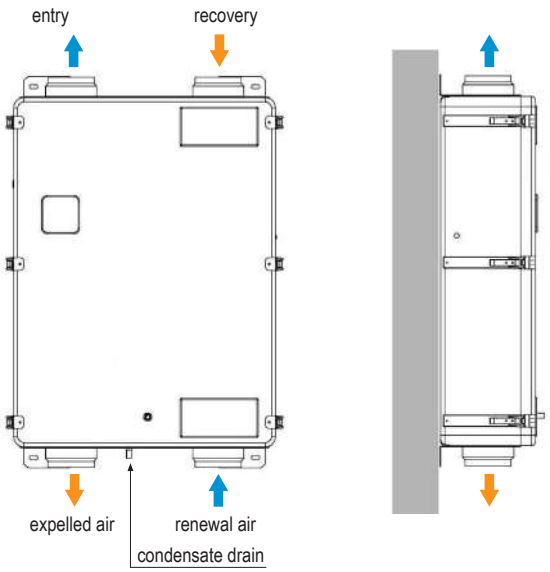


Legend:

expelled air

renewal air

Configurazione per installazione verticale a parete REVENT PRH - OXYVENT PRH



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Technical data table REVENT PRH - OXYVENT PRH

Model	U.M.	**150**	**280**
Nominal air flow	m^3/h	170	260
Max useful static pressure at nominal flow rate	Pa	150	170
Power supply		230V/1/50Hz	
Total nominal absorbed power	W	58	
Total nominal current absorption	A	0,6	0,7
Electrical power absorbed max	W	136	172
Total max absorbed current	A	1,0	1,2
OPERATIONAL LIMITS			
External temperature - humidity limit conditions	°C / %	-5 +45 / 5 ÷ 95	
External temperature - humidity limit conditions (with electric pre-heating battery accessory)	°C / %	-15 +45 / 5 ÷ 95	
Internal temperature - humidity limit conditions	°C / %	+10 +35 / 10 ÷ 90	
HEAT RECOVERY			
Winter thermal efficiency (1)	%	90,2	90,0
Delivery air temperature (1)	°C	17,5	17,4
Summer thermal efficiency (2)	%	84,2	83,9
Delivery air temperature (2)	°C	26,9	27,0
SPECIFIC DATA ECODESIGN (3)			
Declared typology		RVU - BVU ductable	
Type of drive installed and prescribed		>3 Multispeed	
Recovery system type HRS		Recuperative	
SEC class temperate climate		A	
Specific energy saving in temperate climate	$kWh(m^2a)$	34,5	34,3
SEC class cold climate		A+	
Specific energy saving in cold climate	$kWh(m^2a)$	71,7	70,8
SEC class warm climate		E	
Specific energy saving in hot climate	$kWh(m^2a)$	10,6	10,7
Dry thermal efficiency of the system	%	85,0	83,0
Reference air flow	m^3/s	0,033	0,051
Specific absorbed power	$W(m^3/h)$	0,336	0,308
Reference pressure	Pa	50	
Control factor and typology	Timer	0,95	
Annual electricity consumption per 100 m2	kWh/a	4,25	4,11
Annual heating savings in temperate climates	kWh	44,5	43,9
Annual heating savings in cold climates	kWh	87,0	85,8
Annual heating savings in hot climates	kWh	21,0	19,8
Maximum external leakage of the casing	%	< 3,8	
Maximum internal leakage or residual flow	%	< 3	
Sound power level radiated by the enclosure (4)	dB(A)	39	43

(1) Outdoor air 5 °C, RH 80%, ambient air 20 °C, RH 50%
(2) Outdoor air 32°C, RH 50%, ambient air 26°C, RH 50%
(3) According to EU regulation 1253/2014: at the reference flow rate equal to 70% of the maximum, at 50 Pa useful
(4) LpA at 1.5 meters distance in free field