

REVENT MRN - OXYVENT MRN

Heat recovery and air exchange system for vertical installation



Optional user interface



ERP 2018 COMPLIANT



BIOXIGEN SYSTEM (MOD. OXYVENT)



DUCTED UNIT



AIR FILTRATION



AIR RENEWAL



EC INVERTER FANS



ENERGY SAVING



HIGH EFFICIENCY HEAT RECOVERY



ENERGY RECOVERY



COMPACT DIMENSIONS

Technical and construction characteristics

REVENT MRN

The REVENT MRN heat recovery unit extracts stale air and introduces fresh air with very high efficiency heat recovery for residential and commercial applications with moderate air exchange needs.

The REVENT MRN heat recovery unit can be integrated with existing heating and air conditioning systems. REVENT MRN is the suitable solution for installation in environments such as laundries, cellars, technical rooms in general, with vertical connections to the ducts.

The range for vertical floor or wall installation consists of:

- Casing and lid in high density expanded polypropylene; internal aerodynamic shaping of the air circuits suitable for minimize pressure drops and noises.
- Filters in efficiency class ISO 16890 ePM1 70% in polypropylene with low pressure drop.
- High efficiency counter-current air-to-air static recuperator in polystyrene, complete with motorized by-pass system (total for 350, 500 and 600).
- Free-running fans in polyamide and reinforced glass fibre directly coupled to an EC electric motor.
- Reversible upper aeraulic connections between room side and external side.
- Electronic control complete with temperature probes and user interface; integrated thermal by-pass.
- OXYVENT MRN wireless remote user interface and optional sensors

OXYVENT differs from the REVENT 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 m ³ /h	Winter thermal efficiency	Code	€
REVENT MRN 150	152	87,2%	75800874	2.600,00
REVENT MRN 250	250	87,0%	75800876	3.070,00
REVENT MRN 350	352	85,7%	75800877	3.170,00
REVENT MRN 500	500	88,2%	75800879	3.900,00
REVENT MRN 600	610	84,8%	75800880	4.040,00
OXYVENT MRN 150	152	87,2%	75800881	3.100,00
OXYVENT MRN 250	250	87,0%	75800883	3.570,00
OXYVENT MRN 350	352	85,7%	75800884	3.860,00
OXYVENT MRN 500	500	88,2%	75800886	4.660,00
OXYVENT MRN 600	610	84,8%	75800887	5.090,00

Accessories REVENT MRN - OXYVENT MRN



PRE/POST electric heating

mod. PRE 150 - 250	75800857	568,00
mod. PRE 350	75800888	686,00
mod. PRE 500 - 600	75800889	702,00
mod. POST 150 - 250	75800858	568,00
mod. POST 350	75800890	686,00
mod. POST 500 - 600	75800891	702,00



Battery POST water cooling/heating

mod. 150 - 250	75800859	604,00
mod. 350	75800892	710,00
mod. 500 - 600	75800893	744,00

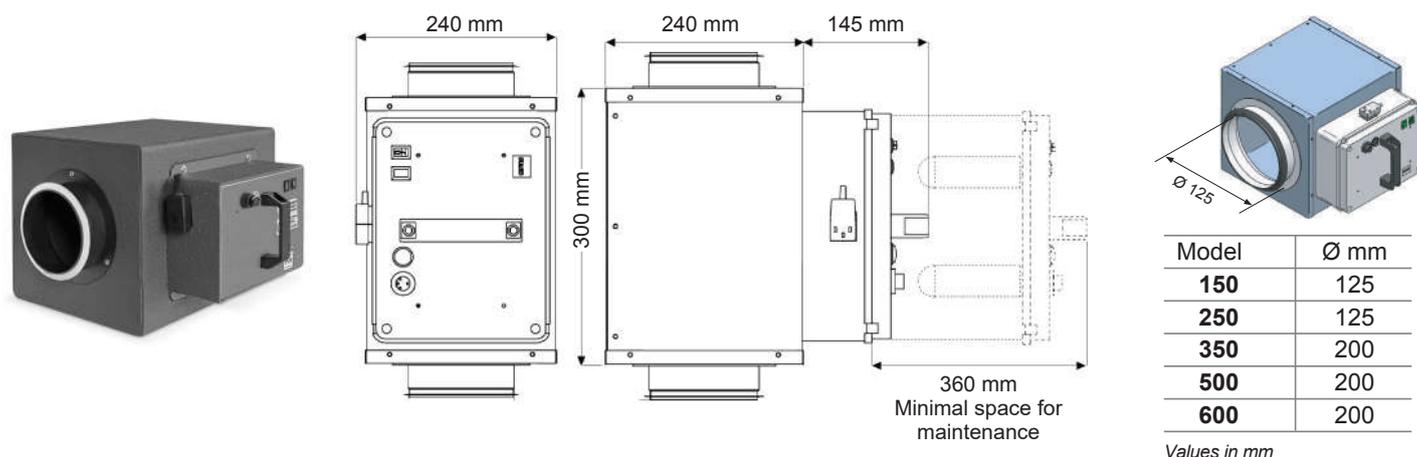
REVENT MRN - OXYVENT MRN

Heat recovery and air exchange system for vertical installation

Accessories REVENT MRN - OXYVENT MRN

		Code	€
	2-way valve with on-off servomotor	75800860	146,00
	3-way valve with modulating servomotor	75800861	440,00
	Circular channel silencer	mod. 150 - 250	75800864 124,00
		mod. 350 - 600	75800894 194,00
	Electronic wall panel for controlling the PCUS unit	75800897	310,00
	Electronic wall panel for control of the unit complete with Modbus port for PCUSM remote management	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 features Bioxigen® module as standard in OXYVENT MRN models



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. 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, as well as the oxygen ions generated by the electric field

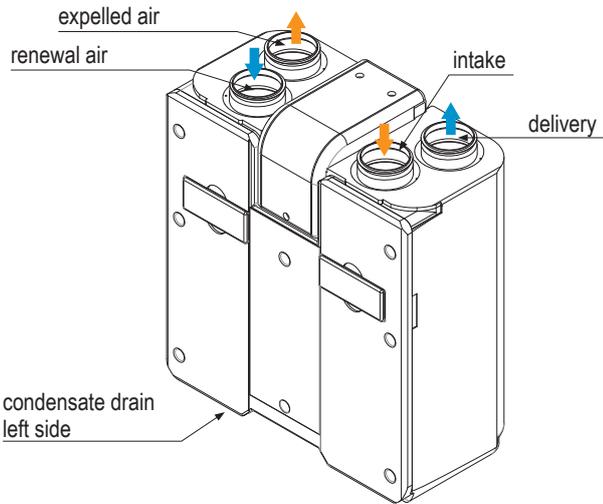
oscillating can reach all points, producing a microbicidal effect in all areas where air can pass. Modern bioclimatology has clearly demonstrated that the ideal condition of environmental psychophysical well-being for human beings corresponds to an ionic concentration of 1800 small ions per cm³ of air, 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 allows you to re-establish the correct ionic balance.

REVENT MRN - OXYVENT MRN

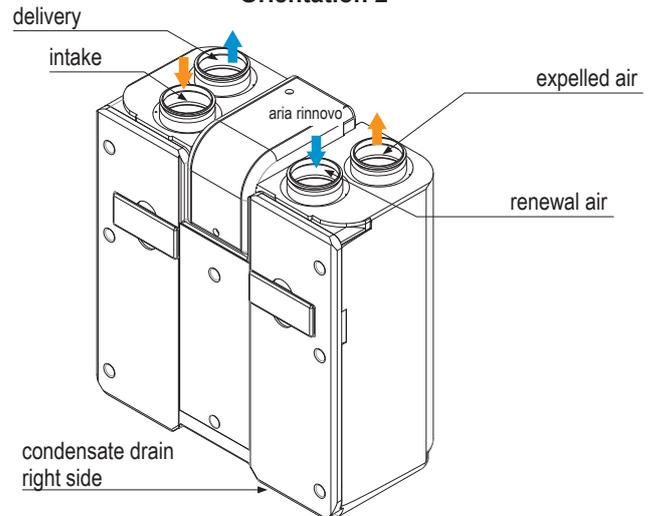
Heat recovery and air exchange system for vertical installation

Vertical installation configuration REVENT MRN - OXYVENT MRN 150 - 250

Guideline 1 Supply standards

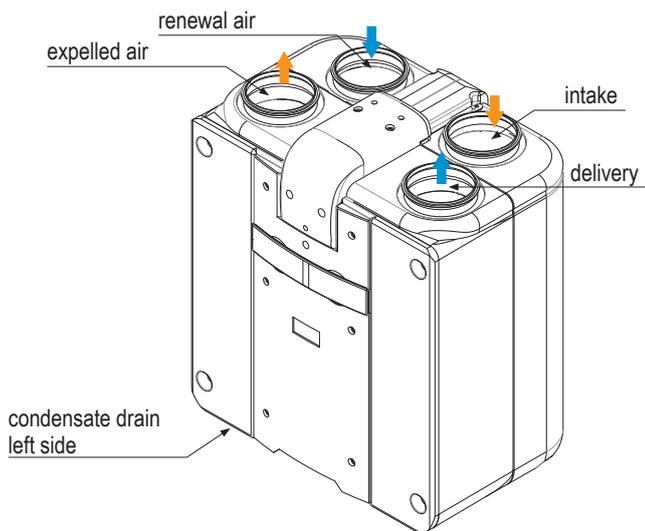


Orientation 2

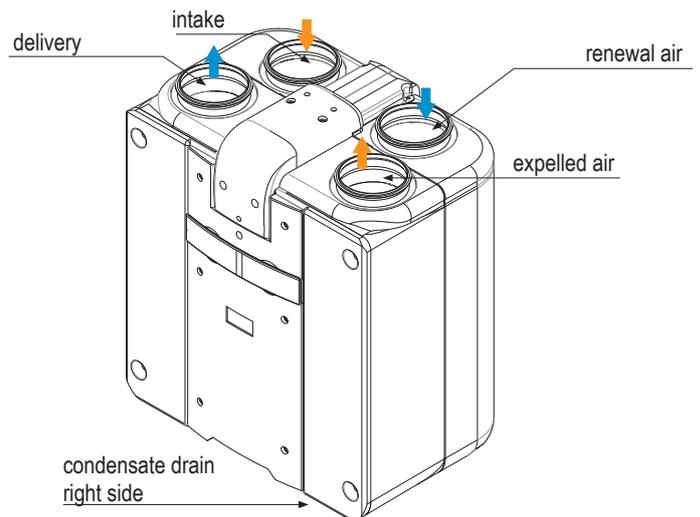


Configurazione per installazione verticale REVENT MRN - OXYVENT MRN 350 - 500 - 600

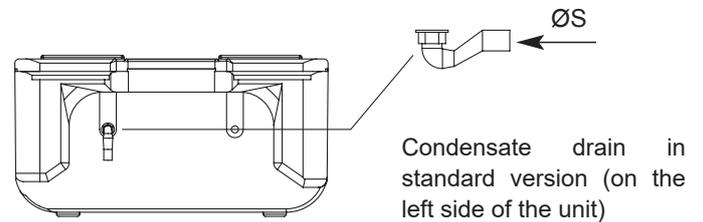
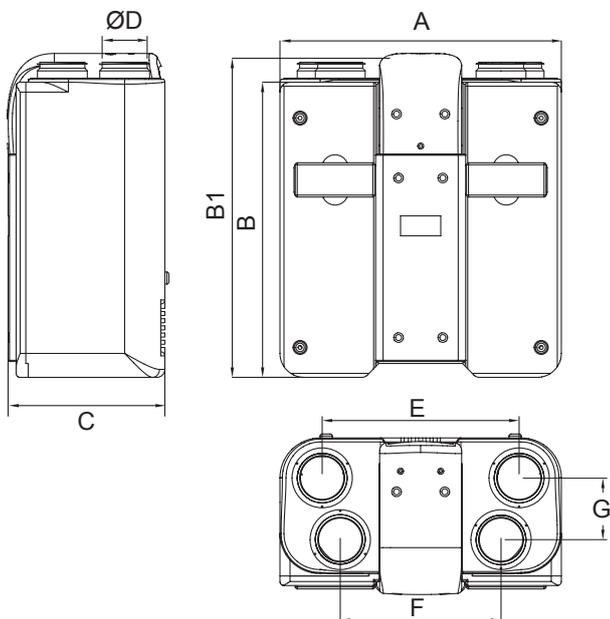
Guideline 1 Supply standards



Orientation 2



Dimensions REVENT MRN 150-250-350-500-600 - OXYVENT MRN 150-250-350-500-600



Model	U.M.	150	250	350	500	600
A	mm	700	700	905	905	905
B	mm	740	740	970	970	970
B1	mm	800	800	1030	1030	1030
C	mm	390	390	600	600	600
E	mm	490	490	418	418	418
F	mm	400	400	600	600	600
G	mm	155	155	265	265	265
ØD	mm	125	125	200	200	200
ØS	mm	20	20	20	20	20
Weight	Kg	15	18	28	30	35

REVENT MRN - OXYVENT MRN

Heat recovery and air exchange system for vertical installation

Technical data table REVENT MRN - OXYVENT MRN

Model	U.M.	150	250	350	500	600
Nominal air flow	m ³ /h	152	250	352	500	610
Max useful static pressure at nominal flow rate	Pa	100	100	100	100	100
Power supply		230V/1/50Hz				
Total nominal absorbed power	W	54	58	58	86	153
Total nominal current absorption	A	0,6	1,3	1,3	1,7	1,3
Electrical power absorbed max	W	136	136	196	196	340
Total max absorbed current	A	1,3	1,3	1,7	1,7	3,4

OPERATIONAL LIMITS

External temperature - humidity limit conditions	°C / %	-5 +45 / 5 ÷ 95				
<i>External temperature - humidity limit conditions (with electric pre-heating battery accessory)</i>	°C / %	-15 +45 / 5 ÷ 95				
Internal temperature - humidity limit conditions	°C / %	+10 +35 / 10 ÷ 90				

HEAT RECOVERY

Winter thermal efficiency (1)	%	87,2	87,0	85,7	88,2	84,8
Delivery air temperature (1)	°C	17,0	22,0	16,4	17,0	16,2
Summer thermal efficiency (2)	%	82,4	79,9	80,4	81,0	79,2
Delivery air temperature (2)	°C	27,1	27,2	27,2	27,1	27,2

SPECIFIC DATA ECODESIGN (3)

Declared typology		RVU - BVU ducted				
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 ² a)	35,4	35,1	36,9	38,7	35,2
SEC class cold climate		A+				
Specific energy saving in cold climate	kWh(m ² a)	72,6	70,7	73,7	76,1	71,6
SEC class warm climate		E				
Specific energy saving in hot climate	kWh(m ² a)	11,4	10,5	13,3	14,7	11,7
Dry thermal efficiency of the system	%	85,4	83,1	83,6	84,2	82,4
Reference air flow	m ³ /s	0,030	0,049	0,068	0,097	0,119
Specific absorbed power	W(m ³ /h)	0,310	0,331	0,235	0,246	0,286
Reference pressure	Pa	50				
Control factor and type (Timer)		0,95				
Annual electricity consumption for 100 m2	kWh/a	4,0	4,2	3,1	2,7	3,7
Annual heating savings in temperate climates	kWh	44,6	43,9	44,0	44,7	43,7
Annual heating savings in cold climates	kWh	87,2	85,9	86,2	87,5	85,4
Annual heating savings in hot climates	kWh	20,2	19,8	19,9	20,2	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)	30	40	42	43	44

(1) Outdoor air 5 °C, 80% RH, ambient air 20 °C, 50% RH

(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