RECLIMA Unità monoblocco di rinnovo con recupero termodinamico

Description

Active ventilation unit with thermodynamic heat recovery, specifically designed for ventilation and air treatment applications in residential, commercial and light tertiary environments.

Characteristics

The frame and structure are made of self-supporting sheet steel. In exposed versions, the external casing is painted in RAL 9003 finish. Each unit is provided with thermal and acoustic insulation made of polyethylene and EPDM.

The unit allows active heat recovery from exhaust air through its heat pump refrigerant circuit. Thermodynamic heat recovery enables the delivery of thermal energy to the indoor environment in quantities greater than the energy extracted from the exhaust air stream.

The fans installed in the heat recovery unit are brushless type with directly coupled electronic motor (horizontal ceiling-mounted version) or plug-fan type (vertical wall-mounted version). Fan speed control is mainly managed through the air quality sensor installed inside the unit.

The fans are characterized by very high efficiency and low noise levels, even at maximum speed. The fans used in the horizontal ceiling-mounted version are brushless fans with electronic motor and constant airflow control; this feature allows the unit to maintain constant balancing between the two airflows over time, thus maximizing overall unit efficiency.

ePM1 80% filters with low pressure drop. Easily removable in both horizontal and vertical installations without the use of tools.

Models

- RECLIMA-OV: exposed horizontal version.
- RECLIMA-VV: exposed vertical version.
- RECLIMA-OI: concealed horizontal version.
- RECLIMA-VI: concealed vertical version.

Control Electronics – Exposed Versions

On-board electrical control panel with microprocessor and dedicated control logic. Main functions include fan speed management, temperature setpoint display and adjustment, timed dirty filter alarm management, and optimized defrost control through a dedicated algorithm for low outdoor temperatures.

The exposed versions include:

- on-board graphical interface;
- Wi-Fi control;
- remote control.

Control Electronics – Concealed Versions

On-board electrical control panel with microprocessor and dedicated control logic. Main functions include fan speed management, temperature setpoint display and adjustment, timed dirty filter alarm management, and optimized defrost control through a dedicated algorithm for low outdoor temperatures.

The concealed versions include:

- on-board control panel (purchase of the remote panel with Wi-Fi or MODBUS RTU is mandatory for connection up to 10 m from the unit).

Technical Characteristics – Exposed Version

(1) B: booster V3: maximum speed. V2: medium speed. V1: low speed.

(2) Fresh air supply and return air intake are directly connected to the room. (3) Heating capacity at nominal airflow rate. Outdoor air temperature -5°C, relative humidity 80%. Room temperature 20°C; relative humidity 50%; nominal airflow rate.

(4) Cooling capacity at nominal airflow rate. Outdoor air temperature 35°C, relative humidity 50%. Room temperature 27°C; relative humidity 60%; nominal airflow rate.

(5) Sound pressure level at nominal airflow rate in free field at a distance of 3 m according to UNI EN 3744.

Models		RECLIMA-OV	RECLIMA-VV
Installation Type		Exposed Horizontal Version	Exposed Vertical Version
Fan Type		Forward-curved centrifugal fans with brushless motor and constant airflow control	Backward-curved radial fans with brushless motor
Nr. Funs	Nr.	2	
Airflow Rate (1)	m^3/h B/V3/V2/V1	460 / 400 / 240 / 140	380 / 320 / 190 / 130
Available Static Pressure (2)	Pa	-	-
Recovery Efficiency		Termodinamico	
Compressor Type		Rotary Inverter DC	
Refrigerant Type		R410a	
Filter Type		Flat Filters + Prefilter	
Filtration Class		ePM1 80% + COARSE	
Electrical data			
Maximum Fan Power Consumption	kW	0,12	0,1
Maximum Compressor Power Consumption	kW	1,15	0,95
Power Supply	V / ph / Hz	230 / 1 / 50	
Maximum Total Power Consumption	kW	1,27	1,05
Maximum Total Current Draw	A	5,8	4,8
Sound Pressure Level (5)	dB(A)	43	41
Heating Performance			
Total Heating Capacity (3)	kW	3,62	3,1
Net Heating Capacity Excluding Ventilation Load	kW	0,22	0,38
Total Power Consumption (3)	kW	0,84	0,71
Total COP		4,3	4,4
Cooling Performance			
Total Cooling Capacity (4)	kW	2,77	2,41
Net Cooling Capacity Excluding Ventilation Load	kW	0,71	0,76

Total Power Consumption (4)	kW	0,91	0,73
Total EER		3,0	3,3
Operating Limits			
Heating – Indoor Air Min/Max	°C	10 / 25	10 / 25
Heating – Outdoor Air Min/Max	°C	-15 / 20	-15 / 20
Cooling – Indoor Air Min/Max	°C	18 / 28	18 / 28
Cooling – Outdoor Air Min/Max	°C	15 / 38	15 / 38

Technical Characteristics – Concealed Version

(1) B: booster V3: maximum speed V2: medium speed V1: low speed.

(3) Heating capacity at nominal airflow rate. Outdoor air temperature -5°C, relative humidity 80%. Room temperature 20°C; relative humidity 50%; nominal airflow rate.

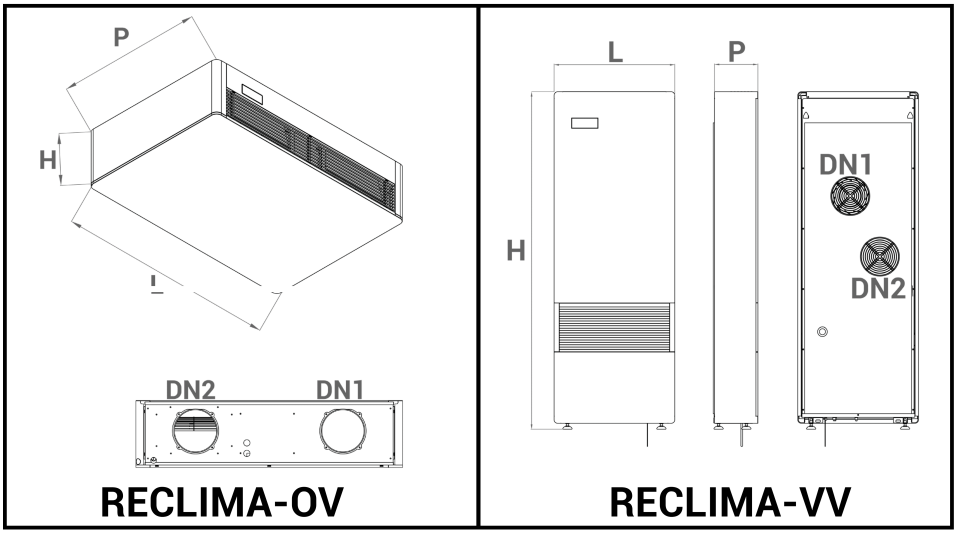
(4) Cooling capacity at nominal airflow rate. Outdoor air temperature 35°C, relative humidity 50%. Room temperature 27°C; relative humidity 60%; nominal airflow rate.

(5) Sound pressure level at nominal airflow rate in free field at a distance of 3 m according to UNI EN 3744.

Models		RECLIMA-OI	RECLIMA-VI
Installation Type		Concealed Horizontal Version	Concealed Vertical Version
Fan Type		Forward-curved centrifugal fans with brushless motor and constant airflow control	Backward-curved radial fans with brushless motor
Nr. Funs	Nr.	2	
Airflow Rate (1)	m^3/h B/V3/V2/V1	460 / 400 / 240 / 140	380 / 320 / 190 / 130
Available Pressure	Pa	130	60 / 110
Recovery Efficiency		Termodinamico	
Compressor Type		Rotary inverter DC	
Refrigerant Type		R410a	
Filter Type		Flat Filters + Prefilter	
Filtration Class		ePM1 80% + COARSE	
Electrical data			
Maximum Fan Power Consumption	kW	0,24	0,15
Maximum Compressor Power Consumption	kW	1,15	0,95
Power Supply	V / ph / Hz	230 / 1 / 50	
Maximum Total Power Consumption	kW	1,37	1,15
Maximum Total Current Draw	A	6.1	5
Sound Pressure Level (5)	dB(A)	45 / 47	43 / 46
Heating Performance			
Total Heating Capacity (3)	kW	3,62	3,1
Net Heating Capacity Excluding Ventilation Load	kW	0,22	0,38
Total Power Consumption (3)	kW	0,84	0,71
Total COP		4,3	4,4
Cooling Performance			
Total Cooling Capacity (4)	kW	2,77	2,41
Net Cooling Capacity Excluding Ventilation Load	kW	0,71	0,76

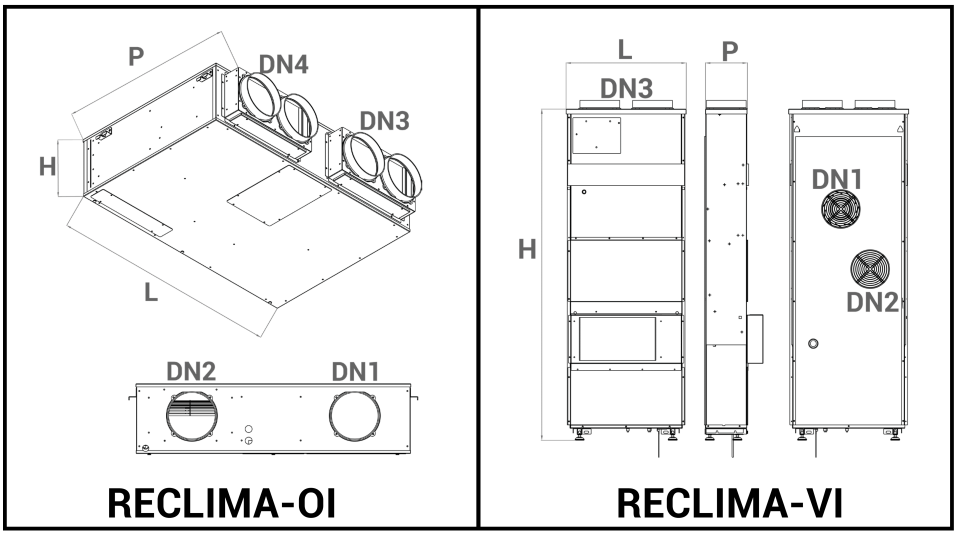
Total Power Consumption (4)	kW	0,91	0,73
Total EER		3,0	3,3
Operating Limits			
Heating – Indoor Air Min/Max	°C	10 / 25	10 / 25
Heating – Outdoor Air Min/Max	°C	-15 / 20	-15 / 20
Cooling – Indoor Air Min/Max	°C	18 / 28	18 / 28
Cooling – Outdoor Air Min/Max	°C	15 / 38	15 / 38

Dimensions – Exposed Versions



Models	L	P	H	DN1	DN2	DN3	DN4	Condensate Drain
	mm	mm	mm	mm	mm	mm	mm	mm
RECLIMA-OV	1010	690	255	162	162	-	-	20
RECLIMA-VV	500	185	1398	162	162	-	-	20

Dimensions – Concealed Versions



Models	L	P	H	DN1	DN2	DN3	DN4	Condensate Drain
	mm	mm	mm	mm	mm	mm	mm	mm
RECLIMA-OI	950	710	245	162	162	2 x 162	2 x 162	20
RECLIMA-VI	490	175	1430	162	162	2 x 162	-	20

Price List – Exposed Version

Models	Unit Version	Eur	Remote Controller	Replacement Filters		Germicidal Lamp	KL-RECLIMA – Replacement Germicidal Lamp
				EVFREC - ePM1	EVFREC - COARSE	UVR	
RECLIMA-OV	Horizontal	-	comando Wi-Fi e telecomando incluso	-	-	-	-
RECLIMA-VV	Vertical	-	comando Wi-Fi e telecomando incluso	-	-	-	-

Price List – Recessed Version

Models	Unit Version	Eur	Remote Controller		Replacement Filters		Germicidal Lamp	KL-RECLIMA – Replacement Germicidal Lamp
			EVCNT-WIFI	EVCNT-BMS	EVFREC - ePM1	EVFREC - COARSE	UVR	
RECLIMA-OI	Horizontal	-	-	-	-	-	-	-
RECLIMA-VI	Vertical	-	-	-	-	-	-	-