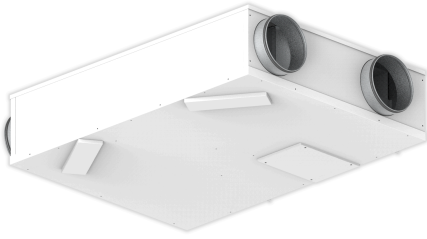


EVHRA-D Autonomous unit with heat recuperator efficiency > 90%



Description

Active and passive heat recovery unit for the heating, cooling and air renewal of rooms, consisting of a one-piece structure including all components for correct operation: fans, cooling circuit with high efficiency compressors, air filtration sections and high efficiency counter-current heat recovery unit. The machine can work as a passive heat recovery unit and as an active thermodynamic heat recovery unit and it is particularly suitable for residential environments.

Characteristics

Complete unit capable of providing fresh air and integrating the heating or cooling requirements of the rooms served. The unit comes complete with all components required for its operation and it is ready for use. High efficiency counter-current cross-flow polypropylene heat exchanger. Low freezing temperatures and operation down to -25°C. Backward-curved fans with direct-coupled Brushless motor. The unit allows for the energy contained in the exhaust air to be recovered by means of a heat exchanger and cooling circuit, supplying it to the indoor environment. The heat recovery unit features two ePMI 70-80% filters on the supply and exhaust air with low pressure drops. Self-supporting frame with galvanised sheet metal sandwich panels, painted on the outside, with polystyrene insulation on the inside, internal cladding made of thick galvanised sheet metal. Cooling circuit made of brazed copper complete with high efficiency compressor, filter drier, finned coils, solenoid valves, electronic expansion valve, liquid receiver, pressure transducers and safety devices. The on-board electrical panel features a microprocessor and dedicated control thanks to which the speed of the fans is adjusted and the dirty filter warning is managed in a timed manner. In addition to this, a defrost procedure is automatically managed in extreme environmental conditions. Simplified touch interface for correct machine operation.

Use

Houses, surgeries and shops for air exchange with up to 90% reduction in energy waste.

Operating

In both winter and summer, the unit ventilates the rooms, recovering up to 90% of the energy through the sensible heat recovery unit. By means of the heat pump, the unit contributes to the room heating demand in winter and the cooling demand in summer.

General Technical Data (models 14 - 20 - 30)

(1) Outside air -5°/80% RH - Indoor air 20°/50% RH - Nominal flow rate.

(2) Sound pressure at 3m in open field according to 3744.

Size		14	20	30
Fan Type		Centrifughi a pale avanti con motore Brushless		
Number of Fans		2		
Nominal Air Flow	m ³ /h	210	235	320
Available Pressure	Pa	100	100	100
Compressor Type		Rotary BLDC inverter		
Refrigerant Type		R410A		
Passive Heat Recovery Unit		Polipropilene in controcorrente		
Minimum Winter Heat Recovery Efficiency ¹	%	87	85	83
Filters		ePM1 70-80%		
Maximum Fan Power Consumption	kW	0,28	0,28	0,228
Maximum Compressor Power Consumption	kW	1,4	1,4	1,4
Power Supply	V/ph/Hz	230/1/50		
Maximum Total Power Consumption	kW	1,7	1,7	1,7
Maximum Total Current Draw	A	8,5	8,5	8,5
Ingress Protection (IP) rating	IP	20		
Sound Pressure Level ²	dB(A)	37	38	40

Technical Data for Winter Operation (models 14 - 20 - 30)

(1) Outside air -5°/80% RH - Indoor air 20°/50% RH - Nominal flow rate.

Size		14	20	30
Active Heat Recovery				
Total Heating Capacity ¹	kW	3,58	3,98	5,15
Net Heating Capacity (Excluding Ventilation)	kW	2,01	2,22	2,76
Recupero Passivo ¹	kW	1,53	1,69	2,23
Heating Capacity ¹	kW	2,05	2,29	2,92
Power Input	kW	0,64	0,75	0,95
COP		5,6	5,3	5,4

Technical Data for Summer Operation (models 14 - 20 - 30)

(1) Outside air 35°/50% RH - Indoor air 27°/50% RH - Nominal flow rate.

Size		14	20	30
Active Heat Recovery				
Total Cooling Capacity ¹	kW	2,18	2,46	2,99
Net Cooling Capacity (Excluding Ventilation)	kW	1,03	1,12	1,37
Recupero Passivo ¹	kW	0,43	0,48	0,62
Cooling Capacity ¹	kW	1,75	1,98	2,37
Power Input	kW	0,59	0,68	0,84
EER		3,69	3,61	3,55

General Technical Data (model 50/15)

(1) Outside air -5°/80% RH - Indoor air 20°/50% RH - Nominal flow rate.

(2) Sound pressure at 3m in open field according to 3744.

Size		50/15
Fan Type		Centrifughi a pale e radiali a pale rovesciavanti con motore Brushless
Number of Fans		4
Nominal Airflow Rate – Air Renewal	m³/h	0 - 150
Nominal Airflow Rate – Recirculation	m³/h	300 - 450
Total Supply Airflow Rate	m³/h	462
Available Pressure	Pa	100
Compressor Type		Rotary BLDC inverter
Refrigerant Type		R410A
Passive Heat Recovery Unit		Polipropilene in controcorrente
Minimum Winter Heat Recovery Efficiency ¹	%	86,7
Filters		2 x ePM1 70-80% + 1 coarse
Maximum Fan Power Consumption	kW	0,38
Maximum Compressor Power Consumption	kW	1,4
Power Supply	V/ph/Hz	230/1/50
Maximum Total Power Consumption	kW	1,78
Maximum Total Current Draw	A	9,8
Ingress Protection (IP) rating	IP	20
Sound Pressure Level ²	dB(A)	41

Technical Data for Winter Operation (model 50/15)

(1) Outside air -5°/80% RH - Indoor air 20°/50% RH - Nominal flow rate.

Size		50/15
Active Heat Recovery		
Total Heating Capacity ¹	kW	3,71
Net Heating Capacity (Excluding Ventilation)	kW	2,50
Recupero Passivo ¹	kW	1,06
Heating Capacity ¹	kW	2,65
Power Input	kW	0,88
COP		4,2

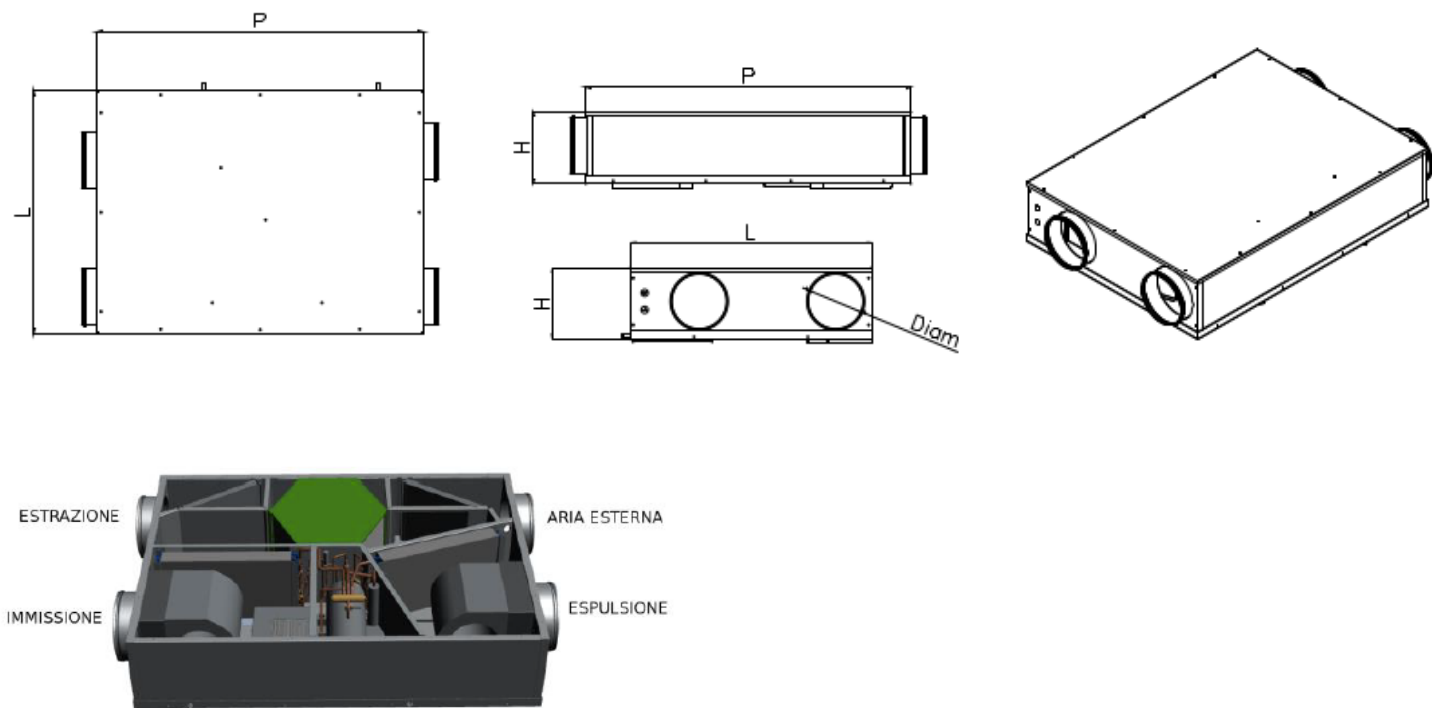
Technical Data for Summer Operation (model 50/15)

(1) Outside air 35°/50% RH - Indoor air 27°/50% RH - Nominal flow rate.

Size		50/15
Active Heat Recovery		
Total Cooling Capacity ¹	kW	2,61
Net Cooling Capacity (Excluding Ventilation)	kW	1,68
Recupero Passivo ¹	kW	0,31
Cooling Capacity ¹	kW	2,3
Power Input	kW	0,75
EER		3,48

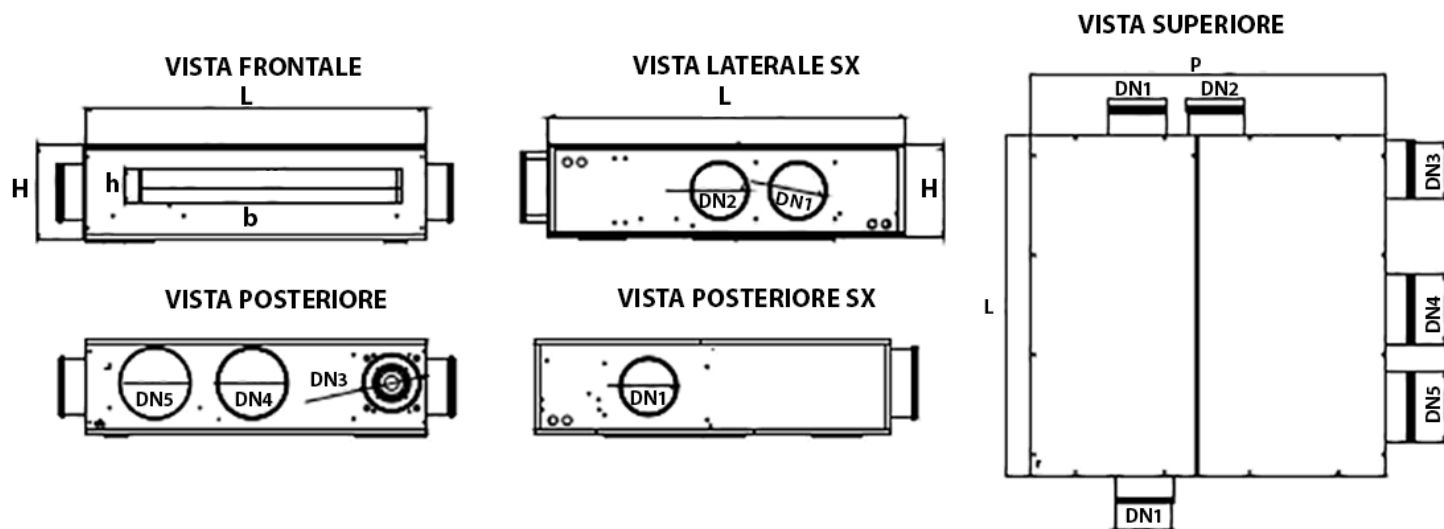
Dimensions (models 14 - 20 - 30)

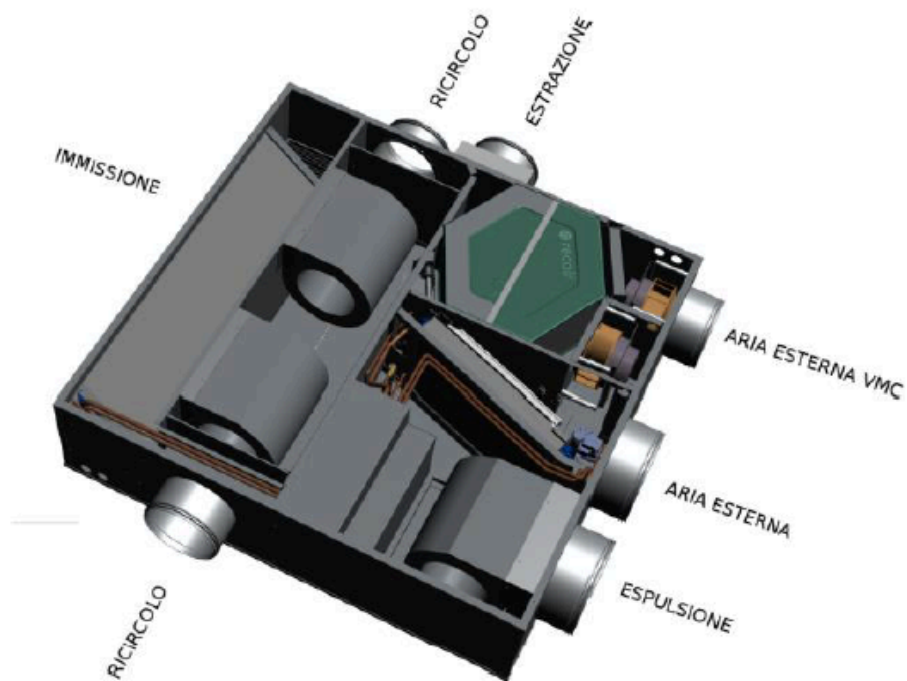
Size			14	20	30
Width	L	mm	850	850	850
Depth	P	mm	1150	1150	1150
Height	H	mm	255	255	255
Diametro connessione	DN	mm	200	200	200
Condensa	Ø	mm	16	16	16



Dimensions (model 50/15)

Size			50/15
Width	L	mm	960
Depht	P	mm	1000
Height	H	mm	260
Supply Air Opening (b × h)	b × h	mm	700 × 140
Diameter DN 1 - 2 - 3	Ø	mm	160
Diameter DN 4 - 5	Ø	mm	200
Condensa	Ø	mm	16





Operating Limits

Size		14 - 20 - 30 HY	50/15 RHY
Heating		Aria Interna	Aria Esterna
	°C	10 / 25°C	-20 / 20°C
Raffrescamento		Aria Interna	Aria Esterna
	°C	18 / 28°C	15 / 38°C

Heat Recovery Units Price List

Models	Eur	Controllo elettronico remoto EVCNT con collegamento wifi	Filter Kit	
		Eur	Eur	
EVHRA-D 14 HY	-	-	-	
EVHRA-D 20 HY	-	-	-	
EVHRA-D 30 HY	-	-	-	

Models	Eur	Controllo elettronico remoto EVCNT	Kit filtri madata e ripresa	Kit filtri ricambio	
		Eur	Eur	Eur	
EVHRA-D 50/15 RHY	-	-	-	-	

