EVHRC EC Highly efficient decentralized heat recovery unit for flow rates up to 1150 m³/h

Description

Ventilation unit with high flow rate heat recovery for decentralised applications specifically for ventilation in rooms requiring ventilation and air handling, such as schools, commercial environments, offices and small service sector applications. Possibility of installing an electric or water coil as an accessory. Constant flow rate selectable in 3 levels.

Characteristics

-Self-supporting sheet metal frame with polyethylene insulated internal structure.
-High efficiency counter-current cross-flow polypropylene heat exchanger. Low freezing temperatures. Very high heat exchange efficiency.
-Forward-curved Brushless centrifugal fans with electronic motor and modulating control; very high efficiency and low noise levels.
-ePM1 70% filters with low pressure drop for both supply and exhaust, easily removable in both horizontal and vertical configuration.
-Free cooling made inside the unit with large air passage and damper with motorised actuator.
-Electric or water coil.

Control electronics for version IN2

Electronic board for 3-step speed management, antifreeze function and automatic bypass. Wall-mounted remote touch panel on 503 box. Temperature sensors on board the machine. Humidity / air quality regulators built into the remote display.
EVCNV2-N: advanced remote control with built-in humidity and VOC/CO_2 sensors, black.
EVCNV2-B: advanced remote control with built-in humidity and VOC/CO_2 sensors, white.
EVCNW2-N: advanced remote control with built-in humidity and VOC/CO_2 sensors and built-in Wi-Fi, black.
EVCNW2-B: advanced remote control with built-in humidity and VOC/CO_2 sensors and built-in Wi-Fi, white.

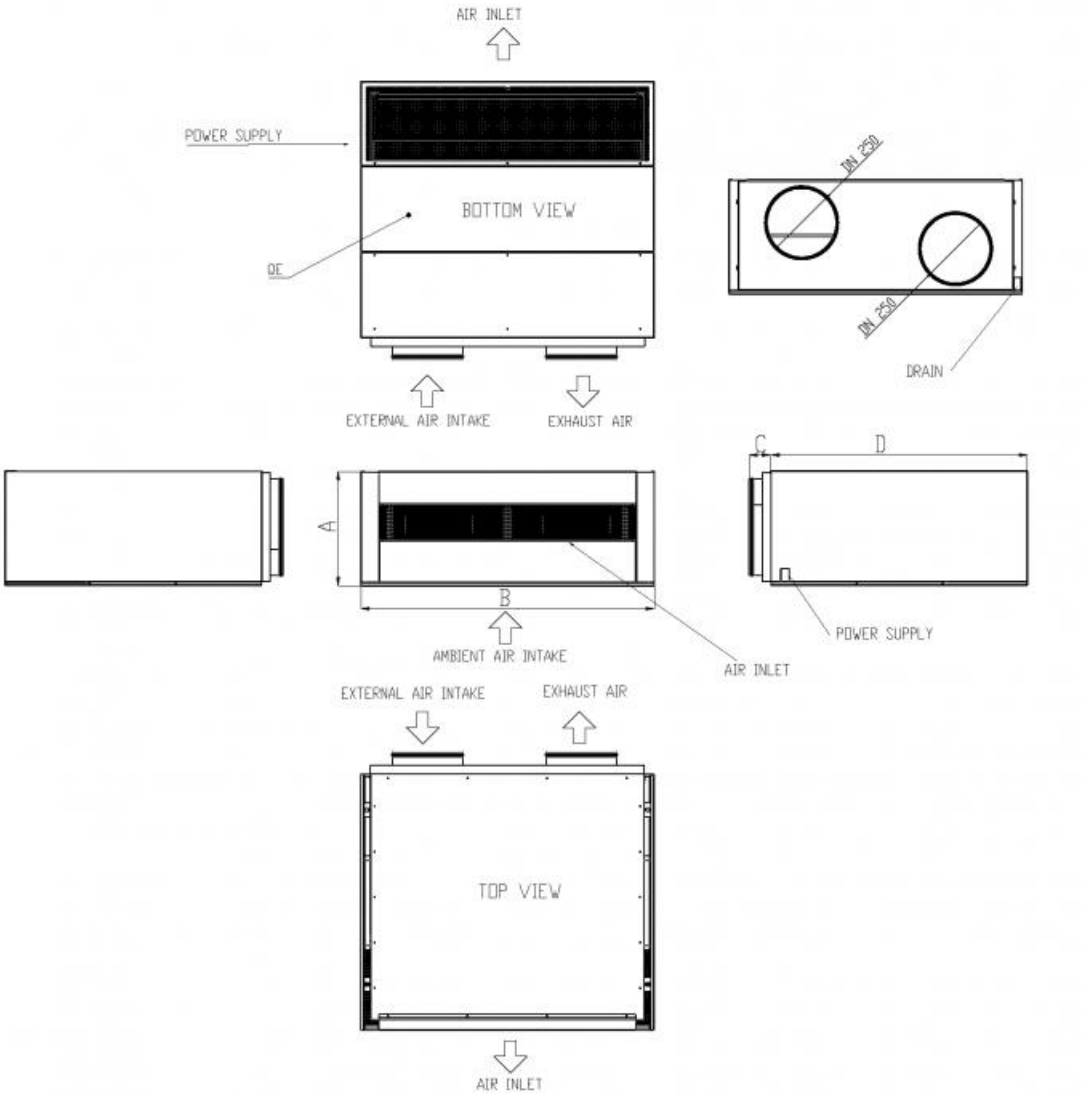
Use

Schools, commercial environments, offices and small service sector applications for air exchange with up to 90% reduction in energy waste.

Technical specifications

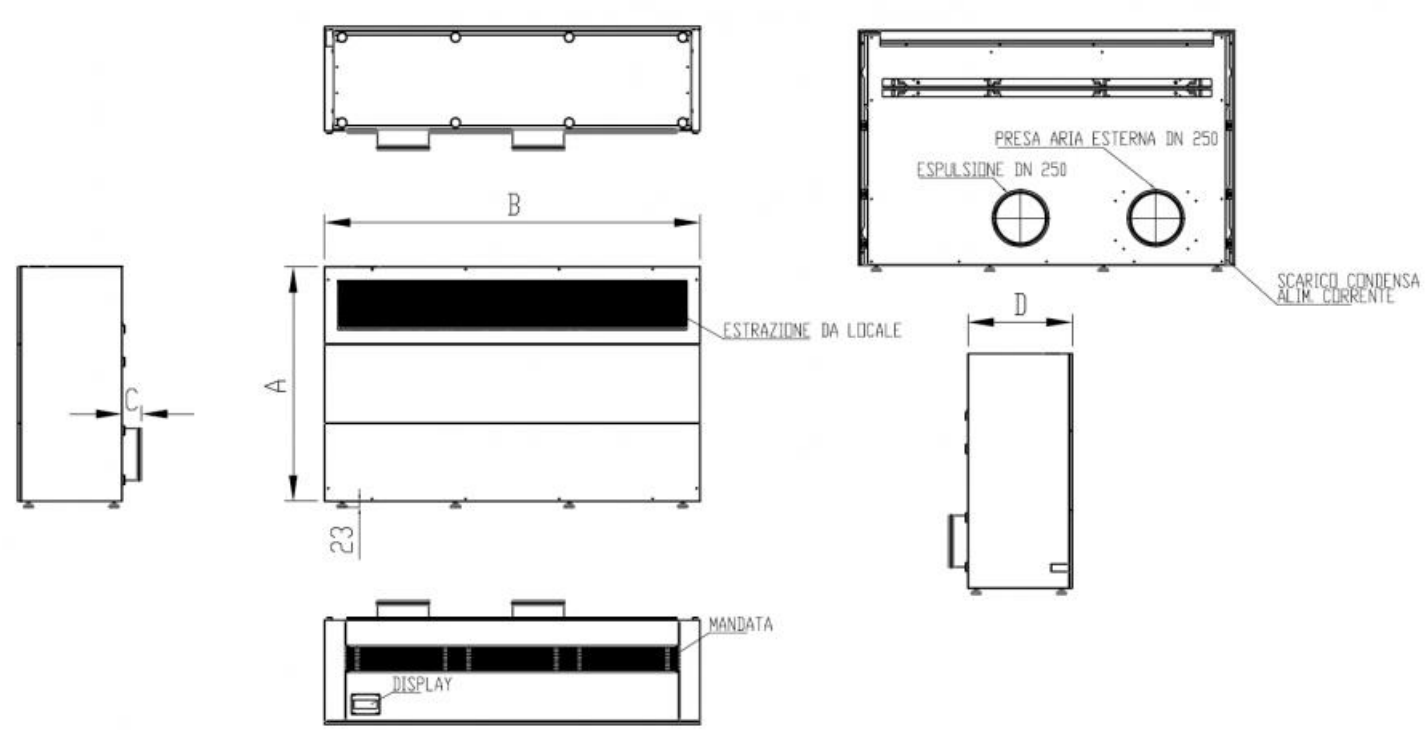
EVHRC EC size		60	120
Type of Fans		Forward-curved centrifugal - Brushless direct-coupled electronic motor - 0/10 V signal	
Number of Fans	Nr.	2 supply + 1 exhaust	3 supply + 2 exhaust
Air flow rate V3/V2/V1	m³/h	620 / 355 / 165	1150 / 750 / 255
Useful pressure	Pa	15	15
Heat exchanger (Data referring to the UNI EN 13141-7 Standard Indoor temp. 20° - Indoor humidity 28% - Outside temp. 7° - Outside humidity 72%)			
Type of heat exchanger		Counter-current plates - polypropylene	
Number of Heat exchangers	Nr.	2	3
Heat recovery efficiency EN13141-7	%	86,1	84,9
Heat recovery efficiency EN305	%	91,8	90,4
Filters			
Type of filters		Pleated filters	
Filtration class		ePM1 70%	
Acoustic data (Data referring to the UNI EN 3741 and UNI EN 3744 Standards)			
Sound power Lw transmitted by the structure	dB(A)	59	62
Sound pressure at 3 m V1	dB(A)	41	43
Sound pressure at 3 m V2	dB(A)	36	37
Sound pressure at 3 m V3	dB(A)	33	34
Electrical Data			
Power supply	V / ph / Hz	230 / 1 / 50	
Current consumption	A	3,5	4,8
Power consumption	W	340	620
Power consumption at maximum speed with clean filters	W	165	355
Max power consumption with heating element	kW	1,34	2,12
Maximum current consumption with heating element	A	7,8	11,3
Protection rating	IP	X0	X0

HORIZONTAL configuration dimensions



HORIZONTAL configuration dimensional data		60 H	120 H
Height A	mm	405	405
Width B	mm	1040	1440
Collars for connection to C piping	mm	76	76
Depth D	mm	905	905
Connection diameter	mm	200	250
Condensate drain	mm	20	20
Weight	Kg	71	88

VERTICAL configuration dimensions

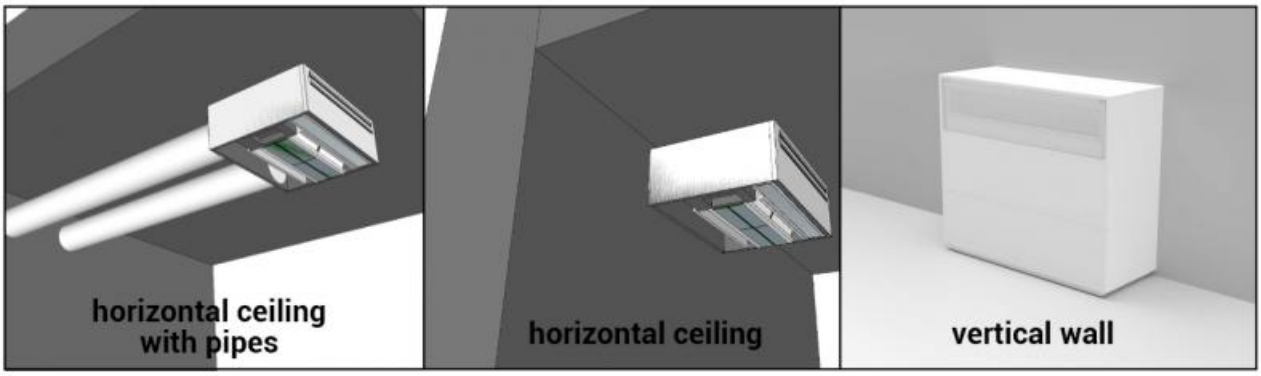


VERTICAL configuration dimensional data		60 V	120 V
Height A	mm	905	905
Width B	mm	1040	1440
Collars for connection to C piping	mm	76	76
Depth D	mm	405	405
Connection diameter	mm	200	250
Condensate drain	mm	20	20
Weight	Kg	71	88

Installation

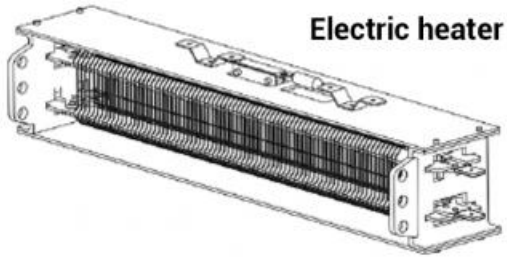
HORIZONTAL configuration: the unit can be installed close to the wall with the ducts pointing directly outwards or away from the wall with minimum ducting to reach the outside.

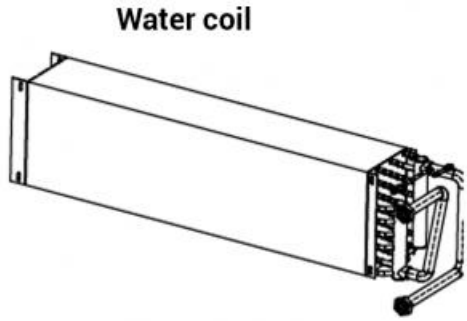
VERTICAL configuration: the unit can be installed close to the wall with minimum ducting to reach the outside.



Accessories

UV-C lamp





Electric coils		
Model	EVRES 1	EVRES 2
Compatible unit model	EVHRC EC 60 H / V	EVHRC EC 120 H / V
Nominal heat output kW	1 (0,5x2)	1,5 (0,5x3)
Power supply V / ph / Hz	230V / 1F / 50Hz	

Water coils			
Model		EVBACN 1	EVBACN 2
Compatible unit model		EVHRC EC 60 H / V	EVHRC EC 120 H / V
Nominal heat output (1)	kW	3,38	4,17
Nominal water flow rate (1)	m^3/h	0,3	0,37
Pressure drop on water side (1)	KPa	1	5
Supply water temperature	°C	50	50
Pressure drop on air side	Pa	14	27
Water connections	Ø	3/4"	3/4"

(1) Yields and technical data with nominal flow rates and temperatures:
- Water IN / OUT 50°C / 40°C - Air IN 20°C

IN2 VERSION price list:

In the VERTICAL versions, the EVCNW2 control is built into the machine case.

Item normally available from stock

model	EVHRC EC	remote electronic control EVCNV2-N black	remote electronic control EVCNV2 - B white	remote electronic control EVCNW2-N with Wi-Fi connection black	remote electronic control EVCNW2-B with Wi-Fi connection white	pair of filters
	euro	euro	euro	euro	euro	euro
60 H	⌄	⌄	⌄	⌄	⌄	⌄
120 H	⌄					⌄
60 V	⌄	n/a	n/a	n/a	n/a	⌄
120 V	⌄					⌄

n/a – not available

Accessories price list

Germicidal lamps, heating elements and water coils must be ordered when purchasing the machine, as they are installed on the machine.

Description	Euro
Germicidal UV-C lamp with power supply and fastening elements. Estimated lamp life 10,000 hours of operation	
EVRES 1 Heating element 2x0.5KW (for EVHRC EC 60)	
EVRES 2 Heating element 3x0.5KW (for EVHRC EC 120)	
EVBACN 1 Water coil (for EVHRC EC 60)	
EVBACN 2 Water coil (for EVHRC EC 120)	
External grille kit Ø 200 mm (for EVHRC EC 60)	
External grille kit Ø 250 mm (for EVHRC EC 120)	
Silencer	

Spare parts price list

Description	Euro
Spare UV-C lamp	