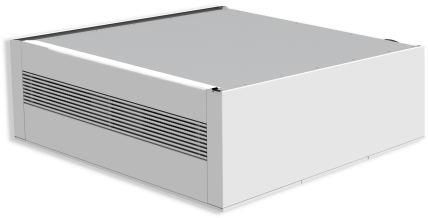
# EVHRC EC Highly efficient decentralized heat recovery unit for flow rates up to 1150 m³/h



## 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.

## Use

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

## 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.

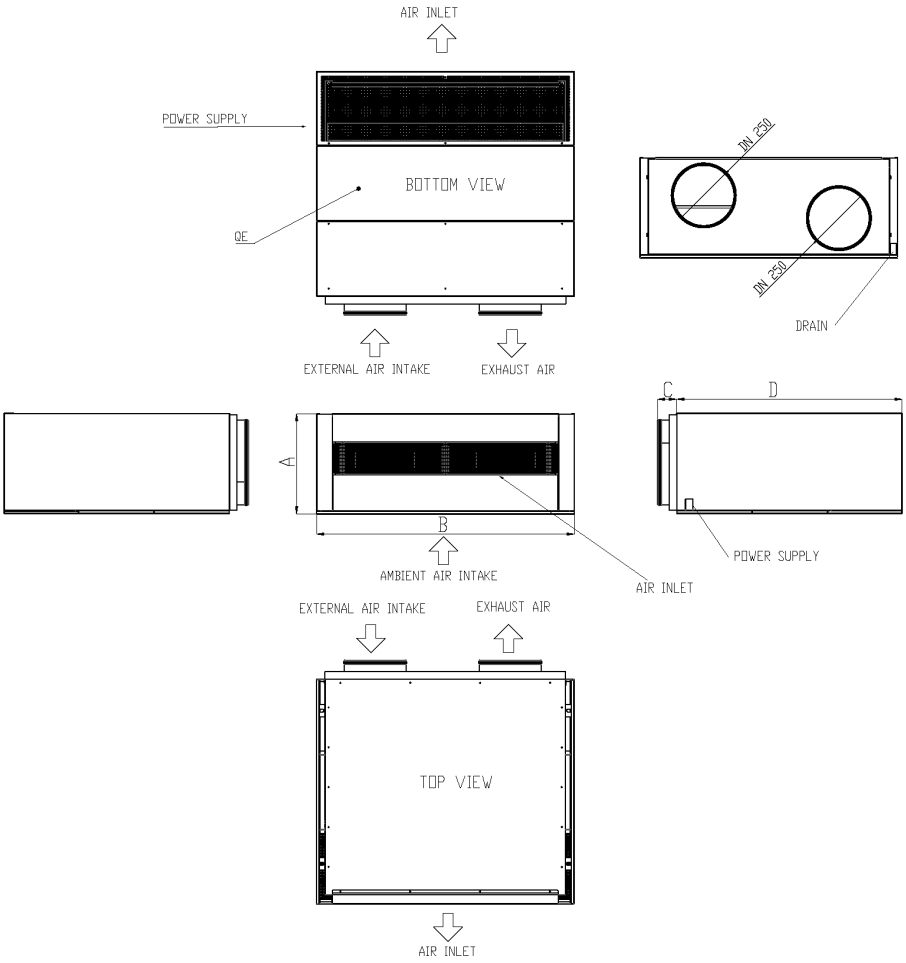
EVCNW2-N: advanced remote control with built-in humidity and VOC/$CO_2$ sensors and built-in Wi-Fi, black.

EVCNW2-B: advanced remote control with built-in humidity and VOC/$CO_2$ sensors and built-in Wi-Fi, white.

## Technical Specifications

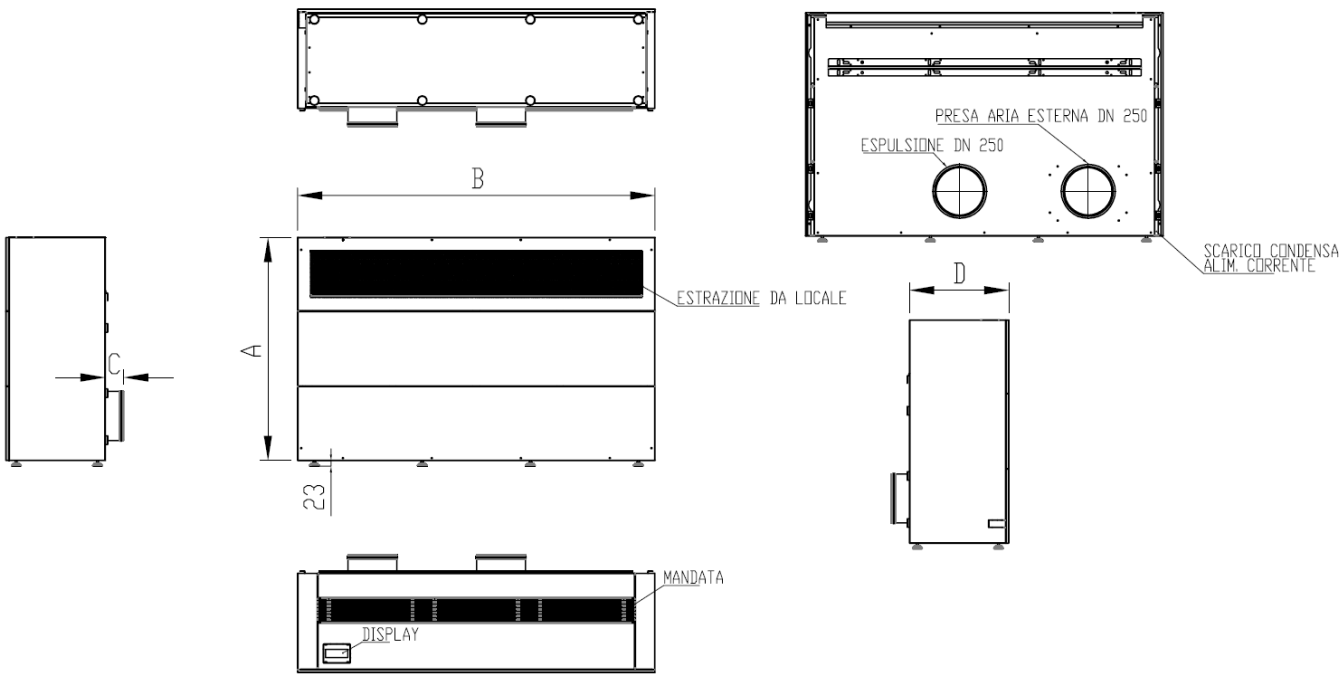
| Size EVHRC EC | | 60 | 120 |
|---|---|---|---|
| Fan Type | | Forward-Curved Centrifugal Fans – Direct-Coupled Brushless Electronic Motor – 0–10 V Signal | |
| Nr. Funs | Nr. | 2 Supply + 1 Exhaust | 3 Supply + 2 Exhaust |
| Portata aria V3/V2/V1 | m³/h | 620 / 355 / 165 | 1150 / 750 / 255 |
| Available Pressure | Pa | 15 | 15 |
| Heat Exchanger (Data according to UNI EN 13141-7: Indoor Temp. 20°C – Indoor Humidity 28% – Outdoor Temp. 7°C – Outdoor Humidity 72%) | | | |
| Recovery Efficiency | | Ounterflow Plates – Polypropylene Material | |
| Number of Heat Exchangers | Nr. | 2 | 3 |
| Heat Recovery Efficiency EN 13141-7 | % | 86,1 | 84,9 |
| Heat Recovery Efficiency EN 305 | % | 91,8 | 90,4 |
| Filters | | | |
| Tipo di Filters | | Filters Pleated | |
| Filtration Class | | ePM1 70% | |
| Acoustic data (Data according to UNI EN 3741 and UNI EN 3744) | | | |
| Sound Power Lw Transmitted Through 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 Input | W | 340 | 620 |
| Power Consumption at Maximum Speed with Clean Filters | W | 165 | 355 |
| Maximum Power Consumption with Electric Heater | kW | 1,34 | 2,12 |
| Maximum Absorbed Current with Electric Heater | A | 7,8 | 11,3 |
| Protection Rating | IP | X0 | X0 |

## Horizontal Configuration Dimensions




| Dimensions – Horizontal Configuration | | 60 H | 120 H |
|---|---|---|---|
| Height A | mm | 405 | 405 |
| Width B | mm | 1040 | 1440 |
| Pipe Connection Collars C | mm | 76 | 76 |
| Depht D | mm | 905 | 905 |
| Connection Diameter | mm | 200 | 250 |
| Condensate Drain | mm | 20 | 20 |
| Weight | Kg | 71 | 88 |

## Vertical Configuration Dimensions

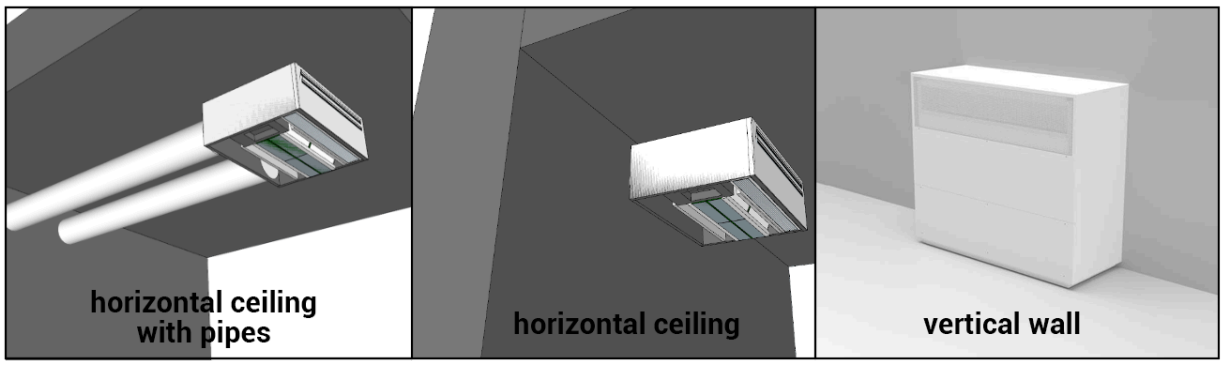



| Dimensions – Vertical Configuration | | 60 V | 120 V |
|---|---|---|---|
| Height A | mm | 905 | 905 |
| Width B | mm | 1040 | 1440 |
| Pipe Connection Collars C | mm | 76 | 76 |
| Depht D | mm | 405 | 405 |
| Connection Diameter | mm | 200 | 250 |
| Condensate Drain | mm | 20 | 20 |
| Weight | Kg | 71 | 88 |

## Installation

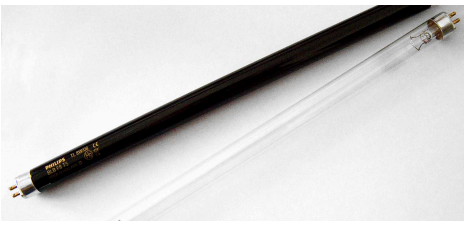
Horizontal configuration: the unit can be installed close to the wall with the ducts pointing directly outwards or away from the wall with minimum ducting to reach the outside.

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

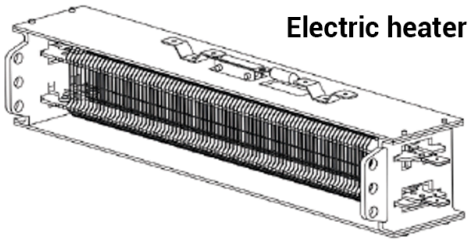


## Accessories

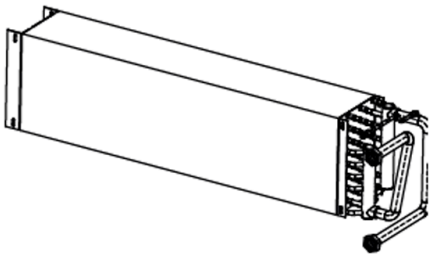
**Lampada UV-C**



**Electric heater**



**Water coil**



| Electric Coils | | |
|---|---|---|
| Models | EVRES 1 | EVRES 2 |
| Models Compatible Unit | EVHRC EC 60 H / V | EVHRC EC 120 H / V |
| Rated Electrical Power (kW) | 1 (0,5x2) | 1,5 (0,5x3) |
| Power Supply V / ph / Hz | 230V / 1F / 50Hz | |

| Hydronic Coils | | | |
|---|---|---|---|
| Models | | EVBACN 1 | EVBACN 2 |
| Models Compatible Unit | | EVHRC EC 60 H / V | EVHRC EC 120 H / V |
| Rated Thermal Power (1) | kW | 3,38 | 4,17 |
| Rated Water Flow (1) | $m^3/h$ | 0,3 | 0,37 |
| Water-Side Pressure Drop (1) | KPa | 1 | 5 |
| Water Supply Temperature | °C | 50 | 50 |
| Air-Side Pressure Drop | 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.

| Models | EVHRC EC | EVCNV2-N - Black | EVCNV2-B - White | EVCNW2-N - Wi-Fi - Black | EVCNW2-B - Wi-Fi - White | Filter Pair Kit |
|---|---|---|---|---|---|---|
| | Eur | Eur | Eur | Eur | Eur | Eur |
| 60 H | - | - | - | - | - | - |
| 120 H | - | | | | | - |
| 60 V | - | n.d. | n.d. | n.d. | n.d. | - |
| 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 | Eur |
|---|---|
| Germicidal UV-C Lamp with Power Supply and Mounting Brackets. Lamp life is estimated at 10,000 operating hours. | - |
| EVRES 1 Electric Heater 2×0.5 kW (for EVHRC EC 60) | - |
| EVRES 2 Electric Heater 3×0.5 kW (for EVHRC EC 120) | - |
| EVBACN 1 Hydronic Coil (for EVHRC EC 60) | - |
| EVBACN 2 Hydronic Coil (for EVHRC EC 120) | - |
| Ø 200 mm External Grille Kit (for EVHRC EC 60) | - |
| Ø 250 mm External Grille Kit (for EVHRC EC 120) | - |
| ESIV silencer D.200 for EVHRC-EC 60 | - |
| ESIV silencer D.250 for EVHRC-EC 120 | - |

## Spare Parts Price List

| Description | Eur |
|---|---|
| Replacement UV-C Lamp | - |