

# EVHRN EC Heat exchanger cross flow up to 4500m<sup>3</sup>/h and 80% efficiency



## Description

Non-residential dual flow ventilation unit with medium efficiency for heat recovery ( $\eta > 73\%$ ). Ideal solution to get the highest energy certification of buildings in the tertiary, industrial and collective residential sector (centralized condominium systems).

ALL SIZES OF THE EVHRN EC RECOVERY UNIT CAN BE INSTALLED BOTH HORIZONTALLY AND VERTICAL AS INSIDE THEY ALL HAVE A DOUBLE CONDENSATE COLLECTION TANK.

The installation can be done both indoors and outdoors (with protective roof), with an ambient temperature between  $-15^{\circ}\text{C}$  and  $+50^{\circ}\text{C}$ .

## Technical Features:

Structure made of self-supporting galvanized sheet metal frame with double paneling 25 mm thick and injected polyurethane foam insulation 42 kg/m<sup>3</sup> density.

Condensate collection tank in galvanized sheet metal, Eurovent certified counter-current aluminum static heat exchanger, automatic by-pass, automatic defrosting of the exchanger (via anti-freeze strategy), backward curved radial fans with EC motors with electronic speed control, low consumption (Erp 2018), single-phase (up to size 200) and three-phase (size 250, 350 and 450) which guarantee high static pressure values available to the ducting.

Circular inlets for connection to the air ducts, configuration that can be modified on site, possibility to change the position of the air ducts (by changing the position of the panels).

Low pressure drop filters (EN 779) class ePM 10 50% (M5) for extract air and ePM class 1 70% (F7) for supply air.

Side access doors and internal technical spaces for easy filter inspection / maintenance.

Horizontal or vertical installation.

## use

Offices, shops, bars and restaurants, collective residential buildings.  
Ideal for air exchange with efficiencies up to 80%.

## Electronic control device:

Version IN: with electronic card for 3-step speed management, anti-freeze function and automatic bypass. Wall-mounted touch remote panel on 503 box. Temperature sensors on the machine and the possibility of managing the auxiliary hot water coil. Humidity / air quality sensors integrated in the remote display.

EVCNV2-N: advanced remote control with integrated humidity and VOC / CO<sub>2</sub> sensors, black color.

EVCNV2-B: advanced remote control with integrated humidity and VOC / CO<sub>2</sub> sensors, white color.

EVCNW2-N: advanced remote control with integrated humidity and VOC / CO<sub>2</sub> sensors, with integrated black Wi-Fi.

EVCNW2-B: advanced remote control with integrated humidity and VOC / CO<sub>2</sub> sensors with integrated white Wi-Fi.

Version E: Solution with electrical panel on board the unit complete with microprocessor and dedicated regulation. Management of the modulating fans, display for the temperature probes inside the machine, dirty filters management with pressure switches, freecooling management with temperature probes. Pre and post heating coil management, water and electric cooling. Management of on / off and modulating valves at 2-3 points. Dehumidification management through external batteries and humidity probes. Fan operation with variable speed, constant flow or constant pressure. Wide graphic interface with configuration menu and multilingual user menu. Possibility of simplified or advanced remote keyboard connection.

## Adjustment configuration IN2

The machine will be delivered with H5-A or V1-A configuration. Air attacks are configurable during the installation phase through the removable panels. A B configurations selectable by electronics.

## Adjust configuration E

The machine will be delivered with H5-A or V1-A configuration. Air attacks are configurable during the installation phase through the removable panels. Configuration B orderable only on request.

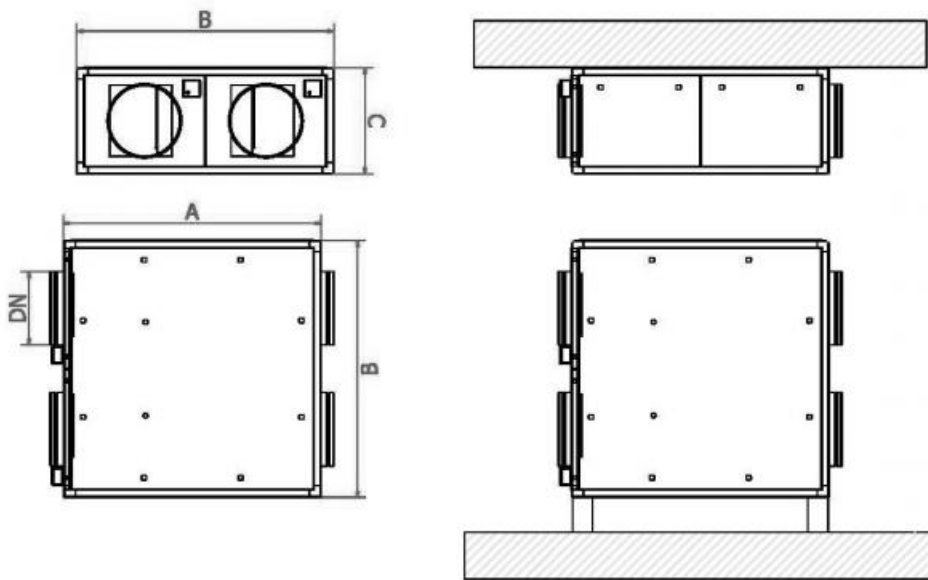
## Accessories:

- EVBE model ON / OFF duct electric heater.
- EVBER model duct electric heater with integrated regulation
- EVBAC model heating / post heating coil
- EVBAF model cooling / post-cooling coil

## List of possible configurations within the "Documentation" section.

## Dimensions:

Dimensions		EVHRN EC 40	EVHRN EC 70	EVHRN EC 100	EVHRN EC 150	EVHRN EC 200	EVHRN EC 250	EVHRN EC 350	EVHRN EC 450
Width A	mm	750	1050	1050	1250	1390	1390	1900	1900
Depth B	mm	750	1050	1050	1250	1390	1390	1900	1900
Height C	mm	390	400	400	550	610	610	710	860
Air connections diameter	Ø mm	160	200	200	315	355	355	400	450
Weight version H	kg	75	98	103	155	220	231	245	275
Weight version V	kg	78	101	106	158	223	234	248	278
Condensate drain diameter	Ø mm	16	16	16	16	16	16	16	16



#### Technical features:

Models		EVHRN EC 40	EVHRN EC 70	EVHRN EC 100	EVHRN EC 150	EVHRN EC 200	EVHRN EC 250	EVHRN EC 350	EVHRN EC 450
Type of fans		Brushless fans with electronic motor and modulating control.							
Number of fans	Nr	2							
Nominal air flow	m <sup>3</sup> /h	400	600	1000	1400	1900	2500	3400	4500
Useful pressure available	Pa	148	117	124	122	102	255	121	114
Sound power Lw (EN3747) from the cabinet	dB(A)	61,2	63,6	66,5	67,3	71,1	72,2	75,2	77,3
Sound pressure Lp at 3 m (EN3744) from the case	dB(A)	39,6	41,8	44,5	45,2	48,4	49,7	52,5	54,1
Sound power Lw (EN3747) from the channel	dB(A)	69,6	72,6	77,8	78,4	82,5	86,9	86,5	87,4
Type of exchanger		Counter-current aluminum plates							
Recovery efficiency	%	73,1	79,8	73,0	74,5	74,8	73,9	77,5	74,8
		Data Referred to the following conditions (UNI EN 13141-7): - nominal air flow - external air 5 ° C with 72% rh / expelled air 25 ° C with 28% rh							
Type of filters		Renewal ePM 1 - 70% (F7) / Extraction ePM 10 - 50% (M5)							
Supply voltage	V	230V / 1 / 50 Hz				400V / 3 / 50Hz			
Max absorbed power	kw	0,20	0,29	0,61	0,61	0,61	1,98	1,98	2,2
Degree of protection		IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Data refer to the nominal values declared by the manufacturers of the fans The units must be connected to the distribution channels The performances have been verified with the supplied low pressure drop filters "clean "									

#### Price list of recuperators and accessories version IN2:

Item normally available from stock								
modello	EVHRN EC	controllo elettronico remoto EVCNV2-N colore nero	controllo elettronico remoto EVCNV2 -B colore bianco	controllo elettronico remoto EVCNW2-N con collegamento Wi-Fi colore nero	controllo elettronico remoto EVCNW2-B con collegamento Wi-Fi colore bianco	Kit piedini (4 pezzi)	kit coppia filtri	
	euro	euro	euro	euro	euro	euro	euro	euro
40	▼	▼	▼	▼	▼	▼	▼	▼
70	▼	▼	▼	▼	▼	▼	▼	▼
100	▼	▼	▼	▼	▼	▼	▼	▼
150	▼	▼	▼	▼	▼	▼	▼	▼
200	▼	▼	▼	▼	▼	▼	▼	▼
250	▼	▼	▼	▼	▼	▼	▼	▼
350	▼	▼	▼	▼	▼	▼	▼	▼
450	▼	▼	▼	▼	▼	▼	▼	▼



Price list of recuperators and accessories version E:

Item normally available from stock							
model	EVHRN EC	remote electronic control EVTGF	duct temperature sensor EVSMT	umidity sensor EVSU	air quality sensor EVVOC	Kit feet (4 pieces)	pair of filters kit
	euro	euro	euro	euro	euro	euro	euro
40	▼	▼	▼	▼	▼	▼	▼
70	▼	▼	▼	▼	▼	▼	▼
100	▼	▼	▼	▼	▼	▼	▼
150	▼	▼	▼	▼	▼	▼	▼
200	▼	▼	▼	▼	▼	▼	▼
250	▼	▼	▼	▼	▼	▼	▼
350	▼	▼	▼	▼	▼	▼	▼
450	▼	▼	▼	▼	▼	▼	▼



Roof Protection

Model	HORIZONTAL VERSION	VERTICAL VERSION
	euro	euro
EVHRN EC 40	▼	▼
EVHRN EC 70	▼	▼
EVHRN EC 100	▼	▼
EVHRN EC 150	▼	▼
EVHRN EC 200	▼	▼
EVHRN EC 250	▼	▼
EVHRN EC 350	▼	▼
EVHRN EC 450	▼	▼