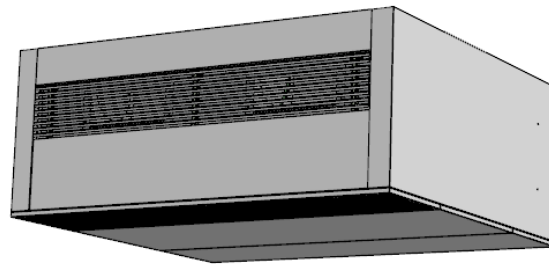


# HRC+

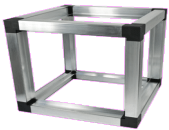
Decentralized high efficiency heat recovery unit  
For commercial applications, schools, offices



## GENERAL FEATURES

### STRUCTURE

High strength structure with frame self-supporting in sheet metal and internal insulation in polyethylene:



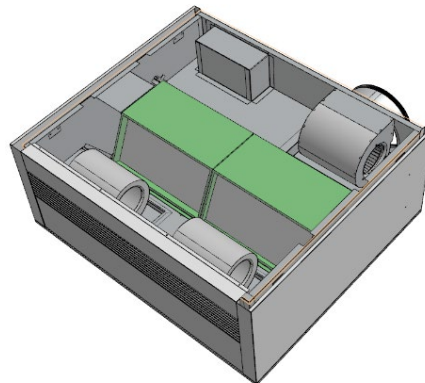
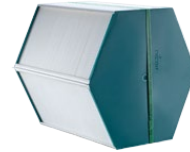
### FANS

The unit is equipped with EC centrifugal fans With high efficiency Brushless motor



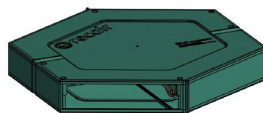
### RECOVERER

High efficiency countercurrent cross flow polypropylene heat exchanger.



### FILTRATION

Upstream of the recuperator they are present two filters with ePM1 filtration class Removal can take place without the aid of any tools



### BYPASS

The units are equipped with recuperator Bypass, that allow the function of injecting fresh air from the outside when there are ideal conditions.



### CHECK

The unit provides for operation through Remote control and APP; Air quality, humidity and temperature sensor

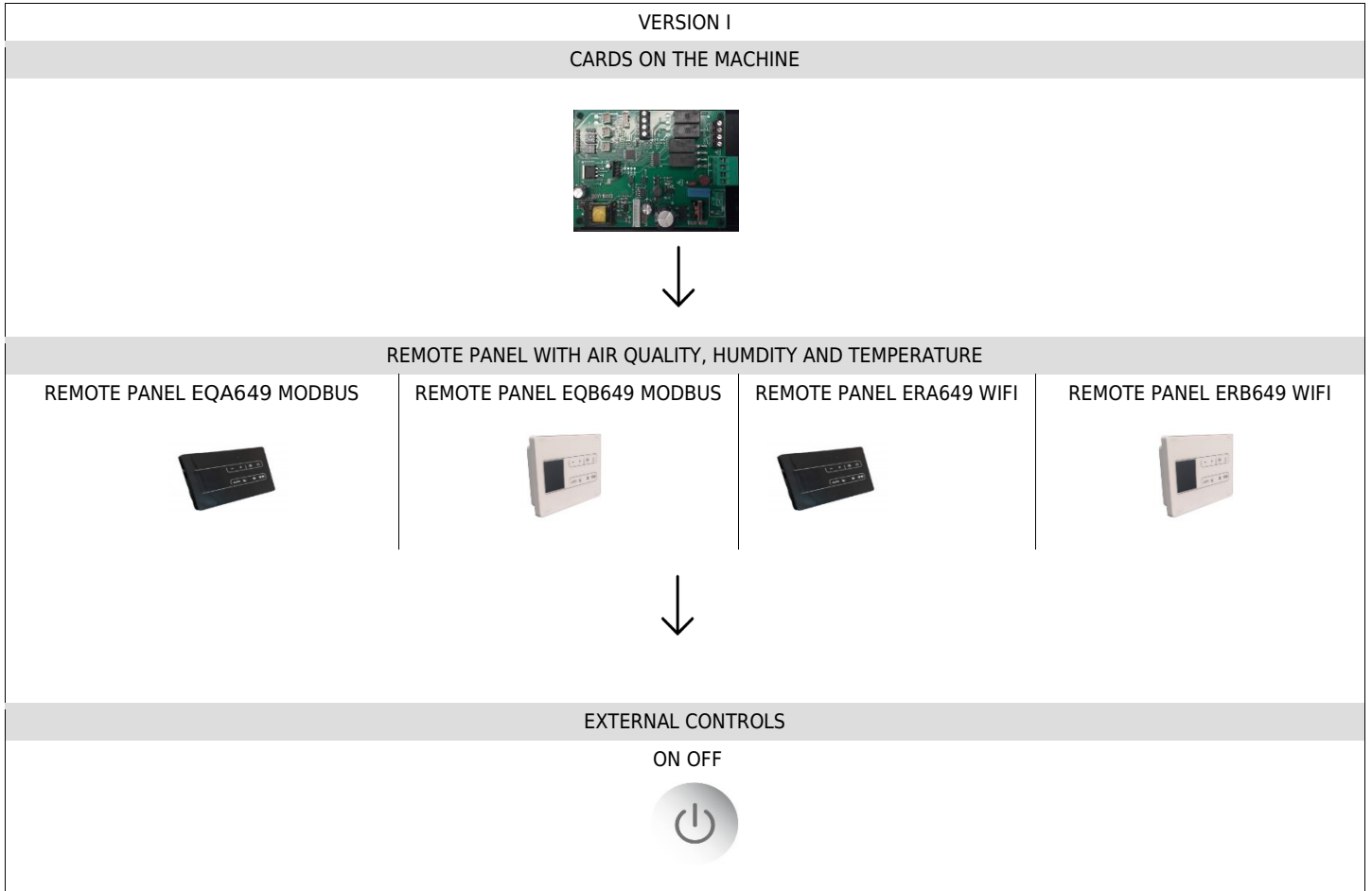
### CONSTRUCTION FEATURES

HRC+ is a ventilation unit complete with heat recovery unit dedicated to air exchange without wasting energy. The unit is particularly suitable for single individual environments where it is not possible to create ducted systems;

<b>CHASSIS:</b>	Self-supporting frame in sheet metal with polyethylene insulated interiors;
<b>HEAT EXCHANGER:</b>	High efficiency countercurrent cross flow polypropylene exchanger. Low freezing temperatures and operation down to -25 ° C. Very high exchange efficiency.
<b>FANS:</b>	Brushless forward curved centrifugal fans with electronic motor and modulating control. Very high efficiency and low noise levels.
<b>FILTERS:</b>	70% ePM1 filters with low pressure drop. Easily removable by removing the lower external panels;
<b>FREE COOLING:</b>	Free cooling realized inside the unit with large air passage and damper with motorized actuator.
<b>ELECTRICAL CABINET:</b>	VERSION I Electrical panel complete with 4-speed fan management card, antifreeze, automatic bypass, temperature probes, management of post-heating coils and automatic dirty filter signaling. Mandatory control panel for unit operation with capacitive touch, integrated temperature, air quality and humidity sensors; for mounting on box 502-503 or on the wall; Wifi chip for management via remote APP;
<b>EFFICIENCY:</b>	Thanks to its construction features and its components, it is able to achieve recovery efficiency greater than 90%. In the winter and summer seasons there is a significant energy recovery of the renewal air introduced into the environment.

## CONTROLS FUNCTIONALITY

The composition of the three possible electronics of the unit and the functions of the various versions is defined below:



## UNIT CONFIGURATION

	-1-	-2-	-3-
HRC +	60	H.	I

**1) Defines the maximum flow rate**

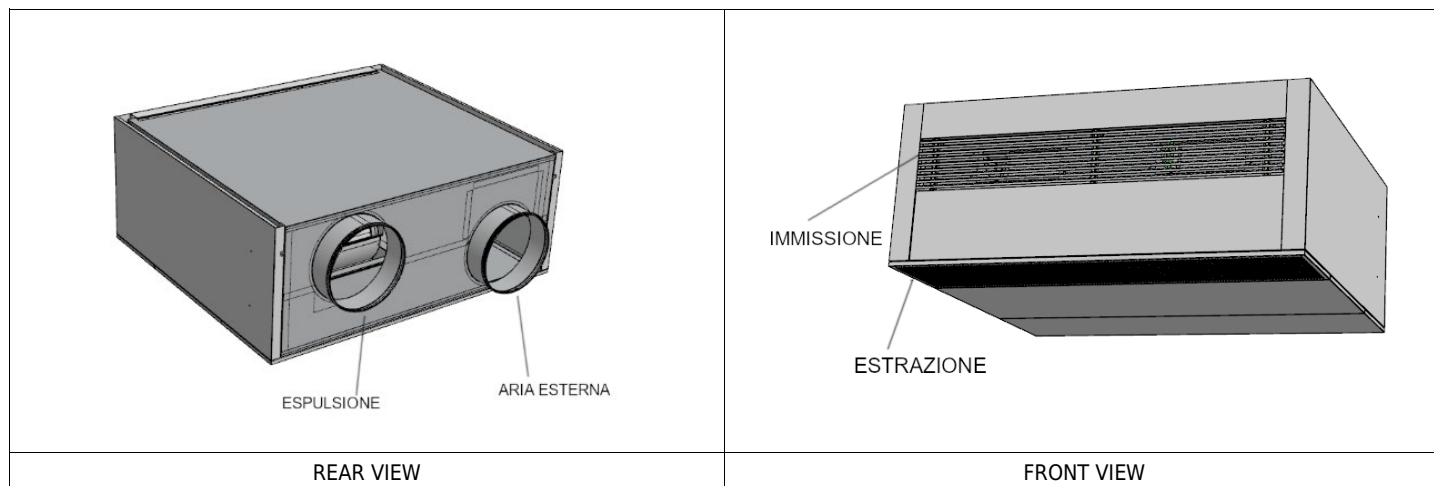
Models from: 600 m<sup>3</sup> / h and 1150m<sup>3</sup> / H

**2) Type of installation**

H: horizontal

**3) Type of control**

I: electronics I



### RANGE TECHNICAL FEATURES

#### GENERAL TECHNICAL DATA

<b>Size</b>	<b>60 H</b>
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#### Fans

Type of Fans		Forward curved centrifugal fans - directly coupled electronic motor - 0/10 V signal
Number of fans	Nr	2 + 1
Air flow V3 / V2 / V1	mc / h	620/355/165
Useful pressure	Pa	15

**Heat exchanger** (Data referred to the UNI EN 13141-7 standard - Internal temperature 20 ° - Internal humidity 28% - External temperature 7 ° - External humidity 72%)

Type of exchanger		Counter-current plates - polypropylene material
Number of Exchangers	Nr	2
Recovery efficiency EN13141-7	%	86.1
EN305 recovery efficiency	%	91.8

#### Filters

Type of filters		Pleated filters
Filtration class		ePM1 70

**Acoustic data** (Data referred to UNI EN 3741 and UNI EN 3744)

Sound power Lw transmitted by the structure	dB (A)	59
Sound pressure at 3 meters V1	dB (A)	41
Sound pressure at 3 mt V2	dB (A)	36
Sound pressure at 3 meters V3	dB (A)	33

#### Electrical Data

Supply voltage	V.	230/1/50 Hz.
Current consumption	TO	3.5
Max absorbed power	W	340
Power consumption V3 With 15pa pressure and clean filters		165
Degree of protection	IP	X0

#### Dimensional

Length	mm	1040
Depth	mm	905
Height	mm	405
Connection diameter	mm	250
Condensate drain	mm	20

### RANGE TECHNICAL FEATURES

#### GENERAL TECHNICAL DATA

<b>Size</b>	<b>120 H</b>
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#### Fans

Type of Fans		Forward curved centrifugal fans - directly coupled electronic motor - 0/10 V signal
Number of fans	Nr	3 + 2
Air flow V3 / V2 / V1	mc / h	1150/750/255
Useful pressure	Pa	15

**Heat exchanger** (Data referred to the UNI EN 13141-7 standard - Internal temperature 20 ° - Internal humidity 28% - External temperature 7 ° - External humidity 72%)

Type of exchanger		Counter-current plates - polypropylene material
Number of Exchangers	Nr	2
Recovery efficiency EN13141-7	%	84.9
EN305 recovery efficiency	%	90.4

#### Filters

Type of filters		Pleated filters
Filtration class		ePM1 70

**Acoustic data** (Data referred to UNI EN 3741 and UNI EN 3744)

Sound power Lw transmitted by the structure	dB (A)	62
Sound pressure at 3 meters V1	dB (A)	43
Sound pressure at 3 mt V2	dB (A)	37
Sound pressure at 3 meters V3	dB (A)	34

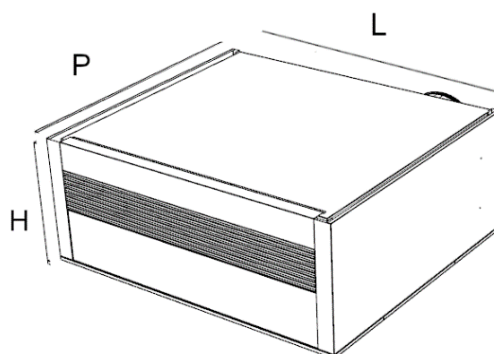
#### Electrical Data

Supply voltage	V.	230/1/50 Hz.
Current consumption	TO	3.5
Max absorbed power	W	620
Power consumption V3 With 15pa pressure and clean filters		355
Degree of protection	IP	X0

#### Dimensional

Length	mm	1440
Depth	mm	905
Height	mm	405
Connection diameter	mm	250
Condensate drain	mm	20


**DIMENSIONAL AND FUNCTIONAL SPACES**



		<b>HRC + 60</b>	<b>HRC + 120</b>
<b>Width A</b>	mm	1040	1440
<b>Depth B</b>	mm	905	905
<b>Height C.</b>	mm	405	405
<b>Diameter DN</b>	OR	250	250
<b>Weight</b>	Kg	71	88
<b>Condensation</b>	OR	20	20



**ITEM OF SPECIFICATIONS**

	<p>Ventilation unit with high flow heat recovery for decentralized applications;</p> <p>Specific unit for ventilation in environments with the need for ventilation and air treatment, such as commercial environments, offices, schools and small service sectors;</p> <p><u>CONSTRUCTION FEATURES</u></p> <p>self-supporting structure in galvanized sheet with internal polyethylene insulation;</p> <p>Heat exchangers and counter-current cross flows with maximum seal and absence of leakage of traditional heat exchangers;</p> <p>Compact dimensions for simplified ceiling installation with easily accessible lower panels for maintenance and inspection.</p> <p>Circular inlets for the air ducts to the outside with grilles, installation template supplied;</p> <p>Quick filter inspection and drain for condensate evacuation;</p> <p>Electrical panel with management cards and power cables and remote panel predisposed;</p> <p>forward curved centrifugal fans with EC motors with electronic flow control and low consumption</p> <p>ePM1 class filters with low pressure drop for external air and stale air</p> <p>Electrical panel on board the unit with microprocessor and dedicated regulation. Fan management, temperature display, timed dirty filter management, free cooling management and antifreeze function;</p> <p>Remote control panel with WIFI and APP or modbus RTU to be purchased separately</p>
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### PRODUCT DETAILS

<b>B.</b>	<b>Model identifier</b>		<b>HRC + 60</b>
C.	Type declared		UVNR
D.	Drive type installed		Variable speed
AND	Heat recovery system		In recovery
F.	Thermal efficiency of heat recovery	%	86.1
H.	Nominal flow	Mc / s	0.172
THE	SPF int	W / (m <sup>3</sup> / s)	634
J	Front speed	M / s	1.19
K	Nominal external pressure (Dps, ext)	Pa	15
L	Internal pressure drop (Dps, int)	Pa	194
M.	Internal pressure drop to components unrelated to ventilation (Dps, int)	Pa	/
No.	Static efficiency of the fans as per EU 327/2011	%	31
OR	Maximum percentages of leakage declared	%	2.5 ext. / 2.9 int.
P.	Energy classification of filters		F7 / F7
Q	Location and description of the signal related to the filter		Displayed on control panel and unit manual
R.	Sound power level	Lwa	55
S.	Internet address for disassembly instructions		

# HIGH EFFICIENCY HEAT RECOVERY UNIT

## DATA SHEET



TO			
<b>B.</b>	<b>Model identifier</b>		<b>HRC + 120</b>
C.	Type declared		UVNR
D.	Drive type installed		Variable speed
AND	Heat recovery system		In recovery
F.	Thermal efficiency of heat recovery	%	85.3
H.	Nominal flow	Mc / s	0.313
THE	SPF int	W / (m <sup>3</sup> / s)	651
J	Front speed	M / s	1.21
K	Nominal external pressure (Dps, ext)	Pa	15
L	Internal pressure drop (Dps, int)	Pa	199
M.	Internal pressure drop to components unrelated to ventilation (Dps, int)	Pa	/
No.	Static efficiency of the fans as per EU 327/2011	%	37
OR	Maximum percentages of leakage declared	%	2.1 ext / 2.5 int
P.	Energy classification of filters		F7 / F7
Q	Location and description of the signal related to the filter		Displayed on control panel and unit manual
R.	Sound power level	Lwa	57
S.	Internet address for disassembly instructions		

### LIST OF ACCESSORIES

#### COMMANDS FOR WALL CONTROL

##### **EQA649 / EQB649**

Remote panel for mounting on box 502-503 or on the wall;  
 Speed, temperature and operating modes control;  
 Integrated air quality, temperature and humidity sensor  
 Maximum connection length 50 m if made with 4-wire braided shielded cable.  
 Black and white version



#### COMMANDS FOR WALL CONTROL

##### **ERA649 / ERB649**

Remote panel for mounting on box 502-503 or on the wall;  
 Speed, temperature and operating modes control;  
 Integrated air quality, temperature and humidity sensor  
 Maximum connection length 50 m if made with 4-wire braided shielded cable.  
 Wifi control for management via smartphone or tablet and dedicated APP;  
 Black and white version



#### **SPARE FILTERS**

Kit consisting of two F7 filters for unit maintenance;  
 The filters are easily removable through the dedicated inspectionable ports;



#### **UVC**

The UVC system, with germicidal action, foresees UVC lamp and power supply wired and installed inside the unit to be selected when ordering;  
 The lamp has a UVC wavelength of 254 nm;  
 Lamp life is estimated at 10,000 hours of operation;



Template

UVR1

Drive compatible model

Channeled models

Nominal electrical power

Watt

36

Diet

/

230 V / 1/50

Wave Length

margin no

254


Bulb Length


mm


350


# HIGH EFFICIENCY HEAT RECOVERY UNIT

## DATA SHEET

<b>Replacement UV lamp</b>	
Kit consisting of a bulb for the UVC system placed inside the unit;	

<b>SPARE FILTERS F7</b>	
Kit consisting of two F7 filters for unit maintenance; The filters are easily removable through the dedicated inspectionable ports;	

<b>EXTERNAL GRIDS 250 mm</b>	
Kit consisting of two external grids for external wall holes diameter 250 mm;	

<b>SILENCER DIAMETER 250 mm</b>	
Kit consisting of 2 silencers length 500 mm for noise reduction from the outside Certified with the unit in the laboratory for Dnew value	

### UNIT ORDERING CODESTO

#### HRC + - With sensitive heat exchanger horizontal installation

Template	Description	Code
HRC + 60 HI	High efficiency and high flow decentralized heat recovery unit with sensitive heat exchanger and	VRVP60OC1II
HRC + 120 HI	High efficiency and high flow decentralized heat recovery unit with sensitive heat exchanger and	VRVPX2OC1II

#### HRC + - With enthalpy exchanger horizontal installation

Template	Description	Code
HRC + X 60 HI	High efficiency and high flow decentralized heat recovery unit with enthalpy exchanger and	VRVP60HC1II
HRC + X 120 HI	High efficiency and high flow decentralized heat recovery unit with enthalpy exchanger and	VRVPX2HC1II

#### Commands for wall control

	Smart touch wall control panel with thermostat and probe for temperature, relative humidity and ambient air quality.	
Description	Black colour	White color
Code	EQA649II	EQB649II

#### Commands for wall control

	Smart touch wall control panel. with thermostat and temperature probe, relative humidity and air quality in the room with integrated WiFi module, InnovApp	
Description	Black colour	White color
Code	ERA649II	ERB649II

#### Replacement UVC lamp

Description	Replacement UVC lamp
Code	GR1238II

#### UVC lamp

Description	UVC lamp installed on board the unit
Code	GR1237II

#### Replacement filters

Description	Kit of 2 F7 replacement filters for unit maintenance	
Code	GR1202II	GR1203II
Models	HRC + 60 HI / HRC + X 60 HI	HRC + 120 HI / HRC + X 120 HI

#### Silencers

Description	DN 250 mm silencers, for noise reduction outside
Code	GR1204II

#### External grills

Description	Kit of 2 external grids for eternal wall holes, DN 250 mm
Code	GR1205II



# HIGH EFFICIENCY HEAT RECOVERY UNIT

## DATA SHEET



### CE marking

The CE marking (present on each machine) certifies compliance with the following Community standards:

- Low Voltage Directive 2014/35 / EC
- Electromagnetic Compatibility Directive 2014/30 / EC
- Ecodesign 2009/125 / EC

<p>The data contained in this technical catalog can be changed by the manufacturer without prior notice.</p>	

**TECHNICAL SHEET-2022 rev.00**