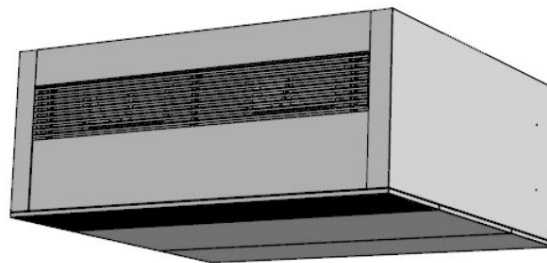


HIGH EFFICIENCY HEAT RECOVERY UNIT

TECHNICAL SHEET 01-2022

HRU H Passive

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



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GENERAL FEATURES

STRUCTURE

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



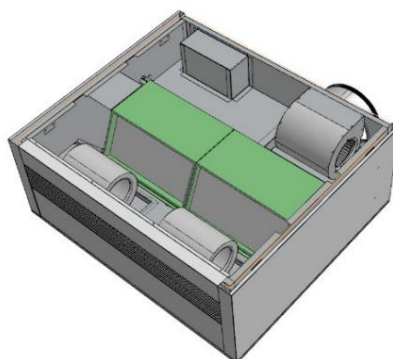
FANS

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 there are two filters with ePM1 filtration class



BYPASS

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



CONTROL

The unit provides for the possibility of supply with 1 type of control:

I-Simplified touch control

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CONSTRUCTION FEATURES

HRU H.Passive 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;

CHASSIS :

Self-supporting metal frame with polyethylene insulated interiors;

HEAT EXCHANGER :

High efficiency counter current cross flow polypropylene exchanger.
Low freezing temperatures and operation down to -25 °.
Very high exchange efficiency.

FANS:

Brushless forward curved centrifugal fans with electronic motor and modulating control.
Very high efficiency and low noise levels.

FILTERS:

70% ePM1 filters with low pressure drop.
Easily removable by removing the lower external panels;

FREE COOLING:

Free cooling realized inside the unit with large air passage and damper with motorized actuator.

ELECTRICAL CABINET :

VERSION I
Electrical panel complete with 4-speed fan management board, antifreeze, automatic bypass, temperature probes, management of post-heating coils and automatic dirty filter signaling.
Control panel mandatory for unit operation with capacitive touch
for mounting on box 503 or on the wall;

EFFICIENCY:

Thanks to its construction features and its components, it can save recovery efficiency more than 90%.

In the winter and summer seasons there is a great energy recovery of the renewal air introduced into the environment.

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COMMANDS FUNCTIONALITY

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

VERSION

CARDS ON THE MACHINE



REMOTE PANELS

REMOTE WIFI PANEL



SENSORS

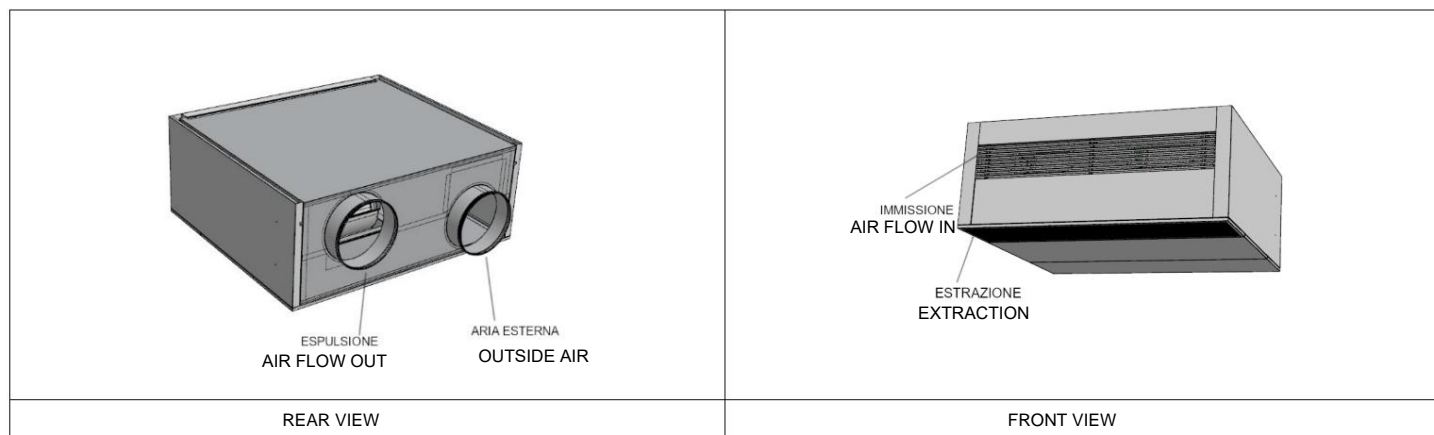
CO2 SENSOR



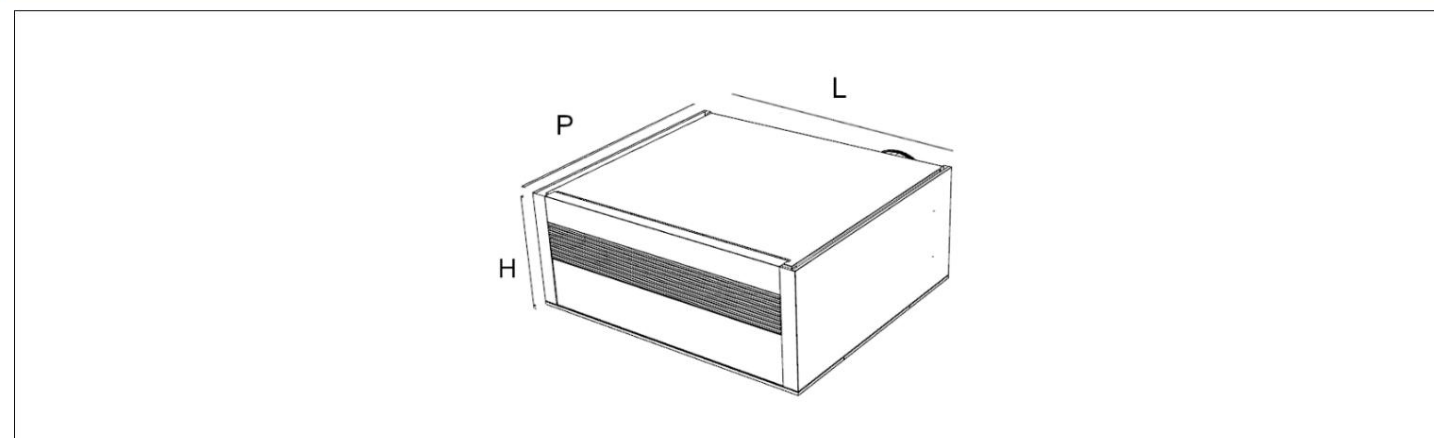
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UNIT CONFIGURATION



DIMENSIONAL AND FUNCTIONAL SPACES



Width L mm		1040
Depth P mm		905
Height H mm		405
Diameter DN	OR	250
Weight	Kg	71
Condensation	OR	20

HIGH EFFICIENCY HEAT RECOVERY UNIT

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RANGE TECHNICAL FEATURES

GENERAL TECHNICAL DATA

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
Recovery efficiency EN305	%	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 mt V1 dB (A)		41
Sound pressure at 3 mt V2 dB (A)		36
Sound pressure at 3 mt 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

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PRODUCT DETAILS

B.	Model identifier		HRU H Passive
C.	Type declared		UVNR
D	Type of drive installed		Variable speed
AND	Heat recovery system		In recovery
F.	Thermal efficiency of heat recovery	%	86.1
H.	Nominal flow	Mc / s	0.172
.	SPF int	W / (m3 / 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

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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

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