

TECHNICAL DATA SHEET

VALSIR® HRV SYSTEMS

IDRONICA HORIZONTAL



valsir®
QUALITY FOR PLUMBING

IDRONICA HORIZONTAL

Air treatment units, recirculating and partial renewal, equipped with high efficiency regenerator. The unit is equipped with a compressor on board, so in the summer the unit must be supplied with water at the same plant radiant temperature (flow between 15 and 20 ° C). Thanks to the post-heating coil and the diverter valves of the internal circuit, during the air dehumidification in summer can be fed into the neutral room temperature (isotherm dehumidification) or at a lower temperature (dehumidification with integration). In winter, feeding the battery with hot water, is possible to integrate the radiant system operation.



Self-supporting double panel made of galvanized sheet steel, overall thickness of 20 mm for the outer panels, 10 mm for interior panels.

The sturdy structure prevents vibrations and includes the fixing brackets to ceiling or wall. The accessibility to the internal components is ensured by opening the front panel for easy access.

Class G4 filter, 25 mm thick, made of synthetic material, extraction of the filters by means of independent branches. Fan brushless EC motor with low consumption to modulating control, IP54 protection, complete with thermal protection of the motor and electronics.

The impeller is reinforced with nylon charge PA6-25GF with backward curved blades directly coupled to the motor.

Battery made from copper tube and high efficiency corrugated aluminum fins.

Nominal pressure PN10; hydrophilic treatment to increase the heat exchange also in the presence of high humidity. Water trap in galvanized powder coated steel.

The pan shape facilitates the outflow and ensures minimum water stagnation. 3 mm thick polyethylene foam insulation. Thermal and acoustic insulation in polyurethane foam with a thickness of 20 mm for the outer panels, foam insulation of 10 mm thick polyethylene for the inner panels.

High efficiency countercurrent cross flow recuperator, made of polystyrene, material resistant to major corrosive agents.

Electrical panel made in an easily accessible galvanized steel sheet.

Table Technical data

	Idronica	
	260	520
Dehumidification capacity [l/24h]	43,2	84,0
Total cooling capacity [W]	2280	4510
Total thermal power (50°C water) [W]	2120	4220
Total thermal power (35°C water) [W]	1050	2100
Nominal winter recovery efficiency [%]	93	91
Nominal summer recovery efficiency [%]	89	85
Supply [V-Hz]	230V-50Hz	230V-50Hz
Absorbed power of the compressor [W]	nd	nd
Inlet Ventilator power [W] (*)	57	129
Outlet Ventilator power [W] (*)	22	55
Inlet Ventilator useful prevalence [Pa] (*)	170	230
Outlet Ventilator useful prevalence [Pa] (*)	140	195
Water flor rate [l/h]	390	770
Pressure losses in the circuit [kPa]	20	20
External air flow rate [mc/h]	130	260
Renewal air flow rate [mc/h]	130	260
Renewal + recirculation air flow rate [mc/h]	260	520
Max absorbed current [A]	1,1	2,2
Refrigerant gas	nd	nd
Weight (Horizontal) [kg]	100	130
Weight (Vertical) [kg]	120	150
Acoustic power [dB(A)] (**)	46	51
Acoustic pressure [dB(A)] (***)	37	42

(*) Data referred to the fans calibrated at 8V (on a scale with a maximum of 10V) to the nominal flow rate of air

(**) Sound power radiated with ducted machine at 50Pa

(***) Sound pressure under the conditions as above, measured at a distance of 1m

The performances are referred to the following conditions:

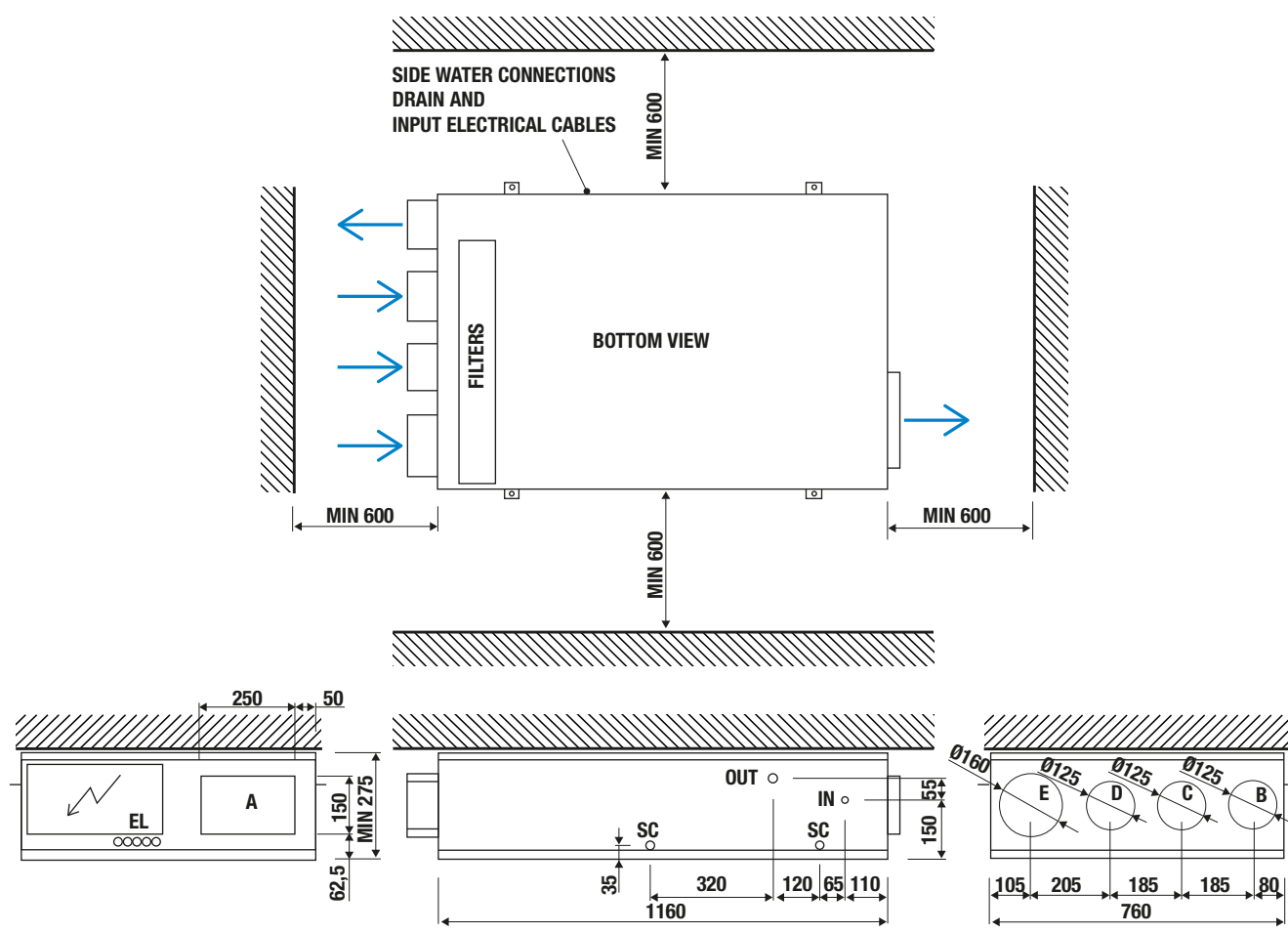
SUMMER:

Room temperature 26°C; relative humidity 65%,
 External air temperature 35°C; relative humidity 50%
 Inlet water temperature 7°C.

WINTER:

External air temperature -5°C; relative humidity 80%,
 Room temperature 20°C; relative humidity 50%
 Inlet water temperature 35°/50°C

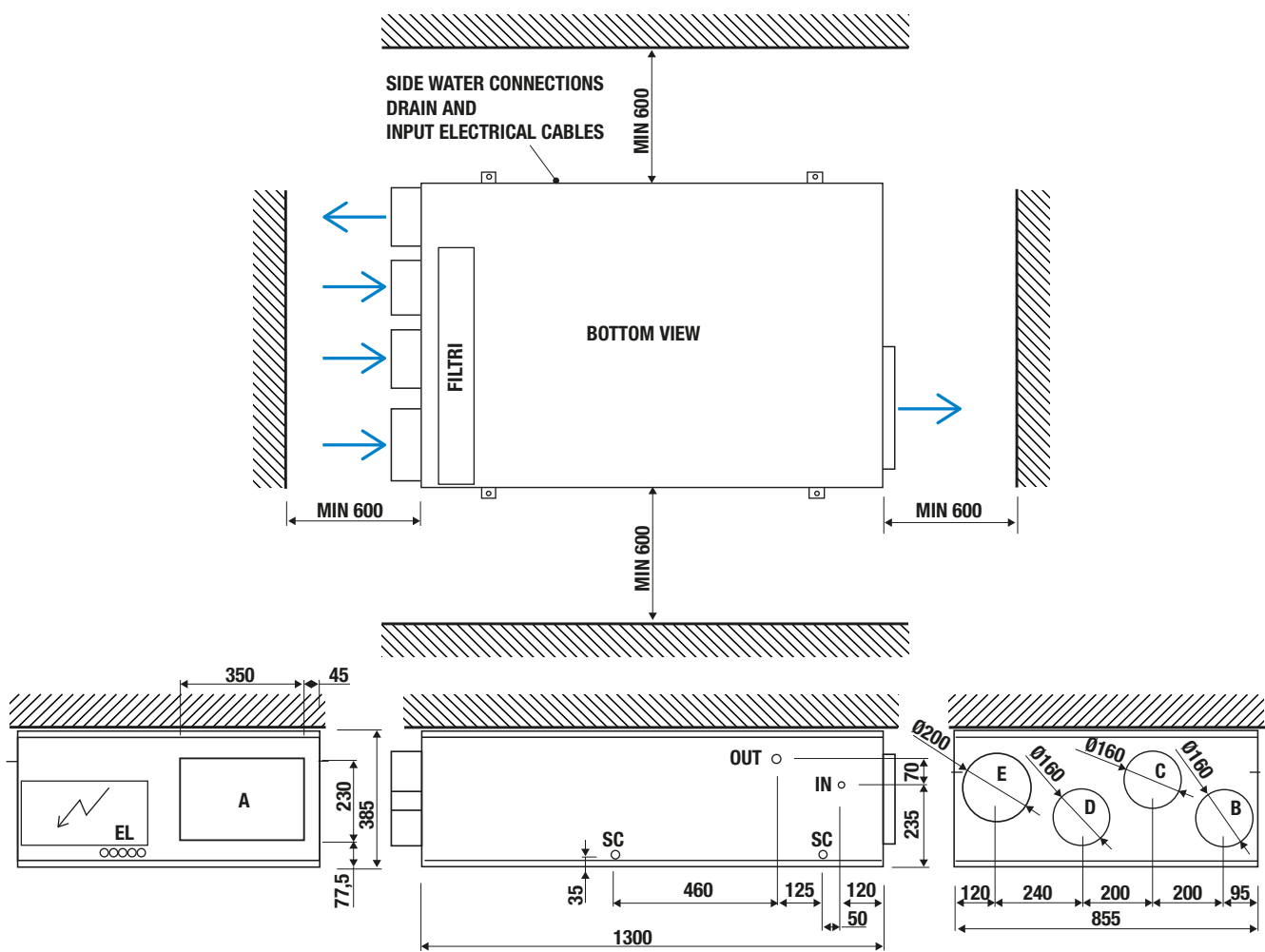
Figura Unit 260 horizontal dimentions



A	Flow to environment
B	Expulsion
C	External Air Intake
D	Foul Air Intake
E	Recirculation Air Intake

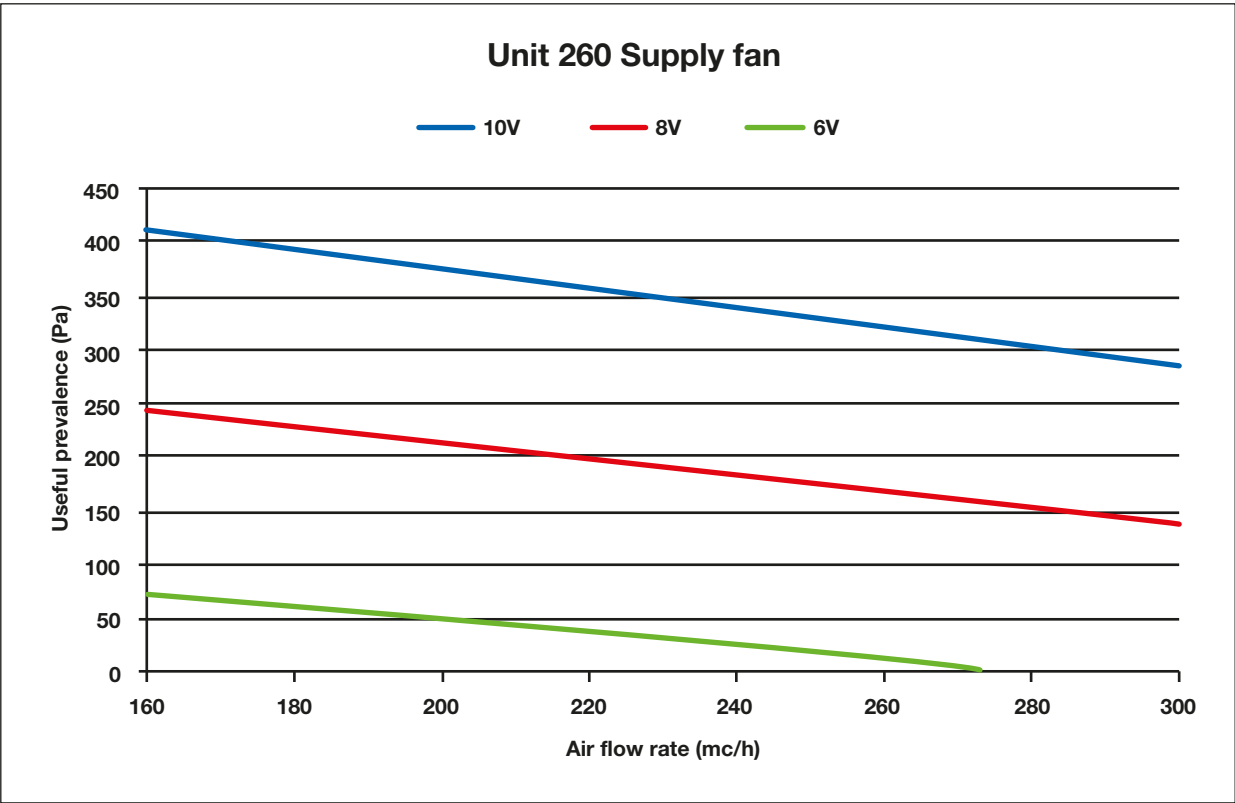
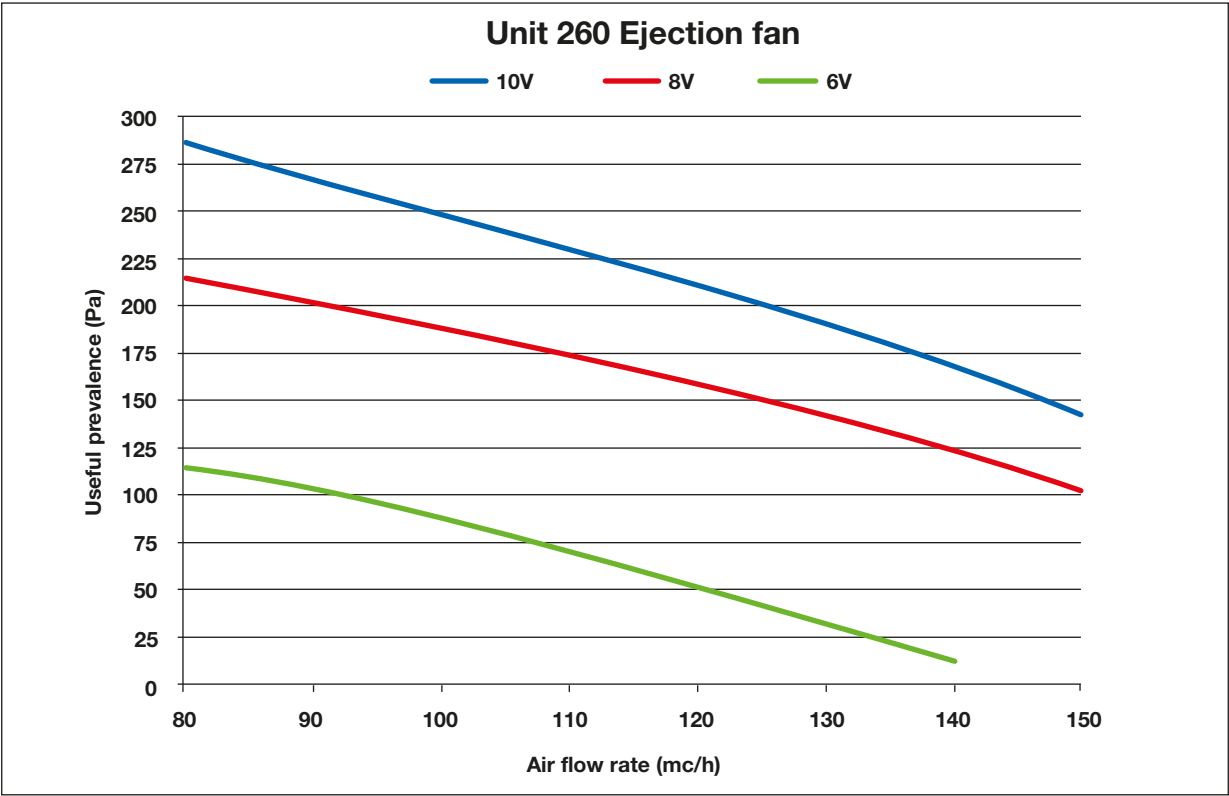
IN	Primary Battery IN	1/2"
OUT	Primary Battery OUT	1/2"
SC	Condensation	d.12
EL	Electrical wires inlet	

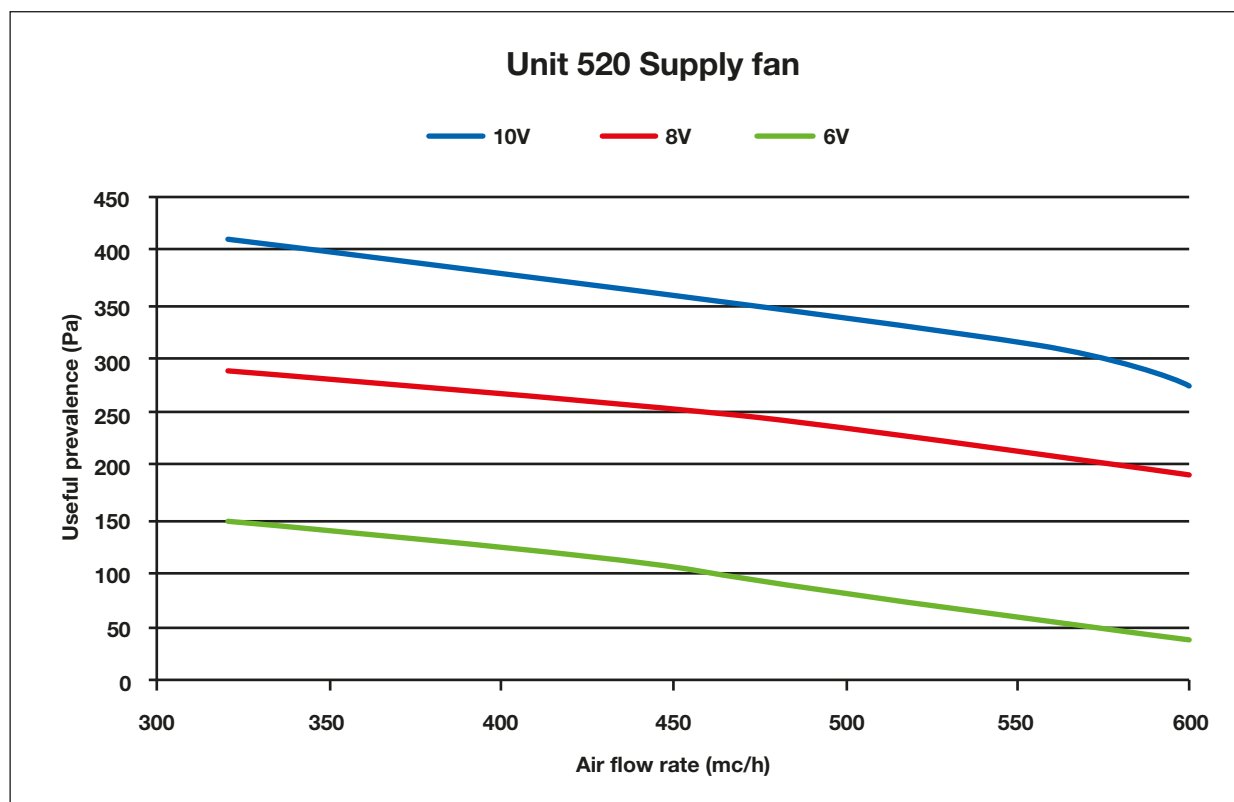
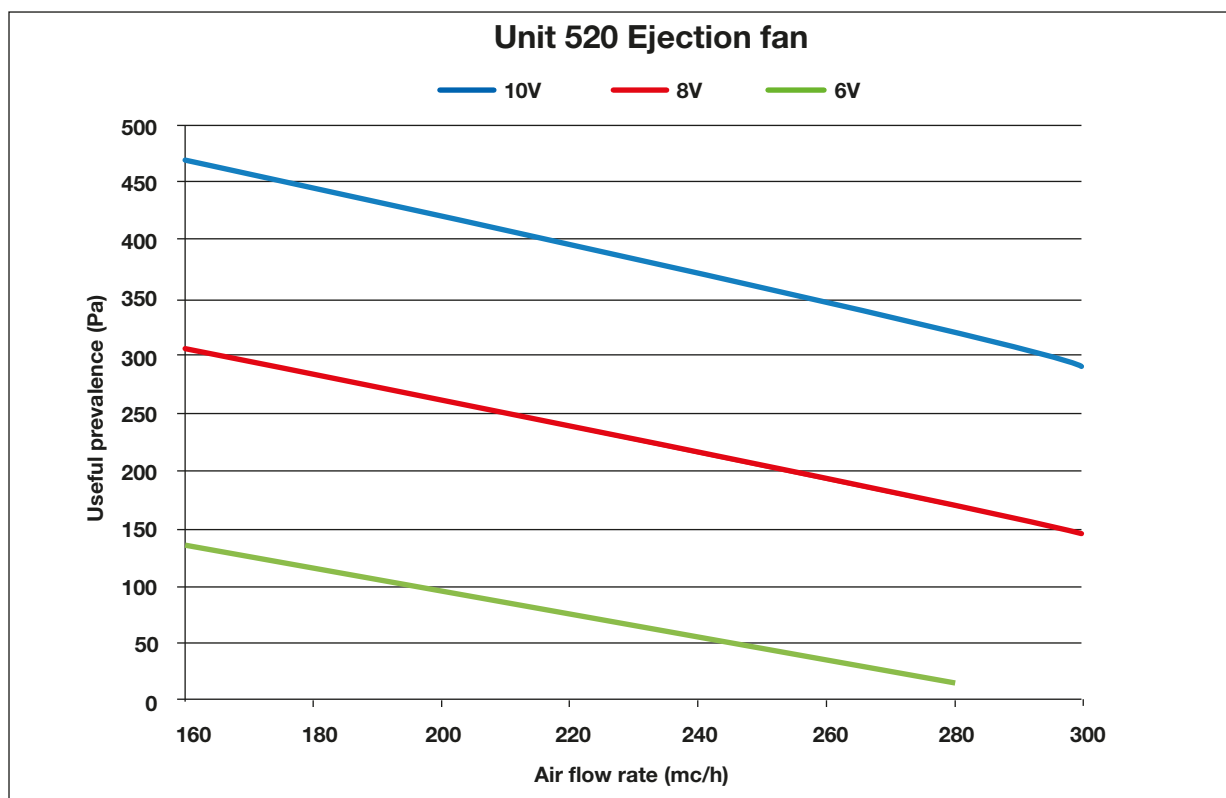
Figura Unit 520 horizontal dimintions



A	Flow to environment
B	Expulsion
C	External Air Intake
D	Foul Air Intake
E	Recirculation Air Intake

IN	Primary Battery IN	1/2"
OUT	Primary Battery OUT	1/2"
SC	Condensation	d.12
EL	Electrical wires inlet	

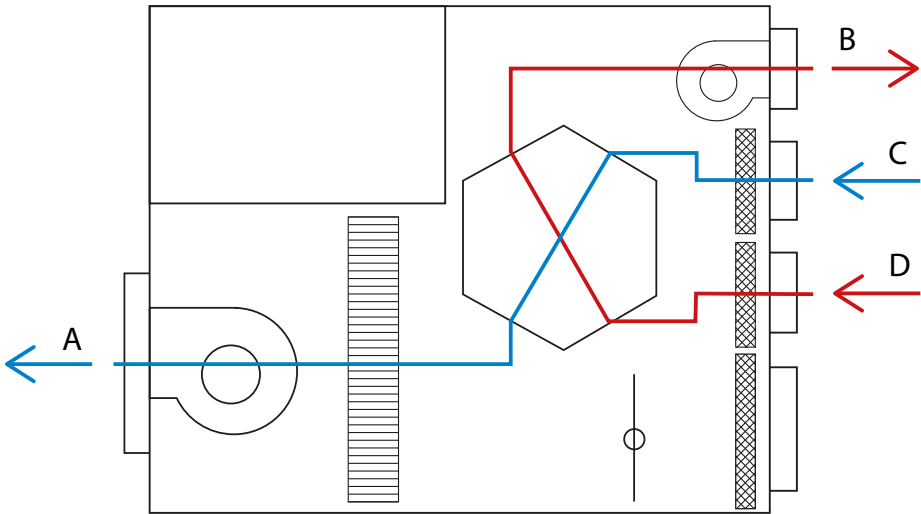




Operating mode

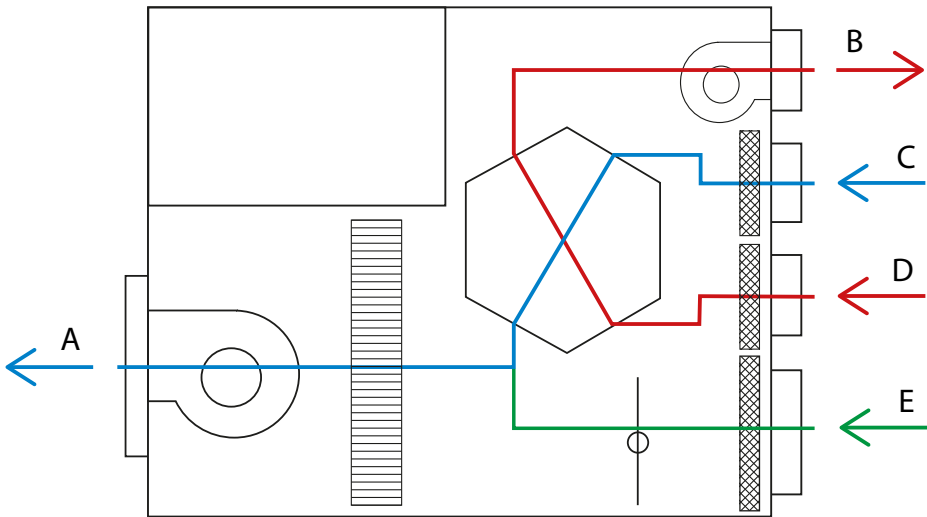
Renewal

In this operation there is no water flowing into the battery.
The supply air is 100% fresh air and is treated only by passing through the heat exchanger.



Renewal with recirculation

In this operation, in summer and in winter there is water circulating in the battery. The supply air is a mixture of fresh air (treated by passing through the heat exchanger) and recirculation air. Before being released into the environment, the air is treated by the battery, where is dehumidified and cooled or heated depending on the necessity.



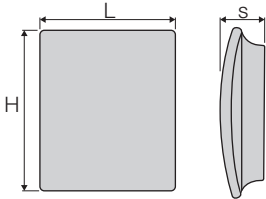
		260	520
A	Flow to environment	260mc/h	520mc/h
B	Expulsion	80 - 130mc/h	160-260 mc/h
C	External Air Intake	80 - 130mc/h	160-260 mc/h
D	Foul Air Intake	80 - 130mc/h	160-260 mc/h
E	Recirculation Air Intake	130-180mc/h	260-360 mc/h

Wall VOC sensor for ARIA, IDRONICA, ISOTERMA and MAXIMA recovery unit models



HxLxP	Air quality
81x79x26	0... 100%

CO2 and temperature wall sensor for ARIA, IDRONICA, ISOTERMA and MAXIMA recovery unit models



L	H	s	Mod.
85	100	26	Aria, Idronica, Isotherma, Maxima

3-filter kit for IDRONICA, ISOTERMA and MAXIMA recovery unit models



Air Flow rate	Type
260 m³/h	Horizontal
260 m³/h	Vertical
520 m³/h	Horizontal
520 m³/h	Vertical

Humidity wall sensor for heat recovery unit with dehumidification for IDRONICA, ISOTERMA and MAXIMA models



Mod.

Idronica, Isoterma, Maxima

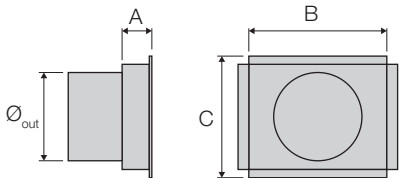
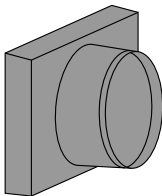
Remote panel spare part for heat recovery units with dehumidification IDRONICA, ISOTERMA and MAXIMA models



Mod.

Idronica, Isoterma, Maxima

Plenum with circular duct adapter IDRONICA, ISOTERMA and MAXIMA recovery unit models



Mod.	Ø _{out}	A	B	C
Idronica, Isoterma, Maxima	160	50	250	290
Idronica, Isoterma, Maxima	200	50	350	230

Approvals:

The approvals of Valsir® HRV systems are available on the website: www.valsir.com

PLUMBING

WASTE SYSTEMS



SUPPLY SYSTEMS



GAS SYSTEMS



FLUSH SYSTEMS



BATHROOM SYSTEMS



TRAPS



RADIANT SYSTEMS



DRAINAGE SYSTEMS



HRV SYSTEM



ACADEMY



BUILDING

SEWER SYSTEMS



WATER TREATMENT



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