

# HEAT RECOVERY UNITS

## ASPIRCOMFORT 550 V

- ➔ Heat recovery unit with high efficiency up to 90%
- ➔ Vertical installation
- ➔ CH193VMC remote panel



### DESCRIPTION:

ASPIRCOMFORT V is a fan unit complete with heat recovery unit dedicated to air renewal without wasting energy.

The unit is particularly suited for single family units, flats and all cases where the rated air flow rates do not exceed 472 m<sup>3</sup>/h.

### CHARACTERISTICS:

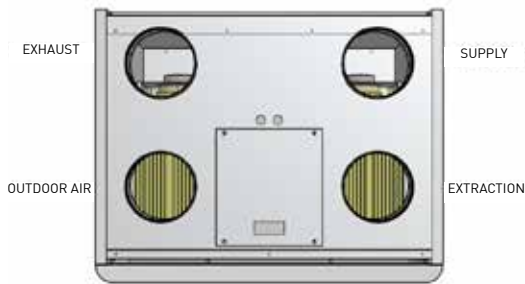
- Self-supporting sheet metal frame. Galvanised sheet metal panels, coated externally with thermal and acoustic insulation, internal high thickness galvanised sheet metal infill.
- Polypropylene high efficiency cross flow counter current exchanger. Low freezing temperatures and operation down to -25°. Very high exchange efficiency.
- Brushless fans with electronic motor and modulating control. Very high efficiency and low noise levels.
- ePM1 70/80% filters with low head loss. Easily removable in either horizontal or vertical positioning.
- Free cooling inside the unit with generous air flow and damper with motorised actuator.
- Electric panel complete with control board for 4 fan speeds, antifreeze, automatic bypass, temperature probes, post-heat coils and automatic dirty filter signal.
- CH193VMC control panel mandatory for unit operation with capacitive touch for installation on 503 box.
- Thanks to its construction features and components, ASPIRCOMFORT H is able to reach recovery efficiency of more than 90%. In the winter and summer seasons there is considerable energy recovery of the renewal air introduced into the room.

# UNIT CONFIGURATION

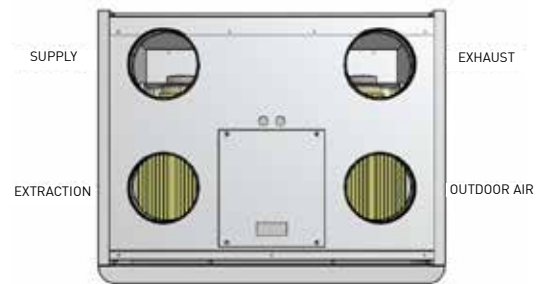
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Code	Maximum flow rate	Installation
AP20058	Up to 472 m <sup>3</sup> /h	vertical

It is possible to obtain the configuration of the desired connections, based on the position of the supplied condensation discharge trap; this makes the unit easily adaptable to the various plant engineering needs.



DEFAULT



CUSTOMISABLE VERSION

The units are shown as seen from above

# ECODESIGN CLASSIFICATION

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Below is a summary of the classification of the various models according to European regulation 1253/2014 and 1254/2014



# CERTIFICATIONS

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The CE marking (applied 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

## TECHNICAL FEATURES

### Fans

Type of Fans		Backward blade radial - directly-coupled electronic motor - 0/10 V signal
Number of Fans	Nr.	2
Air flow rate	m <sup>3</sup> /h	472
Useful pressure	Pa	100

### Heat exchanger

Type of exchanger		Counter current plates - polypropylene
Number of Exchangers	Nr.	1
Recovery efficiency	%	84.5

### Filters

Type of filters		Flat Filters
Filtration class		ePM1 70

### Acoustic data (Data referring to standard UNI EN 3741 and UNI EN 3744 )

Sound power L <sub>w</sub> generated by the structure	dB(A)	66
Sound power L <sub>w</sub> irradiated in the duct	dB(A)	73
Average sound pressure L <sub>p</sub> at 1m	dB(A)	51.9
Average sound pressure L <sub>p</sub> at 3m	dB(A)	44.4

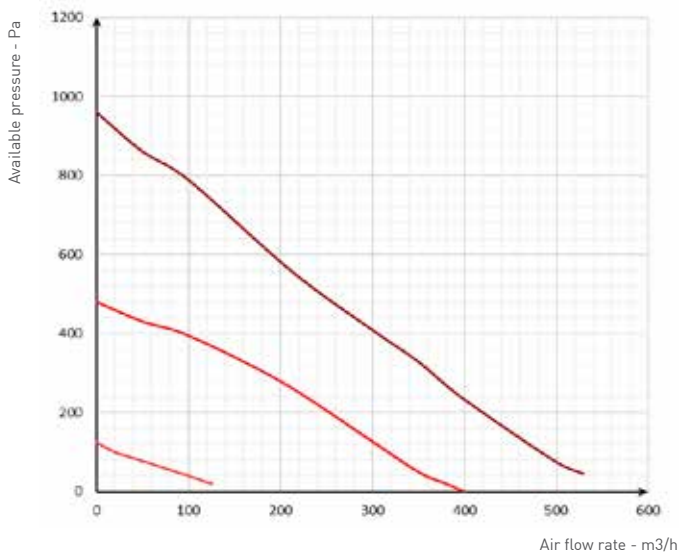
### Electrical Data

Power supply voltage	V	230 / 1 / 50 Hz.
Absorbed current	A	2.5
Power input	W	340
Protection rating	IP	44

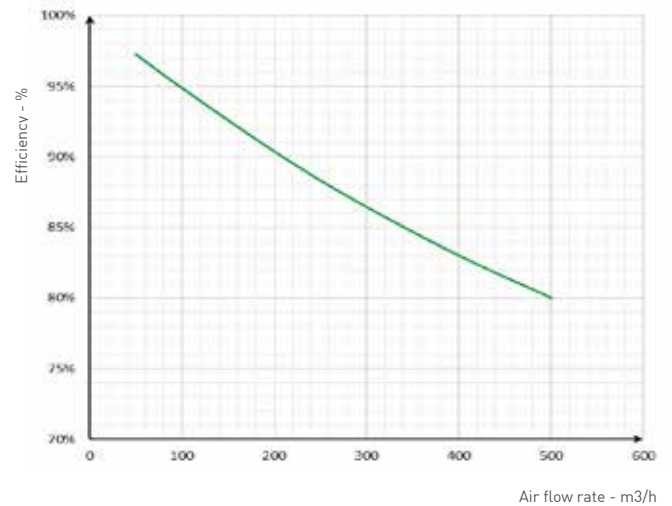
### Dimensions without decorative panel

Width	mm	786
Depth	mm	751
Height	mm	676
Connection diameter	mm	160
Condensate Discharge	mm	16

## AERAULIC PERFORMANCE



## THERMAL EFFICIENCY



Curves referring to the following conditions (UNI EN 13141-7) : Outdoor air 7° - 70% R.h. - Indoor air 20° -28% R.h.

## ERP DATA ECODESIGN AP20058

			Standard	Vers. with enthalpic recovery unit	
A	Supplier name or trademark		Fantini Cosmi	Fantini Cosmi	
B	Model identification		Aspircomfort 550V	Aspircomfort 550V	
C	Version		AP20058 + Regulator CH193VMC with T, RH, Voc, CO2eq	AP20058 + Regulator CH193VMC with T, RH, Voc, CO2eq	
	SEC	Kwh/m2	COLD	-74.10	-70.99
			AVERAGE	-36.60	-35.02
			WARM	-12.50	-11.78
SEC CLASS		<b>A</b>	<b>A</b>		
D	Declared type		UVR - Bidirectional	UVR - Bidirectional	
E	Type of installed drive		Variable speed drive	Variable speed drive	
F	Heat recovery system		Recovery	Recovery	
G	Heat recovery thermal efficiency	%	84.50	78.70	
H	Maximum flow rate	M3/s	0.1310	0.1310	
I	Electric power input at the maximum flow rate	W/h	340.0	340.0	
J	Sound power level	Lwa	66.0	66.0	
K	Reference flow rate	M3/s	0.0920	0.0930	
L	Reference pressure	Pa	50	50	
M	SPI	W / m3/h	0.3430	0.3430	
N	Control factor	CLTR	0.85	0.85	
O	Declared maximum leak percentages	%	6.7 ext. / 6.4 int.	6.7 ext. / 6.4 int.	
Q	Position and description of the signal relative to the filter		Shown on the remote control display of the unit and on the instructions manual	Shown on the remote control display of the unit and on the instructions manual	
S	Website for disassembly instructions		www.fantinosmi.it	www.fantinosmi.it	

## SPECIFICATION ITEM

Fan unit with very high output heat recovery, compact dimensions for ceiling or wall installation.  
 Specific unit for ventilation in single residential buildings and collective flats with low energy demand.  
 Tested and classified according to Ecodesign European regulation ref. 1253/2015 and 1254/2014

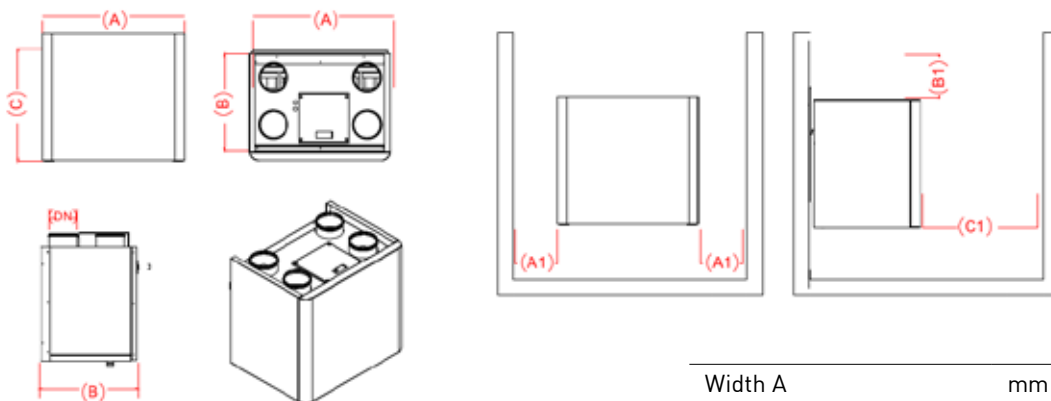
### CONSTRUCTION FEATURES

Double panelling structure with galvanised sheet metal inside and coated on the outside with RAL9003 with insulation in between, with thickness 20mm and density 42 kg/m<sup>3</sup>.  
 Compact dimensions and reduced height for straight forward installation with easily accessible lower panel for maintenance and inspection.  
 Circular inlets with 160mm diameter with sealing gasket for connection to air ducts.  
 Quick tool-free filter inspection and double discharge for condensation exhaust with trap supplied.  
 Electrical board, excluded from the air flow with control boards and control terminal boards.  
 Backward blade radial centrifugal fans with low consumption electronic speed control EC motors.  
 Polypropylene counter current flow static heat exchanger for very high recovery efficiencies of the sensitive (standard configuration) or enthalpic heat (code AP20393 mod. RCH-366/400).  
 Low head loss ePM1 70% class filters.  
 Motorised by-pass with motor inserted in the electric panel for easy maintenance.

### CONTROL AND REGULATION

Electronic board for 3-step speed control, antifreeze function and automatic bypass.  
 CH193VMC remote touch panel, semi-recessed in 503 box with temperature / humidity / air quality sensors.  
 Temperature sensors on board the machine and possibility of hot water auxiliary coil control.

## DIMENSIONS AND FUNCTIONAL SPACES



Width A	mm	786
Depth B	mm	751
Height C	mm	676
Diameter DN	∅	160
A1	mm	50
A1	mm	300
B1	mm	600
Weight	Kg	65
Condensation	∅	20

## ADJUSTMENT (Mandatory)

### CH193VMC - REMOTE CONTROL

Semi-recessed touch screen remote control for installation on 503 box;  
Speed control and operating modes;  
Equipped with temperature, relative humidity and air quality sensor for automatic control of VMC speed. Manual control of the by-pass and electric heating coil control.



## ACCESSORIES

### AP19430 - BE160-2

#### ELECTRIC HEATING COIL COMPLETE WITH REGULATION (FOR POST-HEATING OR PRE-HEATING MODE)

The electric pre/post heating units with circular cross section are built with galvanised sheet metal frame with shielded resistance. They feature circular flanges that facilitate duct installation. The side electrical box is already complete with cable gland to access the components inside:

- Auto-reset thermal protector;
- Manual-reset thermal protector;
- Contactor;
- Adjustable thermostat -35 +35
- Terminal board.

The thermostat installed on the coil makes it possible to directly adjust the supply air temperature



MODEL		BE160-2
Rated electric power	kW	1
Power supply	V	230 V / 1 / 50Hz
Absorption	A	4.5
Diameter	Ø	160

### MP1 FLOOR TYPE OF INSTALLATION KIT

Kit for vertical unit floor installation for use when it is not possible to use the standard bracket for wall installation.



### AP20393 RCH-366/400

#### ENTHALPIC HEAT EXCHANGER FOR AP20058

Cross flow counter current enthalpic heat exchanger for heat and humidity recovery.

## UNIT ORDER CODES

Models with high efficiency exchanger

Code	Model	Description
AP20058	Aspircomfort 550V	Heat recovery unit, for vertical installation, with flow rate of 472 m3/h
CH193VMC		Touch screen remote control (ordered separately)