

# HEAT RECOVERY UNITS

## SERIES ASPIRLIGHT HV

- ➔ Horizontal/vertical installation
- ➔ Constant flow rate with 3 selectable levels
- ➔ CH193VMC remote panel



### DESCRIPTION

ASPIRLIGHT HV 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 320 m<sup>3</sup>/h.

### CHARACTERISTICS

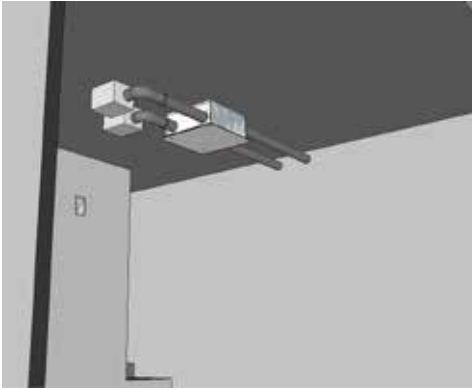
- Self-supporting sheet metal frame. Galvanised sheet metal panels, with external coating, internal high density Eps insulation; Front decorative panel with composite Alucobond.
- Polypropylene high efficiency cross flow counter current exchanger. Low freezing temperatures. Very high exchange efficiency.
- Brushless fans with electronic motor and constant flow rate 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 with automatic control through temperature probes.
- 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, Aspirlight HV 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.

### DESCRIPTION

Code	Model	Description
AP20050	Aspirlight 140HV	Heat recovery unit, for universal installation, with 130 mc/h (@100Pa) flow rate
AP20052	Aspirlight 200HV	Heat recovery unit, for universal installation, with 210 mc/h (@100Pa) flow rate
AP20053	Aspirlight 300HV	Heat recovery unit, for universal installation, with 320 mc/h (@100Pa) flow rate
CH193VMC		Touch screen remote control (to be ordered separately)

# TYPES OF INSTALLATION

## ■ HORIZONTAL INSTALLATION

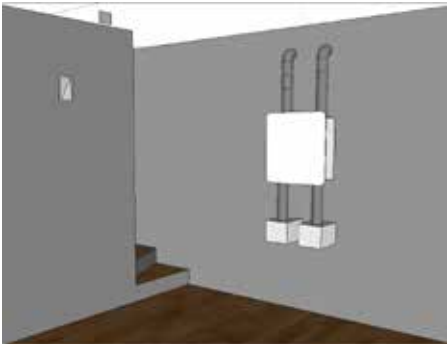


Installation in utility room



Installation in false ceiling

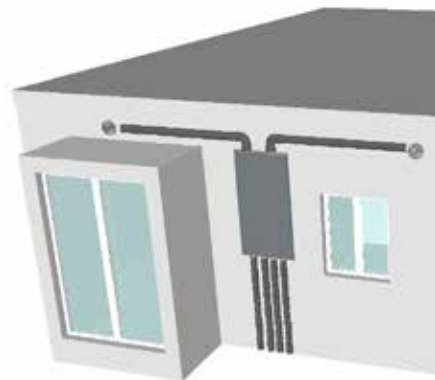
## ■ VERTICAL INSTALLATION



Wall installation



External recessed installation with external intake and direct exhaust using external intake kits (accessory)



External recessed installation with external intake and ducted exhaust

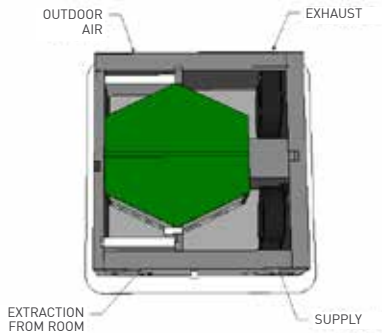


Internal recessed installation

# UNIT CONFIGURATION

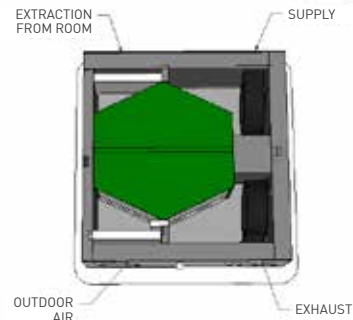
Code	Maximum flow rate
AP20050	Up to 136 m3/h
AP20052	Up to 198 m3/h
AP20053	Up to 320 m3/h

## ■ HORIZONTAL INSTALLATION H



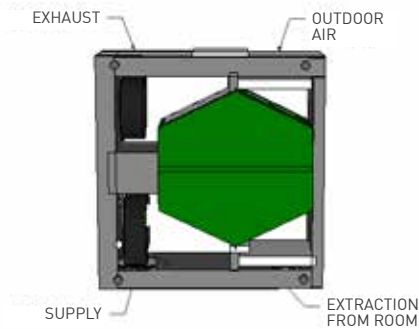
STANDARD VERSION

The units are shown as seen from above



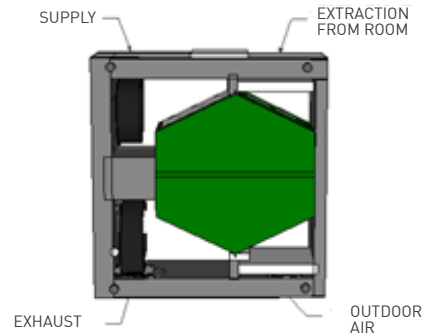
CUSTOMISABLE VERSION

## ■ VERTICAL INSTALLATION V



STANDARD VERSION

The units are shown as seen from the front



CUSTOMISABLE VERSION

# ECODESIGN CLASSIFICATION

AP20050  
AP20052  
AP20053



# CERTIFICATIONS

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	Centrifugal with forward blades directly-coupled Brushless electronic motor	
Number of Fans	Nr.	2
Air flow rate	m <sup>3</sup> /h	130
Useful pressure	Pa	100

### Heat exchanger (Data referring to UNI EN 13141-7 Indoor temp. 20° - Indoor humidity 28% - Outdoor Temp. 7° - Outdoor humidity 72%)

Type of exchanger	Counter current plates - polypropylene	
Number of Exchangers	Nr.	1
Recovery efficiency	%	87

### Filters

Type of filters	Flat Filters	
Filtration class	ePM1 80%	

### 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)	49
Sound power L <sub>w</sub> irradiated in the duct	dB(A)	54
Average sound pressure L <sub>p</sub> at 1m	dB(A)	41
Average sound pressure L <sub>p</sub> at 3m	dB(A)	34

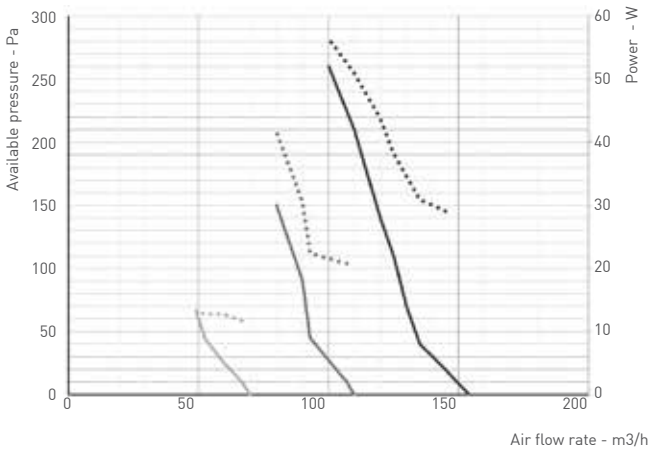
### Electrical Data

Power supply voltage	V	230 / 1 / 50 Hz.
Absorbed current	A	1.2
Power input	W	80
Protection rating	IP	IPX0

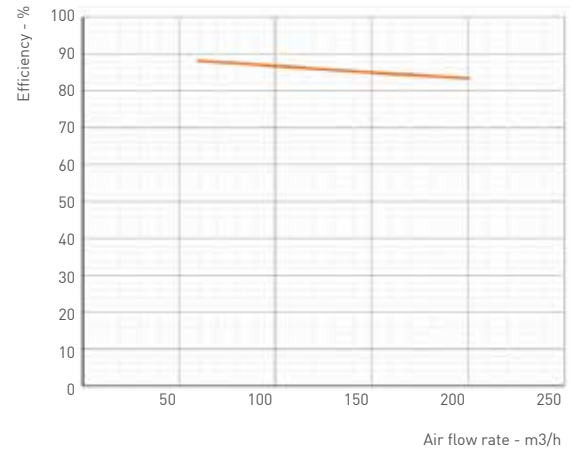
### Dimensional

Width	mm	580
Depth	mm	580
Height	mm	254
Weight	kg	19
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°C - 75% R.h. - Indoor air 20°C -37% R.h.

## ERP DATA ECODESIGN AP20050

			Standard	Vers. with enthalpic recovery unit	
A	Supplier name or trademark		Fantini Cosmi	Fantini Cosmi	
B	Model identification		Aspirlight 140HV	Aspirlight 140HV	
C	Version		AP20050 + Regulator CH193VMC with T, RH, Voc,	AP20050 + Regulator CH193VMC with T, RH, Voc,	
	SEC	Kwh/m2	COLD	-77,1	-68,10
			AVERAGE	-39,57	-32,40
			WARM	-15,1	-9,30
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	%	87,1	89	
H	Maximum flow rate	M3/s	0,036	0.038	
I	Electric power input at the maximum flow rate	W/h	80	80	
J	Sound power level	Lwa	48	48	
K	Reference flow rate	M3/s	0,0253	0,0253	
L	Reference pressure	Pa	50	50	
M	SPI	W / m3/h	0,242	0,242	
N	Control factor	CLTR	0,85	0,85	
O	Declared maximum leak percentages	%	4,1 ext. / 3,1 int.	4,1 ext. / 3,1 int.	
Q	Position and description of the signal relative to the filter		Shown on the remote control display and on the instructions manual	Shown on the remote control display and on the instructions manual	
S	Website for disassembly instructions		<a href="http://www.fantinosmi.it">www.fantinosmi.it</a>	<a href="http://www.fantinosmi.it">www.fantinosmi.it</a>	

# 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

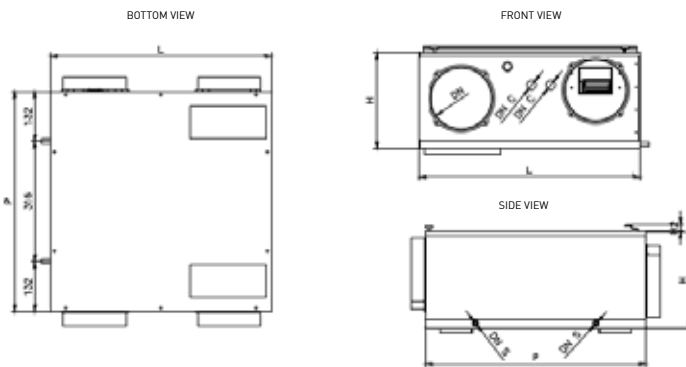
High resistance structure with self-supporting sheet metal frame.  
 Inside parts made of high density polystyrene, compact dimensions and reduced height for straight forward installation with easily accessible lower panel for maintenance and inspection.  
 Circular inlets with 160mm diameter for connection to air ducts.  
 Quick tool-free filter inspection and double discharge for condensation exhaust with trap supplied.  
 Electrical panel, excluded from the air flow with control boards and control terminal boards; forward blade centrifugal fans with low consumption, electronic air flow control EC motors; polypropylene counter current flow static heat exchanger for very high recovery efficiencies of sensitive (standard configuration) or enthalpic (optional code AP20390 RCH-366/160) heat.  
 Low head loss ePM1 80% class filters.  
 By-pass for summer mode;

## CONTROLS AND ADJUSTMENTS

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

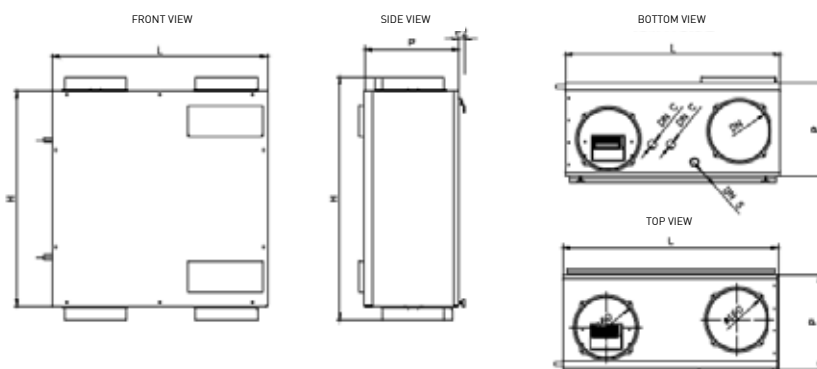
# DIMENSIONS

## ■ CEILING INSTALLATION



Width L	mm	580
Depth P	mm	580
Height H	mm	254
Bracket height H2	mm	16
Air DN	Ø	160
Condensate discharge DN S	mm	12
Cables DN S	mm	16
Weight	Kg	19

## ■ WALL INSTALLATION



Width L	mm	580
Depth P	mm	254
Height H	mm	580
Bracket depth P2	mm	16
Air DN	Ø	160
Condensate discharge DN S	mm	20
Cables DN S	mm	16
Weight	Kg	19

## TECHNICAL FEATURES

### Fans

Type of Fans	Centrifugal with forward blades directly-coupled Brushless electronic motor	
Number of Fans	Nr.	2
Air flow rate	m <sup>3</sup> /h	210
Useful pressure	Pa	100

### Heat exchanger (Data referring to UNI EN 13141-7 Indoor temp. 20° - Indoor humidity 28% - Outdoor Temp. 7° - Outdoor humidity 72%)

Type of exchanger	Counter current plates - polypropylene	
Number of Exchangers	Nr.	1
Recovery efficiency	%	85

### Filters

Type of filters	Flat Filters	
Filtration class	ePM1 80%	

### 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)	51
Sound power L <sub>w</sub> irradiated in the duct	dB(A)	57
Average sound pressure L <sub>p</sub> at 1m	dB(A)	43
Average sound pressure L <sub>p</sub> at 3m	dB(A)	36,0

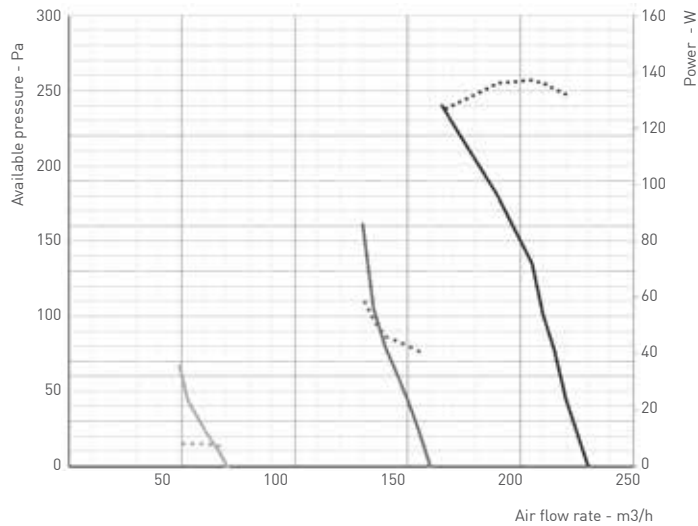
### Electrical Data

Power supply voltage	V	230 / 1 / 50 Hz.
Absorbed current	A	1,2
Power input	W	130
Protection rating	IP	IPX0

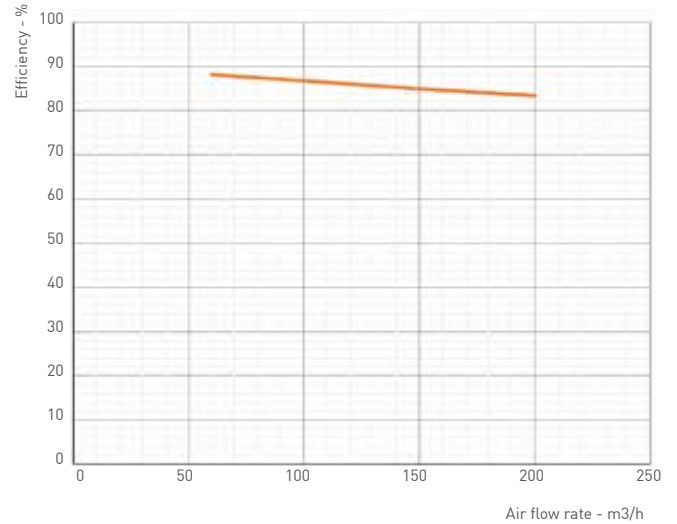
### Dimensional

Width	mm	580
Depth	mm	580
Height	mm	254
Weight	kg	19
Connection diameter	mm	160
Condensate Discharge	mm	16

## AERAUIC PERFORMANCE



## THERMAL EFFICIENCY



Curve riferite alle seguenti condizioni (UNI EN 13141-7): Aria esterna 7°C - 75% UR - Aria interna 20°C - 28% UR

## ERP DATA ECODESIGN AP20052

			Standard	Vers. with enthalpic recovery unit	
A	Supplier name or trademark		Fantini Cosmi	Fantini Cosmi	
B	Model identification		Aspirlight 200HV	Aspirlight 200HV	
C	Version		AP20052 + Regulator CH193VMC with T, RH, Voc,	AP20052 + Regulator CH193VMC with T, RH, Voc,	
	SEC	Kwh/m2	COLD	-75,1	-66,80
			AVERAGE	-37,45	-31,50
			WARM	-13,26	-8,60
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	%	85	88	
H	Maximum flow rate	M3/s	0,0583	0,0583	
I	Electric power input at the maximum flow rate	W/h	130	130	
J	Sound power level	Lwa	51	51	
K	Reference flow rate	M3/s	0,0408	0,0408	
L	Reference pressure	Pa	50	50	
M	SPI	W / m3/h	0,313	0,313	
N	Control factor	CLTR	0,85	0,85	
O	Declared maximum leak percentages	%	4,0 ext. / 2,9 int.	4,0 ext. / 2,9 int.	
Q	Position and description of the signal relative to the filter		Shown on the remote control display and on the instructions manual	Shown on the remote control display and on the instructions manual	
S	Website for disassembly instructions		<a href="http://www.fantincosmi.it">www.fantincosmi.it</a>	<a href="http://www.fantincosmi.it">www.fantincosmi.it</a>	



# SPECIFICATION ITEM

Fan unit with very high output heat recovery, compact dimensions for ceiling or wall installation, wall installation with decorative panel or recessed wall installation with insulated cabinet kit and accessory for non-ducted external intakes. 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

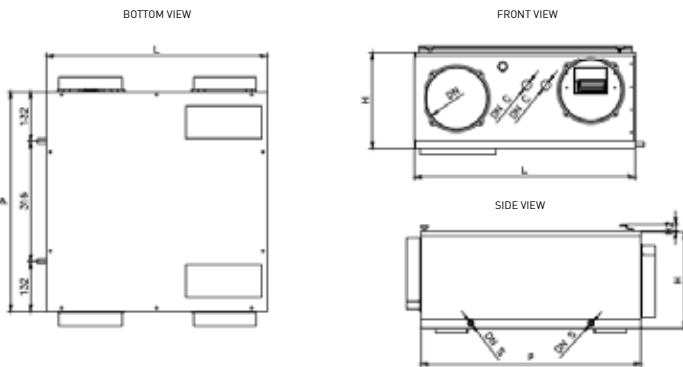
High resistance structure with self-supporting sheet metal frame.  
 Inside parts made of high density polystyrene, compact dimensions and reduced height for straight forward installation with easily accessible lower panel for maintenance and inspection.  
 Circular inlets with 160mm diameter for connection 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.  
 Forward blade centrifugal fans with low consumption, air flow rate electronic control EC motors.  
 Polypropylene counter current flow static heat exchanger for very high recovery efficiencies of the sensitive (standard configuration) or enthalpic heat (optional code AP20390 RCH-366/160).  
 Low head loss ePM1 80% class filters.  
 By-pass for summer mode.

## CONTROLS AND ADJUSTMENTS

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

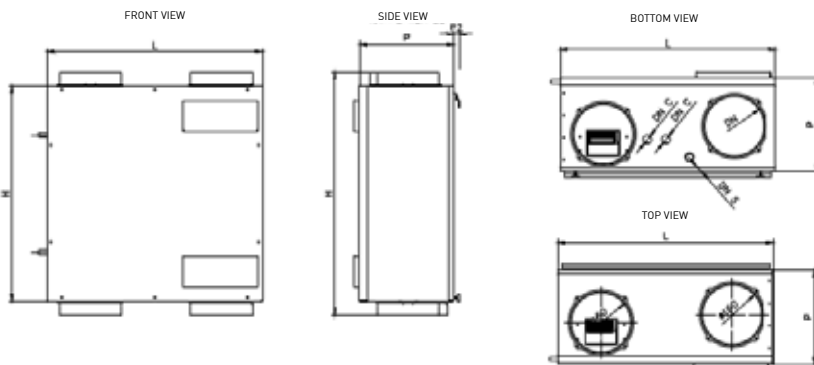
# DIMENSIONS

### ■ CEILING INSTALLATION



Width L	mm	580
Depth P	mm	580
Height H	mm	254
Bracket height H2	mm	16
Air DN	Ø	160
Condensate discharge DN S	mm	12
Cables DN S	mm	16
Weight	Kg	19

### ■ WALL INSTALLATION



Width L	mm	580
Depth P	mm	254
Height H	mm	580
Bracket depth P2	mm	16
Air DN	Ø	160
Condensate discharge DN S	mm	20
Cables DN S	mm	16
Weight	Kg	19

## TECHNICAL FEATURES

### Fans

Type of Fans	Centrifugal with forward blades directly-coupled Brushless electronic motor	
Number of Fans	Nr.	2
Air flow rate	m <sup>3</sup> /h	320
Useful pressure	Pa	100

### Heat exchanger (Data referring to UNI EN 13141-7 Indoor temp. 20° - Indoor humidity 28% - Outdoor Temp. 7° - Outdoor humidity 72%)

Type of exchanger	Counter current plates - polypropylene	
Number of Exchangers	Nr.	1
Recovery efficiency	%	85

### Filters

Type of filters	Flat Filters	
Filtration class	ePM1 80%	

### 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)	52
Average sound pressure L <sub>p</sub> at 1m	dB(A)	45
Average sound pressure L <sub>p</sub> at 3m	dB(A)	38

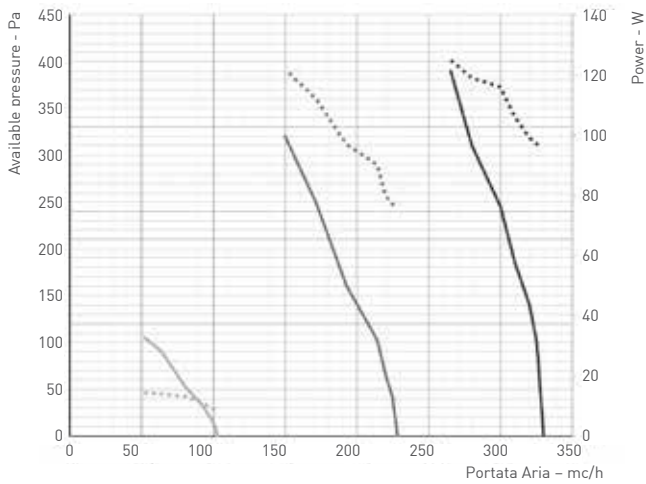
### Electrical Data

Power supply voltage	V	230 / 1 / 50 Hz.
Absorbed current	A	2.2
Power input	W	180
Protection rating	IP	IPX0

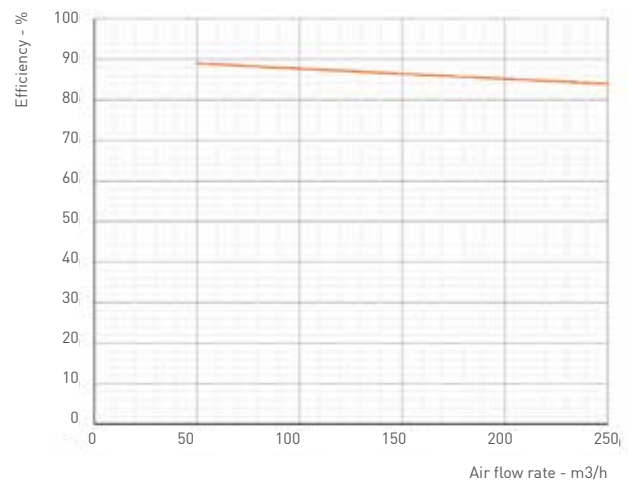
### Dimensional

Width	mm	580
Depth	mm	580
Height	mm	315
Weight	kg	23
Connection diameter	mm	160
Condensate Discharge	mm	12

## AERAUIC PERFORMANCE



## THERMAL EFFICIENCY



Curves referring to the following conditions (UNI EN 13141-7) : Outdoor air 7°C - 75% R.h. - Indoor air 20°C -37% R.h.

## ERP DATA ECODESIGN AP20053

			Standard	Vers. with enthalpic recovery unit	
A	Supplier name or trademark		Fantini Cosmi	Fantini Cosmi	
B	Model identification		Aspirlight 140HV	Aspirlight 140HV	
C	Version		AP20050 + Regulator CH193VMC with T, RH, Voc,	AP20050 + Regulator CH193VMC with T, RH, Voc,	
	SEC	Kwh/m2	COLD	-73,8	-67,67
			AVERAGE	-36,3	-31,90
			WARM	-12,9	-8,78
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	%	84,6	79,90	
H	Maximum flow rate	M3/s	320	320	
I	Electric power input at the maximum flow rate	W/h	250	250	
J	Sound power level	Lwa	52	52	
K	Reference flow rate	M3/s	0,0622	0,0622	
L	Reference pressure	Pa	50	50	
M	SPI	W / m3/h	0,35	0,35	
N	Control factor	CLTR	0,85	0,85	
O	Declared maximum leak percentages	%	4,1 ext. / 3,1 int.	4,1 ext. / 3,1 int.	
Q	Position and description of the signal relative to the filter		Shown on the remote control display and on the instructions manual	Shown on the remote control display and on the instructions manual	
S	Website for disassembly instructions		<a href="http://www.fantincosmi.it">www.fantincosmi.it</a>	<a href="http://www.fantincosmi.it">www.fantincosmi.it</a>	

# SPECIFICATION ITEM

Fan unit with very high output heat recovery, compact dimensions for ceiling or wall installation, wall installation with decorative panel or recessed wall installation with insulated cabinet kit and accessory for non-ducted external intakes. 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

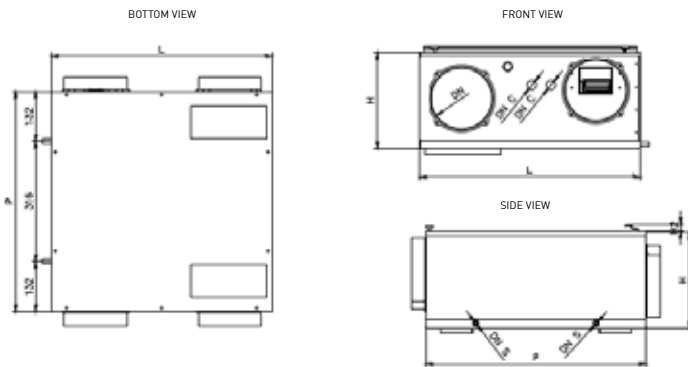
- High resistance structure with self-supporting sheet metal frame.
- Inside parts made of high density polystyrene, compact dimensions and reduced height for straight forward installation with easily accessible lower panel for maintenance and inspection.
- Circular inlets with 160mm diameter for connection 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.
- Forward blade centrifugal fans with low consumption, air flow rate electronic control EC motors.
- Polypropylene counter current flow static heat exchanger for very high recovery efficiencies of the sensitive (standard configuration) or enthalpic heat (optional code AP20390 RCH-366/160).
- Low head loss ePM1 80% class filters.
- By-pass for summer mode.

## CONTROLS AND ADJUSTMENTS

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

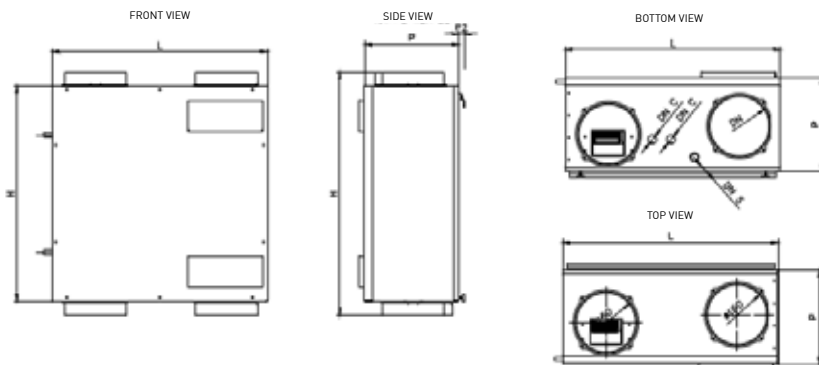
# DIMENSIONS

### ■ CEILING INSTALLATION



Width L	mm	580
Depth P	mm	580
Height H	mm	315
Bracket height H2	mm	16
Air DN	Ø	160
Condensate discharge DN S	mm	12
Cables DN S	mm	16
Weight	Kg	23

### ■ WALL INSTALLATION



Width L	mm	580
Depth P	mm	315
Height H	mm	580
Bracket depth P2	mm	16
Air DN	Ø	160
Condensate discharge DN S	mm	20
Cables DN S	mm	16
Weight	Kg	23

## 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

### AP20390 RCH-366/160

ENTHALPIC HEAT EXCHANGER FOR AP20050-AP20052-AP20060-AP20064

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

### AP20391 RCH-366/270

ENTHALPIC HEAT EXCHANGER FOR AP20053-AP20062-AP20066

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

### AP20377 - PAL

DECORATIVE COVER FOR EXPOSED VERTICAL INSTALLATION

Decorative panel for exposed installation complete with fixing brackets on the unit;

Built with white alubond, it makes the wall-mounted unit attractive;



Width L	mm	680
Depth P	mm	40
Height H	mm	680
Weight	Kg	2

### AP20375 - CEX-70

CABINET KIT FOR OUTDOOR RECESSED INSTALLATION

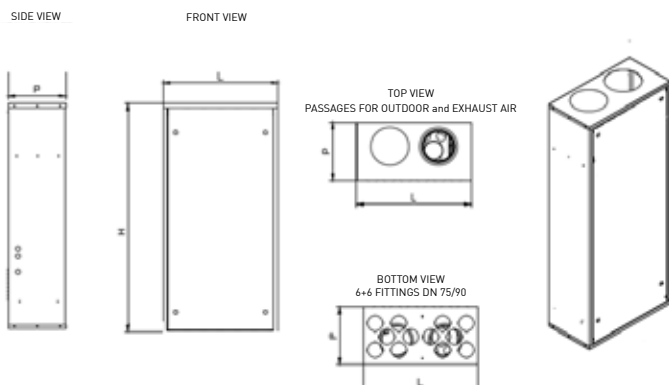
Cabinet kit built with galvanised self-supporting sheet metal for recessed wall installation;

Complete with air supply and return plenum 6+6 DN75mm starting fittings;

High density polystyrene internal insulation;



#### ■ INSTALLATION WITH RECESSED CABINET KIT



Width L	mm	698
Depth P	mm	310
Height H	mm	1200
Bracket depth P2	mm	16
Outdoor air/ exhaust DN	Ø	160
Supply / exhaust DN	Ø	(6 + 6) x 75mm
Condensate discharge DN S	mm	20
Cables DN S	mm	16
Weight	Kg	25

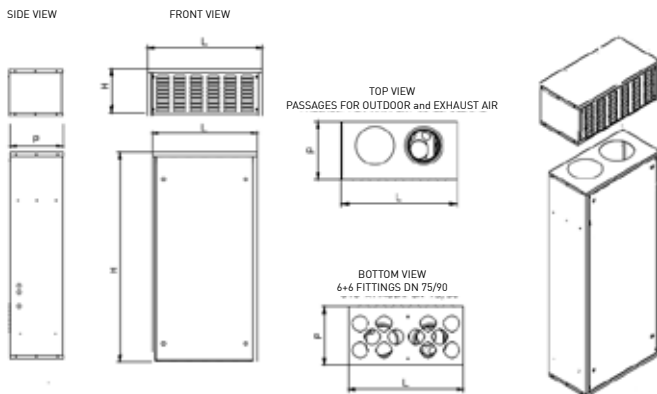
## AP20376 - GEX-70

### OUTDOOR GRID KIT FOR RECESSED VERTICAL INSTALLATION

Accessory for the recessed cabinet kit, for outdoor air intake and exhaust, directly above the cabinet kit or remotely controlled in the desired position without additional ducting;



#### ■ INSTALLATION WITH RECESSED CABINET KIT (AP20375) + OUTDOOR GRID KIT (AP20376)



Width L	mm	698
Depth P	mm	310
Height H	mm	1200 + 320
Bracket depth P2	mm	16
Outdoor air/ exhaust DN	Ø	160
Supply / exhaust DN	Ø	(6 + 6) x 75mm
Condensate discharge DN S	mm	20
Cables DN S	mm	16
Weight	Kg	37