

..2.0 RINNOVA

Heat pump ventilation and air exchange unit
and thermodynamic recovery with BLDC compressor and fans



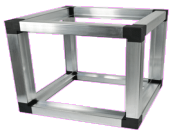
- **ALL IN ONE**–The units are units capable of autonomously integrating the ventilation requests of the rooms served.
The unit is complete with every component for its operation and is ready for use.
- **VENTILATION**–Brushless plug-fan fans in the vertical versions, constant flow centrifugal fans in the horizontal versions with electronic motor and modulating control. Very high efficiency and low noise levels.
- **ACTIVE THERMODYNAMIC RECOVERY**– The inverter refrigeration unit allows the recovery of energy from the expelled air, through a dedicated circuit. Thermodynamic recovery makes it possible to supply more energy to the environment than that subtracted from ventilation with very high efficiencies.
- **FILTRATION**– 80% ePM1 filter with low pressure drop, easily removable.
- **STRUCTURE ADJUSTMENT**– Electrical panel on the unit with microprocessor and dedicated regulation. Fan management, temperature display, timed dirty filter management, heat pump management according to heating and cooling requirements, air flow management with integrated air quality probe. Remote graphic interface and WIFI connection through APP;



GENERAL CHARACTERISTICS

STRUCTURE

High strength frame construction sheet metal self-supporting. Choice of materials with high characteristics of thermal and acoustic insulation.



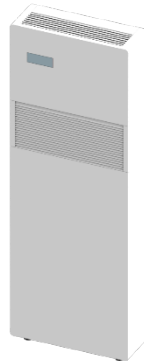
FANS

The unit is equipped with EC fans with electronic motor



UV LAMP

UVC lamp positioned inside the unit to carry out a sanitizing action inside the unit and on the unit inlet air.



BLDC COMPRESSOR

High efficiency rotary compressor with BLDC motor and command driver;



FILTRATION

There are two filters with ePM1 80% filtration class and a coarse pre-filter on the outside air;



MICROPROCESSOR

The management of the system entrusted to an electronics advanced but simple to manage. Integrated or remote control with WIFI card and management with APP for the main functions of the unit;

TECHNICAL FEATURES

The ..2.0 RINNOVA units are designed for the renewal of air in rooms.

The ease of installation through two 160mm diam. holes and the high renewal air flow rate allow for application in situations such as residential buildings, schools, clinics, offices and all contexts where air renewal is required;

The thermodynamic recovery allows to have an integration with respect to the environmental climatic conditions, helping the air conditioning system to satisfy the internal comfort; Furthermore, the air introduced is always at a temperature close to or better than the room temperature, thus guaranteeing superior perceived comfort;

The unit is made up of a monobloc including all components for correct operation: fans, cooling circuit with high efficiency compressors, air filtration sections and high efficiency counter-current heat recovery unit.

ALL IN ONE:	Complete unit capable of exchanging the air and integrating the thermal and refrigeration requests of the rooms served. The unit is complete with every component for its operation and is ready for use.
UV LAMP AND VOC SENSOR:	The unit is equipped with a UV lamp (accessory) which allows a germicidal action on the air introduced from outside through the effect of the UVC; The lamp is activated automatically according to the ambient air quality,
VENTILATION:	Fans with directly coupled brushless motor; The fans operate in various modes mainly controlled by the air quality sensor located inside the unit;
ACTIVE THERMODYNAMIC RECOVERY:	The unit allows the active recovery of the energy of the expelled air. The thermodynamic recovery allows, thanks to its cooling circuit, to supply energy to the environment in a higher quantity than that subtracted from the ventilation for 90% of the unit's operation;
FILTRATION:	There are 2 ePM1 filters on the extracted air and the introduced air; The inlet air filter is placed after the coil to completely filter out any impurities in the inlet air. There is a Coarse pre-filter on the outside air which protects the cleanliness of the unit;
STRUCTURE:	Self-supporting sheet metal frame Self-supporting sheet metal structure, externally painted (in the visible versions), with interposed thermal and acoustic insulation in polyethylene and Epdm;
REFRIGERANT CIRCUIT:	Made of brazed copper complete with: BLDC high efficiency compressor, drier filter, finned coils, electronic expansion valve, inversion valve and safety devices.
ADJUSTMENT:	Electrical panel on the unit with microprocessor and dedicated regulation. Fan management with air quality probe, display and timed dirty filter management temperature setpoint. Panel with graphic interface and WI-FI on board the machine and remote control included in the visible versions; Remote panel to be purchased optionally with WIFI or MODBUS RTU for connection up to 8 m from the unit for built-in versions;

UNIT CONFIGURATION

	-1-	-2-	-3-	-4-
..2.0 RINNOVA	50	H	M	Y

(1) Defines the Total flow rate and the fresh air flow rate

30 – up to 380 m³/h

40- up to 460 m³/h

70 – up to 650 m³/h

3) Type of installation

M: Sight

2) Configuration

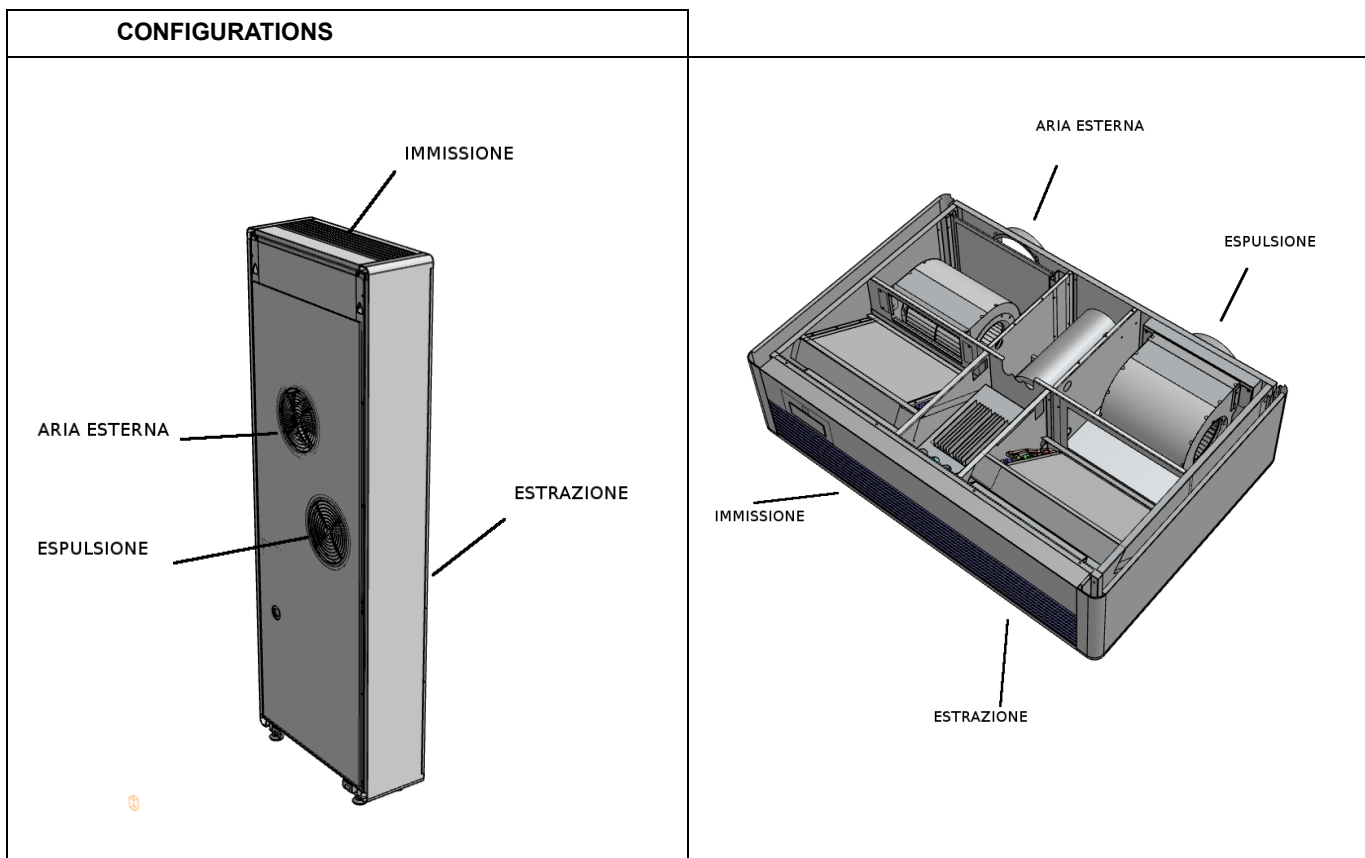
Horizontal H

Vertical V

4) Electronic typology

Y: Electronics version Y remote control

W: Electronic version W command on board + remote control



UNIT PERFORMANCE

GENERAL TECHNICAL DATA

Size		30 Vertical	70 Vertical	40 Horizontal
Type of fans		Backward curved radial with Brushless motor		Forward blade centrifugal with Brushless motor
No. of fans		2	2	
2Bo / V3 / V2 / V1 air flow	m ³ /h	380 / 320 / 190 / 130	680 / 420 / 280 / 150	460 / 400 / 240 / 140
Type of compressor		Rotary BLDC		
Refrigerant gas		R410A		
Filters		2x ePM1 80% + Coarse PREfilter		
Max absorbed power fans	kW	0.1	0.4	0.12
Compressors max absorbed power	kW	0.95	1.2	1.15
Supply voltage	V/ph/Hz	220/1/50	220/1/50	220/1/50
Max total absorbed power	kW	1.05	1.75	1.27
Max total absorbed current	TO	4.8	8.2	5.8
Sound pressure ²	dB(A)	41	41	43

(1) Outdoor air -5/80% RH - Indoor air 20°/50% RH - Nominal flow rate

(2) Sound pressure at nominal flow rate V3 at 3m in free field according to 3744

TECHNICAL DATA WINTER OPERATION

Size		40 Vertical view	70 Vertical view	50 Horizontal at sight
Thermal potential ¹	kW	3.1	4.55	3.62
Potential absorbed	kW	0.71	1.07	0.84
Total COP		4.4	4.25	4.3

(1) Outside air -5°/80% RH - Inside air 20°/50% RH - Nominal flow rate

TECHNICAL DATA SUMMER OPERATION

Size		30 Vertical view	70 Vertical view	40 Horizontal at sight
Cooling capacity 1	kW	2.41	3.71	2.77
Potential absorbed	kW	0.73	1.07	0.91
Total EER		3.3	1.19	3.0

(1) Outside air 35°/ 50% RH - Inside air 27°/ 60% RH - Nominal flow rate

ACCESSORIES

Wall mounted smart touch remote control

Removable black panel for mounting on box 502-503 or on wall;
 Speed, temperature and operating mode control;
 Maximum connection length 8 m with supplied cable;
 Integrated WIFI for unit management with dedicated APP;



Wall mounted smart touch remote control

White detachable panel for mounting on box 502-503 or on wall;
 Speed, temperature and operating mode control;
 Maximum connection length 8 m with supplied cable;
 Integrated WIFI for unit management with dedicated APP;



Wall mounted smart touch remote control

Removable black panel for mounting on box 502-503 or on wall;
 Speed, temperature and operating mode control;
 Maximum connection length 8 m with supplied cable;
 Integrated ModBus card for management through BMS systems or external commands;




Wall mounted smart touch remote control


White detachable panel for mounting on box 502-503 or on wall;
 Speed, temperature and operating mode control;
 Maximum connection length 8m with supplied cable;
 Integrated ModBus card for management through BMS systems or external commands;





ACCESSORIES

VENTILATION ACCESSORIES

UVC		
<p>The UVC system, with germicidal action, includes a 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; The life of the lamp is estimated at 10,000 hours of operation;</p>		
Model		UVR1
Compatible model unit		Channeled models
Rated electric power	Watt	36
Diet	/	230V / 1 / 50
Wave length	n	254
Bulb length	mm	350

AIR DELIVERY GRILLE	
<p>Made with double row of adjustable fins to distribute the air effectively; Fixing without screws; RAL9016 painted External dimensions 450x250 mm</p>	

RETURN AIR GRILLE	
<p>Made with a single group of fins with fixed bars, and Coarse filter to avoid dirt in the channels up to the unit inlet; The filter can be easily inspected by removing the fixed bars; RAL9016 painted External dimensions 450x250 mm</p>	

EPM1 Replacement Filters 80%	
<p>Kit consisting of two EPM1 80% filters for unit maintenance; The filters are easily removable;</p>	

VENTILATION UNIT



Spare pre-filter

Replacement coarse prefilter compound kit for unit maintenance;
The filters are easily removable;



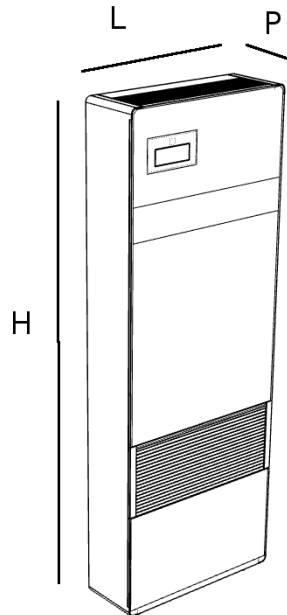
Spare UV lamp

Kit consisting of a bulb for the UVC system placed inside the unit;



DIMENSIONAL DATA 30 V

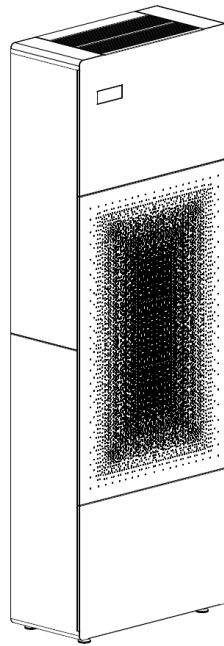
VERTICAL VERSIONS



Model		30 Vertical
Width L	mm	500
Depth P	mm	185
Height H	mm	1398
DN Outdoor/exhaust air	mm	162
DN Air Delivery	mmm	/
Condensation	OR	20
Weight	kg	53

DIMENSIONAL DATA 70 V

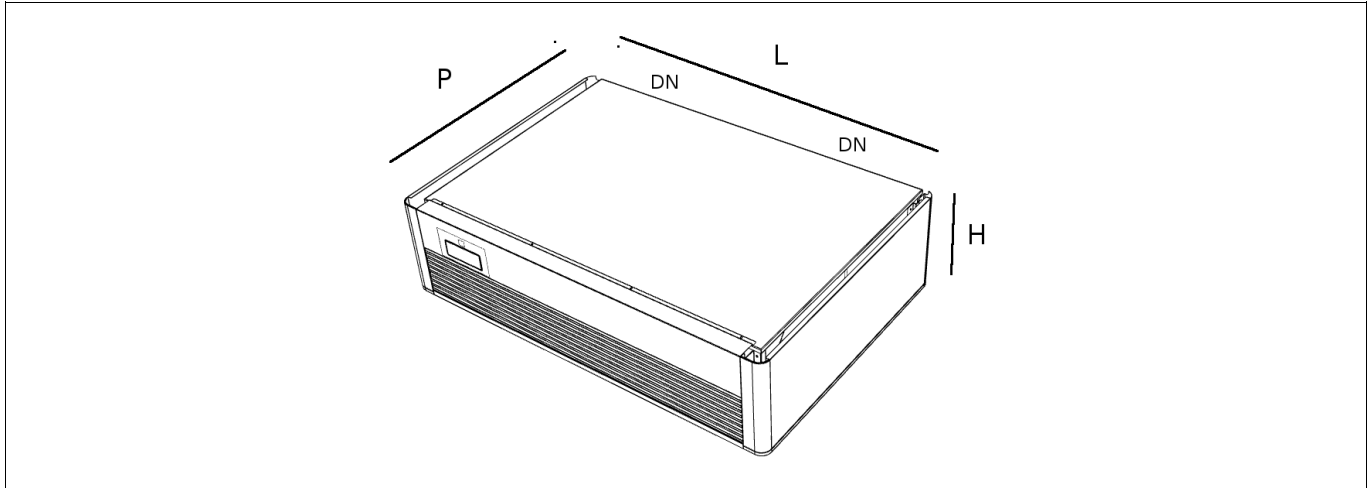
VERTICAL VERSIONS 70



Model		70 Vertical
Width L	mm	650
Depth P	mm	300
Height H	mm	2110+50
DN Outdoor/exhaust air	mm	200
DN Air Delivery	mmm	/
Condensation	OR	20
Weight	kg	88

DIMENSIONAL DATA 40 H

HORIZONTAL VERSIONS




Model		40 Horizontal
Width L	mm	1010
Depth P	mm	690
Height H	mm	255
DN Outdoor/exhaust air	mm	162
DN Air Supply / Air Return	mmm	/
Condensation	OR	20
Weight	kg	74

OPERATING LIMITS


Size	All models		
HEATING		Internal Air	Outside Air
	°C	10 / 25°	-15 / 20
COOLING		Internal Air	Outside Air
	°C	18/28	20 / 38

SPECIFICATION ITEMS

VISIBLE VERTICAL VERSIONS

	<p>Active ventilation unit with thermodynamic heat recovery;</p> <p>Specific unit for ventilation in environments with ventilation and air treatment needs, such as residential, commercial, small tertiary environments;</p> <p><u>CONSTRUCTION FEATURES</u></p> <p>Self-supporting structure in galvanized sheet metal with RAL9003 painted aesthetic finishes;</p> <p>Heat and flow exchangers with maximum tightness and no leakage of traditional heat exchangers;</p> <p>Compact dimensions for simplified floor or wall installation with easily accessible front panel for maintenance and inspection.</p> <p>Circular inlets for air ducting towards the outside with grids, template and accessories supplied;</p> <p>Quick filter inspection and condensate drain condensate evacuation;</p> <p>Cooling circuit with bldc high efficiency rotary compressor, heat exchange coils, lamination device and safety devices.</p> <p>Electrical panel with management cards and command terminal blocks</p> <p>Backward curved centrifugal fans with EC motors with electronic speed control and low consumption</p> <p>ePM1 class filters with low external air and stale air pressure drop and external air pre-filter;</p> <p>Electrical panel on the unit with microprocessor and dedicated regulation. Fan management, temperature display, timed dirty filter management, air quality sensor management with flow rate modulation;</p> <p>Control panel with WIFI and APP integrated inside the unit and with infrared remote control supplied;</p>
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EXPOSED HORIZONTAL VERSIONS

	<p>Active ventilation unit with thermodynamic heat recovery;</p> <p>Specific unit for ventilation in environments with ventilation and air treatment needs, such as residential, commercial, small tertiary environments;</p> <p><u>CONSTRUCTION FEATURES</u></p> <p>Self-supporting structure in galvanized sheet metal with RAL9003 painted aesthetic finishes;</p> <p>Heat and flow exchangers with maximum tightness and no leakage of traditional heat exchangers;</p> <p>Compact dimensions for simplified ceiling installation with easily accessible lower panel for maintenance and inspection.</p> <p>Circular inlets for air ducting towards the outside with grids, template and accessories supplied;</p> <p>Rapid filter inspection and drain for condensate evacuation;</p> <p>Cooling circuit with bldc high efficiency rotary compressor, heat exchange coils, lamination device and safety devices.</p> <p>Electrical panel with management cards and command terminal blocks</p> <p>Forward curved centrifugal fans with EC motors with electronic flow control and low consumption</p> <p>ePm1 class filters with low external air pressure drop and stale air and external air pre-filter;</p> <p>Electrical panel on the unit with microprocessor and dedicated regulation. Fan management, temperature display, timed dirty filter management, air quality sensor management with flow rate modulation;</p> <p>Control panel with Wi-Fi and APP integrated inside the unit and with infrared remote control supplied;</p>
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UNIT ORDERING CODES

Vertical version models

Model	Description	Code
..2.0 RENEW 30 VMs	Compact heat recovery unit with heat pump for vertical installation	COMV12VC3II
..2.0 RENEW XL 70 VM	Compact heat recovery unit with heat pump for vertical installation	COMV17VC3II

horizontal versions models

Model	Description	Code
..2.0 RENEW 40 HM	Compact heat recovery unit with heat pump for horizontal installation	COMS13VC3II

ORDERING CODES ACCESSORIES

WIFI remote control panel

Model	Everyone
Description	Smart Touch electronic wall control panel with thermostat and room probe with integrated Wi-Fi module (supplied with an 8 M connection cable). Black colour.
Code	ECA031II

WIFI remote control panel

Model	Everyone
Description	Smart Touch electronic wall control panel with thermostat and room probe with integrated Wi-Fi module (supplied with an 8 M connection cable). White color.
Code	ECB031II

MODBUS remote control panel

Model	Everyone
Description	Smart Touch electronic wall control panel with thermostat and ambient probe with integrated ModBus port (supplied with 8 m connection cable). Black colour
Code	ECA032II

MODBUS remote control panel

Model	Everyone
Description	Smart Touch electronic wall control panel with thermostat and ambient probe with integrated ModBus port (supplied with 8 m connection cable). White color
Code	ECB032II

VENTILATION ACCESSORIES

UV lamp (factory fitted)

Model	All models
Description	Germicidal lamp with UV-C rays with power supply and fixings. The lamp life is estimated at 10,000 hours of operation.
Supply voltage	230V
Code	AHRA0651II

Grill

Model	..2.0 Renew Vertical 30 - ..2.0 Renew ceiling 40
Description	Kit of 2 aluminum grilles with fixed fins 160 mm for outdoor use.
Code	GB0738II

Grill

Model	..2.0 Rinnova Verticale 30 - ..2.0 Rinnova Ceiling 40
Description	Kit n.1 insect protection only for photosuction. Applicable only on fixed external grates DN 160 mm.
Code	GB0755II

Grill

Model	..2.0 renews Verticale XL
Description	Kit of 2 aluminum grilles with fixed fins 200 mm for outdoors
Code	GB1091II

ePM1 Spare Filter Kit (2 Filters)

Model	VERSIONS V	VERSIONS H
Description	Kit of 2 spare filters and PM1 80% renewal air delivery and extraction for ..2.0 Rinnova Verticale 30 V	Kit of 2 spare filters and PM1 80% renewal air supply and extraction for ..2.0 Rinnova Ceiling 40 H
Code	AHRA0641II	AHRA0642II
Description	Kit of 2 replacement filters for ..2.0 Rinnova Verticale XL 70 V	-
Code	AHRA0645II	-

Spare pre-filter

Model	..2.0 Renew Vertical 30 V	..2.0 Renew Ceiling 40
Description	Kit consisting of a spare Coarse pre-filter for unit maintenance	Kit consisting of a spare Coarse pre-filter for unit maintenance
Code	AHRA0643II	AHRA0644II

Spare UV lamp

Model	All models
Description	Spare UV-C lamp
Code	AHRA0652II

VENTILATION UNIT



Increase

Model	..2.0 Renew Ceiling
Description	M/M reduction DN 160 – DN 200 mm. No. 1 piece
Code	SRA116133II

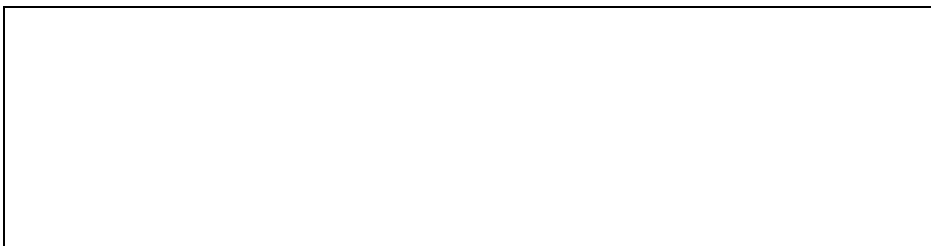
Insulated aluphonic hose

Model	..2.0 Renew Ceiling
Description	DN 160 mm flexible duct with aluminium/polyester/aluminium wall complete with: helical spiral in harmonic steel wire, thermo-insulating coating in polyester fiber (thickness 25 mm, 16 Kg/m ³) to prevent the dispersion of microfibrés and external protection in aluminized film (flame retardant). Operating temperature: -30/+140°C. Bending radius: min. 800mm. Supplied in 10 m reels, price in €/m
Code	SRA116133II

CE marking

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

- Low Voltage Directive 2014/35/EC
- Electromagnetic Compatibility Directive 2014/30/EC



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

Data sheet
..2.0 Rinnova – N420966A – 2023