

The **advantages** of proper **ventilation**

A controlled mechanical ventilation system with heat recovery is a system designed for the **continuous air exchange** in the home and in all indoor environments in general that allows stale air to be replaced and substituted with fresh, oxygen-rich outside air.

The choice of integrating a ventilation system into a building makes it possible to ensure proper exchange of air in closed rooms in all situations where it cannot be managed by opening windows. This is essential in promoting the evacuation of pollutants that accumulate in indoor spaces by ensuring **greater comfort** and **health** at home or in office spaces.

Mechanical ventilation is also essential in all modern homes or buildings with high energy efficiency and a high percentage of insulation for the prevention of issues regarding humidity and mould.

The most advanced VMC systems include a **heat recovery** system: the thermal energy of the outgoing air that has been heated or cooled is retained in the exchanger and then transferred to the incoming air, which will therefore be warmer in winter and cooler in summer than the outdoor air.

I Plus

- Continuous, uniform temperature management;
- Control of the percentage of humidity in rooms;
- Advanced air filtering;
- Containment of external noise;
- Reduction of energy loss to a minimum.



HRH - Dehumidifier with heat recovery

HRH very high efficiency **dehumidifiers with heat recovery** are designed to ensure **dehumidification** and **renewal of air** in very high, energy efficient residential environments in combination with radiant cooling systems.

The units guarantee **dehumidification of air** both in conditions of thermally neutral user air and in conditions of cooled air, managing very small airflows thus preventing the formation of annoying draughts that are typical of traditional air conditioning systems.

Units consist of a direct expansion cooling circuit combined with an extremely efficient cross-flow heat recovery unit, designed to ensure heat recovery and room air exchange in compliance with regional and national regulations. All units are equipped as standard with a double condenser (the first with air, the second with water) and operating specifications that allows dehumidification with both neutral and cooled air.

- Microprocessor control,
- Flow switch,
- 3-way modulating valve,
- EC delivery and return fans,
- G5 air filter,
- Fan calibration microswitches



Dehumidifier with HRH heat recovery

MODEL		HRH26	HRH51
Power supply	V/Ph/Hz	230/1/50	
Refrigerant (type / GWP)	charge / tons CO ₂	R134A / 1430	R410A / 2088
Useful dehumidification capacity (1)	l/24h	30.1	61.8
Total room cooling capacity (1)	W	1380	2820
Recovered winter heating capacity (2)	W	950	1850
Nominal winter heat rec. unit efficiency (2)	%	90%	90%
Nominal summer heat rec. unit efficiency (1)	°C	75%	72%
Nominal compressor power consumption	W	340	480
Power consumption delivery fan (min/nom/max)	W	10 - 30 - 86	30 - 60 - 30
Power consumption return fan (min/nom/max)	W	11 - 22 - 43	22 - 44 - 68
Delivery fan useful pressure (nom/max)	Pa	50 - 140	50 - 140
Return fan useful pressure (nom/max)	Pa	50 - 140	50 - 140
Coil water flow rate (min/nom/max)	l/h	150 - 250 - 400	200 - 350 - 600
Hydraulic pressure drops (nom)	kPa	15	35
Delivery air flow rate	m ³ /h	130 - 260	250 - 500
Outdoor air flow rate	m ³ /h	80 - 130	140 - 250
Nominal useful static pressure	Pa	50	50
Sound power level (3)	dB(A)	47	52
Sound pressure level (4)	dB(A)	39	44
Dimensions (WxHxD)	mm	260x722x1105	400x835x1370
Weight	kg	60	80
CODE		0006802	0006812

Performance refers to the following conditions:

(1) Room temperature 26°C; relative humidity 65%; outdoor air 35%, relative humidity 50%, outdoor air flow 130 m³/h, water inlet temperature 15°C, nominal water flow rate

(2) Outdoor air -5°C, relative humidity 80%, room temperature 20°C, relative humidity 50%, maximum outdoor air flow rate

(3) Sound power level calculated according to ISO 9614

(4) Sound pressure values measured at 1 m distance from the unit in free field according to ISO 9614, at nominal operating conditions

NOTE: The above hermetically sealed products contain fluorinated greenhouse gases governed by the Kyoto Protocol.

ACCESSORIES	CODE
Remote thermo-humidistat	0006851
Remote control panel	0006852
I-PRO temp./humid. electronic probe	0006853
RS485 serial interface board	0006854
Circular inlet plenum HRH50	0006859
Circular input plenum HRH50	0006860