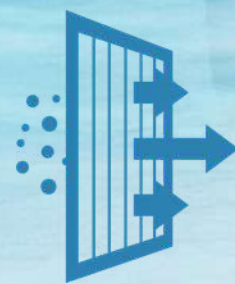


WESTON
CLIMATE

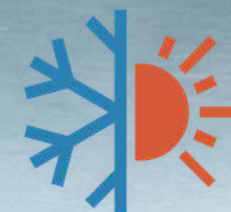
HEAT PUMP *DC INVERTER* ENERGY RECOVERY VENTILATOR



Purification



Fresh Air
Energy Recovey



Cooling/ Heating



Dehumidification

Ceiling Mounted Fresh Air Heat Pump ERV

An integrated ventilation and air pre-conditioning solution for European residential and light commercial projects — delivering fresh air, thermal comfort, and lower energy consumption in one compact unit.

6-in-1

Purification · Fresh Air · Energy Recovery ·
Cooling · Heating · Dehumidification

50–200 m²

Suitable coverage for apartments to light commercial spaces

350 CMH

Rated airflow, operating from -15°C to 50°C





Why European Projects Need This Solution

Modern European buildings are increasingly airtight — improving efficiency but demanding controlled mechanical ventilation. Untreated outdoor air adds significant thermal load. A standard HRV recovers some energy, but cannot fully neutralise the impact. A fresh air heat pump ERV combines energy recovery with heat pump pre-treatment to reduce ventilation load while maintaining healthier indoor air.

938W

Summer Load
Without heat recovery (120 m² house)

2228W

Winter Load
Without heat recovery

352W

Summer Load
With heat recovery only

586W

Winter Load
With heat recovery only

What This Product Is — and What It Is Not

Its role is to:

Cooling: 4100 W

Heating: 4230 W

Airflow: 350 CMH

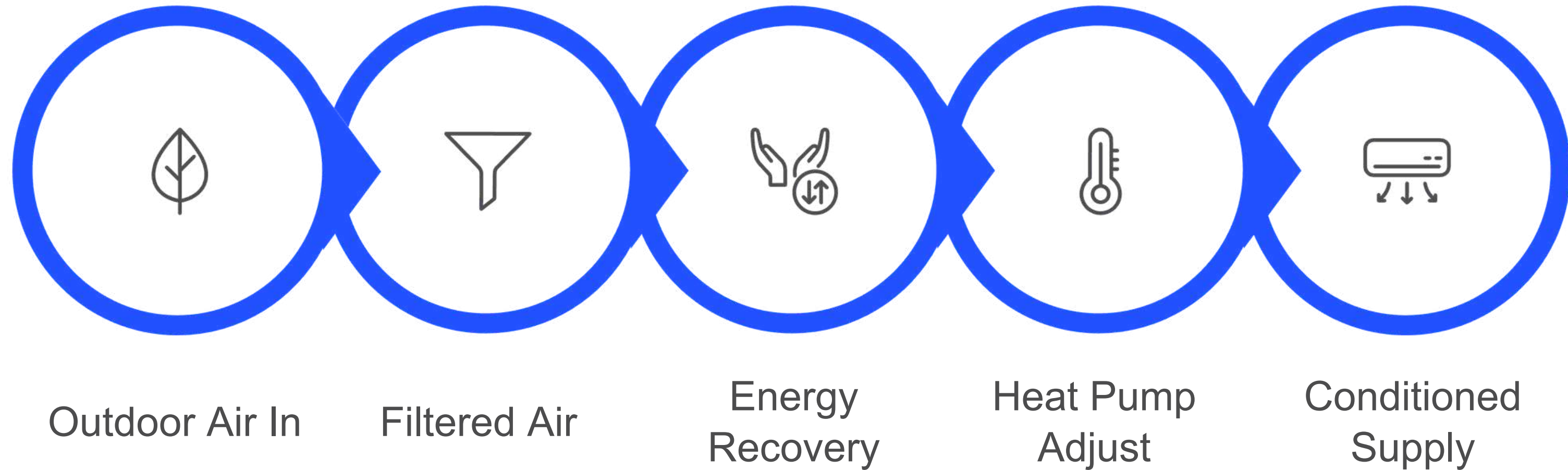
This is a **fresh air pre-conditioning system** that supports comfort and HVAC efficiency — not a standalone replacement for a conventional AC system.

- Introduce filtered outdoor fresh air
- Pre-cool or pre-heat incoming air
- Recover energy from exhaust air
- Reduce humidity and main AC burden



How the System Works

Energy recovery + heat pump treatment for healthier, more comfortable fresh air.



Heating Efficiency

Temperature: 75%

Enthalpy: 73%

Cooling Efficiency

Temperature: 68%

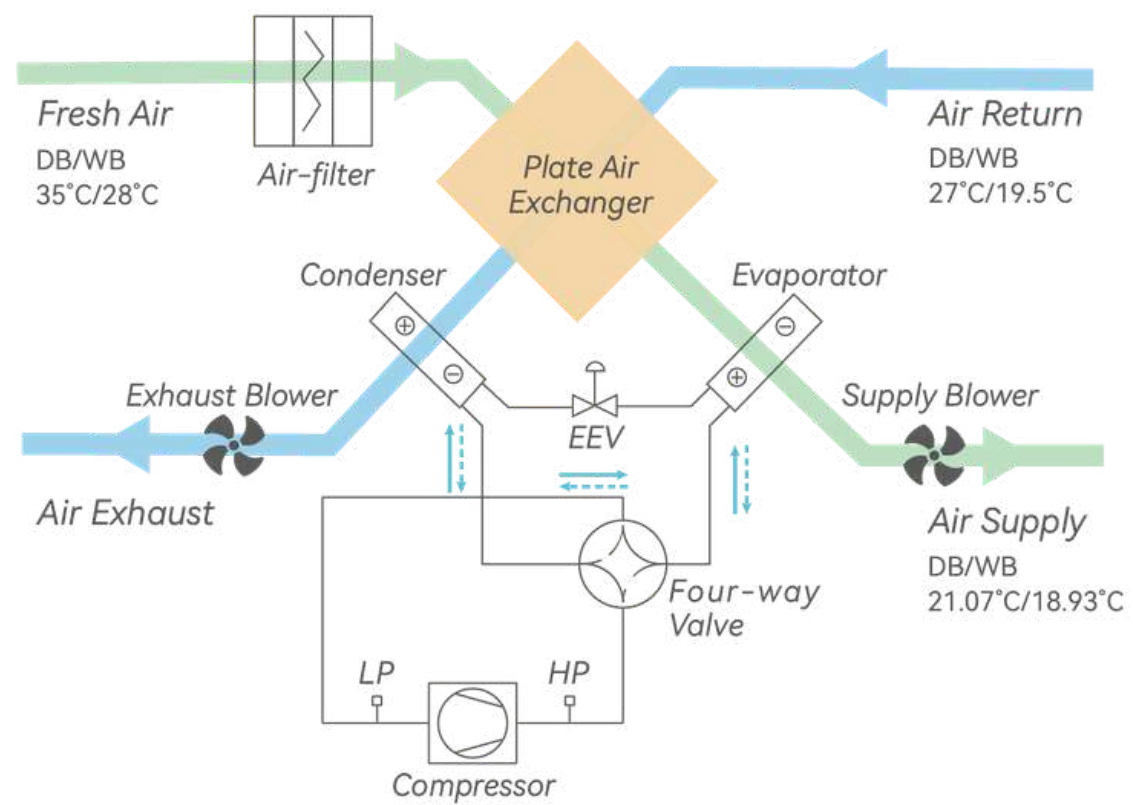
Enthalpy: 66%

Double Recovery

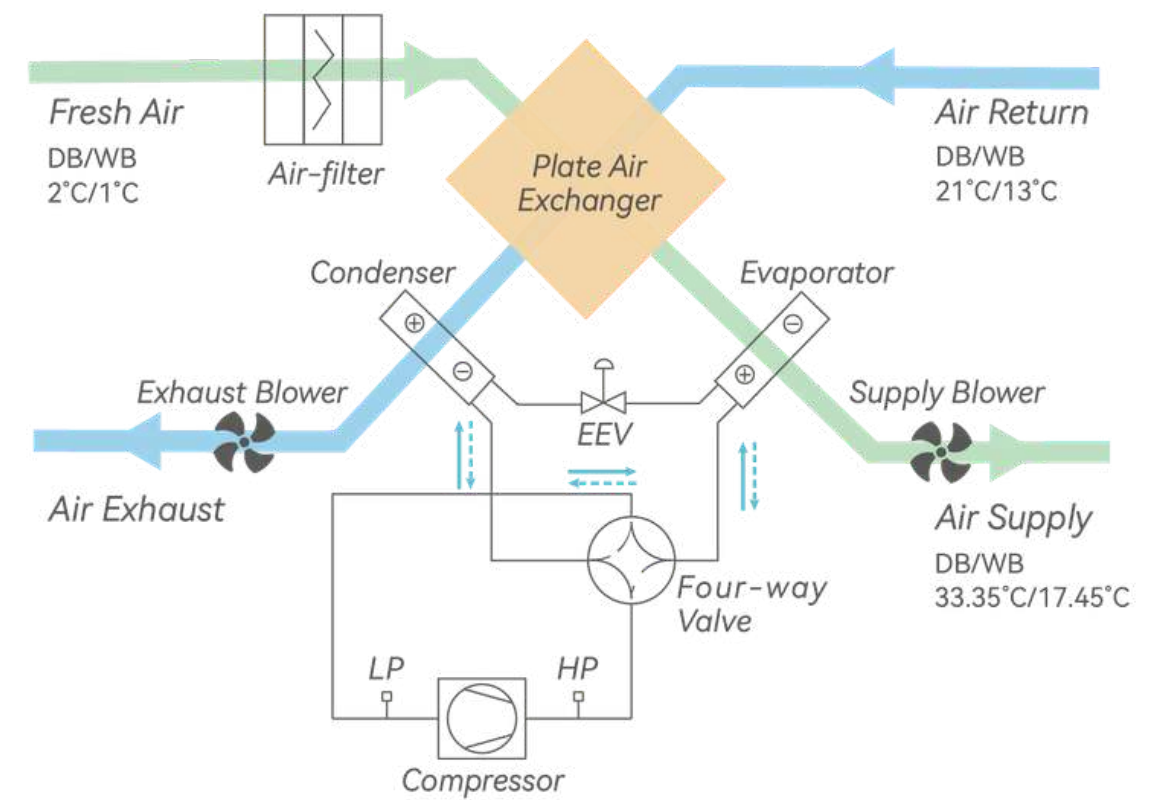
COP > 6



Airflow: 350 m³/h
Power: 615 W
EER 6.66



Airflow: 350 m³/h
Power: 715 W
COP 5.91



WESTON-AW-CTCL-HCVENT-350

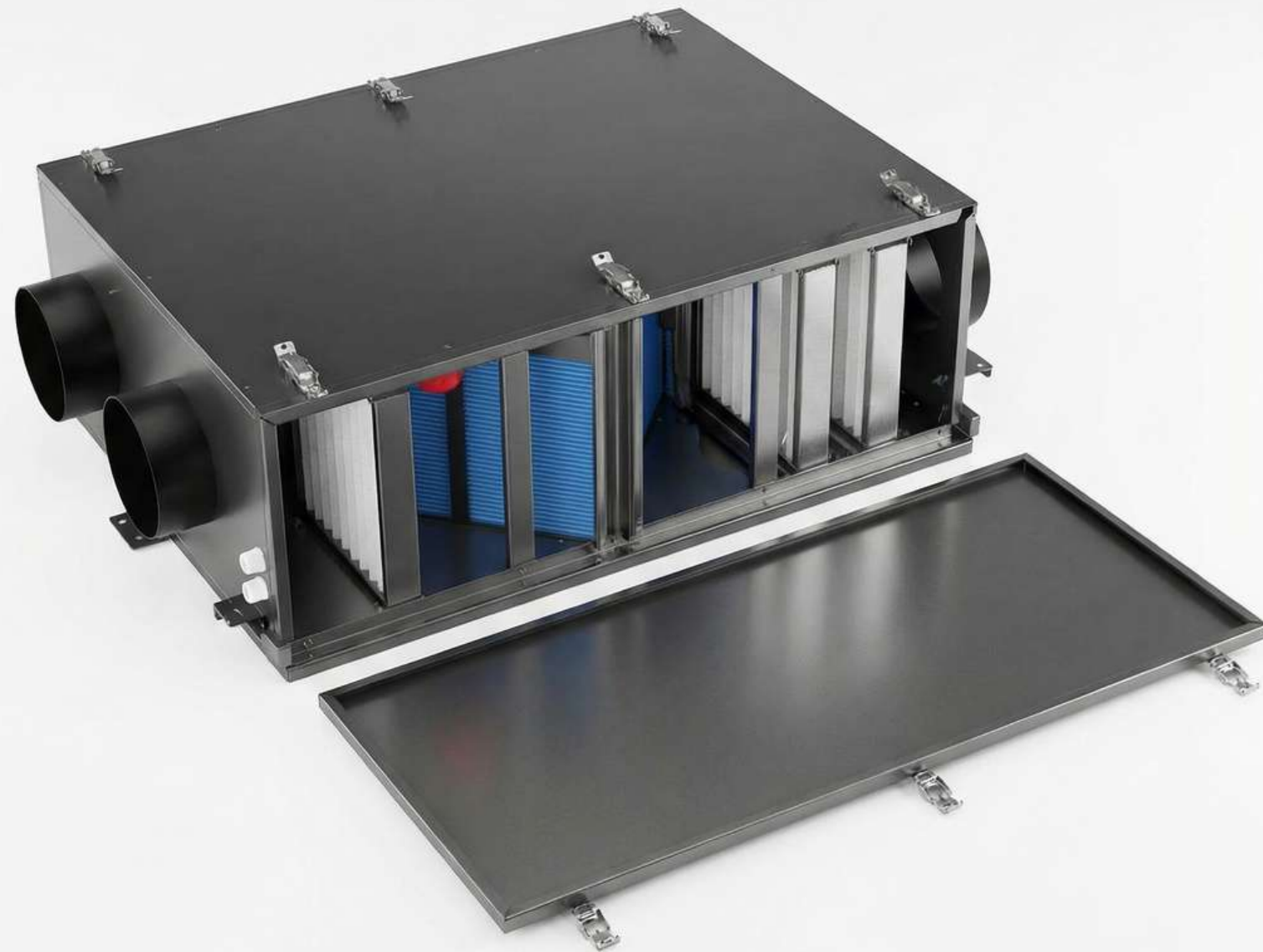
Winter		OUTDOOR TEMP.	INDOOR TEMPT.	SA TEMP.	AIRFLOW	HEATING CAPACITY	INPUT POWER	COP
		{ DB/WB } °C		{ DB/WB } °C	CMH	W	W	
RATED	R32	2 / 1°C	21/13°C	33.35/17.45°C	350	4230	715	5.91
MAX				35.36/18.21°C		4480	850	5.27
Summer		OUTDOOR TEMP.	INDOOR TEMPT.	SA TEMP.	AIRFLOW	COOLING CAPACITY	INPUT POWER	EER
		{ DB/WB } °C		{ DB/WB } °C	CMH	W	W	
RATED	R32	35/28°C	27/19.5°C	21.07/18.93°C	350	4100	615	6.66
MAX				19.58/18.18°C		4350	800	5.43

Key Benefits for European End Users

-  **Better Indoor Air Quality**
Continuous fresh air with multi-stage filtration. Optional IAQ monitoring: CO₂, humidity, TVOC, PM2.5.
-  **Lower HVAC Energy Burden**
Exhaust energy recovery and fresh air pre-conditioning reduce ventilation load on the main AC system.
-  **Year-round Comfort**
Cooling, heating, and dehumidification — comfortable fresh air in both summer and winter.
-  **Smart Control**
APP, weekly timer, RS485, weather-based control. Compatible with Alexa and Google Assistant.

Noise: 36/41 dB(A) Ventilation input: 165 W
Cooling input: 605 W Heating input: 700 W





Core Technologies Behind the Performance

Technology Summary

High-efficiency recovery + inverter refrigeration + smart airflow control = better fresh air performance with lower system burden.

ERV Core

Polymer membrane, washable,
10-year life, rated to -25°C

BLDC Compressor

+8% compressor efficiency, +6% system APF

Filtration

G4 + F8 standard; optional HEPA up to 99.9%

Core Technologies Summary



Polymer-membrane ERV Core

HIGH EFFICIENCY, WASHABLE,
10-YEAR, LIFE, RATED TO -25°C



DC Inverter Compressor

8% EFFICIENCY GAIN,
6% APF IMPROVEMENT



DC Inverter Compressor

8% EFFICIENCY GAIN,
6% APF IMPROVEMENT



Multi-stage Filtration

8% EFFICIENCY GAIN,
6% APF IMPROVEMENT

Line Controller Usage

Main interface display

Power on:

The mode display pops up and shows green.

Gear:

Fresh Air: Adjustable from 1 to 10 gears. Cooling/Dew Point Removal/Heating: Adjustable from 5 to 10 gears.

Automatic Mode: 1 to 10 gears + automatic wind gear.

The automatic wind gear changes according to the compressor frequency, with one gear interval of 10 Hz (5-10 gears);

In all modes, the CO2 priority control wind gear is used;

The first gear has a ventilation volume of 150 m³/h,
the fifth gear has a ventilation volume of 240 m³/h,
and the difference in ventilation volume between each gear is 22 m³/h.



Line Controller Usage

Sensor area:

Green, Blue, Yellow, Red correspond to excellent, good, medium and poor respectively. When not connected, it shows a green status.

Temperature setting:

It can be set within the range of 10-40°C. The setting can be adjusted through either the up and down keys or by directly inputting the value.

Humidity setting:

30% to 90% range. The settings can be adjusted either by using the up and down keys or by directly inputting the value.

Mode:

Automatic / Fresh Air / Cooling / Dehumidification / Heating.

The mode can only be set when the device is turned on.



Application Scenarios



Apartments & Homes

One 350 CMH unit matches a 120 m² home at 1 ACH — ideal for apartments and medium-sized homes.



Villas & High-end Houses

Fresh air, lower humidity, smart control — in a discreet concealed ceiling installation.



Renovation Projects

One machine, multiple uses — saves space and simplifies integration where installation space is limited.



Light Commercial

Offices, meeting rooms, showrooms, and boutique retail requiring fresh air and comfort improvement.

Installation & Service Advantages

Designed for Real Projects

European customers expect both performance and practicality. This unit is built for concealed ceiling installation with serviceability in mind.

Built-in Drain Pump

1.2 m pump head for flexible condensate management

Easy Maintenance

Removable filters, washable ERV core, service-friendly structure

Smart Integration

RS485, wired controller, and linked control options

Dimensions: 1050 × 800 × 395 mm
Weight: 100 kg · Drain: 3/4 inch
Inlet/outlet: 195 mm diameter



Technical Highlights — WESTON-AW-CTCL-HCVENT-350

A quick technical snapshot: 350 CMH fresh air treatment with integrated cooling, heating, and energy recovery in one compact ceiling unit.

Model	WESTON-AW-CTCL-HCVENT-350	
Rated Airflow	350 CMH	
External Static Pressure	100 Pa	
Noise	36 / 41 dB(A)	
Power Supply	220V, 1P, 50/60Hz	
Refrigerant	R32 / 300 g	
Operating Temperature	-15°C to 50°C	
Dimensions	1050 × 800 × 395 mm	

Nominal Cooling Capacity	4100 W
Max Cooling Capacity	4350 W
Cooling Input Power	605 W
Nominal Heating Capacity	4230 W
Max Heating Capacity	4480 W
Heating Input Power	700 W
Ventilation Input Power	165 W
COP	> 6

Why Weston Climate

More than a product — a practical partner for integrated fresh air and HVAC solutions. We help position the unit correctly in real projects, from model selection to application understanding.

Complete Air Treatment

Not just energy recovery — full fresh air pre-conditioning with load reduction

Smart & Connected

WiFi + Zigbee · Alexa & Google Assistant · Optional IAQ monitoring

Compliant & Efficient

ErP 2018 compliant · COP > 6 · Inverter technology throughout

Fresh air, energy recovery, and comfort control
— in one smarter ceiling solution.

