AIRONE

SINGLE-ROOM ENERGY RECOVERY UNITS

Features

- High-performance decentralized ventilation with true counter-flow heat recovery, combining the efficiency of a centralized system with exceptional acoustic comfort for individual rooms.
- **AirOne** is designed for cold climates and thick exterior walls in residential and office spaces, with separate versions available that feature electric preheating and/or reheating.
- The unit's low power consumption and quiet operation are ensured by the cartridge design, which utilizes economical EC centrifugal fans with forward-curved blades, as well as the placement of the fan section on the outdoor side.
- Convenient maintenance with quick access to the unit's main components.
- Simple installation.
- Control via an Android/iOS mobile app over Wi-Fi.

Air flow:
up to 120 m³/h
33 l/s

Heat recovery efficiency:
up to 98 %

EC motor

Wi Fi READY

works with Google Home

works with alexa



Design

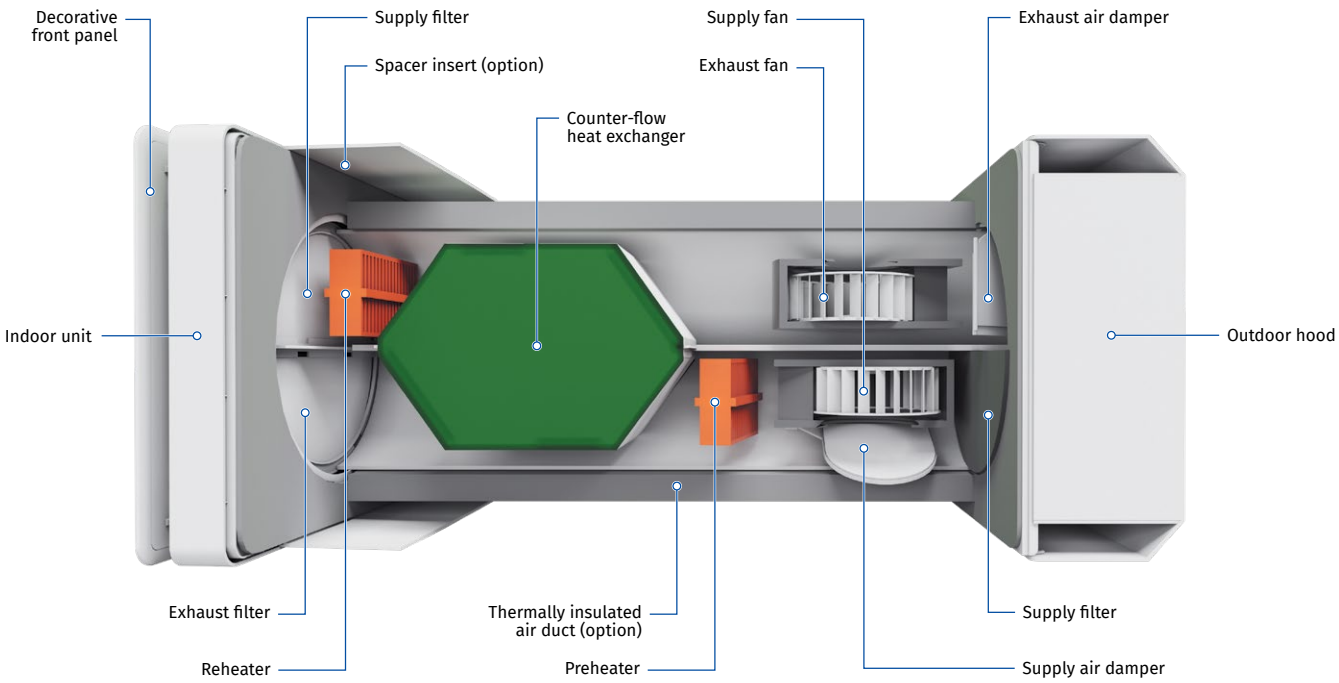
- AirOne is an air handling ventilation system consisting of a cartridge with heat exchangers and fans, which is installed inside the wall and covered on the indoor side with an indoor unit and on the outdoor side with a protective outdoor hood.
- Additional thermal and sound insulation made of expanded polypropylene (EPP) is available as an optional accessory.
- The indoor unit is available in a black or white finish.
- The front panel of the indoor unit serves as an additional layer of protection against the ingress of cold outdoor air: when the panel is manually closed, the air duct is completely sealed, and the fans automatically stop.
- When the panel is manually reopened, the unit resumes operation in its previous mode.



AirOne



AirOne BLK



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Motors

- The units feature high-performance, electronically commutated (EC), external rotor motors with forward curved blades. These state-of-the art motors are the top solution in terms of energy efficiency.
- **AirOne** EC motors are enclosed in a special plastic involute casing, ensuring low noise, high performance, and optimal control across the entire speed range.

Air dampers

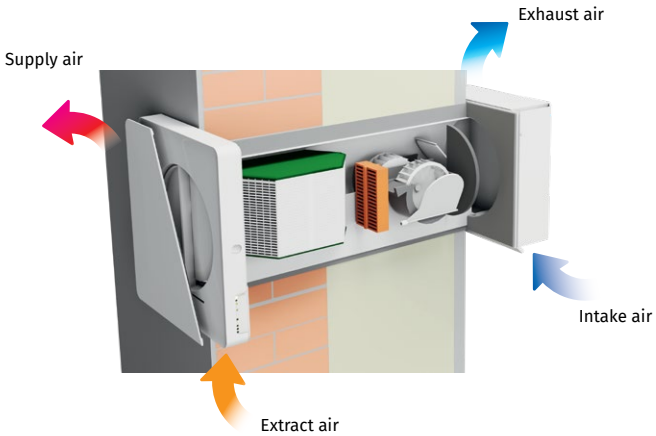
- Supply and exhaust gravity dampers are closed automatically while the unit is off to prevent drafts.

Air filtration

- AirOne and AirOne E are equipped with coarse filters for supply and exhaust air.
- To ensure maximum supply air purity, AirOne and AirOne E models can be fitted with a high-efficiency fine filter. The units are equipped with ISO Coarse 90% (G4) / ISO ePM1 70% (F8) filters according to the ISO 16890 standard, which effectively capture dust and fine particulate matter.
- Note: AirOne E2 units only use basic coarse filtration (due to the design features of the reheating unit).

Operation

- **Cold outdoor air** passes through the filters and the heat exchanger and is then supplied by means of the centrifugal supply fan.
- **Warm, stale extract air** passes through the filter and the heat exchanger and is then extracted outdoors through the air duct located in the wall by the centrifugal exhaust fan.
- High-efficiency separation of the **supply and exhaust air streams** ensures that cross-contamination of odors, microbes, and pollutants is kept to a strict minimum.



Heat recovery core

- The **AirOne** unit features a counter-flow heat exchanger made of polystyrene.
  - **In the cold season** the heat of the extract air is transferred to the supply air via the heat exchanger which greatly helps reduce ventilation heat losses. This can lead to formation of condensate, which is collected in a special drain pan and discharged outdoors by means of the exhaust air duct.
  - **In the warm season** the coolness of the extract air is transferred to the supply air. As a result, the supply air enters the room at a cooler temperature, reducing the load on the air conditioner.



- The **AirOne ERV** unit features a counter-flow heat exchanger made from enthalpy membrane.
  - **During the cold season**, the heat and humidity from the exhaust air are transferred to the supply air through the enthalpy membrane, which reduces heat loss caused by ventilation.
  - **During the warmer months**, the coolness and dryness of the exhaust air are transferred to the supply air through the enthalpy membrane. As a result, the supply air enters the room being cooler and drier, which significantly reduces the load on the air conditioner.



Air heater

PREHEATING

- The **AirOne E** and **AirOne E2** units are equipped with electric preheating designed to protect the heat exchanger from freezing.

REHEATING

- The **AirOne E2** units are equipped with electric reheaters to raise the supply air temperature.

Frost protection

- In the **AirOne** unit, the supply fan is shut down based on the extract air temperature sensor readings on the heat exchanger outlet, to let the warm extract air warm up the heat exchanger. The supply fan then re-activates and the unit reverts to normal operation.
- In the **AirOne E** and **AirOne E2** units, frost protection is provided by means of electric preheating.

Designation key

Model	Heater	Heat exchanger type	Indoor unit color	Type of hood
AirOne	**_:** no heater **E:** preheater **E2:** preheater and reheater	**_:** heat recovery **ERV:** heat and humidity recovery	**_:** white **BLK:** matte black	**_:** no hood by default **S:** hood for thin walls AH-S 250 **AH:** compact steel hood AH 250

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SINGLE-ROOM ENERGY RECOVERY UNITS

Control

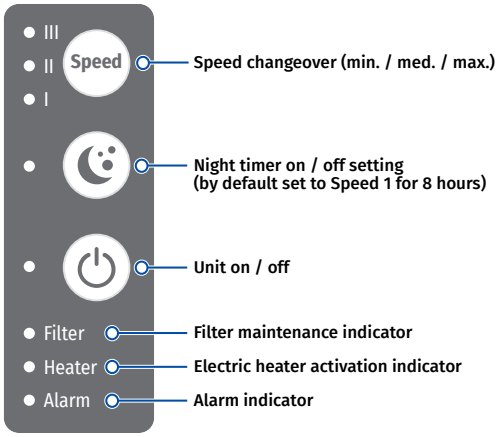
- The unit features a control panel.
- Wi-Fi connection is available.



CONTROL UNIT FUNCTIONS

	AirOne	AirOne E	AirOne E2
Speed changeover	•	•	•
Filter replacement warning indication	•	•	•
Alarm indication	•	•	•
Speed adjustment	•	•	•
Night timer	•	•	•
Preheater activation		•	•
Turning the reheating on/off			•
Control via an Android/iOS mobile app	•	•	•

CONTROL PANEL



Download the **Blauberg Home** app for Android

Download the **Blauberg Home** app for iOS



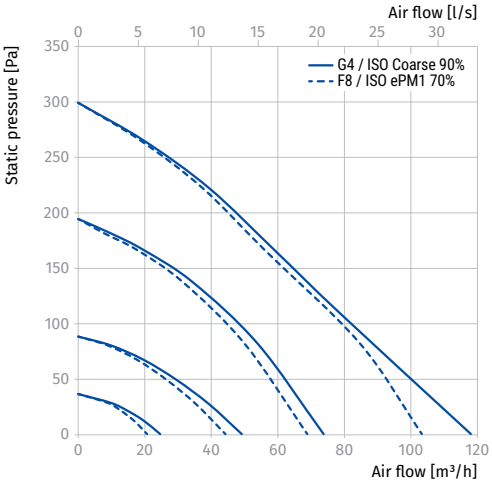
AIRONE

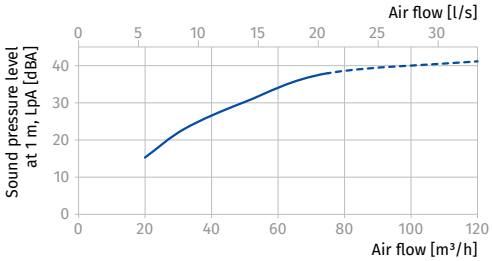
SINGLE-ROOM ENERGY RECOVERY UNITS

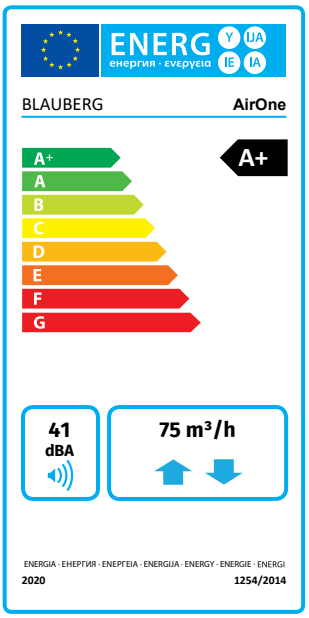
Technical parameters

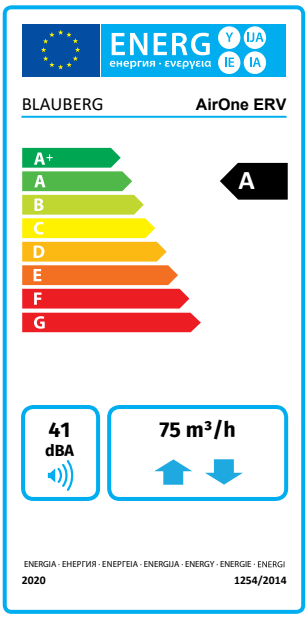
Parameters	AirOne			AirOne E			AirOne E2			AirOne ERV			AirOne E ERV			AirOne E2 ERV		
Supply voltage [V/50 (60) Hz]	220–240									220–240								
Speed	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air flow [m³/h]	30	50	75	30	50	75	30	50	75	30	50	75	30	50	75	30	50	75
Power consumption without heater [W]	5	10	20	5	10	20	5	10	20	5	10	20	5	10	20	5	10	20
Air flow in Boost mode [m³/h]	120									120								
Power consumption (excl. heater) [W]	46									46								
Integrated electric preheater power [W]	–			200			200			–			200			200		
Integrated electric reheater power [W]	–			–			200			–			–			200		
Max. unit current without electric heater [A]	0.3			0.3			0.3			0.3			0.3			0.3		
Max. unit current with electric heater [A]	–			1.40			2.50			–			1.40			2.50		
Sound power level L_{WA} to environment [dBA]	34	41	48	34	41	48	34	41	48	34	41	48	34	41	48	34	41	48
Sound pressure level at 1 m [dBA]	23	31	37	23	31	37	23	31	37	23	31	37	23	31	37	23	31	37
Sound pressure level at 3 m [dBA]	12	21	27	12	21	27	12	21	27	12	21	27	12	21	27	12	21	27
Transported air temperature [°C]	–20...+40									–20...+40								
Casing material	ABS plastic									ABS plastic								
Insulation (option) [mm]	30									30								
Extract filter ISO 16890 / EN 779:2012	Coarse 45% / G3									Coarse 45% / G3								
Supply filter ISO 16890 / EN 779:2012	Coarse 90% / G3+G4 Option: ePM1 70% / F8						Coarse 45% / G3			Coarse 90% / G3+G4 Option: ePM1 70% / F8						Coarse 45% / G3		
Air duct (thermal insulation hood) diameter [mm]	1×250 (320)									1×250 (320)								
Weight [kg]	11									11								
Heat recovery efficiency [%]	up to 98									up to 85								
Humidity recovery efficiency [%]	–									up to 56								
Heat exchanger type	counter-flow									counter-flow								
Heat exchanger material	polysterene									enthalpy membrane								
SEC Class	A+									A								

A-weighted sound power level	Total	Octave-frequency band [Hz]								Sound pressure level at 3 m, A-weighted	Sound pressure level at 1 m, A-weighted
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to environment [dBA]	**48**	45	40	44	38	33	29	27	22	**27**	**37**





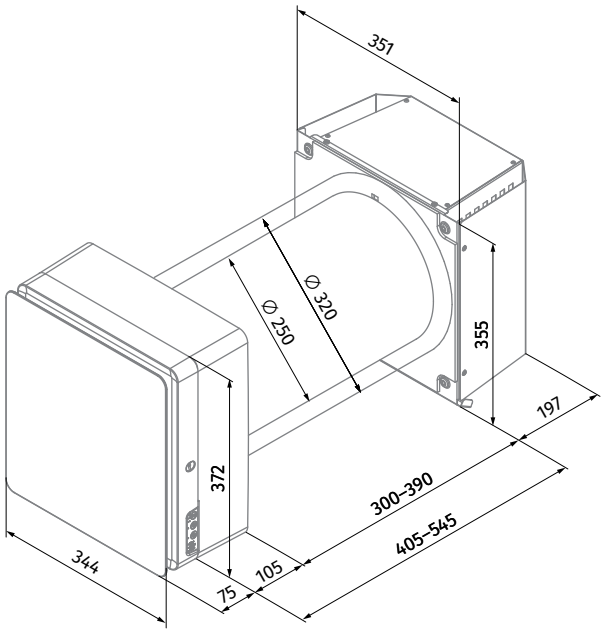




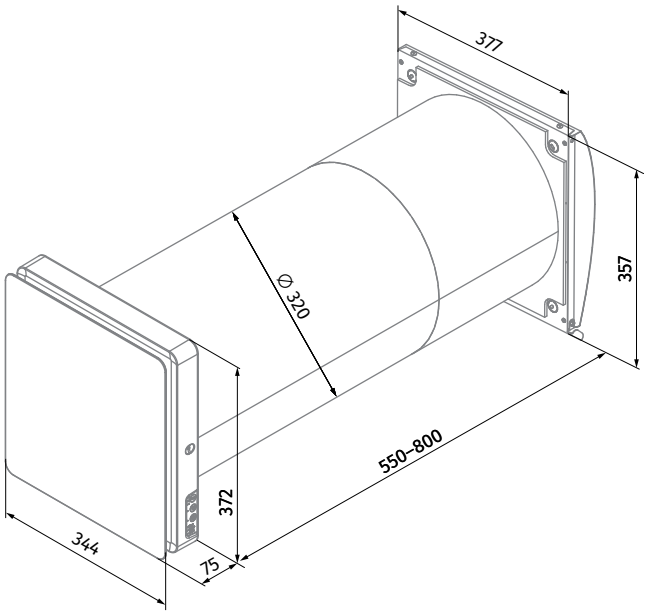
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Dimensions [mm]

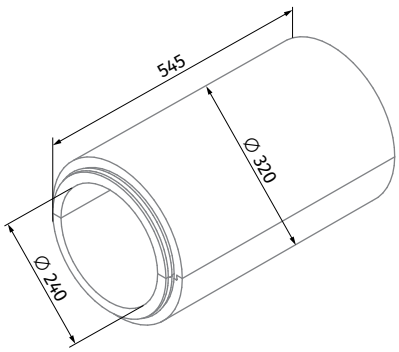


Mounting into walls 300–545 mm thick

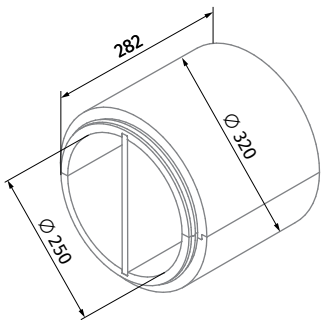


Mounting into walls 550–800 mm thick

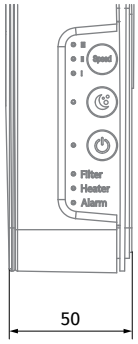
THERMALLY INSULATED AIR DUCT TC AIRONE 545X320 EPP



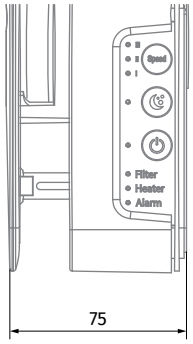
EXTENDER WITH AIR FLOW SEPARATOR DE AIRONE 282X320 EPP



INDOOR UNIT

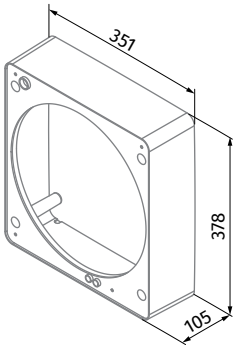


In the closed position



In the open position

SPACER INSERT OF THE DCS AIRONE INDOOR UNIT



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SINGLE-ROOM ENERGY RECOVERY UNITS

Accessories

Name		Description
Pre-installation Kit AirOne AH		Pre-installation kit for walls of standard thickness. Includes: • outdoor hood AH AirOne white 250 • thermally insulated air duct • air duct extender • polystyrene plug • polystyrene wedges • mounting opening template • set of fasteners
Pre-installation kit AirOne AH-S		Pre-installation kit for thin walls. Includes: • outdoor hood AH-S AirOne white 250 • mounting sleeve 545x250 mm • polystyrene plug • polystyrene wedges • mounting opening template • set of fasteners
Completion Kit *model*		Kit for final mounting Includes: • cartridge • indoor unit
DSC AirOne *colour*		Spacer insert of the indoor unit white black (BLK)
AH AirOne *colour* 250		Compact outdoor ventilation hood white anthracite chrome
AH-S AirOne *colour* 250		Outdoor ventilation hood for thin walls white anthracite chrome
TC AirOne 545x320 EPP		Thermally insulated air duct with an external diameter of 320 mm. Used for walls up to 545 mm thick
DE AirOne 282x320 EPP		Thermally insulated air duct extender with air flow separator with an external diameter of 320 mm. Necessary for mounting the device in walls from 550 to 800 mm thick
FP 239x90x10 Coarse 45% / G3 PPI		Coarse 45% filter
FP 137x101x40 Coarse 90% / G4		ISO Coarse 90% / G4 filter
FP 137x101x40 ePM1 70% / F8		Fine filter ISO ePM1 70% / F8. Unavailable for the models with a built-in reheater AirOne E2 and AirOne E2 ERV
RHE AirOne		PTC heater (reheating). Available in modifications AirOne E and AirOne E ERV. It is used for final heating of supply air up to the set comfortable temperature after it passes the heat exchanger
CD-1		External wall-mounted CO_2 sensor with relay output (NO), LED CO_2 level indicator, and touch-sensitive mode selection button
CD-2		External wall-mounted CO_2 sensor with relay output (NO)