

FRESHBOX 110



DECENTRALIZED HEAT
RECOVERY VENTILATION

2

FRESHBOX 110

DECENTRALIZED SUPPLY AND EXHAUST UNIT WITH HEAT RECOVERY



100 m³/h



from 10 dB(A)



up to 93%



FEATURES

High efficiency ventilation of a single room or a small apartment.

Flush or surface mounting option.

Optional connection of supply and extract 75 mm semi-rigid air ducts for flush mounted Freshbox 110 K1 unit.

Optional connection of 100 mm extract air duct for surface mounted Freshbox 110 unit.

Low noise level from 10 dB(A) at 3 m.

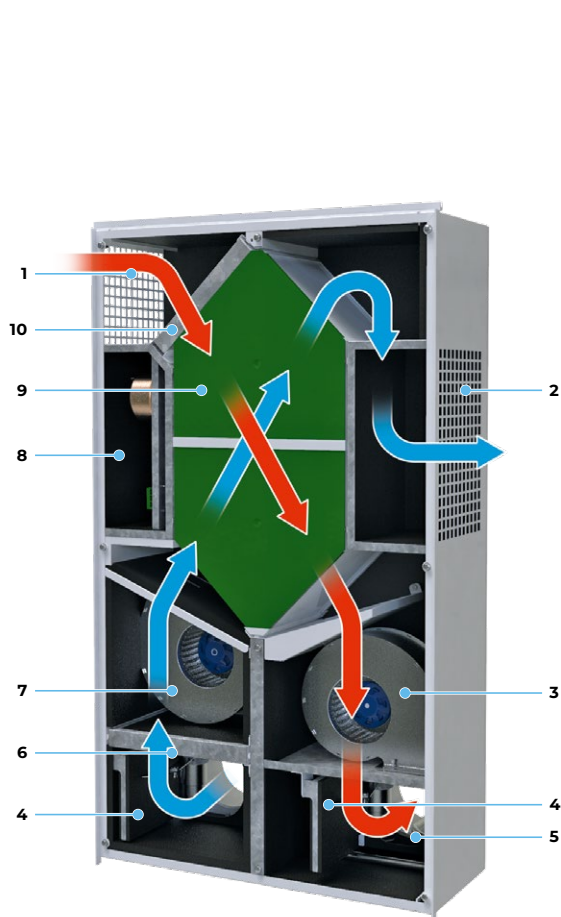
High level of wind protection.

Clean air with an ISO ePM1 65% / F7 supply filter.

Easy installation

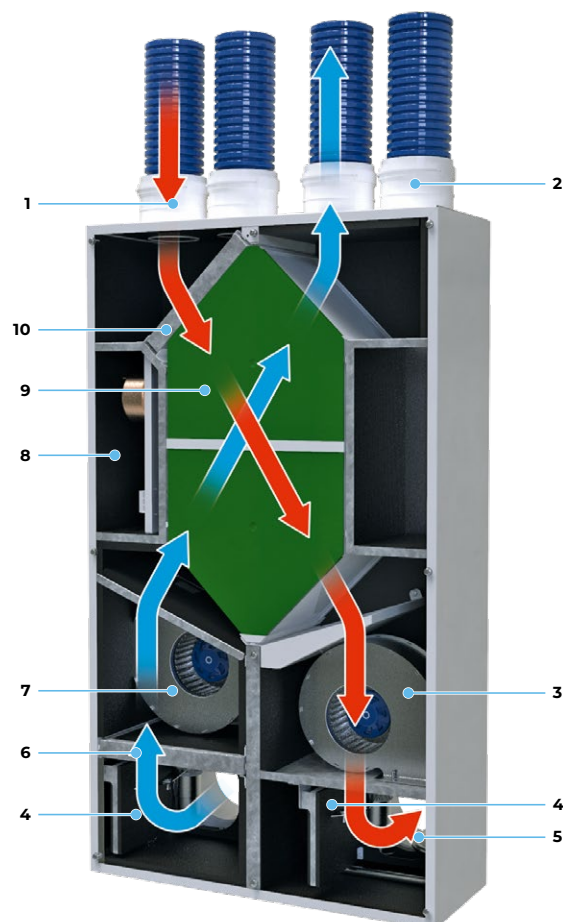
Designation key

Series	Rated air flow [m ³ /h]	Mounting	Heat exchanger type
Freshbox – decentralized ventilation unit	110	– surface mounting K1 – flush mounting	– heat recovery ERV – heat and humidity recovery



Freshbox 110 (wall surface mounting)

1. Extract grille;
2. Supply grille;
3. Exhaust fan;
4. Automatic air shutter;
5. Drain pipe (HRV version);
6. Supply filter;
7. Supply fan;
8. Controller;
9. HRV or ERV core;
10. Extract filter.



Freshbox 110 K1 (wall flush mounting)

1. Extract ducts;
2. Supply ducts;
3. Exhaust fan;
4. Air shutter (option);
5. Drain pipe (HRV version);
6. Supply filter;
7. Supply fan;
8. Controller;
9. HRV or ERV heat exchanger;
10. Extract filter.

Casing

The casing is made of sheet metal, painted white, with a layer of heat and sound insulation. The modern design allows Freshbox 110 to fit harmoniously into any interior. The front panel opens easily for filter maintenance. The unit is equipped with two 100 mm spigots for air intake and exhaust.

Air dampers

An automatic supply and exhaust air dampers are provided to prevent drafts when the unit is switched off.

Fans

The unit is equipped with high-efficient electronically commutated (EC) motors with an external rotor equipped with impellers with forward-curved blades. Such motors are currently the most advanced solution in the field of energy saving. EC motors are characterized by high performance and optimal control over the entire range of speeds. The undoubted advantage of electronically commutated motors is high efficiency (up to 90%).

Air filtration

Supply air is cleaned by a Coarse 90% / G4 cassette filter. An ePM1 65% / F7 filter can be installed as an option.

Extract air purification is performed by a Coarse 90% / G4 cassette filter.

Heat exchanger

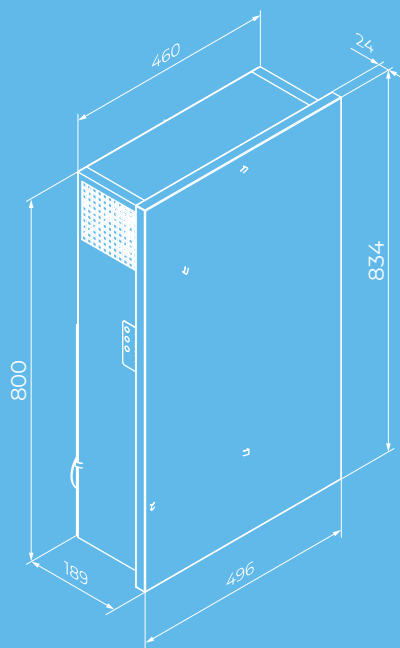
Freshbox 110 units are equipped with a counter-flow heat exchanger.

Freshbox 110 ERV units are equipped with a heat exchanger, which is made of enthalpy membrane and transfers heat and moisture.

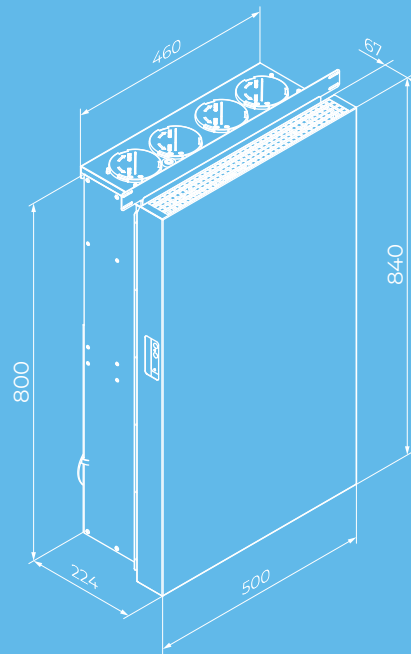
In the cold season the extract air heat and moisture are transferred to the supply air stream through the enthalpy membrane reducing the heat losses through ventilation.

In the warm season, the heat and moisture of fresh intake air are transferred through the enthalpy membrane to the extract air. This allows for a considerable reduction of the supply air temperature and humidity which, in turn, reduces the air conditioning load.

Overall dimensions [mm]



Freshbox 110 (wall surface mounting)



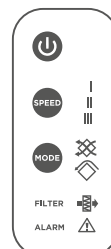
Freshbox 110 K1 (wall flush mounting)

Automation and control

Control panel on the side surface of the unit.

FUNCTIONS:

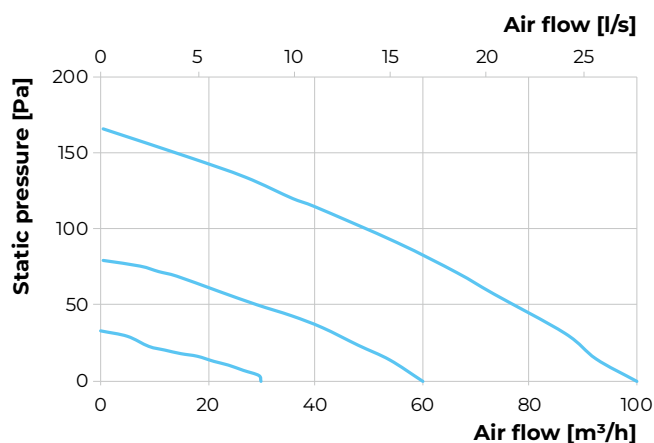
- On / off
- Speed switching
- Heat recovery mode
- Summer cooling mode
- Filter maintenance indication
- Alarm indication



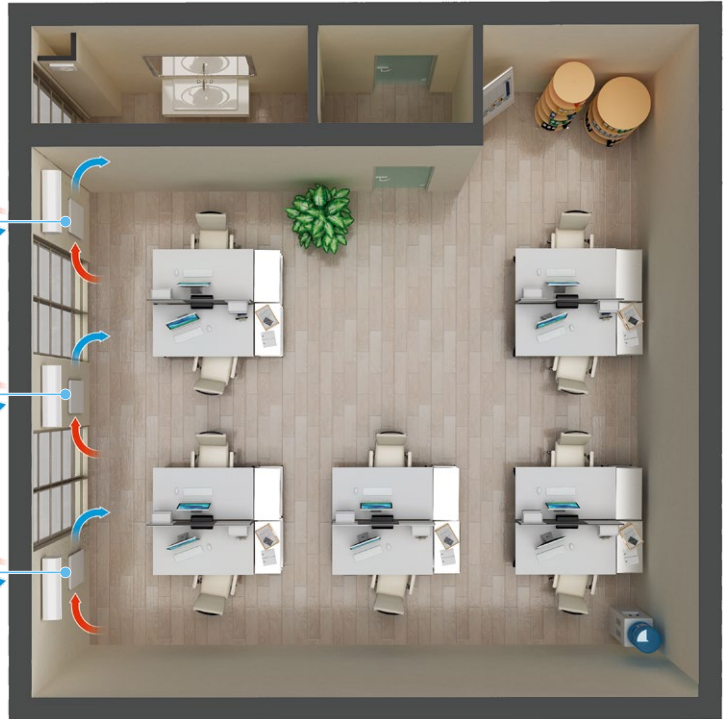
Technical data

	Freshbox 110			Freshbox 110 K1			Freshbox 110 ERV			Freshbox 110 K1 ERV		
Speed	1	2	3	1	2	3	1	2	3	1	2	3
Air flow [m³/h]	30	60	100	30	60	100	30	60	100	30	60	100
Voltage [V / 50-60 Hz]	1~230			1~230			1~230			1~230		
Power [W]	10	15	31	10	15	31	10	15	31	10	15	31
Max current [A]	0.26			0.26			0.26			0.26		
RPM [min⁻¹]	3200			3200			3200			3200		
Sound power level L_{WA} to environment [dB(A)]	31	41	51	31	41	51	31	41	51	31	41	51
Sound pressure level L_{pA} to environment at 1 m distance [dB(A)]	20	30	40	20	30	40	20	30	40	20	30	40
Sound pressure level L_{pA} to environment at 3 m distance [dB(A)]	10	21	31	10	21	31	10	21	31	10	21	31
Operating temperature [°C]	-15...+40			-15...+40			-15...+40			-15...+40		
Case material	polymer coated steel			polymer coated steel, galvanized steel			polymer coated steel			polymer coated steel, galvanized steel		
Insulation [mm]	10			10			10			10		
Extract filter ISO 16890 / EN 779:2012	Coarse 90% / G4			Coarse 90% / G4			Coarse 90% / G4			Coarse 90% / G4		
Supply filter ISO 16890 / EN 779:2012	Coarse 90% / G4 Optional: ePM1 65% / F7			Coarse 90% / G4 Optional: ePM1 65% / F7			Coarse 90% / G4 Optional: ePM1 65% / F7			Coarse 90% / G4 Optional: ePM1 65% / F7		
Connected air duct diameter [mm]	2×100 mm + optional 1×100 mm			2×100 mm + optional 4×75 mm			2×100 mm + optional 1×100 mm			2×100 mm + optional 4×75 mm		
Weight [kg]	20			23			20			23		
Heat recovery efficiency [%]*	93	87	84	93	87	84	85	80	72	85	80	72
Humidity recovery efficiency [%]*	-	-	-	-	-	-	45	39	29	45	39	29
Heat exchanger type	counter-flow			counter-flow			counter-flow			counter-flow		
Heat exchanger material	polystyrene			polystyrene			enthalpic			enthalpic		
SEC class	A			A			A			A		

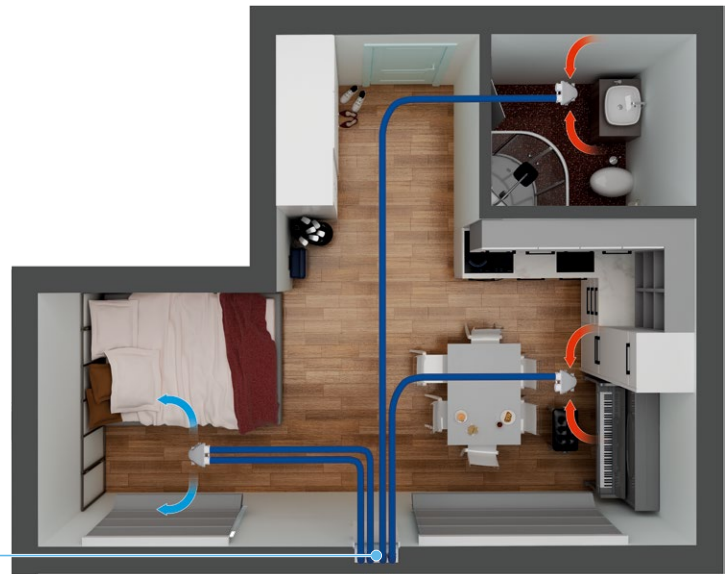
*Heat recovery efficiency is specified in compliance with EN 13141-8



Mounting



Wall surface mounting



Wall flush mounting

Accessories

 <p>FP 176x160x22 Coarse 90% / G4 Extract filter</p>	 <p>FP 203x150x22 Coarse 90% / G4 Supply filter</p>	 <p>FP 203x150x22 ePM1 65% / F7 Supply filter option</p>
 <p>MS Freshbox 110 Mounting kit</p>	 <p>MS Freshbox 110 white Mounting kit</p>	 <p>MS Freshbox 110 chrome Mounting kit</p>
 <p>MS1 Freshbox 110 Mounting kit for corner mounting of the grille in the window opening</p>	 <p>MS1 Freshbox 110 white Mounting kit for corner mounting of the grille in the window opening</p>	 <p>MS1 Freshbox 110 chrome Mounting kit for corner mounting of the grille in the window opening</p>
 <p>AH Freshbox 110 Supply and exhaust hood</p>	 <p>AH Freshbox 110 white Supply and exhaust hood</p>	 <p>AH Freshbox 110 chrome Supply and exhaust hood</p>
 <p>CD-1 CO₂ sensor</p>	 <p>CD-2 CO₂ sensor</p>	 <p>CD-3 CO₂ sensor</p>
 <p>HR-S Humidity sensor</p>	 <p>EH Freshbox Heater</p>	 <p>RKF 75 kit Air ducts with a lock rings (4 pcs.)</p>



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The manufacturer reserves the right to make any changes due to the need for production, without prior notice.

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