



MICRA 110

Decentralized heat recovery
ventilation

MICRA 110

Decentralized supply and exhaust unit with heat recovery



Air flow:
up to 100 m³/h



Heat recovery efficiency:
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 Micra 110 V1 unit.
- Optional connection of 100 mm extract air duct for surface mounted Micra 110 unit.
- Low noise level from 10 dB(A) at 3 m.
- High level of wind protection.
- Clean air with an F7 supply filter.
- Easy installation

CASING

The casing is made of sheet metal, painted white, with a layer of heat and sound insulation. The modern design allows Micra 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.

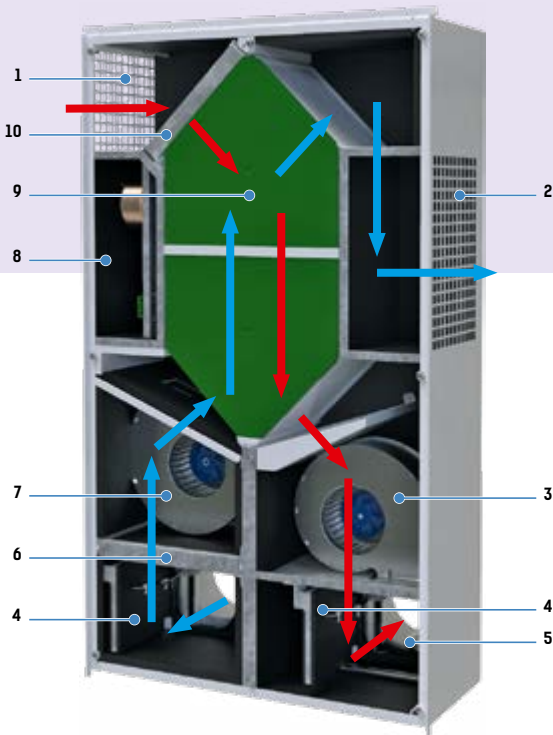
AIR FILTRATION

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.

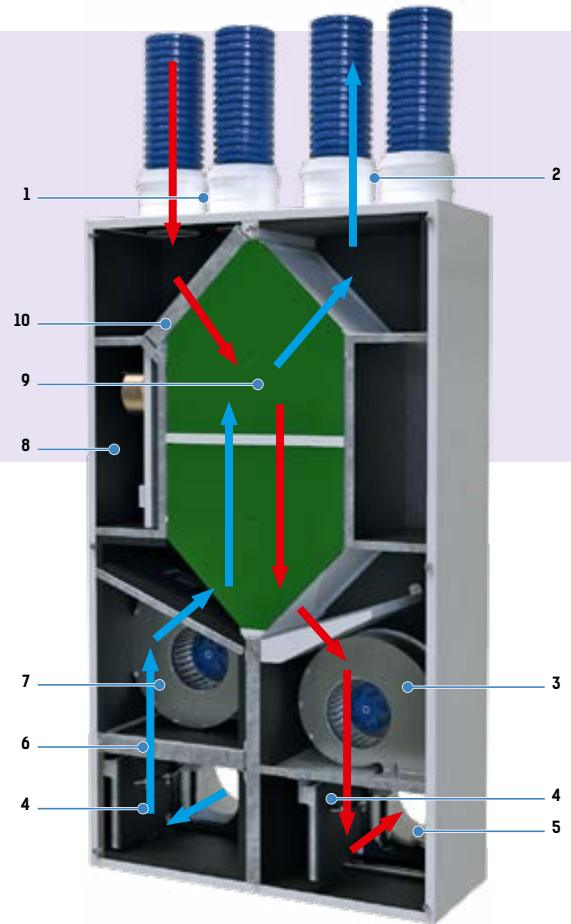
DESIGNATION KEY

Unit series	Rated air flow [m ³ /h]	Mounting	Heat exchanger type
Micra – decentralized ventilation unit with plastic heat exchanger	110	– – surface mounting V1 – flush mounting surface mounting	– – heat recovery ERV – heat and humidity recovery



MICRA 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.



MICRA 110 V1 (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.

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%).

HEAT EXCHANGER

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

MICRA 110

AUTOMATION AND CONTROL

Control panel on the side surface of the unit.

Functions:

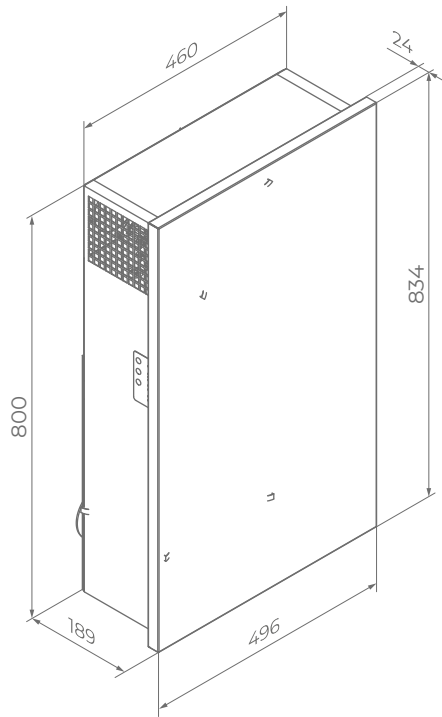
- On / off
- Speeds: 1 / 2 / 3
- Heat recovery mode
- Summer cooling mode
- LED indication:
- Filter maintenance;
- Alarm;

TECHNICAL SPECIFICATIONS

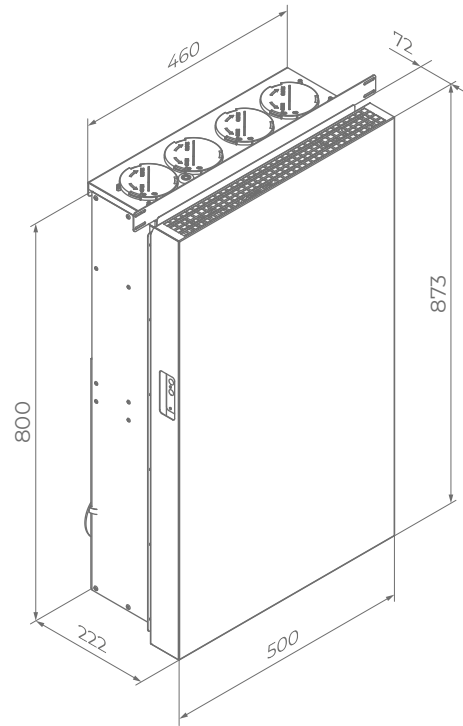
Model	Micra 110			Micra 110 V1			Micra 110 ERV			Micra 110 V1 ERV		
	1	2	3	1	2	3	1	2	3	1	2	3
Speed	1	2	3	1	2	3	1	2	3	1	2	3
Air flow [m ³ /h]	30	60	100	30	60	100	30	60	100	30	60	100
Voltage [V / 50-60 Hz]	1~230			1~230			1~230			1~230		
Power [W]	10	15	31	10	15	31	10	15	31	10	15	31
Max current [A]	0.26			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 [dBA]	20	30	40	20	30	40	20	30	40	20	30	40
Sound pressure level L _{pA} to environment at 3 m distance [dBA]	10	21	31	10	21	31	10	21	31	10	21	31
Operating temperature [°C]	from -15 to +40			from -15 to +40			from -15 to +40			from -15 to +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		
Connected air duct diameter [mm]	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

OVERALL DIMENSIONS [MM]



Micra 110 (wall surface mounting)



Micra 110 V1 (wall flush mounting)

MICRA 110

MOUNTING

MICRA 110





Wall surface mounting



Wall flush mounting

ACCESSORIES

Name	Image
SF 176x160x22 Coarse 90% / G4 Extract filter	
SF 203x150x22 Coarse 90% / G4 Supply filter	
SF 203x150x22 ePM1 65% / F7 Supply filter option	
MK Micra 110 Mounting kit	
MK Micra 110 white Mounting kit	
MK Micra 110 chrome Mounting kit	
MK1 Micra 110 Mounting kit for corner mounting of the grille in the window opening	
MK1 Micra 110 white Mounting kit for corner mounting of the grille in the window opening	
MK1 Micra 110 chrome Mounting kit for corner mounting of the grille in the window opening	

Name	Image
NB Micra 110 Supply and exhaust hood	
NB Micra 110 white Supply and exhaust hood	
NB Micra 110 chrome Supply and exhaust hood	
CO2-1 CO ₂ sensor	
CO2-2 CO ₂ sensor	
CO2-3 CO ₂ sensor	
HR-S Humidity sensor	
NE Micra Heater	

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2022-07

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