



UNI

Air handling unit
with heat recovery



UNI



Centralised ventilation unit for small apartments



Air flow:
up to 160 m³/h



Heat recovery efficiency:
up to 95 %

FEATURES

- Efficient centralised ventilation unit for small apartments.
- Can be installed vertically on the wall, or suspended under the ceiling.
- Concealed installation is possible due to optional revision door.
- Clean air due to the use of an ePM1 70% / F7 filter for supply air filtration.
- Low noise operation from 13 dB(A) at 3 m.
- Simple installation due to variable location of the spigots.

CASING

The casing is made of galvanized sheet metal. The unit is heat- and sound-insulated with a 20 mm layer of foam. The service panel is easy to open for filter maintenance.

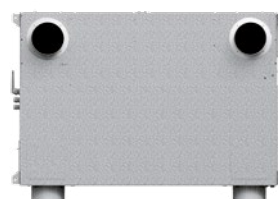
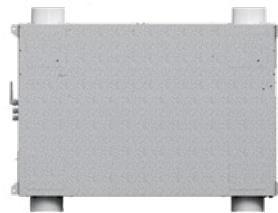
USP

The unit is equipped with four ø125 mm spigots. The position of the spigots can be changed to simplify duct installation.

Flanges can be installed in three different directions providing wide range of installation options.

FANS

The units feature high-performance, electronically commutated (EC) external rotor motors with forward curved blades. These state-of-the-art units offer excellent energy efficiency. In addition to that, EC motors combine high performance and optimum control over the entire speed range. EC motors have an excellent power efficiency (up to 90 %).

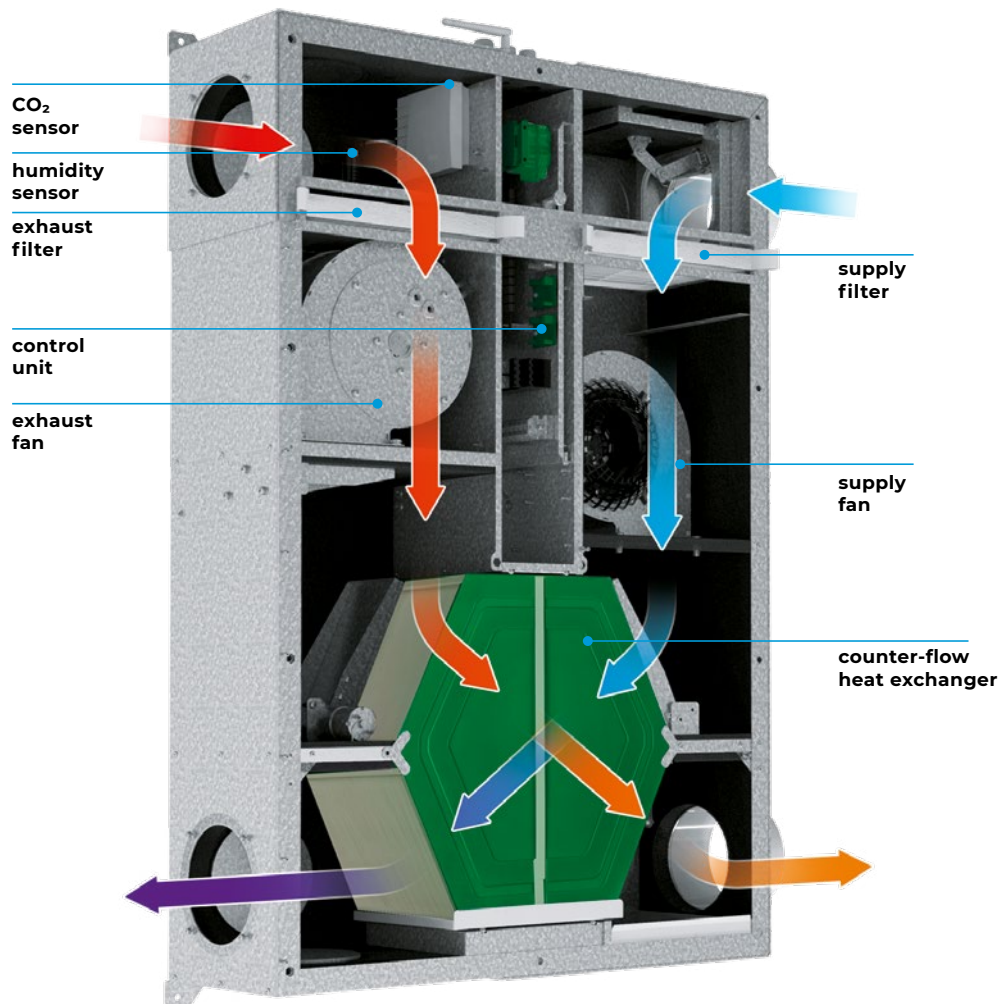


HEAT RECOVERY

The Uni unit is equipped with a plate counter-flow polystyrene heat exchanger for heat recovery. The unit condensate is collected and drained to the drain pan under the heat exchanger. The Uni E unit is equipped with an enthalpy plate counter-flow heat exchanger for heat and humidity recovery.

The air flows are completely separated in the heat exchanger. Thus smells and contaminants are not transferred from the extract air to the supply air.

Heat recovery is based on heat and/or humidity transfer through the heat exchanger plates. In the cold season supply air is heated in the heat exchanger by transferring the heat energy of warm and humid extract air to the cold fresh air. Heat recovery minimizes ventilation heat losses and heating costs respectively. In the warm season the heat exchanger performs reverse and intake air is cooled in the heat exchanger by the cool extract air. That reduces operation load on air conditioners and saves electricity.



CONTROL AND AUTOMATION

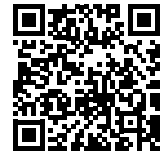
The Uni A21 units are equipped with an integrated automation system. The remote control panel is not included in the delivery set (sold separately).

The A21 controller allows integrating the unit into the Smart Home system or BMS (Building Management System). Unit control via Wi-Fi using the mobile application Vents AHU.

The Uni A14 units are equipped with an integrated automation system and the A14 wall mounted sensor control panel with LED-indication.







Download the Vents AHU app for Android



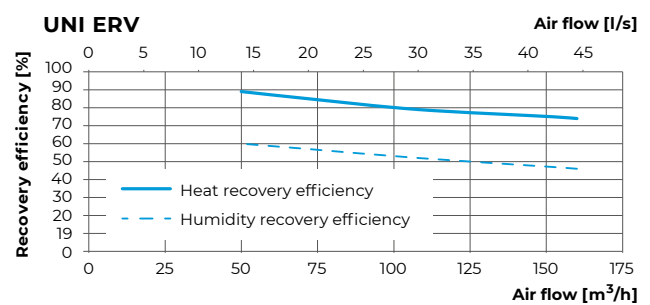
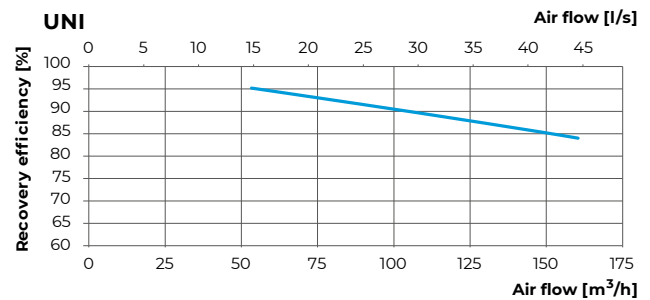
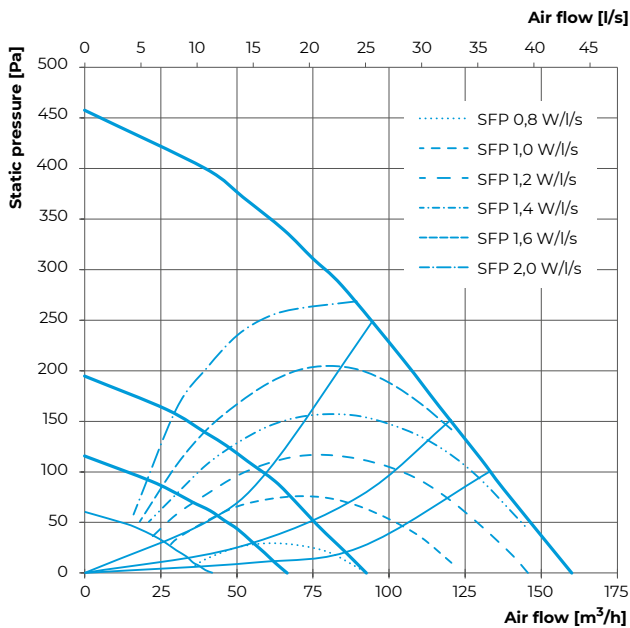
Download the Vents AHU app for iOS

AUTOMATION FUNCTIONS

Functions	Uni A21	Uni A14
Unit control via Wi-Fi using a mobile application	+	-
Unit control via a wired remote control panel	 A22 control panel (option)	 A14 control panel
Unit control via a wireless remote control panel	 A22 Wi-Fi control panel (option)	-
Unit control via a remote wired LCD control panel	 A25 control panel (option)	-
BMS (Building Management System)	RS-485	-
	Wi-Fi	-
	Ethernet	-
	MODBUS (RTU, TCP)	-
Speed selection	+	+
Filter replacement indication	by filter timer	by filter timer
Alarm indication	full alarm description in the mobile application	+
Week-scheduled operation	+	-
Bypass	automatic	manual
	manual	-
Timer	+	-
Boost mode	+	-
Fireplace mode	+	-
Freeze protection	through cyclic stops of the supply fan	through cyclic stops of the supply fan
	through preheating (option)	-
Reheater connection	option	-
Cooler connection	option	-
Minimum supply air temperature control	option	-
Humidity control	option	option
CO ₂ control	option	option
VOC control	option	option
PM2.5 control	option	option
Fire alarm system connection	option	-

TECHNICAL DATA

Model	Uni			Uni ERV		
Voltage [V / 50/60 Hz]	1~ 230			1~ 230		
Max. unit power without electric heater [W]	58			58		
Max. unit current without electric heater [A]	0.5			0.5		
Max. air flow [m ³ /h]	160			160		
RPM [min ⁻¹]	2800			2800		
Speed [m ³ /h]	60	90	160	60	90	160
Sound pressure level LpA to environment at 1 m [dBA]	23	34	42	23	34	42
Sound pressure level LpA to environment at 3 m [dBA]	13	26	33	13	26	33
Operating temperature [°C]	-25...+40			-25...+40		
Case material	Aluzinc			Aluzinc		
Insulation [mm]	20			20		
Extract filter	Coarse 90% / G4			Coarse 90% / G4		
Supply filter	ePM1 70% / F7 (G4 option)			ePM1 70% / F7 (G4 option)		
Connected air duct diameter [mm]	125			125		
Weight [kg]	31			31		
Heat recovery efficiency [%]	84-95			74-89		
Humidity recovery efficiency [%]	-			47-60		
Heat exchanger type	Counter-flow			Counter-flow		
Heat exchanger material	Polystyrene			Enthalpic membrane		
SEC class	A+			A		



SOUND POWER LEVEL

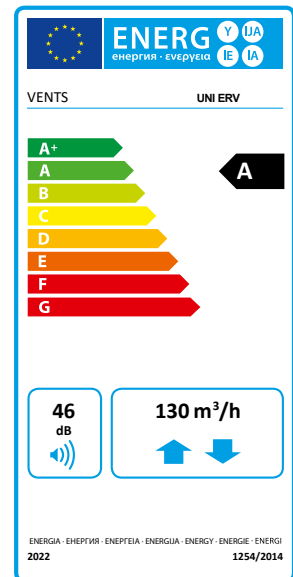
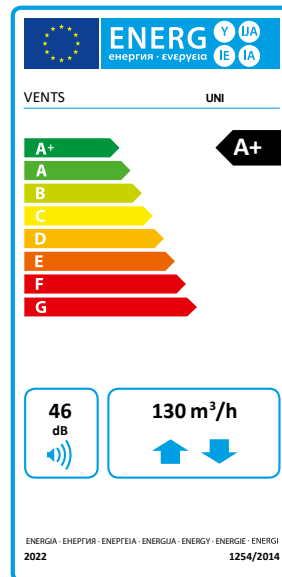
Sound power level, A - weighted	General	Octave frequency band, Hz										LpA, 3m	LpA, 1m
	dB(A)	200	250	315	400	500	630	800	1000	1250	dB(A)	dB(A)	
LwA to environment @ 160m3h 0Pa	53	38	36	40	45	50	42	43	41	38	33	42	
LwA to environment @ 90m3h 0Pa	45	26	32	38	37	37	35	34	34	31	26	34	
LwA to environment @ 60m3h 0Pa	34	22	22	22	25	25	23	22	21	18	13	23	
LwA to supply air outlet @ 160m3h 0Pa	48	32	32	38	36	40	30	43	39	30	27	37	
LwA to supply air outlet @ 90m3h 0Pa	41	26	28	34	29	29	23	35	32	22	20	30	
LwA to supply air outlet @ 60m3h 0Pa	32	20	19	21	18	18	13	24	21	14	12	21	
LwA to exhaust air inlet @ 160m3h 0Pa	50	27	24	40	42	46	30	26	29	33	29	39	
LwA to exhaust air inlet @ 90m3h 0Pa	47	37	23	44	34	37	27	23	27	29	26	36	
LwA to exhaust air inlet @ 60m3h 0Pa	34	23	14	24	24	26	19	15	16	17	14	23	

Sound power level, A - weighted	General	Octave frequency band, Hz										LpA, 3m	LpA, 1m
	dB(A)	1600	2000	2500	3150	4000	5000	6300	8000	10000	dB(A)	dB(A)	
LwA to environment @ 160m3h 0Pa	53	37	35	33	31	27	23	21	24	25	33	42	
LwA to environment @ 90m3h 0Pa	45	30	28	26	24	21	19	20	23	25	26	34	
LwA to environment @ 60m3h 0Pa	34	18	17	16	15	15	16	16	20	21	13	23	
LwA to supply air outlet @ 160m3h 0Pa	48	34	32	30	28	22	19	19	23	24	27	37	
LwA to supply air outlet @ 90m3h 0Pa	41	26	23	23	22	18	18	19	23	24	20	30	
LwA to supply air outlet @ 60m3h 0Pa	32	17	16	17	17	17	18	19	23	24	12	21	
LwA to exhaust air inlet @ 160m3h 0Pa	50	38	36	38	34	29	26	28	25	24	29	39	
LwA to exhaust air inlet @ 90m3h 0Pa	47	33	31	33	30	25	24	21	24	24	26	36	
LwA to exhaust air inlet @ 60m3h 0Pa	34	22	20	24	18	17	18	19	23	24	14	23	

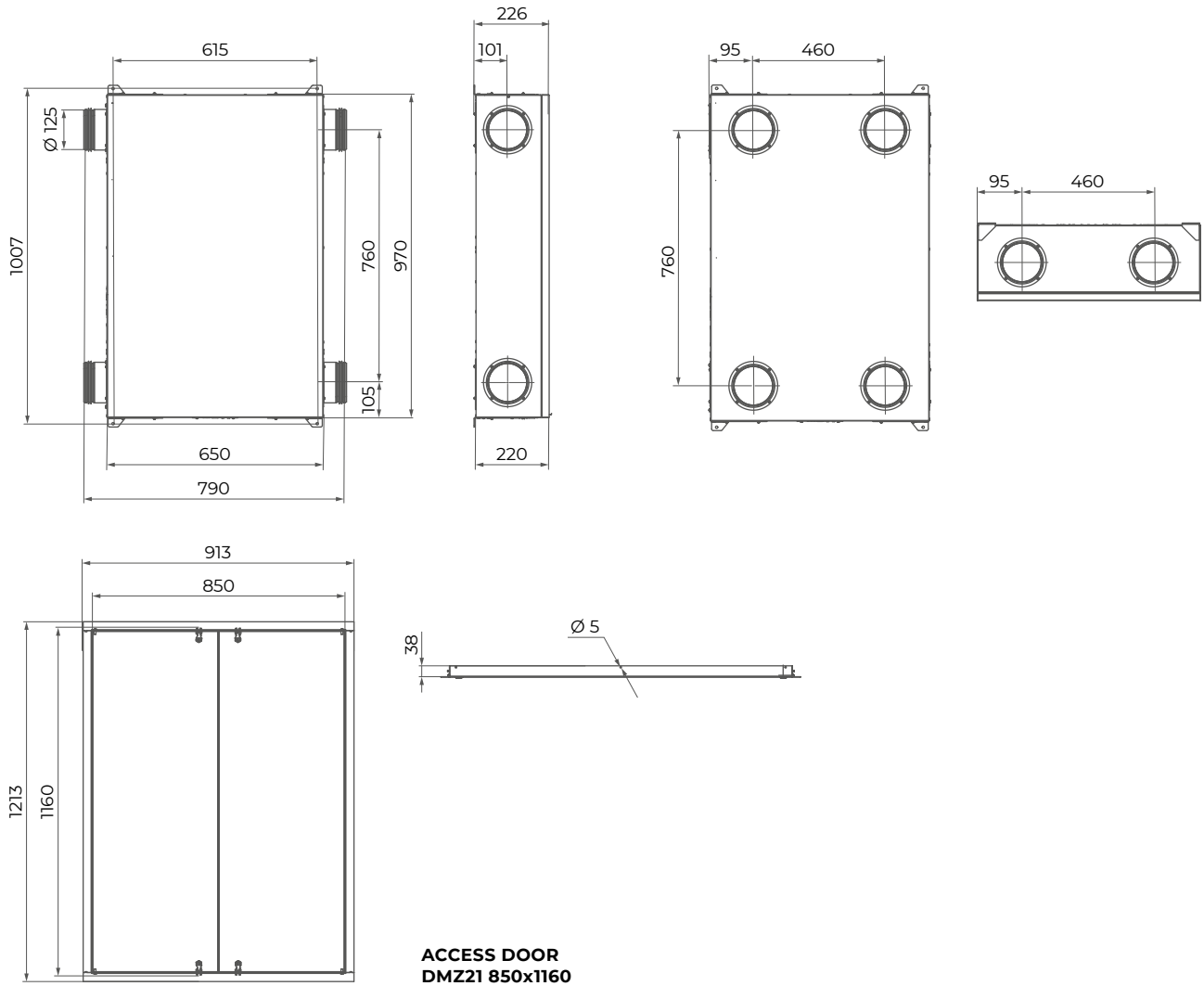
ENERGY LABELING

Supplier model identifier and options installed	Uni	Uni ERV
Reference climate	Cold/Average/ Warm	Cold/Average/ Warm
SEC in [kWh/(m ² a)] for each type of climate	-82,6/-42,9/-17,5	-79,4/-41,3/-16,8
SEC Class	A+	A
Declared typology	BVU	
Type of drive installed	Variable speed	
Type of heat recovery	Recuperative	
Thermal efficiency*	91	91
Maximum flow rate in [m ³ /h]	130	130
Maximum electric power in [W]	55	55
Sound power level (LWA) in [dB(A)]	46	46
Reference flow rate [m ³ /s]	0,025	0,025
Reference pressure difference in [Pa]	50	50
SPI in [W/m ³ /h]	0,286	0,286
Control factor and typology	Local demand control	
Internet address	http://www.ventilation-system.com/	

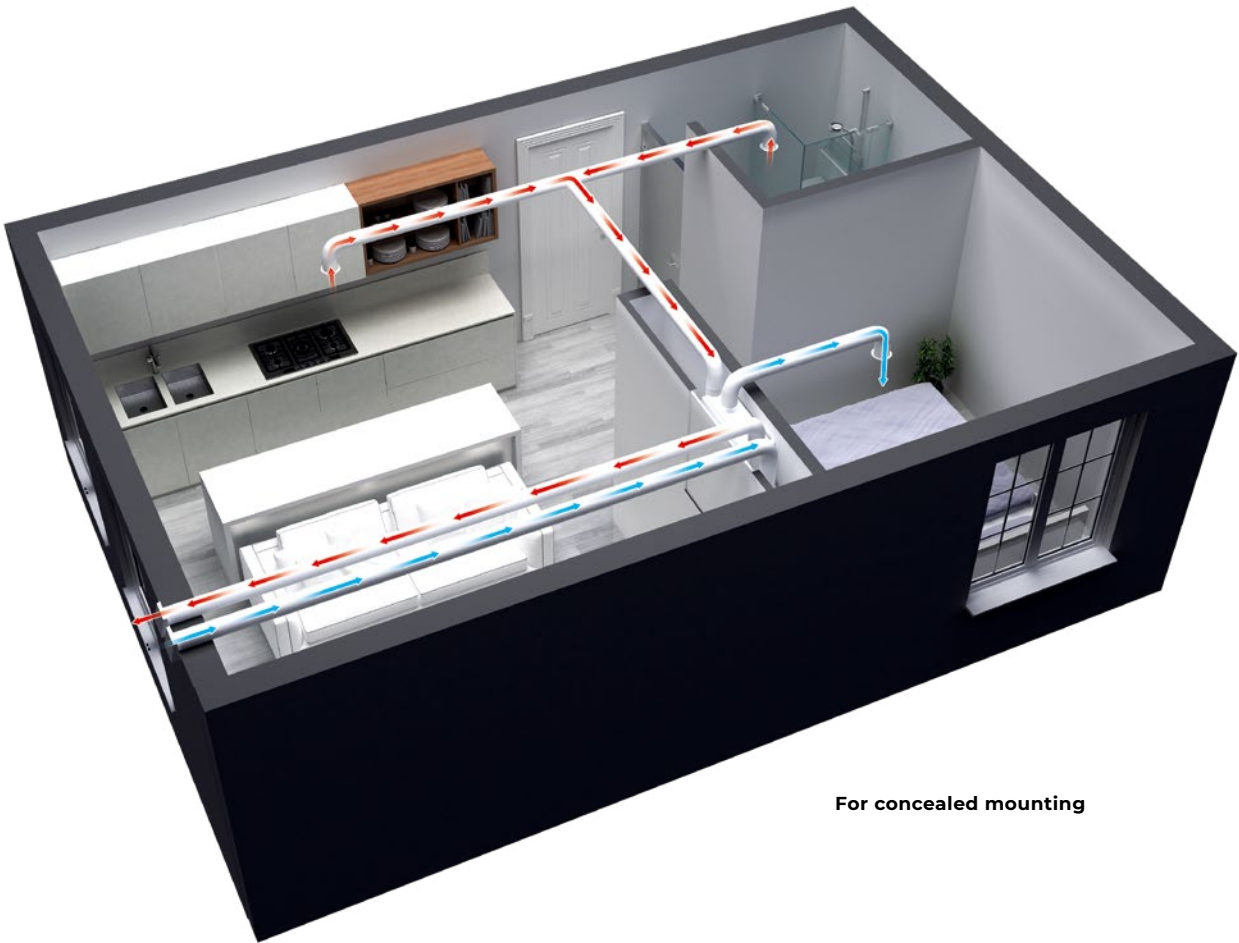
*Efficiency according EN13141-7:2010 at reference flow rate



OVERALL DIMENSIONS [mm]



MOUNTING



For concealed mounting



















Wall flush mounting



Ceiling flush mounting

ACCESSORIES

		Uni R A14 Uni L A14	Uni ERV R A14 Uni ERV L A14	Uni R A21 Uni L A21	Uni ERV R A21 Uni ERV L A21
Coarse 90% / G4 panel filter		SF 233x175x22 Coarse 90% / G4			
ePM1 70% / F7 panel filter		SF 233x175x22 ePM1 70% / F7			
Control panel		-		A22	
Wireless control panel		-		A22 Wi-Fi	
LCD control panel		-		A25	
Humidity sensor		HV2			
Humidity sensor		HR-S			
CO ₂ sensor		CO2-2			
CO ₂ sensor with indication		CO2-1			
VOC sensor		-		DPWQ30600	
CO ₂ sensor		-		DPWQ40200	
CO ₂ sensor		CO2-3			
Humidity sensor		-		DPWC11200	
Outer grille		MVMA 125 bVn Al			
Access doors		DMZ21 850x1160			
Electric reheater		NKD 125 A21 V.2 series			



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