

VUT/VUE 350 VB EC

Heat and energy recovery air handling units



Air flow:
up to 266 CFM



Heat recovery efficiency:
up to 92 %

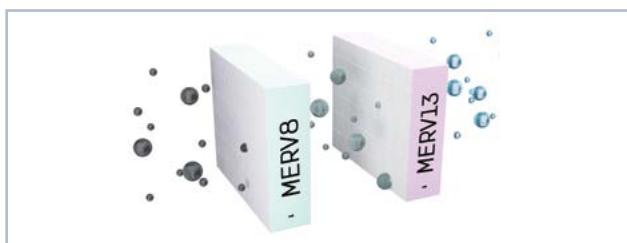


FANS

- The units are equipped with high-efficient EC motors with an external rotor and a centrifugal impeller with backward curved blades. These state-of-the-art motors are the most advanced solution in energy efficiency today.
- EC motors are characterised with high performance and optimum control across the entire speed range. In addition to that, the efficiency of the electronically commutated motor reaches very impressive levels of up to 90 %.

FILTER

- Supply and exhaust air is purified in panel filters with filtering class MERV8 and MERV13, respectively.



BYPASS

- The **VUT/VUE VB EC** units are equipped with a bypass for summer ventilation (air cooling by the cool air from outside).

AUTOMATION

- The **VUT/VUE VB EC A21** are equipped with a built-in automation system. The remote control panel is not included in the delivery set (available separately). To control the unit via Wi-Fi, download the VENTS AHU mobile app.



Google play



Download on the App Store

DESCRIPTION

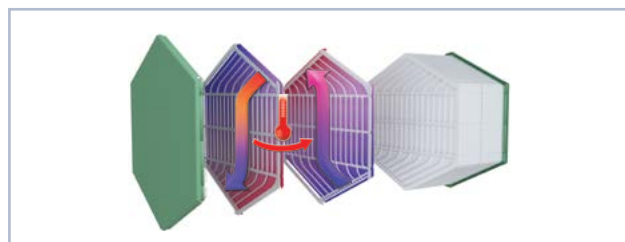
- The air-handling units are the fully featured ventilation units with heat recovery for air filtration, fresh air supply and stale air extract. During operation the extract air heat is transferred to the supply air stream by the highly efficient plate heat exchanger.
- The units are designed for energy efficient ventilation of cottages and flats and are compatible with round air ducts Ø 6⁵/₁₆".

CASING

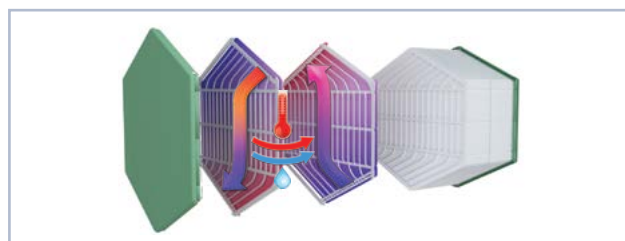
- Made of high-quality polymer coated steel, internally filled with 1 ⁹/₁₆" (depending on the unit model) mineral wool layer for heat and sound insulation.

HEAT EXCHANGER

- The **VUT VB EC** units are equipped with a counter-flow polystyrene heat exchanger. In the cold season the extract air heat is captured and transferred to the supply air stream which reduces the ventilation-generated heat losses. This can lead to formation of condensate that is collected in a special drain pan and discharged into the sewage system.
- In the warm season the ambient air heat is transferred to the exhaust air stream. This allows for a considerable reduction of the supply air temperature which, in turn, reduces the air conditioning load.



- The **VUE VB EC** units are equipped with a counterflow enthalpy heat exchanger. In the cold season the extract air heat and moisture are transferred to the supply air stream through the enthalpy heat exchanger reducing the heat losses from ventilation. The ambient air heat and moisture are transferred to the exhaust air stream through the enthalpy heat exchanger in the warm season.
- This allows for a considerable reduction of the supply air temperature and humidity which, in turn, reduces the air conditioning load.



DESIGNATION KEY

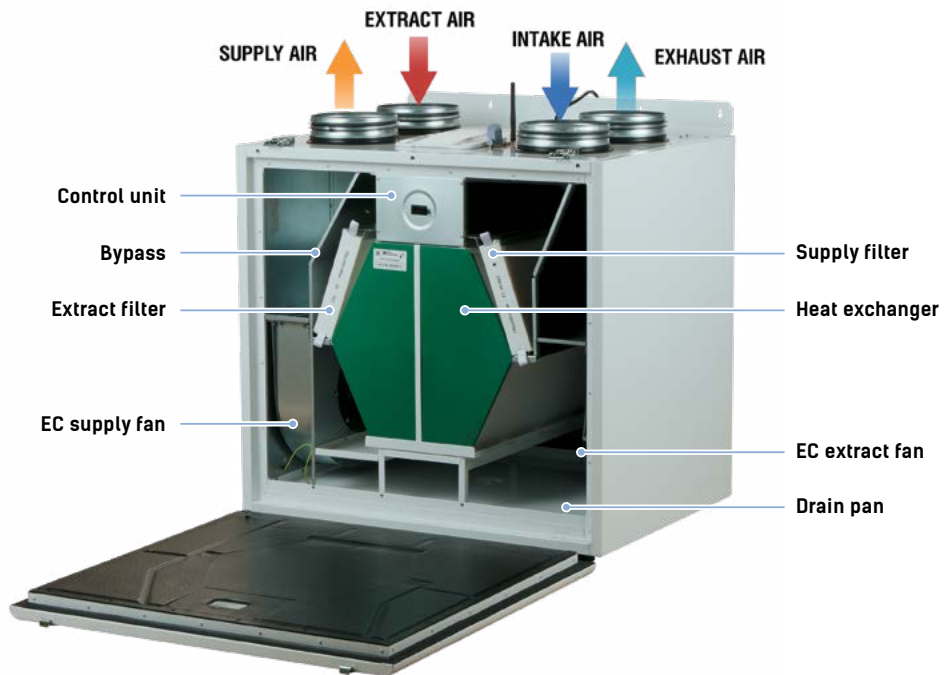
Series	Rated air flow [m³/h]	Installation features	Bypass	Motor type	Control
VUT: ventilation with heat recovery VUE: ventilation with energy recovery	350	V: vertical	B: with bypass	EC: synchronous electronically commutated motor	A21

CONTROL AND AUTOMATION

Functions	A21
Wired remote control panel	Option (A22) 
Wireless remote control panel	Option (A22 Wi-Fi) 
Wireless remote LCD control panel	Option (A25) 
Control by a mobile application via Wi-Fi	+
Freeze protection	+
Bypass	Auto + manual
Week-scheduled operation	+
Filter replacement indication	According to filter timer
	According to pressure switch of filter clogging
Alarm indication	+
Speed selection	+
Timers	+
RH% sensor	Option
CO ₂ sensor	Option
VOC sensor	Option
PM2.5 sensor	Option
Boost mode	+
Fireplace mode	+
Cooler connection	Option
Fire alarm sensor	Option
Minimum supply air temperature control	+

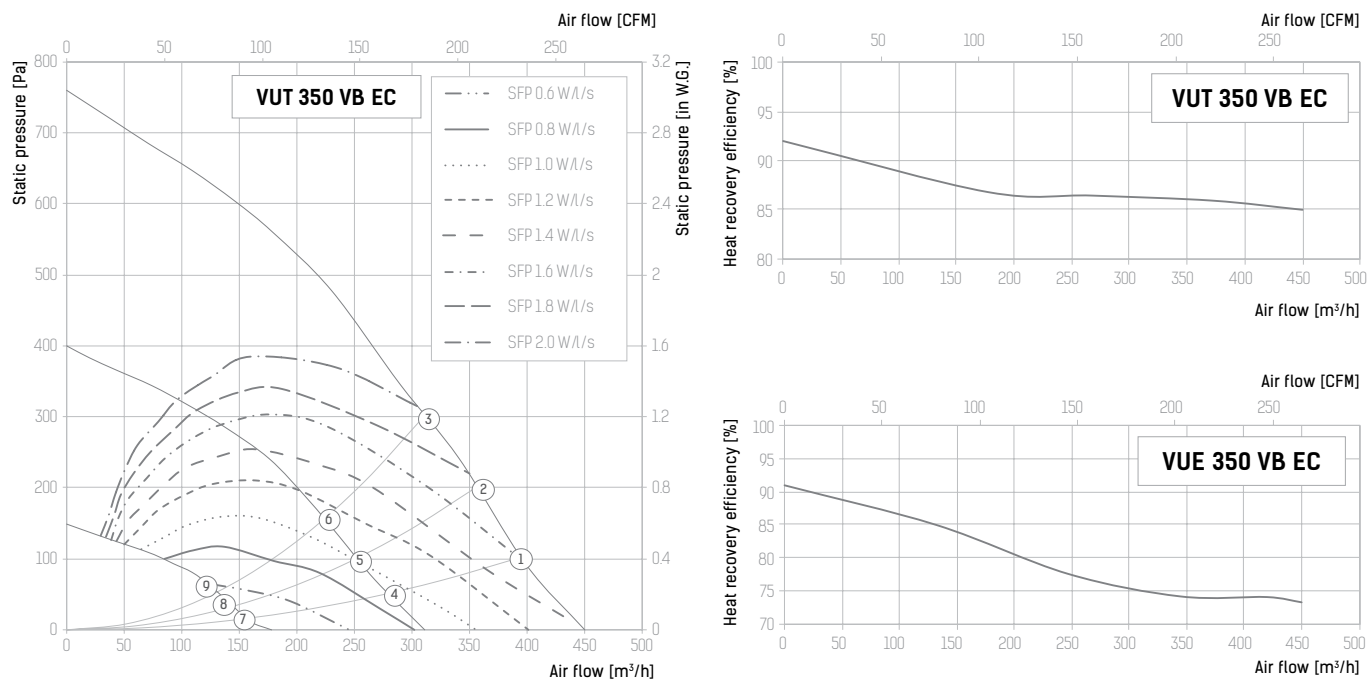
INSTALLATION

- The units are designed for wall or floor mounting. Access for maintenance of units and filters is possible from the right and left side.



TECHNICAL DATA

Parameters	VUT 350 VB EC	VUE 350 VB EC
Unit voltage [V/50 (60) Hz]	1~120	
Maximum power [W]	178	
Maximum current [A]	2.8	
Maximum air flow [CFM]	266	
RPM [min ⁻¹]	3200	
Sound pressure level at 3 m distance [dBA]	28	
Transported air temperature [°F]	from -13 up to +104	
Casing material	Painted steel	
Insulation	1 ³⁷ / ₆₄ " mineral wool	
Extract filter	MERV8	
Supply filter	MERV13 (optionally MERV8)	
Connected air duct diameter [in]	Ø 6 ¹⁹ / ₆₄ "	
Weight [lb]	141.1	
Heat recovery efficiency [%]	from 85 up to 92	from 73 up to 91
Heat exchanger type	counter-flow	
Heat exchanger material	polystyrene	enthalpy



A-weighted sound power level		Gen.	Octave frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
		dBA	63	125	250	500	1000	2000	4000	8000		
L _{WA} to supply air inlet	dBA	56	50	46	53	45	39	34	36	32		
L _{WA} to supply air outlet	dBA	64	56	52	63	52	39	38	43	35		
L _{WA} to exhaust air inlet	dBA	56	52	46	53	45	38	34	36	31		
L _{WA} to exhaust air outlet	dBA	64	58	53	62	51	40	38	42	33		
L _{WA} to environment	dBA	49	45	40	44	38	33	29	27	22	28	38

VUT 350 VB EC			
Outlet spigot configuration	Air flow [l/s]	Specific power input [W/l/s]	Heat exchange efficiency [%]
Kitchen + 1 additional room with high level of humidity	21	0.71	88
Kitchen + 2 additional rooms with high levels of humidity	29	0.64	88
Kitchen + 3 additional rooms with high levels of humidity	37	0.68	87
Kitchen + 4 additional rooms with high levels of humidity	45	0.76	86
Kitchen + 5 additional rooms with high levels of humidity	53	0.86	86
Kitchen + 6 additional rooms with high levels of humidity	61	1.07	85
Kitchen + 7 additional rooms with high levels of humidity	69	1.26	85

Total power. Total sound pressure level.

Point	Total power of the unit [W]	Sound pressure level at 10 ft (3 ft) [dBA]
1	177	28 (38)
2	175	27 (37)
3	170	27 (37)
4	71	23 (33)
5	71	22 (32)
6	69	22 (32)
7	21	15 (25)
8	21	14 (24)
9	21	14 (24)

Calculation of air temperature downstream of the heat exchanger:

$$t = t_{\text{outd}} + k_{\text{hr}} \times (t_{\text{extr}} - t_{\text{outd}}) / 100,$$

where

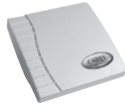
t_{outd} – outdoor air temperature [°F],

t_{extr} – exhaust air temperature [°F],

k_{hr} – heat recovery core efficiency (according to the diagram) [%]

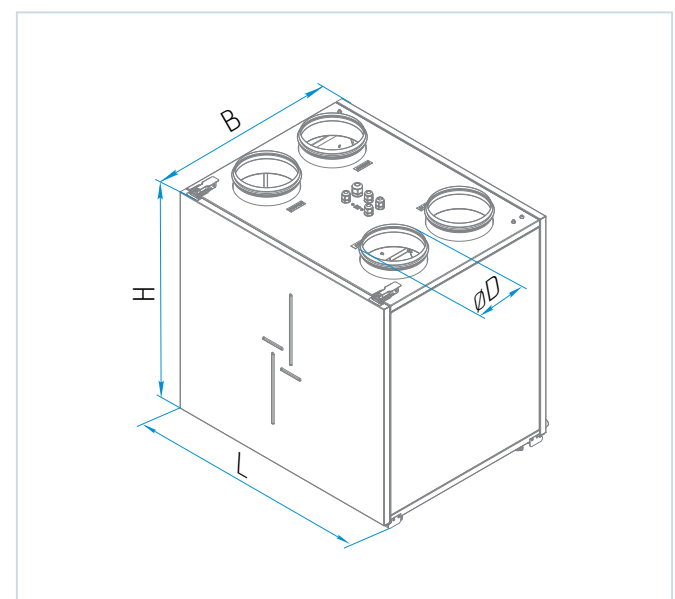
ACCESSORIES FOR AIR HANDLING UNITS

Name	Image	VUE 350 VB EC A21	VUT 350 VB EC A21
Panel filter MERV8		SF 500x196x40 MERV8	
Panel filter MERV13		SF 500x196x40 MERV13	
Control panel		A22	
Control panel with Wi-Fi		A22 Wi-Fi	
Control panel		A25	
CO ₂ sensor with indication		CO2-1	
CO ₂ sensor		CO2-2	
Air damper		KRV 125	
Electric actuator		LF230	

Name	Image	VUE 350 VB EC A21	VUT 350 VB EC A21
Indoor humidity sensor		HV2	
Humidity sensor		HR-S	
Humidity sensor (0-10 V)		DPWC11200	
VOC sensor (0-10 V)		DPWQ30600	
CO ₂ sensor (0-10 V)		DPWQ40200	
Hydraulic U-trap		-	SH-32
Kitchen hood		KH-1	

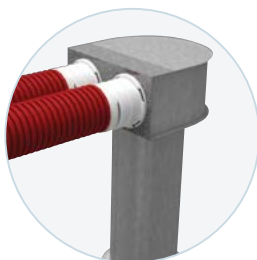
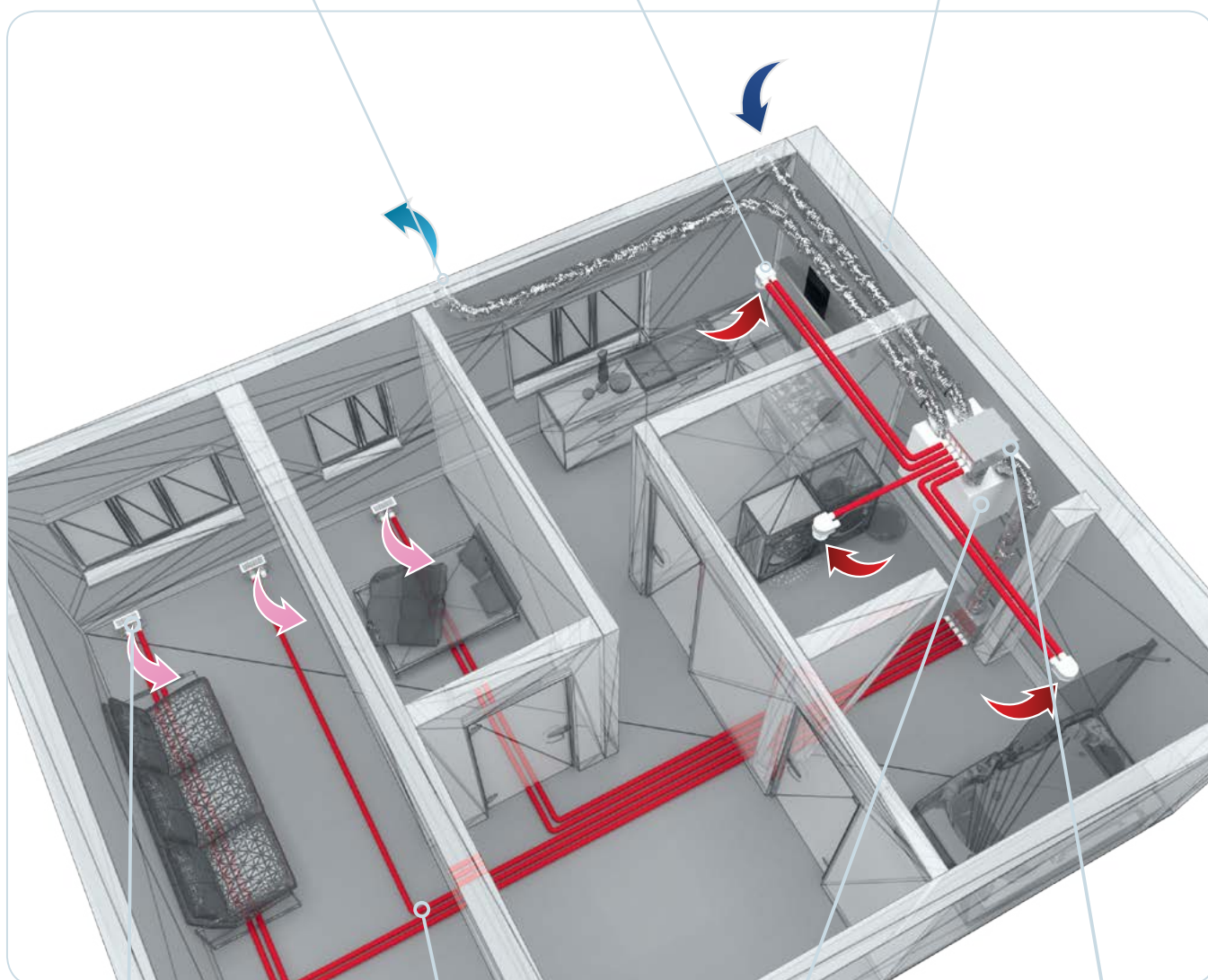
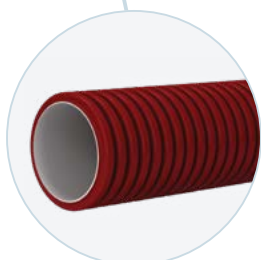
OVERALL DIMENSIONS [IN]

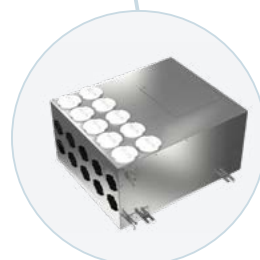
Model	D	B	H	L
VUT/VUE 350 VB EC	6 ¹⁰ / ₆₄ "	22 ⁶¹ / ₆₄ "	26 ³⁷ / ₆₄ "	28 ⁴⁷ / ₆₄ "



APPLICATION OPTIONS

VENTILATION HOOD

CEILING CONNECTOR WITH A DISK VALVE

ISOVENT 150 INSULATED AIR DUCT

FLOOR CONNECTOR WITH A GRILLE

FLEXIVENT AIR DUCT

AIR HANDLING UNIT

COLLECTOR