Series

VENTS VUT/VUE H EC Comfo

The air handling units in heat- and sound-insulated casing. Air capacity up to **810 m³/h**. Heat recovery efficiency up to **98 %**

Description

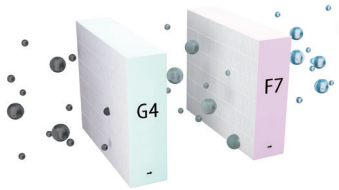
The air handling unit VUT/VUE H EC Comfo is a fully-featured ventilation unit that ensures air filtration, fresh air supply and stale air extract. During operation the extract air heat is transferred to the supply air stream by the plate heat exchanger. The units are used in ventilation and air conditioning systems installed in various premises. Due to applied EC-motors the unit energy demand is decreased by 1.5-3 times and noise level is lowered as well. All models are designed for connection to ø150, 160, 200 and 250 mm round air ducts.

Casing

Made of aluzinc, internally filled with 25 mm mineral wool heat- and sound-insulating layer.

Filter

Supply and extract air flows are purified through two panel filters with a filtering class G4. Optionally a supply F7 filter may be installed.



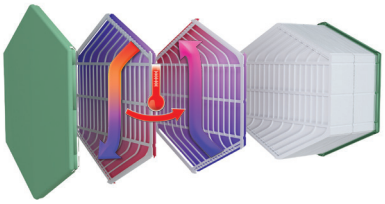
Motor

The units are equipped with high-efficient EC-motors with an external rotor. These state-of-the-art motors offer the very best in energy efficiency today. EC-motors are characterized with high performance and optimum control across the entire speed range. The high efficiency (up to 90 %) is a definite advantage of the electronically-commutated motors.

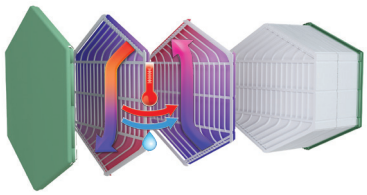
The VUT/VUE 300 H EC Comfo and VUT/VUE 400 H EC Comfo units are equipped with constant flow fans with forward curved blades. These fans provide constant set air flow even in case of variable air resistance in the ventilation system, i.e. in case of clogged filters. The VUT/VUE 800 H EC Comfo unit is equipped with fans with backward curved blades.

Heat exchanger

The VUT H EC Comfo units are equipped with a counterflow polystyrene heat exchanger. In the cold season the exhaust 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. Consequently, it is the ambient air heat and moisture transferred to the exhaust air stream through the enthalpy membrane 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.



The VUE H/EH EC Comfo units are equipped with a counterflow heat exchanger with an enthalpy membrane at the core. In the cold season the exhaust air heat and moisture are transferred to the supply air stream through the enthalpy membrane reducing the heat losses from ventilation. Consequently, it is the ambient air heat and moisture transferred to the exhaust air stream through the enthalpy membrane 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.



Control

The unit is equipped with a controller, A6 control panel with LCD display and a wireless remote control.

VUT/VUE H EC Comfo control functions:

- Switching the unit on and off
- Three fan speeds
- Each of those is individually adjustable for the supply and the exhaust fans
- There is a possibility of air damper connection
- Input for alarm signal from the fire fighting system
- Relay input for connection of a CO_2 / humidity / IAQ or an other sensor that switches the unit to maximum speed
- Filter clogging control by motor hours
- Week-scheduled operation setting

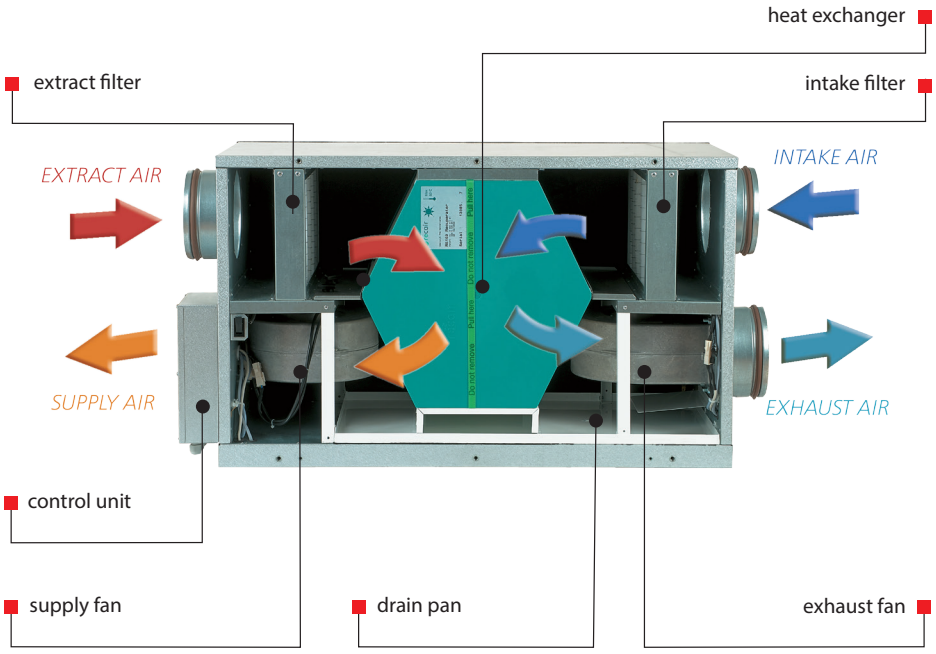
Mounting

The unit is designed for wall mounting with a bracket, installation of the floor or suspended ceiling mounting. Any mounting position must enable condensate draining and removal. The filters are accessible for servicing and cleaning through the service panel that must be installed during the mounting stage on the left or on the right side.

Designation key

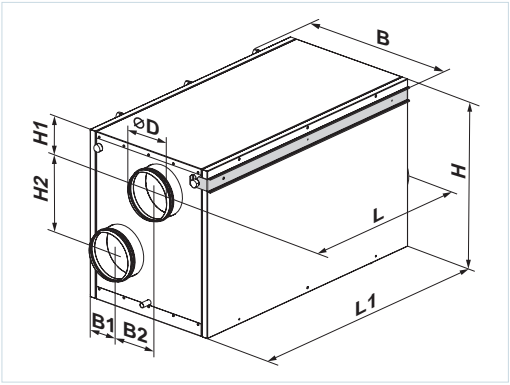
Series	Rated air flow [m³/h]	Spigot orientation	Motor type	Control
VUT: heat recovery air handling units **VUE**: energy recovery air handling units	300; 400; 800	**H**: horizontal	**EC**: synchronous electronically commutated motor	**Comfo:** A6 control panel with LCD display

Unit design



Overall dimensions

Model	Dimensions [mm]								
	ØD	B	B1	B2	H	H1	H2	L	L1
VUT/VUE 300-1 H EC Comfo	150	455	130	140	525	105	220	945	830
VUT/VUE 300-2 H EC Comfo	160	455	130	140	525	105	220	945	830
VUT/VUE 400 H EC Comfo	200	570	165	230	540	135	225	925	830
VUT/VUE 800 H EC Comfo	250	840	215	390	660	160	295	1010	890



Technical data

	VUT 300-1 H EC Comfo	VUT 300-2 H EC Comfo	VUE 300-1 H EC Comfo	VUE 300-2 H EC Comfo	VUT 400 H EC Comfo	VUE 400 H EC Comfo	VUT 800 H EC Comfo	VUE 800 H EC Comfo
Voltage [V/Hz]	1~ 220-240 / 50-60							
Maximum unit power [W]	140				210		334	
Maximum unit current [A]	1.2				1.6		2.2	
Air flow [m³/h]	300				400		810	
RPM [min⁻¹]	2300				2600		2860	
Sound pressure level at 3 m distance [dBA]	24-45				30-45			
Max. transported air temperature [°C]	from -25 up to +50							
Casing material	aluzinc							
Insulation	25 mm mineral wool							
Extract filter	G4							
Intake filter	G4; (F7)*							
Connected air duct diameter [mm]	⌀150	⌀160	⌀150	⌀160	⌀200		⌀250	
Weight [kg]	36				67		83	
Heat recovery efficiency	from 86 up to 98 %		from 77 up to 93 %		from 86 up to 98 %	from 76 up to 95 %	from 81 up to 98 %	from 74 up to 93 %
Heat exchanger type	counterflow							
Heat exchanger material	polystyrene		enthalpy membrane		polystyrene	enthalpy membrane	polystyrene	enthalpy membrane
Energy efficiency class	A+	A+	A+	A+	A	A	A	A

*option

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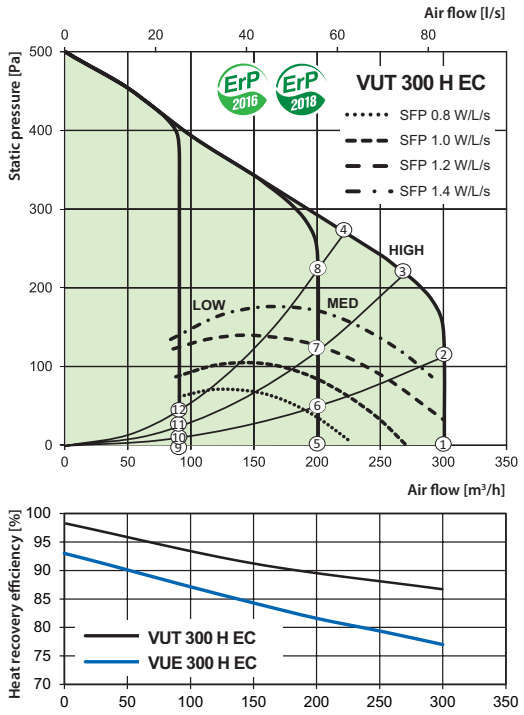

Sound power level		Frequenzband, Hz								
	Hz	General	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	51	29	49	47	37	41	39	34	22
L_{wA} to outlet	dBA	59	39	53	54	54	46	45	35	24
L_{wA} to environment	dBA	32	22	23	30	25	18	16	19	20

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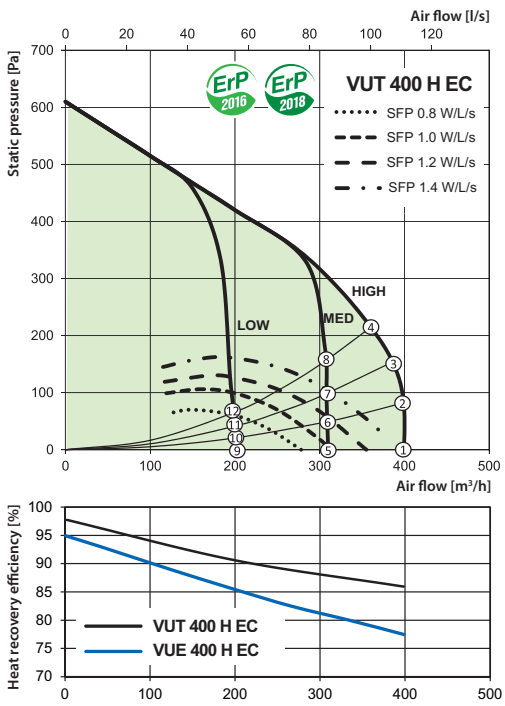

Sound power level		Frequenzband, Hz								
	Hz	General	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	54	32	53	52	40	44	41	37	22
L_{wA} to outlet	dBA	65	42	59	57	56	51	47	38	29
L_{wA} to environment	dBA	34	25	24	36	30	23	20	24	25

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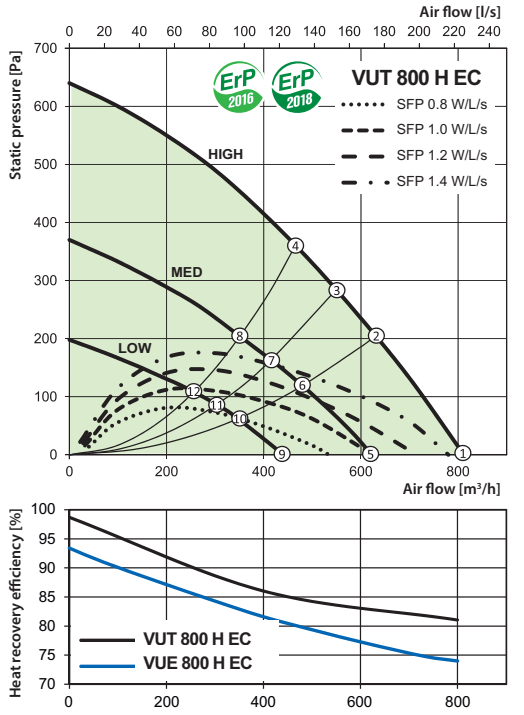
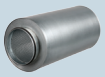
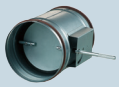
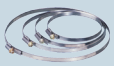


Sound power level		Frequenzband, Hz								
	Hz	General	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	57	36	55	51	41	47	42	38	28
L_{wA} to outlet	dBA	67	47	62	62	59	53	52	42	29
L_{wA} to environment	dBA	41	26	29	36	32	24	22	26	26

Point	Unit power [W]		
	VUT/VUE 300-1 H EC Comfo VUT/VUE 300-2 H EC Comfo	VUT/VUE 400 H EC Comfo	VUT/VUE 800 H EC Comfo
1	93	139	333
2	120	187	334
3	137	219	333
4	122	226	327
5	36	87	179
6	42	101	178
7	60	116	174
8	90	135	167
9	10	32	77
10	12	37	77
11	14	42	75
12	18	47	69

Accessories

Model	Panel filter G4	Panel filter F7	CO_2 sensor	CO_2 sensor with indication	Humidity sensor	Silencers	
							
VUT 300-1 H EC Comfo	SF 378x210x48 G4	SF 378x210x48 F7	CO2-1	CO2-2	HR-S	SR 150 600/900/1200	SRF 150 600/900/1200
VUT 300-2 H EC Comfo						SR 160 600/900/1200	SRF 160 600/900/1200
VUE 300-1 H EC Comfo						SR 150 600/900/1200	SRF 150 600/900/1200
VUE 300-2 H EC Comfo						SR 160 600/900/1200	SRF 160 600/900/1200
VUT 400 H EC Comfo	SF 500x214x48 G4	SF 500x214x48 F7				SR 200 600/900/1200	SRF 200 600/900/1200
VUE 400 H EC Comfo						SR 200 600/900/1200	SRF 200 600/900/1200
VUT 800 H EC Comfo	SF 768x280x48 G4	SF 768x280x48 F7				SR 250 600/900/1200	SRF 250 600/900/1200
VUE 800 H EC Comfo						SR 250 600/900/1200	SRF 250 600/900/1200

Model	Backdraft dampers	Air dampers	Clamps	Electric actuators		Summer inserts
						
VUT 300-1 H EC Comfo	KOM 150	KRV 150	X 150	LF230	TF230	VL R6 366/284
VUT 300-2 H EC Comfo	KOM 160	KRV 160	X 160			
VUE 300-1 H EC Comfo	KOM 150	KRV 150	X 150			
VUE 300-2 H EC Comfo	KOM 160	KRV 160	X 160			
VUT 400 H EC Comfo	KOM 200	KRV 200	X 200			VL R6 366/500
VUE 400 H EC Comfo	KOM 200	KRV 200	X 200			
VUT 800 H EC Comfo	KOM 250	KRV 250	X 250			VL R6 366/387
VUE 800 H EC Comfo	KOM 250	KRV 250	X 250			

Application example