

Series
VENTS VUTR VE EC



Air handling units in heat- and sound-insulated casing.
Air flow up to **670 m³/h**.
Heat recovery efficiency up to **92 %**.

Description

The VUTR VE EC air handling units are the fully-featured ventilation units that ensure air filtration, fresh air supply and stale air extraction. Used in ventilation that require an economical solution and a controlled ventilation system.

Casing

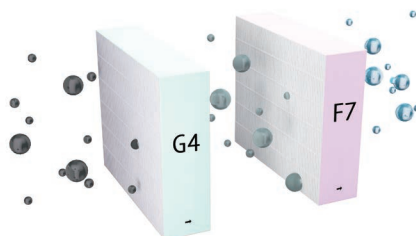
Made of polymer-coated steel, internally filled with a mineral wool heat- and sound-insulating layer.

Kitchen hood

All units are equipped with a 5th spigot for connection of a kitchen hood (see the «Application options» section).

Filter

The two integrated G4 and F7 filters ensure sufficient intake air purification. Extract air is cleaned by the integrated G4 filter.

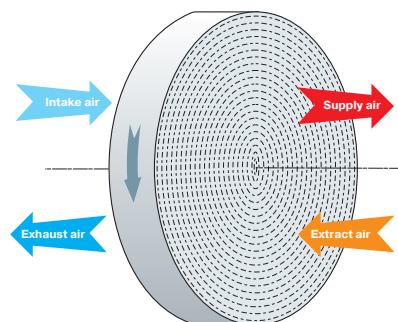


Motor

The units are equipped with high-efficient EC motors with an external rotor and a centrifugal impeller. These state-of-the-art motors offer the very best in energy efficiency today.

Rotary heat exchanger

Unit equipped with a rotary heat exchanger. As compared to plate heat exchangers, the rotary heat exchangers are distinguished with no condensate forming, ability to maintain comfortable air humidity and extremely low freezing danger.



Rotary heat exchanger operation principle

Heater

Units are equipped with an electric heater. The heaters are equipped with protecting devices to ensure safe and reliable operation of the unit.

Automation

The **VUTR VE EC 21** units are equipped with an integrated control system. The A21 controller allows integrating the unit into the Smart Home system or BMS (Building Management Systems). To control the unit using a mobile application via Wi-Fi, you need to download the VENTS Home mobile application.



Google play



Download on the App Store






Mounting

The unit is designed for wall or floor mounting. The access for unit and filter maintenance is available from the front panel. The service and the back panels can be rearranged allowing connection both on the right and on the left side.

Designation key

Series	Heat exchanger type	Rated air flow [m ³ /h]	Mounting type	Insulation thickness	Heater type	Motor type	Control panel
VENTS VUT	R: rotary	280; 400; 600	V: vertical	_ : 40 mm	E: with an electric heater	EC: synchronous motor with electronic control	A21

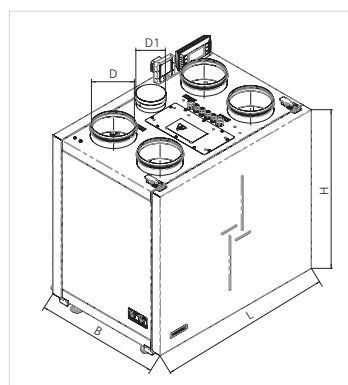
Control and automation

Functions	A21
Control via Wi-Fi using a mobile application	+
Control via a wired remote control panel	A22 (option) 
Control via a wireless remote control panel	A22 Wi-Fi (option) 
Control via a wired remote LCD control panel	A25 (option) 
BMS	RS-485 WI-FI Ethernet MODBUS (RTU, TCP)
Service Vents Cloud Server	+
Speed selection	+
Filter replacement indication	according to hour meter readings
Alarm indication	full alarm description in the mobile application
Week-scheduled operation	+
Timers	+
Boost mode	+
Fireplace mode	+
Reheater connection	integrated in E models, external reheater cannot be connected
Cooler connection	option
Kitchen hood connection	option
Minimum supply air temperature control	+
Humidity control	option
CO ₂ controller	option
VOC controller	option
Fire alarm sensor connection	option

*Option. The functionality is available when you purchase the appropriate accessory.

Overall dimensions

Model	Dimensions [mm]					
	Ø D	Ø D1	B	L	H	H1
VUTR 280 VE EC	122	-	508	598	630	754
VUTR 400 VE EC	159	99	528	745	675	755
VUTR 600 VE EC	199	124	628	819	772	852



Calculation of air temperature downstream of the heat exchanger:

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

where







t_{outd} : outdoor air temperature [°C]

t_{extr} : extract air temperature [°C]

k_{hr} : heat exchanger efficiency (according to the diagram) [%]

HEAT RECOVERY AIR HANDLING UNITS

Accessories

Model	G4 panel filter	F7 panel filter	LCD control panel	Control panel	Control panel with Wi-Fi	Humidity sensor NO
						
VUTR 280 VE EC A21	SF 400x196x40 G4	SF 400x196x40 F7	A25	A22	A22 Wi-Fi	HR-S
VUTR 400 VE EC A21	SF 436x196x40 G4	SF 436x196x40 F7				
VUTR 600 VE EC A21	SF 536x220x40 G4	SF 536x220x40 F7				

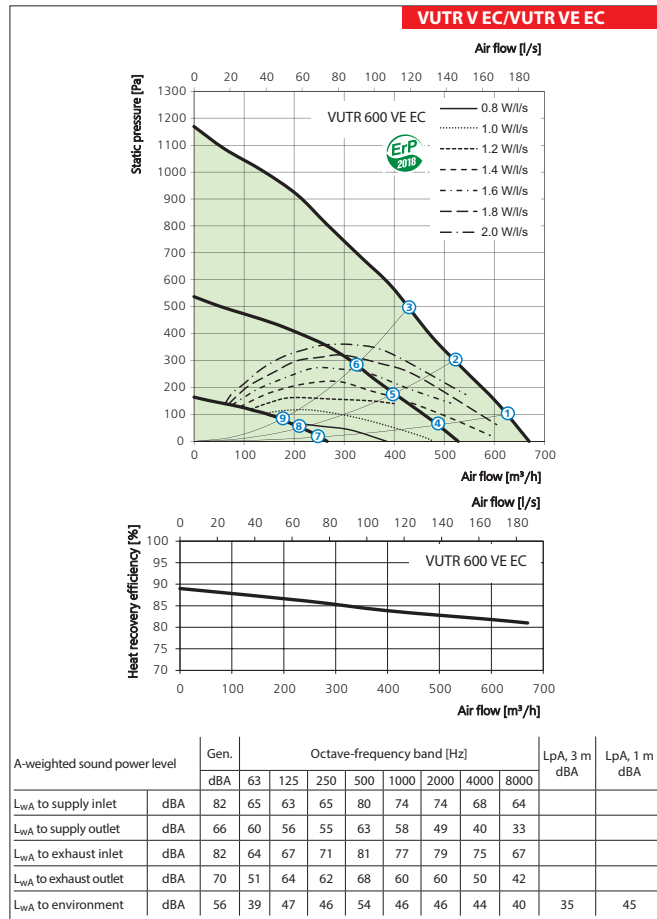
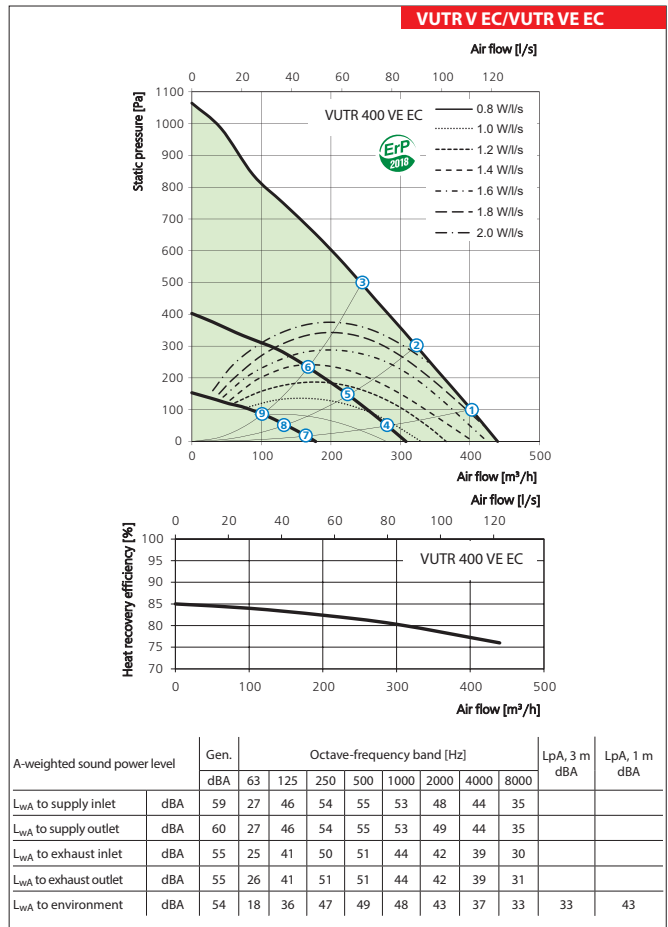
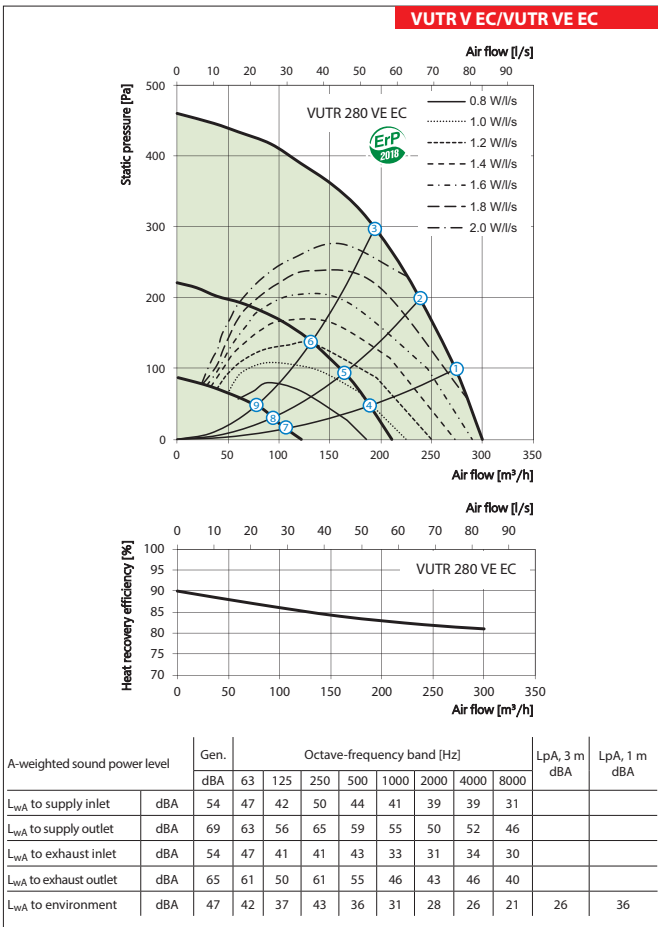
Model	Humidity sensor 0-10 V	Kitchen hood	Silencers		Back valves	Air dampers	Electric actuator
							
VUTR 280 VE EC A21	HV-2	KH-1	SR 125	SRF 125	KOM 125	KRV 125	TF230
VUTR 400 VE EC A21			SR 160	SRF 160	KOM 160	KRV 160	
VUTR 600 VE EC A21			SR 200	SRF 200	KOM 200	KRV 200	

Technical data

	VUTR 280 VE EC	VUTR 400 VE EC	VUTR 600 VE EC
Unit voltage [V/50 (60) Hz]	1~230		
Max. unit power without electric heater [W]	195	200	405
Max. power of electric heater [W]	650	1400	2800
Max. unit power [W]	845	1600	3205
Max. unit current without electric heater [A]	1.9	1.4	2.6
Max. unit current of electric heater [A]	2,8	6.1	12.2
Max. unit current [A]	4.7	7.5	14.8
Maximum air flow [m³/h]	300	440	670
Sound pressure level at 3 m distance [dBA]	26	33	35
Transported air temperature [°C]	-25...+40		
Casing material	painted steel		
Insulation	40 mm mineral wool		
Filter	Extract	G4	
	Intake	F7	G4, F7
Connected air duct diameter [mm]	125	160	200
Weight [kg]	64	82	92
Heat recovery efficiency	from 81 up to 90	from 76 up to 85	from 81 up to 89
Heat exchanger type*	rotary		
Heat exchanger material	aluminium		
SEC class	A		

*Heat recovery efficiency is specified in compliance with EN 13141-7

Point	Total unit power [W]			Sound pressure level at 3 m (1 m) distance [dBA]		
	VUTR 280 VE EC	VUTR 400 VE EC	VUTR 600 VE EC	VUTR 280 VE EC	VUTR 400 VE EC	VUTR 600 VE EC
1	154	170	375	26 (36)	33 (43)	35 (45)
2	132	170	375	26 (36)	33 (43)	35 (45)
3	110	170	375	25 (35)	32 (42)	34 (44)
4	55	68	163	24 (34)	31 (41)	30 (40)
5	47	65	155	24 (34)	28 (38)	29 (39)
6	38	59	151	22 (32)	27 (37)	28 (38)
7	19	26	43	15 (25)	23 (33)	27 (37)
8	18	25	42	14 (24)	21 (31)	23 (33)
9	17	25	39	13 (23)	19 (29)	23 (33)

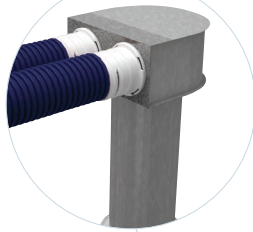


Application options

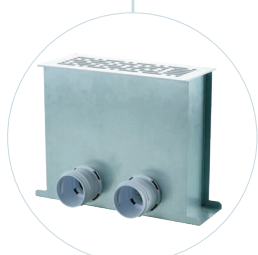
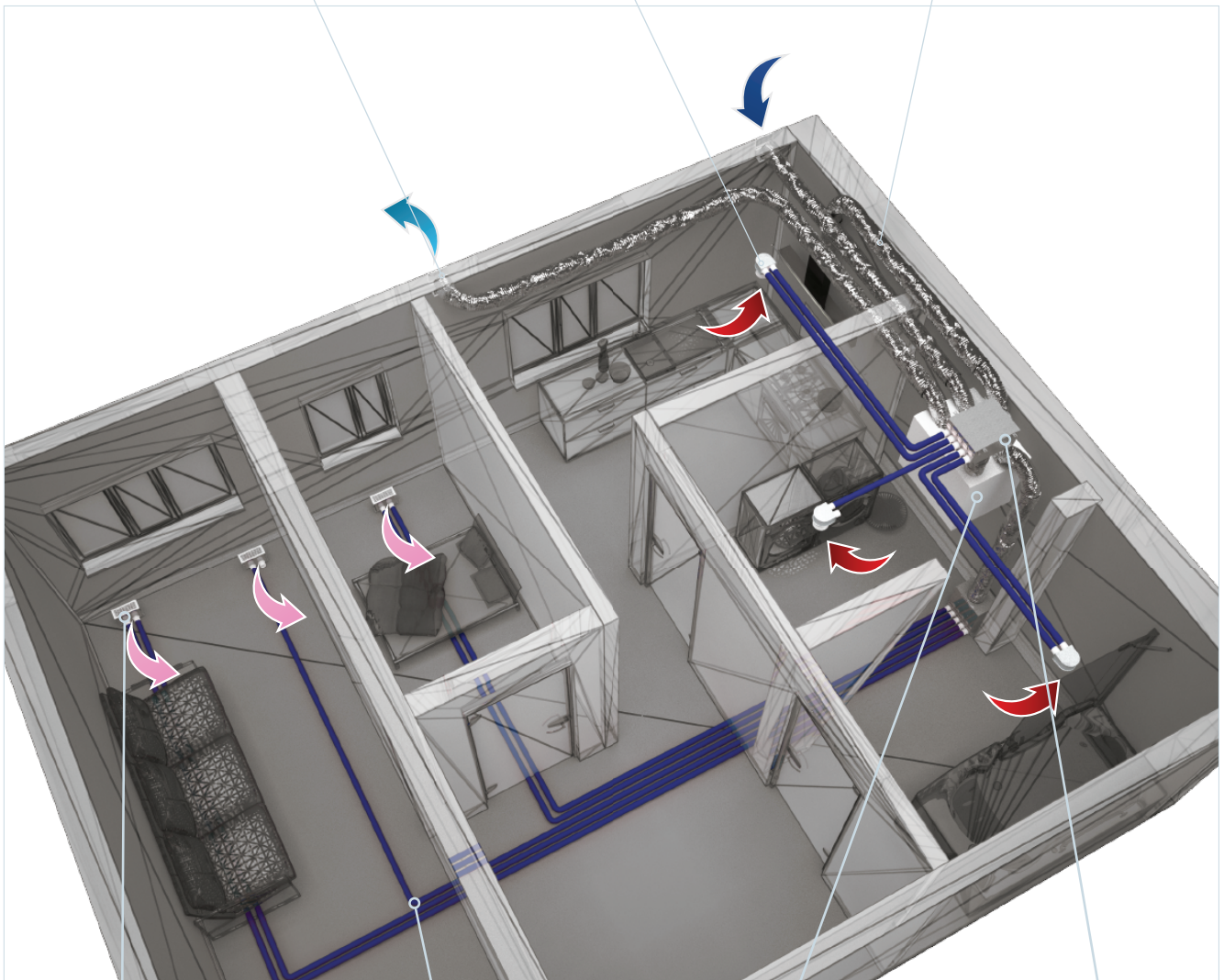
Ventilation hood



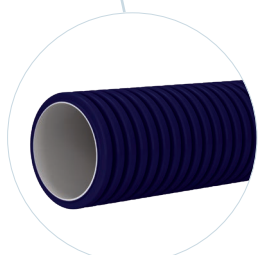
Ceiling connector with a disk valve



Isovent 150 insulated air duct



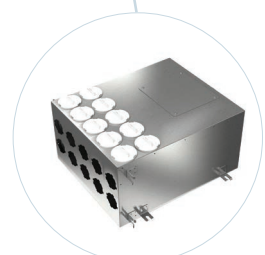
Floor connector with a grille



FlexiVent air duct



Air handling unit



Manifold