

Series  
**VENTS Enave P**



Heat recovery air handling units in sound- and heat-insulated casings. Air flow up to **310 m³/h**. Heat recovery efficiency up to **91 %**

**Description**

The air handling units are the fully featured ventilation units with heat recovery for air filtration, fresh air supply and stale air extraction. The units offer energy-efficient ventilation for small apartments.

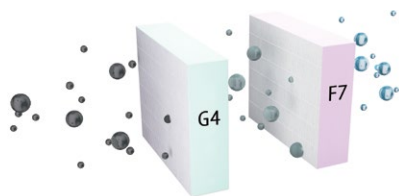
**Casing**

The casing is made of expanded polypropylene (EPP) possessing high heat- and sound-insulating properties.



**Filter**

Two built-in **Coarse 90% (G4)** filters provide efficient air filtration. **ePM1 65% (F7)** supply filter can be installed as an option.

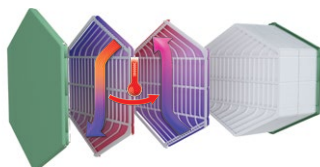


**Fans**

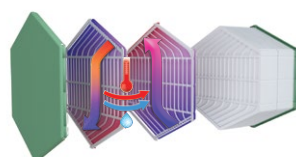
The units' fans are equipped with electronically-commutated motors.

**Heat exchanger**

**Enave** units are equipped with a counter-flow polystyrene heat exchanger.



**Enave-T** units are equipped with an enthalpy heat exchanger.



**Bypass**

The units are equipped with a bypass for summer cooling.

**Automation**

**Enave P A21** units are equipped with a built-in automation system. The **A21** controller allows to integrate the unit into the **Smart Home system** or **BMS (Building Management System)**. To control the unit via Wi-Fi, download the **Vents Home** smartphone app.

**Enave P A14** units have an integrated control system with a wall-mounted control panel with a LED indication.



**Frost protection**

For **Enave P** units, the frost protection is implemented by shutting down the supply fan. Optional duct pre-heater is available for units with **A21** control system.

**Mounting**

The unit is designed for suspended ceiling, wall and floor mounting. The mounting position of the unit must provide service access for maintenance and repair.

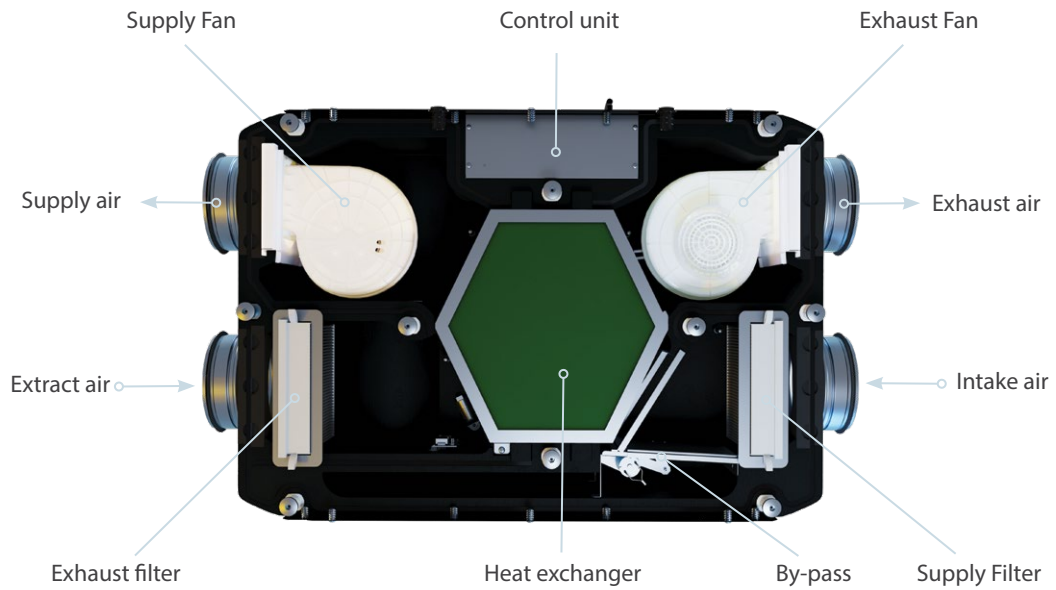
**Control and automation**

Functions	A14	A21
	A14	A22 (option)
Wired remote control pane		
Control via a wired remote LCD control panel	-	A25 (option)
Wireless remote control panel	-	A22 Wi-Fi (option)
BMS	-	ModBus RTU (RS-485) ModBus TCP/IP (Wi-Fi, Ethernet)
Vents Cloud Server service	-	+
Control via Wi-Fi using a smartphone app	-	+
Frost protection	+	+
Bypass	Manual	Auto, manual
Week-scheduled operation	-	+
Filter replacement indication	+	Filter timer
Alarm indication	+	+
Speed selection	+	+
Timer	-	+
RH% sensor	Option	Option
CO <sub>2</sub> sensor	Option	Option
VOC sensor	Option	Option
PM2.5 sensor	Option	Option
Boost mode	-	+
Fireplace mode	-	+
Preheater connection	-	+
Reheater connection	-	+
Fire alarm sensor connection	+	+
Minimum supply air temperature control	-	+

**Designation key**

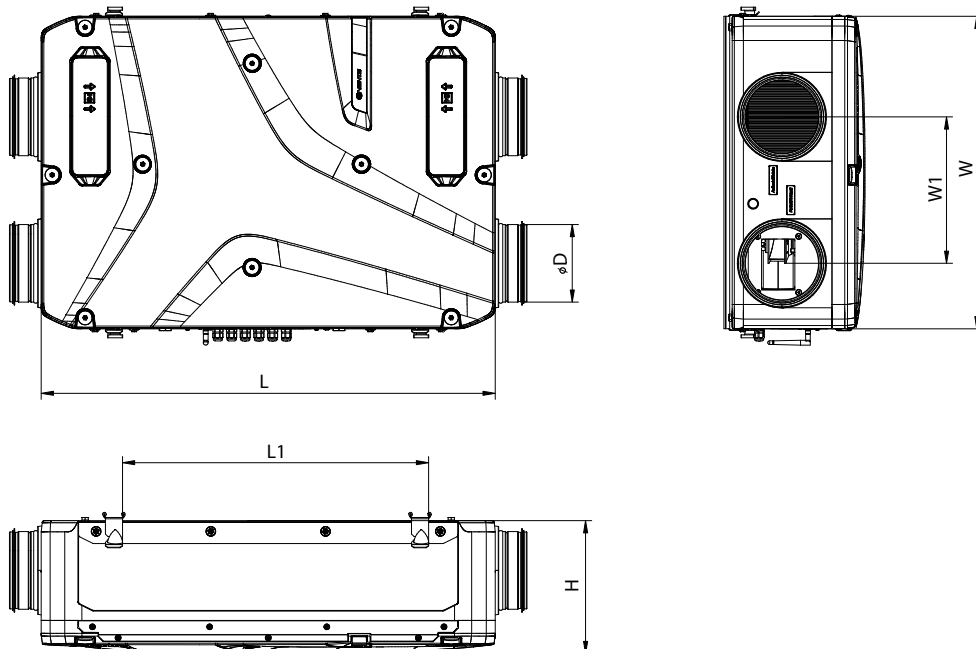
TM	Model	Heat exchanger type	Nominal size	Modification	Casing type	Controller
VENTS	Enave	_ – heat recovery T – energy recovery	Airflow m <sup>3</sup> /h /10	0 – standart 1 – flat service hatch suitable for decorative panel installation	P – suspended	A21, A14

**Unit design**



**Overall dimensions**

Model	Dimensions [mm]					
	H	W	L	ØD	W1	L1
Vents Enave P	272	640	930	160	300	627

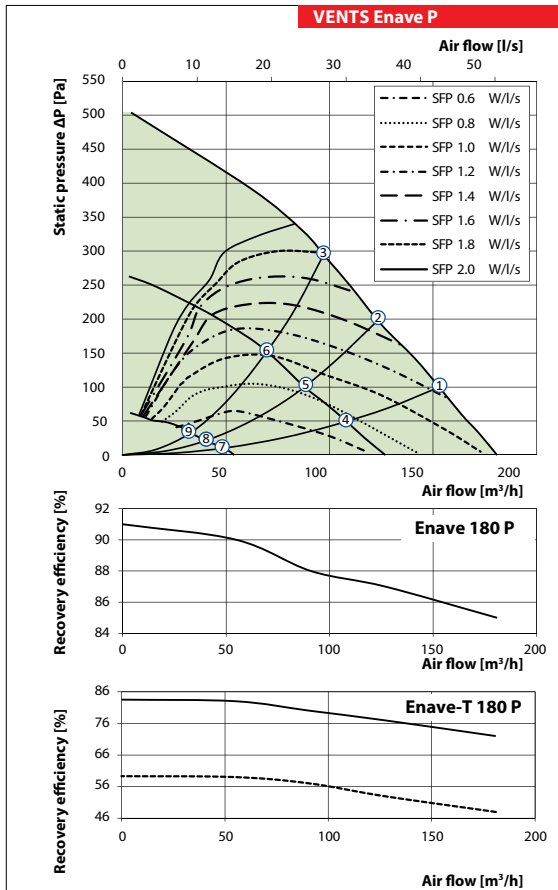


# AIR HANDLING UNITS WITH HEAT RECOVERY

## Technical data

	Vents Enave 180 P	Vents Enave-T 180 P	Vents Enave 240 P	Vents Enave-T 240 P
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power [W]	53	53	171	171
Max. unit current [A]	0.49	0.49	1.34	1.34
Max air flow [m <sup>3</sup> /h]	181	181	310	310
Sound pressure level at 3 m distance* [dBA]	29	29	33	33
Max. operating temperature [°C]	45	45	45	45
Case material	EPP	EPP	EPP	EPP
Insulation	25 mm	25 mm	25 mm	25 mm
Extract filter	Coarse >60 %	Coarse >60 %	Coarse >60 %	Coarse >60 %
Supply filters	Coarse >60 % (option ePM1 60 %)	Coarse >60 % (option ePM1 60 %)	Coarse >60 % (option ePM1 60 %)	Coarse >60 % (option ePM1 60 %)
Connected air duct diameter [mm]	160	160	160	160
Weight [kg]	12	15	13	16
Heat recovery efficiency [%]	91	84	91	81
Heat exchanger type	Counterflow	Counterflow	Counterflow	Counterflow
Heat exchanger material	Polysterene	Enthalpy	Polysterene	Enthalpy
SEC class	A+	A	A	A

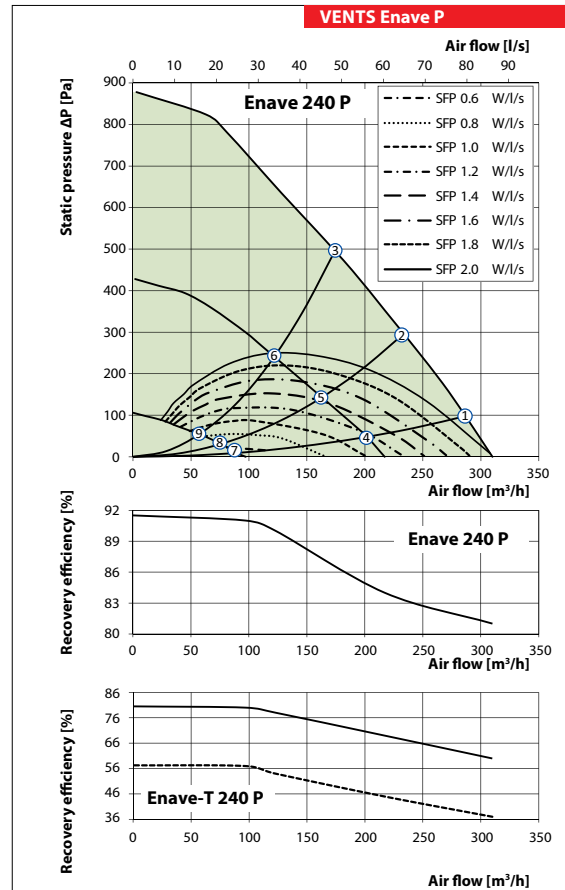
\*Sound pressure level at 3 m distance is specified at point 4 [dBA].



Vents Enave 180 P		Octave-frequency band [Hz]										LpA, 3 m [dBA]	LpA, 1 m [dBA]
Sound-power level, A - weighted (p.1 on the diagram)		Gen.	63	125	250	500	1000	2000	4000	8000			
L <sub>WA</sub> to supply inlet	dBA	66	37	40	44	61	57	52	53	46	46	55	
L <sub>WA</sub> to supply outlet	dBA	69	39	42	46	64	60	55	56	48	49	58	
L <sub>WA</sub> to exhaust inlet	dBA	52	27	30	34	45	42	39	31	27	32	41	
L <sub>WA</sub> to exhaust outlet	dBA	49	26	29	32	43	40	37	29	26	29	39	
L <sub>WA</sub> to environment	dBA	58	36	44	43	50	50	45	43	35	37	47	

Vents Enave 180 P		Octave-frequency band [Hz]										LpA, 3 m [dBA]	LpA, 1 m [dBA]
Sound-power level, A - weighted (p.4 on the diagram)		Gen.	63	125	250	500	1000	2500	4000	8000			
L <sub>WA</sub> to supply inlet	dBA	59	30	33	37	48	48	45	43	35	39	49	
L <sub>WA</sub> to supply outlet	dBA	61	32	35	39	51	51	47	45	37	40	50	
L <sub>WA</sub> to exhaust inlet	dBA	46	20	23	27	36	35	32	23	27	25	35	
L <sub>WA</sub> to exhaust outlet	dBA	48	21	24	28	38	37	34	24	28	26	37	
L <sub>WA</sub> to environment	dBA	49	26	34	33	39	41	38	32	26	29	38	



Vents Enave 240 P		Octave-frequency band [Hz]										LpA, 3 m [dBA]	LpA, 1 m [dBA]
Sound-power level, A - weighted (p.1 on the diagram)		Gen.	63	125	250	500	1000	2000	4000	8000			
L <sub>WA</sub> to supply inlet	dBA	71	48	50	54	58	59	60	58	58	51	61	
L <sub>WA</sub> to supply outlet	dBA	75	50	53	57	61	62	63	61	61	54	64	
L <sub>WA</sub> to exhaust inlet	dBA	54	37	40	44	45	43	37	32	26	33	43	
L <sub>WA</sub> to exhaust outlet	dBA	51	35	38	42	43	41	35	30	25	31	41	
L <sub>WA</sub> to environment	dBA	61	39	47	46	50	50	48	45	43	40	50	

Vents Enave 240 P		Octave-frequency band [Hz]										LpA, 3 m [dBA]	LpA, 1 m [dBA]
Sound-power level, A - weighted (p.4 on the diagram)		Gen.	63	125	250	500	1000	2500	4000	8000			
L <sub>WA</sub> to supply inlet	dBA	65	41	44	48	51	54	50	49	48	45	54	
L <sub>WA</sub> to supply outlet	dBA	67	43	46	50	54	57	53	52	51	47	56	
L <sub>WA</sub> to exhaust inlet	dBA	46	29	32	36	37	37	25	22	23	25	35	
L <sub>WA</sub> to exhaust outlet	dBA	48	30	34	38	39	39	26	23	24	27	37	
L <sub>WA</sub> to environment	dBA	53	31	39	38	44	46	39	36	32	33	42	

**Accessories for air handling units**

	Filter G4	Supply filter F7	Decorative panel	Control panel	Control panel	WiFi Control panel	Internal humidity sensor	Internal CO <sub>2</sub> sensor
Enave 180 P A21	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-	A25	A22	A22 Wi-Fi	HV2	CO2-3
Enave-T 180 P A21								
Enave 181 P A21			PD-Enave 181 P					
Enave-T 181 P A21								
Enave 240 P A21	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-	-	-	-	-	-
Enave-T 240 P A21								
Enave 241 P A21			PD-Enave 181 P					
Enave-T 241 P A21								
Enave 180 P A14	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-	-	-	-	HV2	-
Enave-T 180 P A14								
Enave 181 P A14			PD-Enave 181 P					
Enave-T 181 P A14								
Enave 240 P A14	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-	-	-	-	-	-
Enave-T 240 P A14								
Enave 241 P A14			PD-Enave 181 P					
Enave-T 241 P A14								

	External CO <sub>2</sub> sensor with indication	External CO <sub>2</sub> sensor	External humidity sensor	Electrical preheater	Electrical reheater	Syphon kit	Silencer	Air damper	Electric actuator
Enave 180 P A21	CO2-1	CO2-2	HR-S	NKP 160 A21 V.2	NKD 160 A21 V.2	SH-32	SR 160	KRV 160	TF 230
Enave-T 180 P A21									
Enave 181 P A21									
Enave-T 181 P A21									
Enave 240 P A21									
Enave-T 240 P A21									
Enave 241 P A21									
Enave-T 241 P A21									
Enave 180 P A14	CO2-1	CO2-2	HR-S	-	-	-	-	-	-
Enave-T 180 P A14									
Enave 181 P A14									
Enave-T 181 P A14									
Enave 240 P A14									
Enave-T 240 P A14									
Enave 241 P A14									
Enave-T 241 P A14									