AIR HANDLING UNITS WITH HEAT RECOVERY

Series

VENTS ENAVE-C 100 P A14



Heat recovery air handling units in sound- and heat-insulated casings.
Air flow up to 130 m³/h.
Heat recovery efficiency up to 94 %

Description

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

Casing

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

Filter

Two built-in G4 and F7 filters provide efficient air fil-



Fans

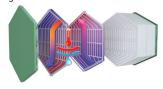
Efficient electronically commutated motors with external rotor and impeller with forward curved blades.

Heat exchanger

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



Enave-CT units are equipped with an enthalpy heat exchanger.



Automation

Enave-C 100 P A14 units are equipped with an integrated control system and an A14 wall-mounted control panel with LED indication.

Freeze protection

In the Enave-C 100 P A14 units freeze protection is provided by the shutdown of the supply fan.

Mounting

Eunctions

The unit is designed for suspended ceilling mounting. The mounting position of the unit must provide service access for maintenance and repair.

Control and automation

runctions	A14			
Control via external wired control panel	A14 v 1 z 11 8 m			
Speed selection	+			
Filter replacement indication	According to filter timer			
Alarm indication	Alarm LED indication			
Freeze protection	Cyclic shutdown of supply fan			
Humidity control	Option			
CO2 control	Option			
Fire alarm connection	Option			

Accessories for air handling units

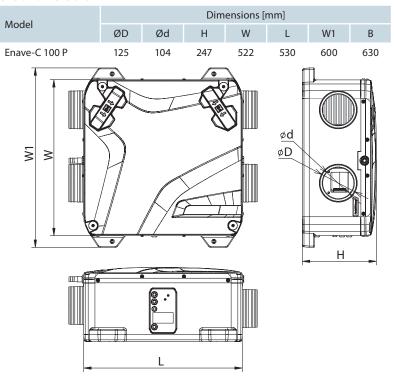
Model	G4 panel filter	F7 panel filter	Internal humidity sensor	CO ₂ sensor with indication	CO ₂ sensor	Humidity sensor	U-trap kit	Air damper	Electric actuator
				100 S					
Enave-C 100 P A14	SF 176x150x22	SF 176x150x22	HV2	CO2-1	CO2-2	HR-S	SG-32	KRV 125	LF230
Enave-CT 100 P A14	G4	F7							

Designation key

TM	Model	Casing modification	Heat exchanger type	Nominal size	Modification	Casing type	Heater	Controller	Service side
VENTS	Enave	C – Compact	_ – heat recovery T – energy recovery	Air flow m³/h / 10	0 – standard	P – suspended	_ – w/o heater	A14	_ – universal



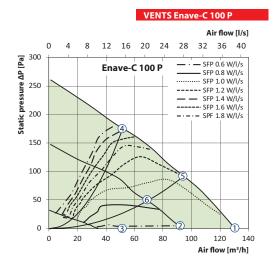
Overall dimensions

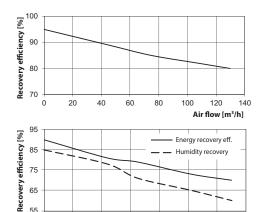


Technical data

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	Enave-C 100 P Enave-CT 100 F					
Voltage [V/50-60 Hz]	1~ 230					
Max. unit power [W]	45					
Max. unit current [A]	0.34					
Max air flow [m³/h]	1:	30				
Max. sound pressure level at 3 m distance (breakout) [dBA]	3	2				
Max. operating temperature [°C]	- 23.	+40				
Case material	EI	EPP				
Insulation [mm]	25					
Extract filter	G4 / Coarse > 60%					
Supply filter	G4 / Coarse > 60% (option F7 / ePM1 60%)					
Connected air duct diameter [mm]	100 / 125					
Weight [kg]	8					
Heat recovery efficiency [%]	82-94 73-88					
Heat exchanger type	Count	er-flow				
Heat exchanger material	Polystyrene	Enthalpy				
SEC class	A+	А				

Point	Air flow [m³h] (ls)	Total sound pressure level (breakout) at 3 m (1 m) distance [dBA]					
	Enave-C(T) 100 P	Enave-C(T) 100 P					
1	130 (36)	32 (42)					
2	91 (25)	25 (35)					
3	52 (14)	16 (26)					
4	52 (14)	31 (41)					
5	96 (27)	33 (42)					
6	68 (19)	25 (34)					





A-weighted sound power level		Gen.	Octave-frequency band [Hz]							LpA, 3 m	LpA, 1 m
(p.5 on the diagram)	dBA	200	400	800	1000	2000	4000	8000	[dBA]	[dBA]	
L _{WA} to exhaust inlet	dBA	59	44	45	49	51	44	37	38	38	48
L _{WA} to supply outlet	dBA	47	41	36	33	31	29	22	24	27	36
L _{WA} to environment	dBA	53	37	41	43	42	38	34	29	33	42

60

80

100

120

Air flow [m³/h]

140

Calculation of air temperature downstream of the heat exchanger:

$$\mathsf{t} {=} \mathsf{t}_{\mathsf{outd}} {+} \mathsf{k}_{\mathsf{hr}} {^*} (\mathsf{t}_{\mathsf{extr}} {^-} \mathsf{t}_{\mathsf{outd}}) / 100,$$

0

20

40

where

 $t_{outd}^{} \text{ is outdoor air temperature } [^{\circ}\text{C}]$

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

 \mathbf{k}_{hr} is heat exchanger efficiency (according to the diagram) [%]