




indoor air quality and energy saving

# TECHNICAL DATA



# RC-TOP

UNIT	CONTROL	ENERGETIC CLASS	
RC-TOP 1	CTR08-PH	B	A+
	EVO(D)-PH	A	A
	EVO(D)-PH + probe	A	B
RC-TOP 2	CTR08-PH	C	C
	EVO(D)-PH	B	D
	EVO(D)-PH + probe	B	E





## RC-TOP

High efficiency heat recovery ventilation unit with double flow for residential buildings. There are 2 sizes.

### EQUIPPED

RC-TOP 1 is equipped with a PVC counter-current heat exchanger while, RC-TOP 2 with Eurovent® certified aluminum heat exchanger. The unit is equipped with backward blade electronic fans and total by-pass as standard which allows you to take advantage of favorable climatic conditions outside the building for automatic free cooling (or free heating).

### STRUCTURE

RC-TOP is realized with a self-supporting casing made by panels, thickness 22 mm, sandwiched on injected polyurethane foam insulation. The casing and the internal parts are realized in Aluzinc®, material with a high resistance to corrosion and an outside attractive appearance. Easy access to the filters, ePM10 50% (G4) for the fresh air flow and ePM10 50% (G4) for the extract air flow, through 2 doors on the front panel. RC-TOP it is designed to be installed on the wall inside buildings with an ambient temperature between 0 ° C and 45 ° C.

### CONTROLS

For a quick installation, RC-TOP is supplied complete with control system and connection to the electrical power supply: the version equipped with simplified CTR-S control is available, the version equipped with EVO-PH control and the version equipped with EVOD-PH-IP control designed for complete integration in home automation systems (Modbus protocol with Ethernet connection or, upon request, with the addition of the RS485 connection). The new version of our control systems allows the user to shift from one control system to another very quickly and easily by replacing the remote panel even after the installation.

The CTR-S control allows the user to select three levels of fan speed or the possibility to stop them, It automatically manages the bypass and prevents the heat exchanger freezing by programming the fan speed; The control advises the user if filters needs to be replaced or any other fault. It is available a version without filters pressure switches (dirty control with hour counter, factory setting), filters G4 renewal / G4 recovery and by-pass made by fans unbalance (recommended a ventilation grid)

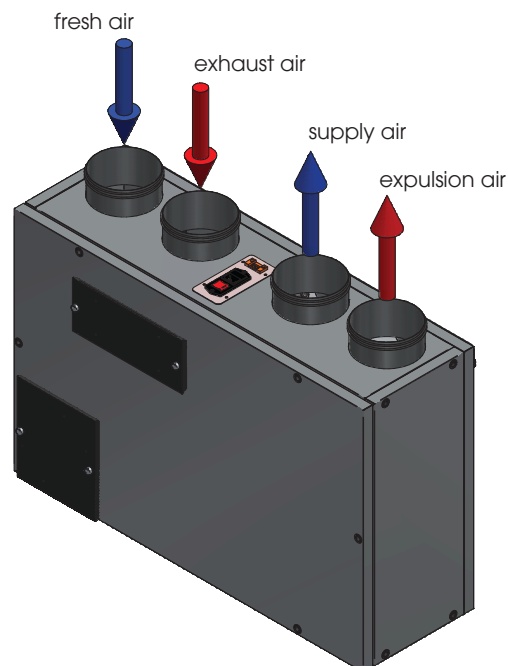
The EVO-PH control has a colorful touch screen interface, it gives an intuitive operating status of the unit and it allows programming the fan speed. This control has a weekly time schedule for automatic fans, it can be controlled by an external switch to activate the booster and it can automatically adjust the air flow when connected to an air quality sensor. It supports post-air treatment accessories ( in the duct) and it advises the user if filters needs to be replaced (the filter clogging is monitored with hour counter) or if there is any other fault showing where it comes from. If the unit has included the Kit COP Kit and Kit CAV (installed in the duct outside the unit) you can program the heat recovery ventilator either as constant pressure or as constant flow.

The EVOD-PH-IP control has the same characteristics of the EVO-PH version with the addition of the Modbus communication protocol and it allows full control of the unit by the Home Automation software system. If the unit is in a Home Automation network, the webserver lets the user interact with it throughout a device connected to an Internet browser.

For a more complete view of the characteristics of the control panels, please read the specific manuals



Counterflow heat exchanger made of aluminum manufactured by RECUTECH. RECUTECH participates in the Eurovent Certification Program

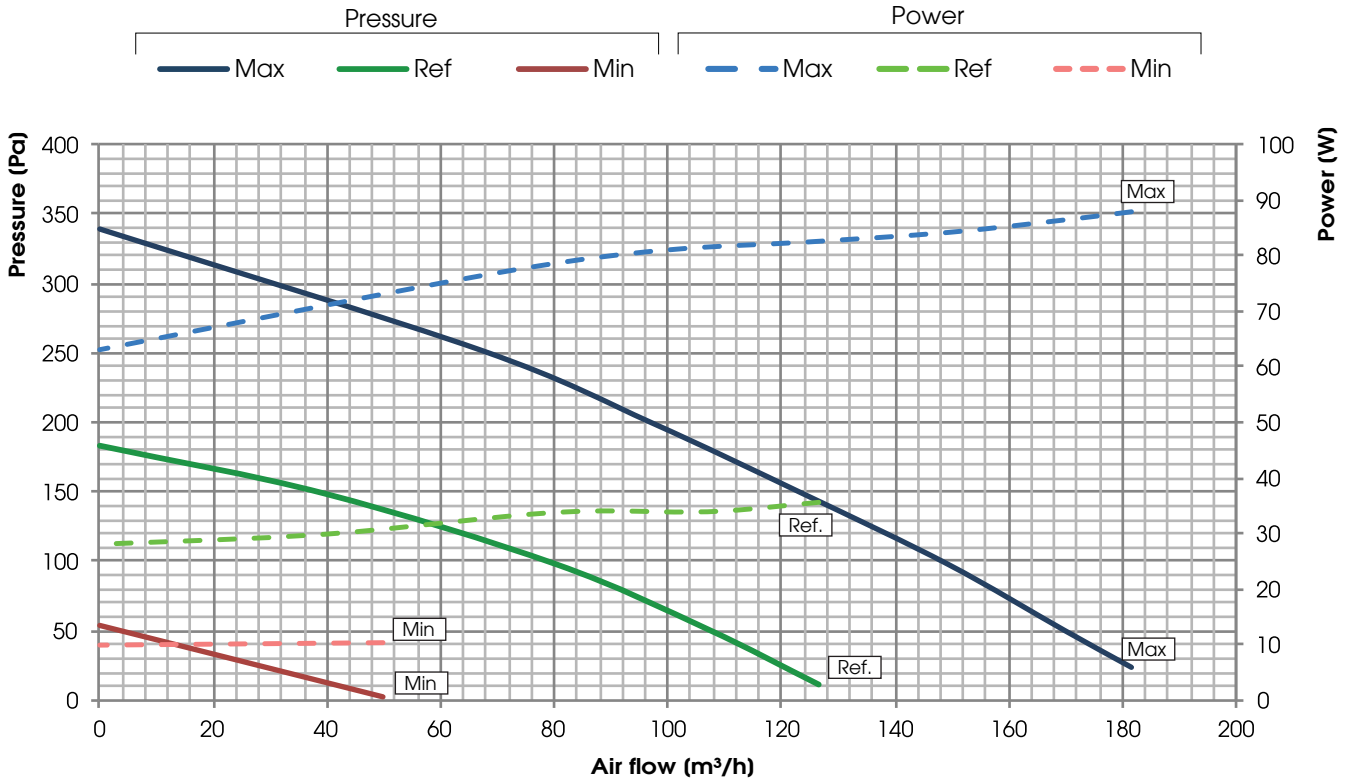




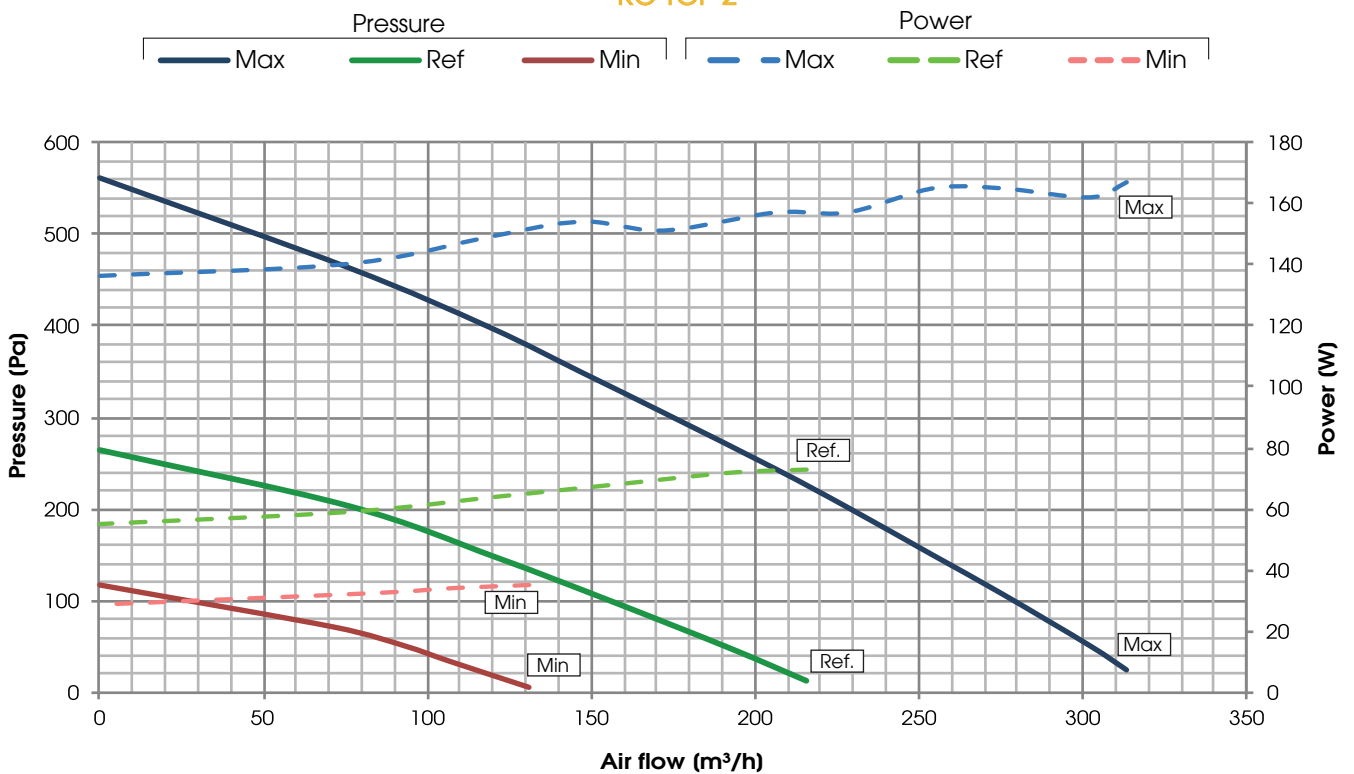
### PERFORMANCES (UNI EN 13141-7)

The unit must be ducted properly: UTEK authorizes the use only according to its performance diagram shown into this catalogue  
The declared performances are with CLEAN filters, and guaranteed ONLY with the original filters UTEK low pressure drop.

#### RC-TOP 1



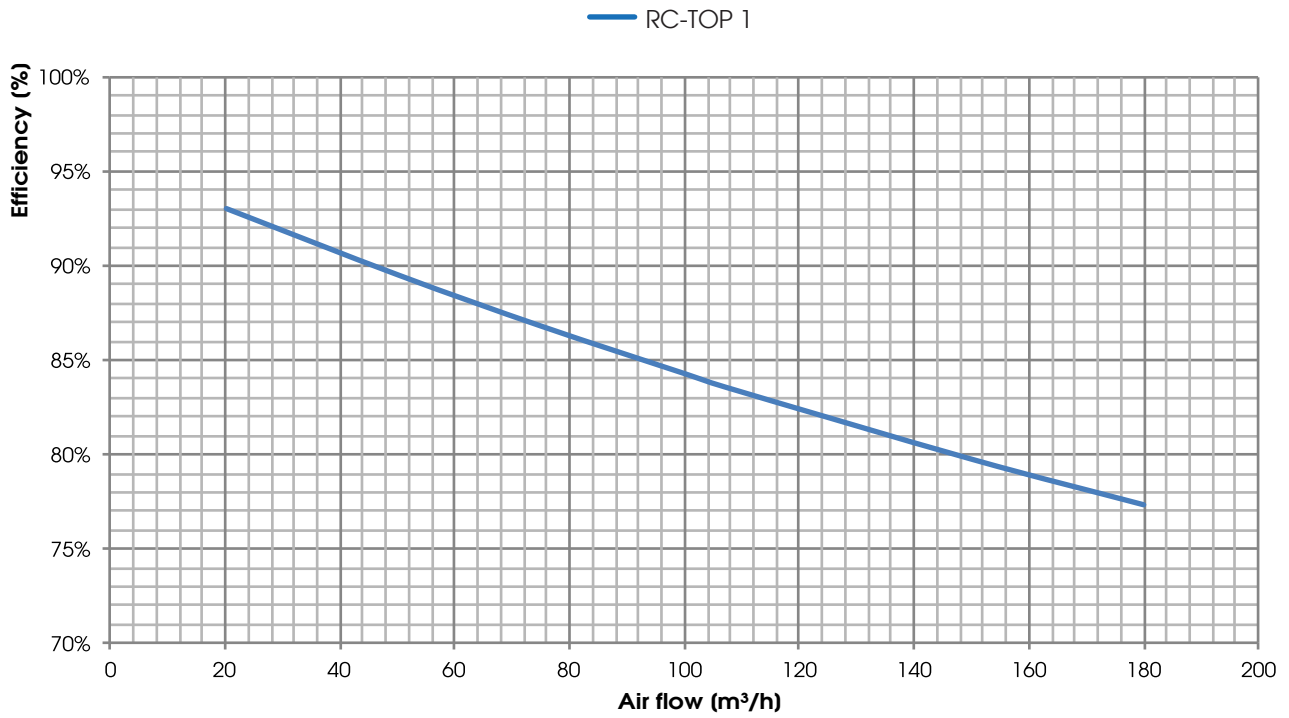
#### RC-TOP 2





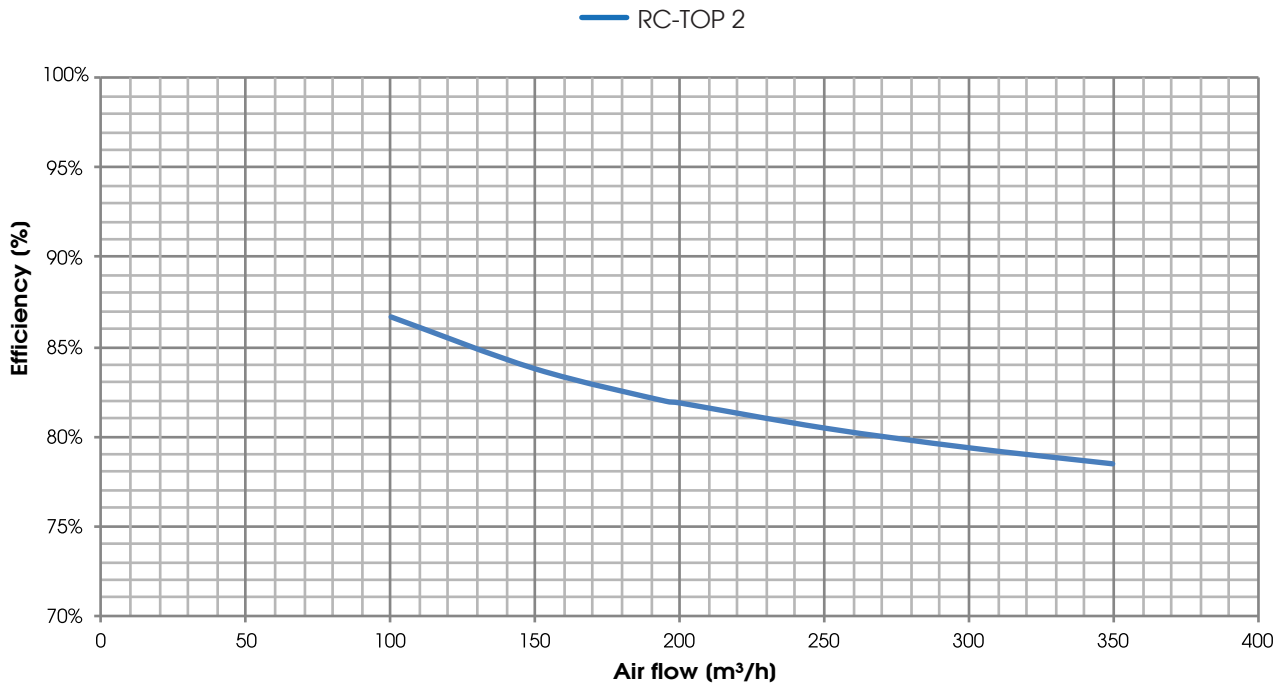
### HEAT RECOVERY PERFORMANCE (sensible efficiency)

Values referred to the following conditions (UNI EN 13141-7): T<sub>bs</sub> external air 7°C; U.R. external 72%; T<sub>bs</sub> environment 20°C; U.R. environment 28%



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### TEST LEAKAGE RC-TOP according UNI EN 13141-7

LEAKAGE	TEST CONDITIONS	RC-TOP 1 CLASS	RC-TOP 2 CLASS
OUTDOOR	Positive pression 250 Pa	A3	A2
OUTDOOR	Negative pression 250 Pa	A3	A2
INDOOR	Pressure difference 100 Pa	A3	A2

### NOISE LEVEL

L<sub>w</sub> Sound power level taken in accordance to UNI EN ISO 3747 CLASS 3

Unit RC-TOP 1	NOISE FROM THE CASE (dB)								L <sub>w</sub> dB(A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
100%	57,7	63,0	56,6	47,8	41,8	36,2	39,2	57,8	
REF	53,4	59,7	53,4	44,6	36,1	32,1	36,9	54,4	

Unit RC-TOP 1	NOISE IN THE DUCTS (dB)								L <sub>w</sub> dB(A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
100%	61,2	67,4	73,4	60,4	54,3	54,6	58,2	71,3	
REF	60,2	66,4	67,0	56,6	48,7	48,6	49,7	65,7	

Unit RC-TOP 2	NOISE FROM THE CASE (dB)								L <sub>w</sub> dB(A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
100%	59,7	65,8	62,1	46,3	44,5	39,2	41,8	61,5	
REF	55,8	63,9	47,8	39,9	35,4	32,0	39,7	56,0	

Unit RC-TOP 2	NOISE IN THE DUCTS (dB)								L <sub>w</sub> dB(A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
100%	59,0	70,1	69,6	58,0	58,5	54,5	65,1	70,1	
REF	55,0	70,4	62,0	48,6	48,6	44,0	49,4	64,0	

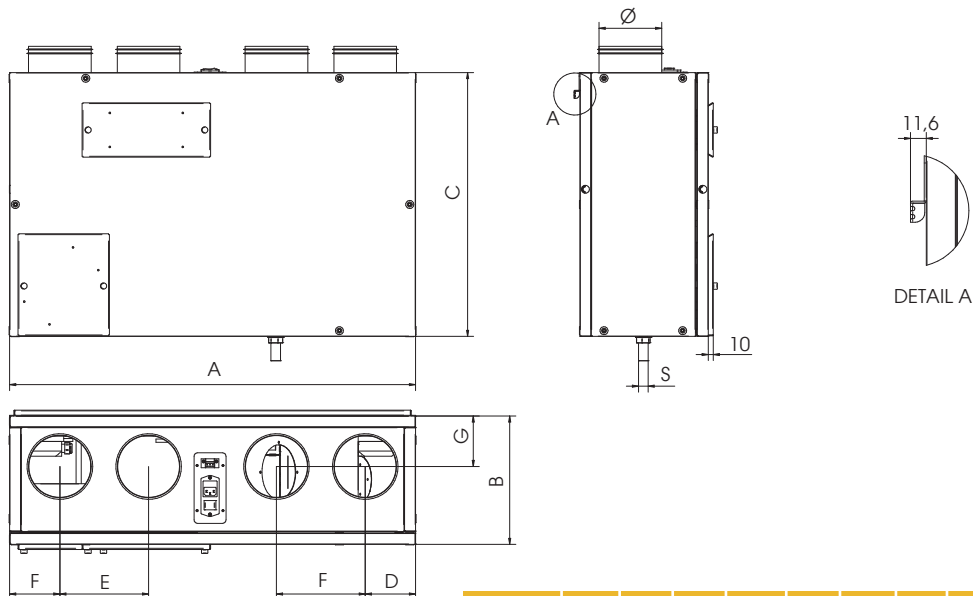
### ELECTRICAL DATA

UNIT	FAN				UNIT RC-TOP	
	Power *(W)	Supply	Current max.(A)	Insulation class	Supply	Current max.(A)
RC-TOP 1	2 X 50	230 V, 50/60 Hz 1F	2 X 0,46	IP 54 class B	230 V, 50 Hz 1F	1,0
RC-TOP 2	2 X 85	230 V, 50/60 Hz 1F	2 X 0,75	IP 54 class B	230 V, 50 Hz 1F	1,6

(\* Fan data, it's referred to the global absorbed power graph of the machine in the working point

### RC-TOP 1 and 2

DIMENSIONS (mm) WEIGHT(kg)

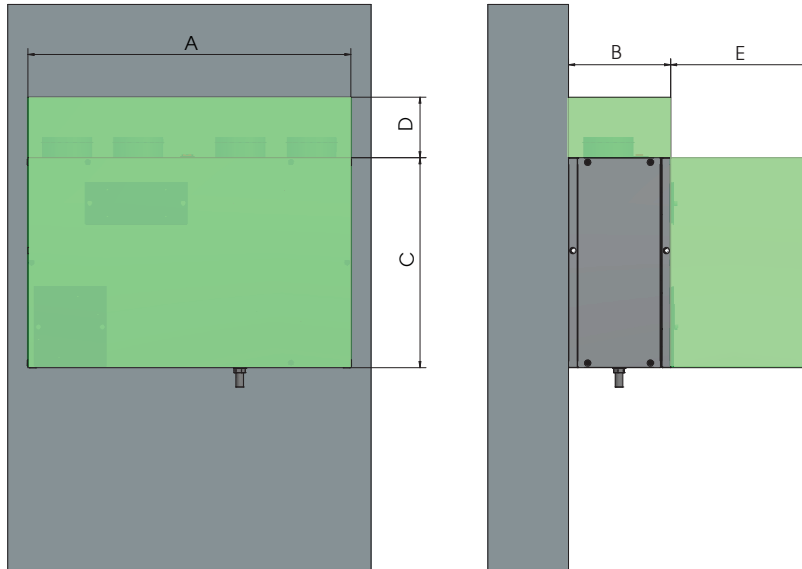


UNIT	A	B	C	E	F	G	Ø	S	Weight (kg)
RC-TOP 1	800	253	520	175	99	99,5	125	19	27
RC-TOP 2	1000	273	750	205	118,5	124	160	19	46



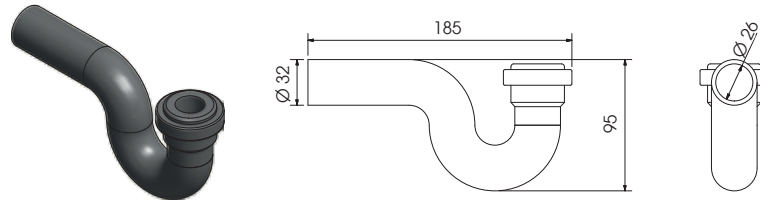
**RC-TOP INSTALLATION**  
**FLOOR INSTALLATION**

Minimum required space for maintenance (mm)

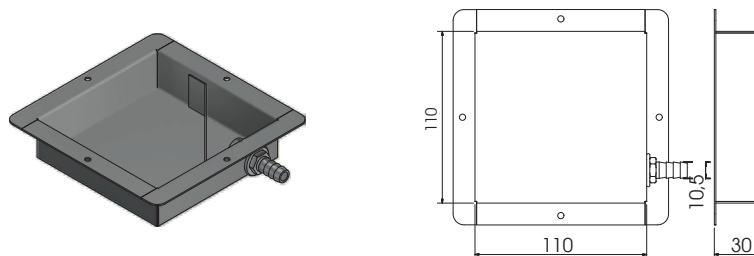


UNIT	A	B	C	D	E
RC-TOP 1	800	253	520	150	350
RC-TOP 2	1000	273	750	150	350

**STANDARD SIPHON (mm)**



**TRAY SIPHON (mm)**  
 Maximum operating pressure 200 Pa



A	Manufacturer's name	C.L.A. S.r.l			
B	Manufacturer's model identifier	RC-TOP 1 BP CTR-S SV			
C	Specific energy consumption (SEC) (kWh/m <sup>2</sup> .a)	COLD	RC-TOP 1 BP EVO-PH SV	RC-TOP 2 BP CTR-S SV	RC-TOP 2 BP EVO-PH SV
	TEMPERATE	-71,4	-56,1	-57,8	
C	WARM	-34,7	-25,5	-26,9	
		-11	-5,3	-6,6	
D	SEC class	B	A	C	B
D	Declared typology	UVR - UVB			
E	Type of drive installed	UVR - UVB			
F	Type of heat recovery system	Variable speed			
G	Thermal efficiency of heat recovery (%)	Recovery			
H	Maximum flow rate (m <sup>3</sup> /s)	83,6%	82%	82%	82%
I	Electrical power input at maximum flow rate (W)	0,041	0,078	0,078	0,078
I	Sound power level (L <sub>wa</sub> )(dB)	84	165	165	165
K	Reference flow rate (m <sup>3</sup> /s)	54	56	56	56
L	Reference pressure difference (Pa)	0,029	0,054	0,054	0,054
M	SPI (W/m <sup>3</sup> /h)	50	50	50	50
N	Control factor CLTR	0,32	0,375	0,375	0,375
N	Control typology	1	1	1	0,95
O	Declared maximum internal / external leakage rates (%)	Manual control (no DCV)	Manual control (no DCV)	Manual control (no DCV)	Timer control (no DCV)
P	Mixing rate of non-ducted bidirectional ventilation units (%)	12.1/15.8	12.1/15.8	5.7/4.2	5.7/4.2
Q	Position and description of visual filter warning for RVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit	-			
R	For unidirectional ventilation systems, instructions to install regulated supply/exhaust grilles in the façade for natural air supply/extraction	-			
S	Internet address for pre-/dis-assembly instructions	www.utek-air.it			
T	For non-ducted units only: the airflow sensitivity to pressure variations at + 20 Pa and - 20 Pa	-			
U	For non-ducted units only: the indoor/outdoor air tightness	-			
V	The annual electricity consumption (AEC) (kWh/a)	440	400	520	470
W	The annual heating saved (AHS) for each type of climate (kWh/a)	1980 (WARM)	1990 (WARM)	1700 (WARM)	1720 (WARM)
		8560 (COLD)	8620 (COLD)	7370 (COLD)	7430 (COLD)
		4380 (TEMPERATE)	4400 (TEMPERATE)	3770 (TEMPERATE)	3800 (TEMPERATE)

CLA & UTEK reserves the right to at any time the necessary changes to improve products without prior notice .

Dear Customer

Thanks for your attention to the product UTEK , designed and manufactured to ensure the real values to the User: Quality, Safety and Savings on working.



Made in Italy

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
ISO 9001**



the Dealer  
RC-TOP\_2020\_1\_EN



HEAT RECOVERY VENTILATION UNITS for RESIDENTIAL BUILDINGS