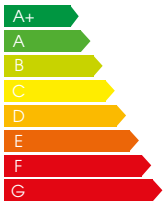
Utek

indoor air quality and energy saving

TECHNICAL DATA

UNIT	CONTROL	ENERGETIC CLASS
UVD	EVO(D)-PH	A
	EVO(D)-PH + probe	A
UVD-ENT	EVO(D)-PH	B
	EVO(D)-PH + probe	A



UVD

AVAILABLE THE ENTHALPIC VERSION

AVAILABLE THE MIRRORED VERSION

UVD 1 VENTILATION UNIT with HEAT RECOVERY for RESIDENTIAL BUILDINGS

UVD 2 VENTILATION UNITS with HEAT RECOVERY for TERTIARY AND INDUSTRY

UVD
Ventilation unit, residential for size 1 and tertiary for size 2, double flow with high efficiency heat recovery.

EQUIPPED

it is equipped with an aluminum counterflow heat exchanger (Eurovent certified). The unit includes the By-pass, which permits to take advantage of the climatic conditions outside the building for automatic free cooling (or free heating). Available also the version with Enthalpic heat exchanger

STRUCTURE

The UVD is realized with a self-supporting casing made by panels, thickness 36 mm, sandwiched on injected polyurethane foam insulation. The casing and the internal parts are realized in zinc magnesium, material with a high resistance to corrosion and an outside attractive appearance. The front door allows quick replacement of filters ePM1 55% (F7) for fresh air and ePM10 50% (M5) for exhaust air). UVD can installed on the floor or under the ceiling, with ambient temperature between 0° C and 45° C. Floor installation

CONTROLS

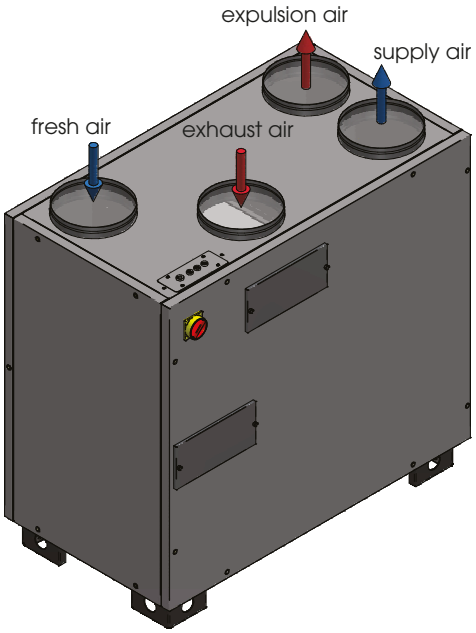
UVD is supplied with control system and easy connection to the power supply. It's also available the version with EVO-PH control and the version with EVOD-PH-IP control ready for integration in home automation systems (Modbus protocol with Ethernet connection or, upon request , with the addition of the RS485 connection).

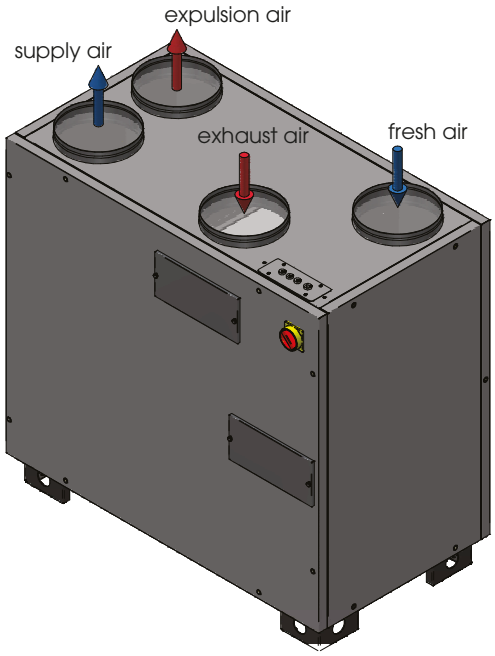
The new version of our control systems allows the user to shift from one control system to another very quickly and easily by replacing the remote panel even after the installation.

The EVO-PH control has a colored backlit 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 unit control, 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 and it advises the user if filters needs to be replaced (the filter clogging is monitored by a pair of differential pressure sensors) or if there is any other fault showing where it comes from. If the unit includes the optional COP Kit or CAV Kit (installed in the duct) you can program the heat recovery unit 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.



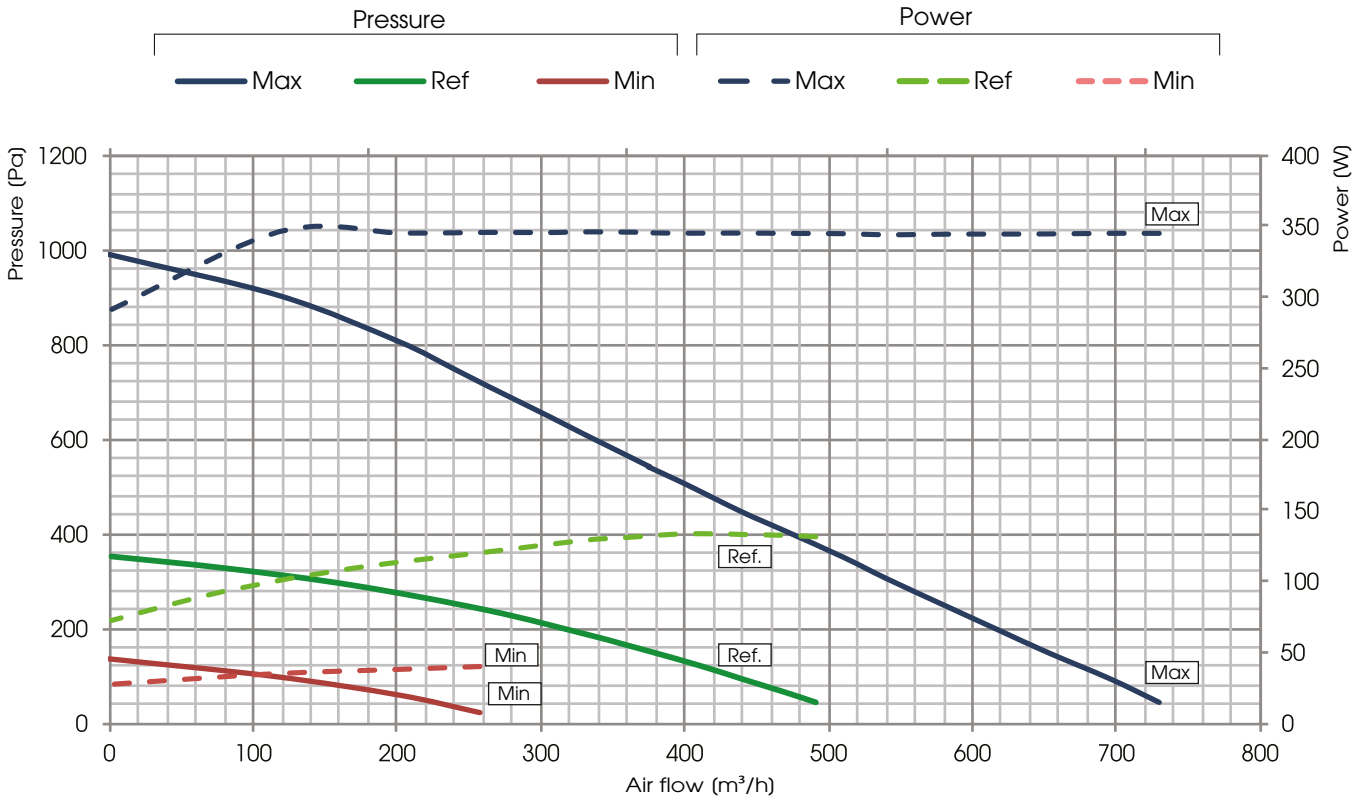


Counterflow heat exchanger made of aluminum manufactured by RECUTECH
RECUTECH participates in the Eurovent Certification Program

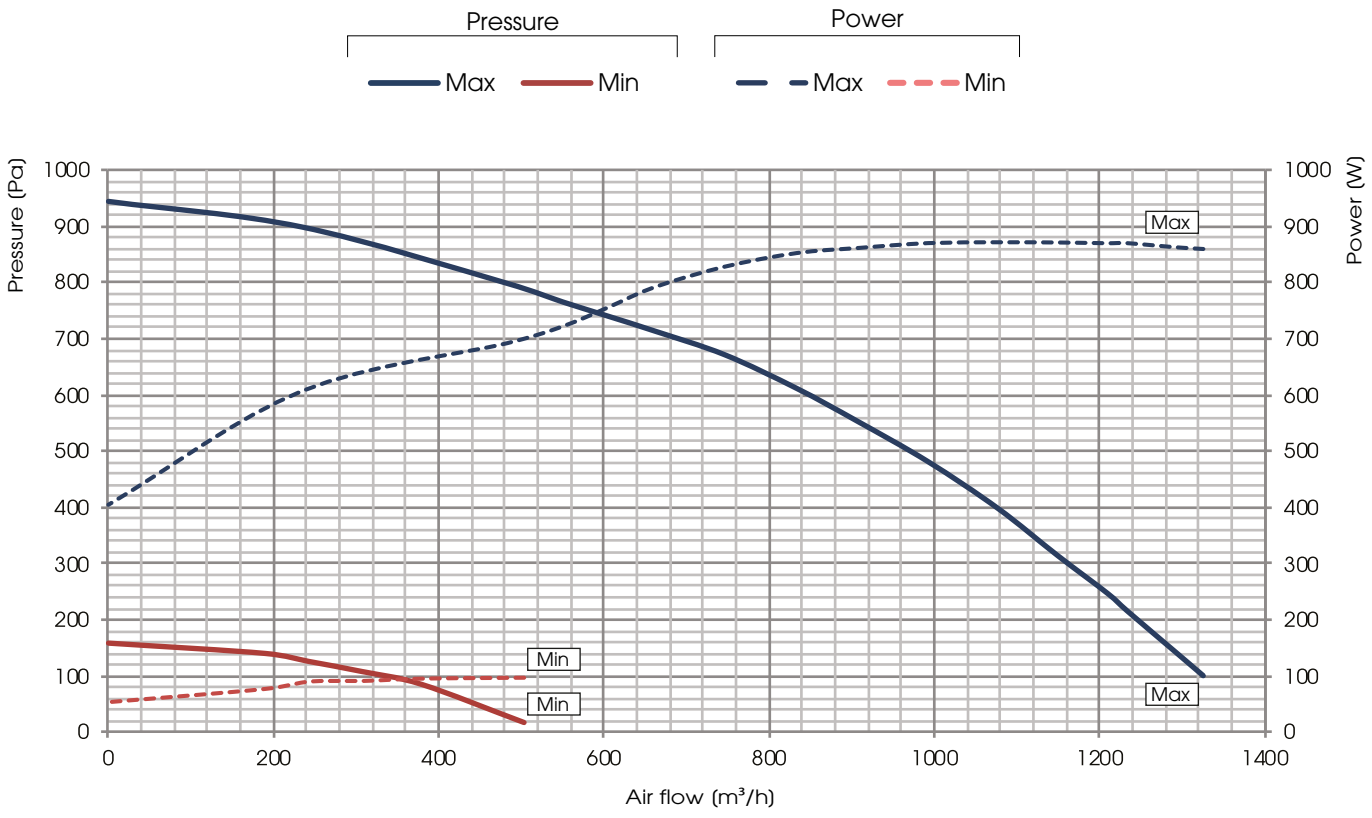
PERFORMANCES (UNI EN 13141-7)

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.

UVD 1 / UVD 1 ENT



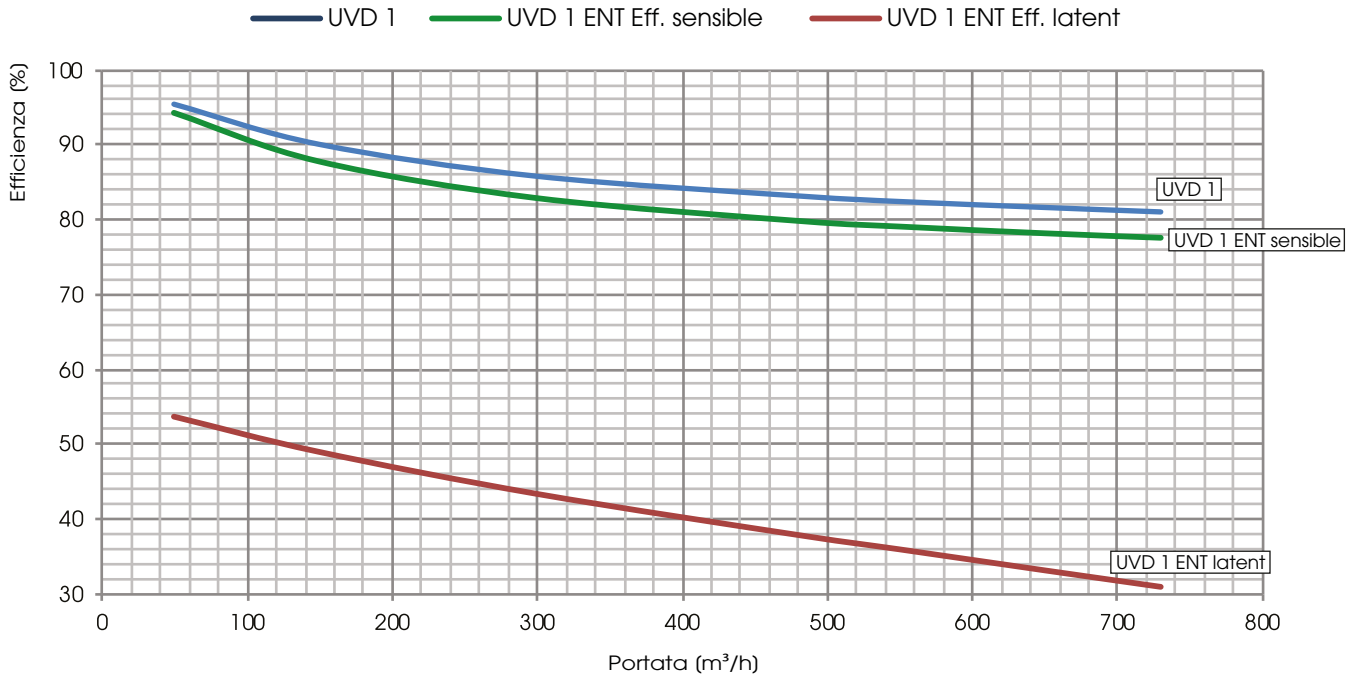
UVD 2 / UVD 2 ENT



HEAT RECOVERY PERFORMANCE (sensible efficiency)

Values refered to the following conditions (UNI EN 13141-7): Tbs external air 7°C; U.R. esternal 72%; Tbs enviorment 20°C; U.R. enviorment 38%

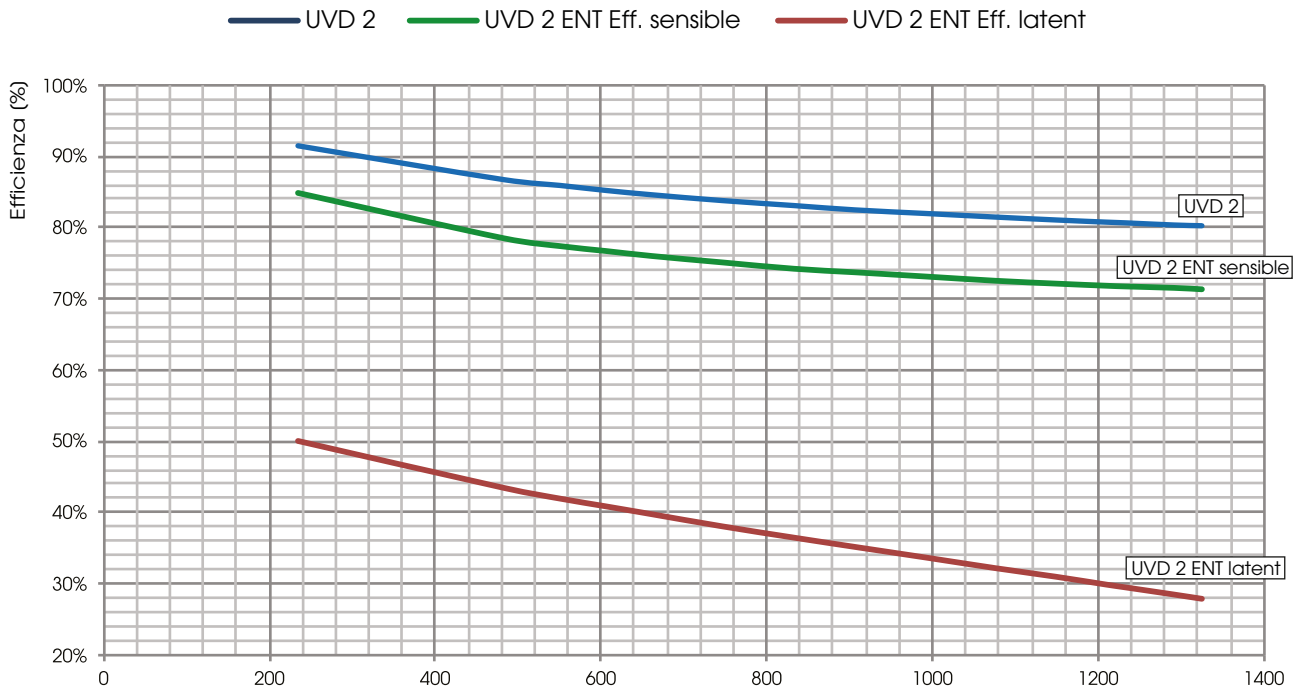
UVD 1 / UVD 1 ENT



EFFICIENZA DI RECUPERO DEL CALORE SENSIBILE

Values refered to the following conditions (UNI EN 308:1998): Tbs external air 5°C; U.R. esternal 72%; Tbs enviorment 25°C; U.R. enviorment 38%

UVD 2 / UVD 2 ENT



TEST LEAKAGE UVD according UNI EN 13141-7

LEAKAGE	TEST CONDITIONS	UVD CLASS	UVD 2 CLASS
OUTDOOR	Positive pressure 250 Pa	A1	A2
OUTDOOR	Negative pressure 250 Pa	A1	A2
INDOOR	Pressure difference 100 Pa	A2	A2

NOISE LEVEL

Lw Sound power level taken in accordance to UNI EN ISO 3747 - CLASS 3

	NOISE FROM THE CASE (dB)							
Unit **UVD / UVD ENTHALPIC**	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
MAX	60,7	67,9	65,0	57,5	50,8	45,8	48,7	65,1
REF	58,4	65,3	60,2	52,5	44,9	37,8	42,2	60,9

	NOISE IN THE DUCTS (dB)							
Unit **UVD / UVD ENTHALPIC**	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
MAX	66,3	70,4	79,5	66,2	64,1	59,1	64,1	77,4
REF	62,0	67,6	64,1	60,5	56,2	50,6	57,5	66,4

	NOISE FROM THE CASE (dB)							
Unit **UVD 2**	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	78,1	75,9	67,4	58,5	55,8	44,3	35,5	70,3

	NOISE IN THE DUCTS (dB)							
Unit **UVD 2**	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	83,2	80,1	79,1	73,1	69,3	64,1	58,3	79,7

ELECTRICAL DATA

MATCHING	FAN				UNIT UVD / UVD ENTHALPIC	
	Power*(W)	Supply	Current max (A)	Insulation class	Supply	Current max (A)
UVD / UVD ENTHALPIC	2 x 170	230 V, 50/60 Hz 1F	2 x 1,5	IP 54	230 V, 50 Hz 1F	3,2
UVD 2	2 x 349	230 V, 50 Hz 1F	2 x 3,0	IP 54	230 V, 50 Hz 1F	6,0

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

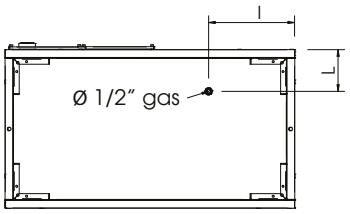
VALUES ACCORDING UNI EN 1886: 2008

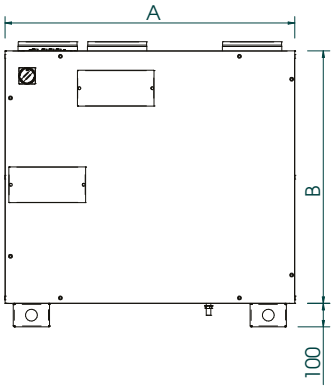
UNIT	CASING STRENGTH	CASING LEAKAGE	FILTER CLASS	THERMAL TRANSMITTANCE	THERMAL BRIDGE
UVD 2	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB3 (M)

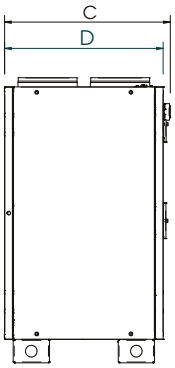
ECODESIGN UVD 2

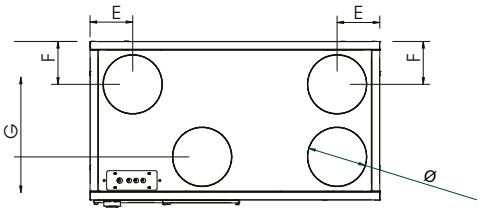
UNIT	η_{t_nvru} (%)	q_{nom} (m^3/s)	$\Delta p_{s,ext}$ (Pa)	P (kW)	SFPint ($W/(m^3/s)$)	SFPint_lim 2016 ($W/(m^3/s)$)	SFPint_lim 2018 ($W/(m^3/s)$)	FACE VELOCITY (m/s)	$\Delta p_{s,int}$ (Pa)	η_{Fan} (%)	* Internal LEAKAGE (%)	* External LEAKAGE (%)
UVD 2	81,8	0,29	440	0,87	1300	1599	1319	1,69	810	63,5	3,2	4,5
UVD 2 ENT	74,0	0,24	580	0,85	1077	1374	1094	1,43	598	58,7	3,8	5,4

DIMENSIONS (mm) WEIGHT (kg)





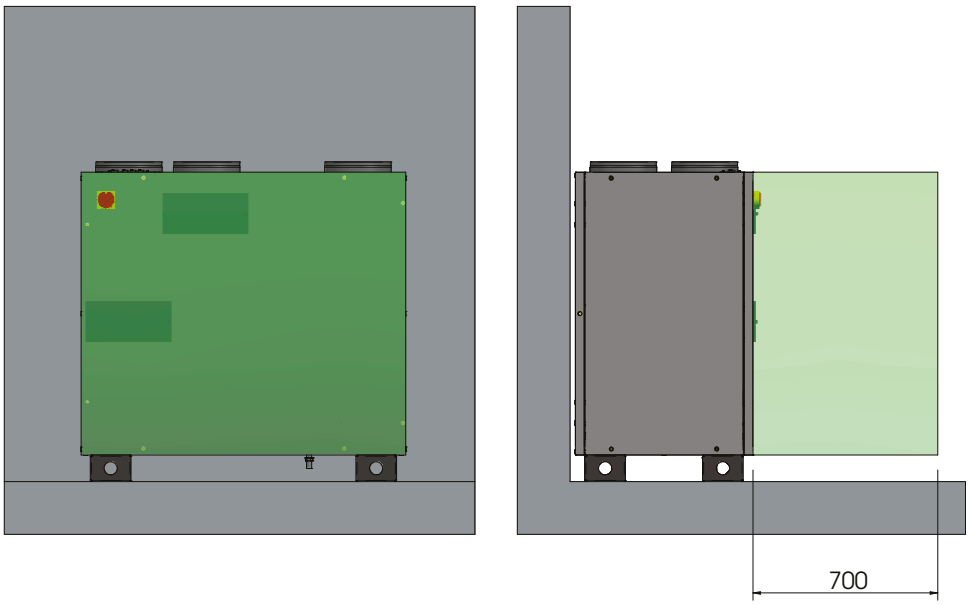




	Dimensions (mm)								
	A	B	C	D	E	F	G	Ø	Weight(kg)
UVD 1	930	930	699	671	153	186	203	200	85
UVD 2	1230	1072	704	673	181	182	490	250	139

FLOOR INSTALLATION

Minimum required space for maintenance (mm)



A	Manufacturer's name C.L.A. S.r.l			
B	Manufacturer's model identifier		UVD 1 BP EVO-PH SV	UVD 1 ENTHALPIC BP EVO-PH SV
C	Specific energy consumption SEC (kWh/m².a)	COLD	-72,3	-70,3
		AVERAGE	-35,7	-34,7
		WARM	-12,1	-11,7
	SEC class		A	A
D	Declared typology		UVR - UVB	UVR - UVB
E	Type of drive installed		Variable speed	Variable speed
F	Type of heat recovery system		Recovery	Recovery
G	TThermal efficiency of heat recovery (%)		83,1	79,7
H	Maximum flow rate (m^3/s)		0,192	0,192
I	Electrical power input at maximum flow rate (W)		345	345
I	Sound power level (Lwa) (dB)		61	61
K	Reference flow rate (m^3/s)		0,135	0,135
L	Reference pressure difference (Pa)		50	50
M	SPI ($W/m^3/h$)		0,273	0,273
N	Control factor CLTR		0,95	0,95
	Control typology		Timer control (without DCV)	Timer control (without DCV)
O	Declared maximum internal / external leakage rates (%)		5,2 / 2,5	5,2 / 2,5
P	Mixing rate of non-ducted bidirectional ventilation units (%)		-	-
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		Filter warning is signaled on the display of the control system: the flashing writing "DirtyFilters" will appear. "To preserve the energy efficiency of the NRVU, it's recommended to replace the filters when signaled." Positioned near the filters inspection.	
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 + 20Pa and – 20 Pa		-	-
U	For non-ducted units only: the indoor/outdoor air tightness		-	-
V	The annual electricity consumption (AEC) kWh/(a		354	354
W	The annual heating saved (AHS) for each type of climate kWh/a		1985 (WARM) 8586 (COLD) 4389 (AVERAGE)	1938 (WARM) 8385 (COLD) 4286 (AVERAGE)

A	Manufacturer's name C.L.A. S.r.l.		
B	Manufacturer's model identifier	UVD 2 BP EVO-PH SV	UVD 2 ENT BP EVO-PH SV
C	Declared typology	UVNR / UVB	UVNR / UVB
D	Type of drive installed	Variable speed	Variable speed
E	Type of HRS	other	other
F	Thermal efficiency of heat recovery (%)	81,8	74,0
G	Nominal NRVU flow rate (m^3/s)	0,38	0,33
H	Effective electric power input (kW)	0,85	0,85
I	SPFint $W/(m^3/s)$	1251	1053
J	Face velocity at design flow rate (m/s)	2,24	1,95
K	Nominal external pressure (Pa)	260	420
L	Internal pressure drop of ventilation components (Pa)	808	692
M	Optional: internal pressure drop of non-ventilation components		
N	Static efficiency of fans used in accordance with Regulation (EU) No 327/2011 (%)	64,9	65,3
O	Declared maximum external leakage rate of the casing of ventilation units (%)	1,5	1,8
	Declared maximum internal leakage rate of bidirectional ventilation units or carry over (for regenerative heat exchangers only) (%)	2,2	2,5
P	Energy performance, preferably energy classification, of the filters (declared information about the calculated annual energy consumption	ePM1 70% (F7) ePM10 50% (M5)	ePM1 70% (F7) ePM10 50% (M5)
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	Filter warning is signaled on the display of the control system: the flashing writing "DirtyFilters" will appear. "To preserve the energy efficiency of the NRVU, it's recommended to replace the filters when signaled." Positioned near the filters inspection.	
R	Casing sound power level (LWA) (dB)	70	70
S	Internet address for pre-/dis-assembly instructions	www.utek-air.it	

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

AZIENDA CON SISTEMA DI GESTIONE QUALITÀ CERTIFICATO DA DNV GL
ISO 9001

AZIENDA CON SISTEMA DI GESTIONE AMBIENTALE CERTIFICATO DA DNV
ISO 14001

the Dealer

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UVD 2 VENTILATION UNITS with HEAT RECOVERY for TERTIARY AND INDUSTRY

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