

CRHE-TOP

TECHNICAL DATA



TERTIARY SECTOR AND INDUSTRY



indoor air quality and energy saving

TECHNICAL SPECIFICATIONS



Non-residential dual flow ventilation unit with high efficiency heat recovery. All sizes are also available in the version with enthalpy exchanger.

PERFORMANCE

Equipped with an aluminum counter-current heat exchanger (Eurovent certified) and EC backward-curved electronic fans. The standard automatic total bypass makes it possible to take advantage of favorable conditions outside the building for free cooling (or free heating) in automatic mode.

STRUCTURE

CRHE-TOP is made with a frame in extruded aluminum profiles and sandwich panels, 25 mm thick, insulated in polyurethane foam. The panels and internal components are made of magnesium zinc, a material that ensures high resistance to corrosion and oxidation. Frontal panels makes it easy to access the filters ePM1 55% (F7) for fresh air flow and Coarse 65% (G4) or ePM10 50% (M5) for fresh air flow extraction). The CRHE-TOP is designed to be installed inside or outside buildings (if installed outside, it must be installed under cover). Available in 6 sizes, it can be equipped with air post-treatment systems (inside the unit) such as: hot water coil and electric heater. The pre-heating resistance is inside the machine between the filter and the exchanger.

CONTROLS

CRHE-TOP is supplied complete with electrical panel and control system; the version equipped with EVO-PH control and the version equipped with EVOD-PH-IP control are available, designed for complete integration into home automation systems (Modbus protocol with Ethernet connection or, on request, with the addition of the RS485 connection).

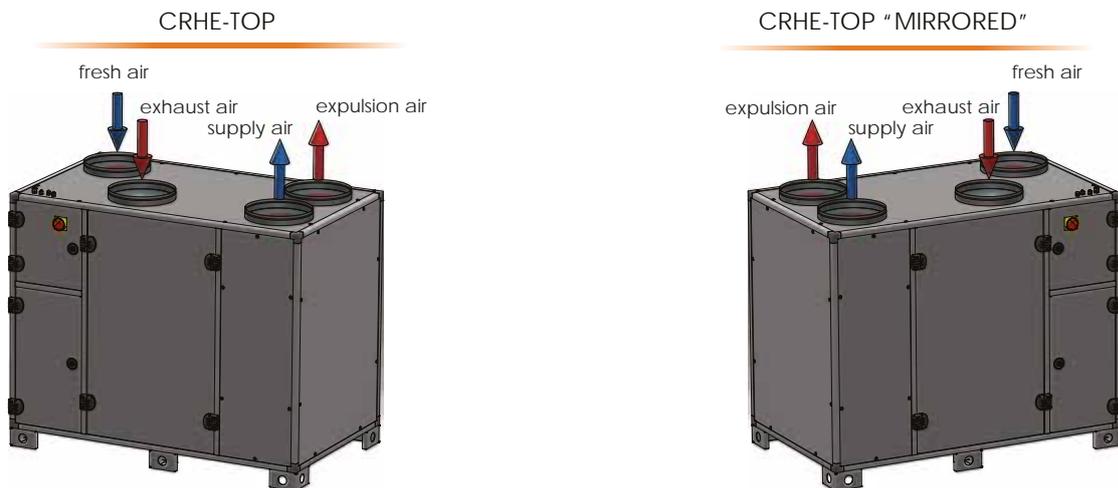
The new version of our control systems allows the passage from one control system to another with extreme ease and speed, even after installation with only the replacement of the remote panel.

ACCESSORIES

CRHE-TOP can be equipped with other accessories such as:

- . R.H., CO₂ or CO₂/VOC probe
- . kit for operation at constant pressure or flow rate

For a more complete view of the characteristics of the control systems, please refer to the respective manuals.



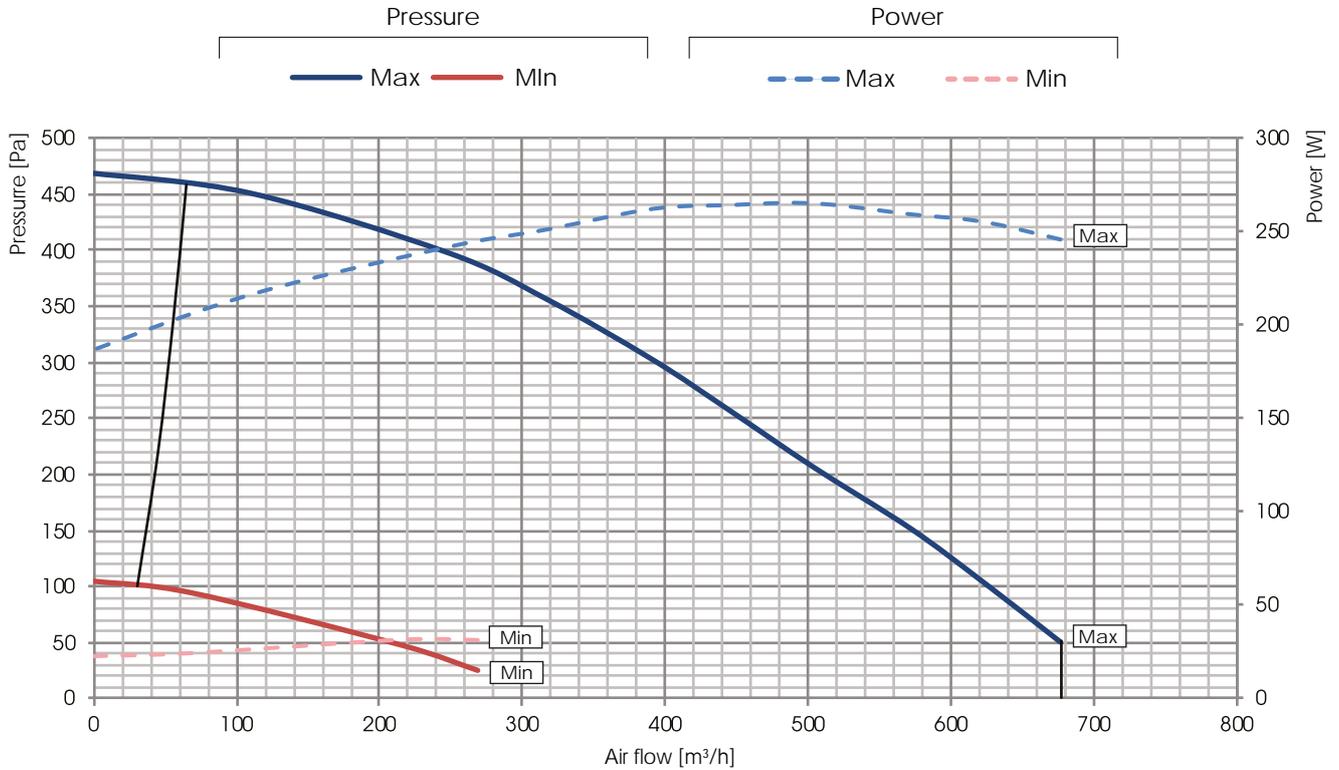
Counterflow heat exchanger made of aluminum and enthalpic version manufactured by RECUTECH. RECUTECH participates in the Eurovent Certification Program

PERFORMANCE (UNI EN 13141-7)

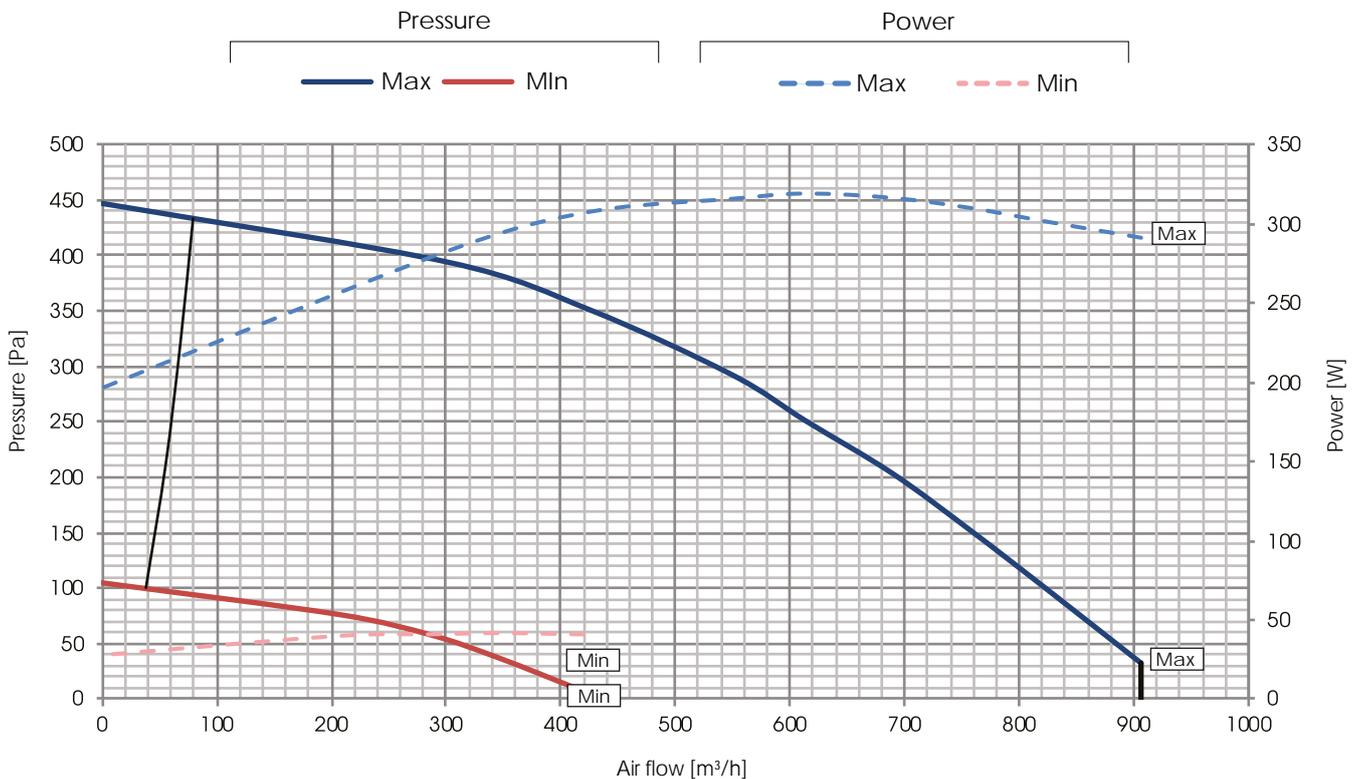


The unit must be ducted properly: UTEK authorizes the use only according to its performance diagram shown into this catalogue. The declared performances are with CLEAN filters, and guaranteed ONLY with the original filters UTEK low pressure drop.

CRHE-TOP 1



CRHE-TOP 2

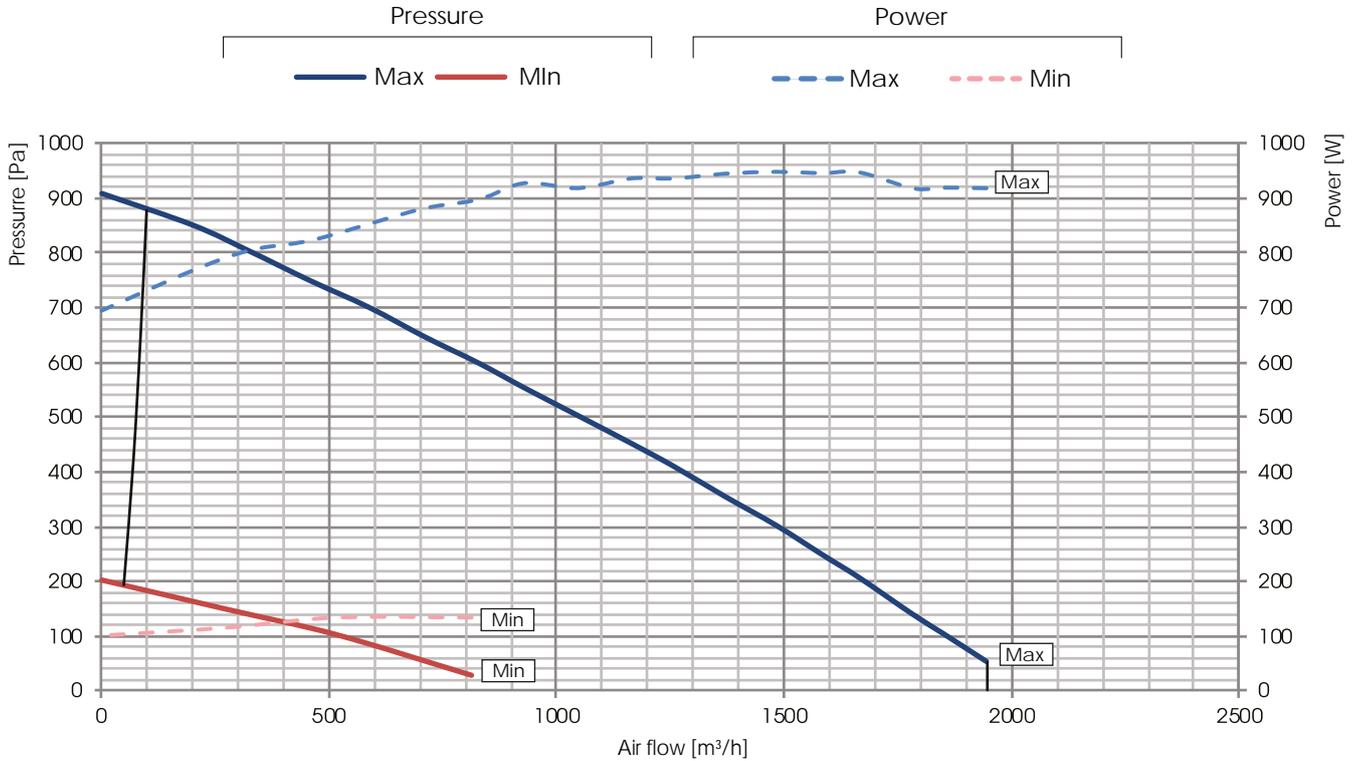


PERFORMANCE (UNI EN 13141-7)

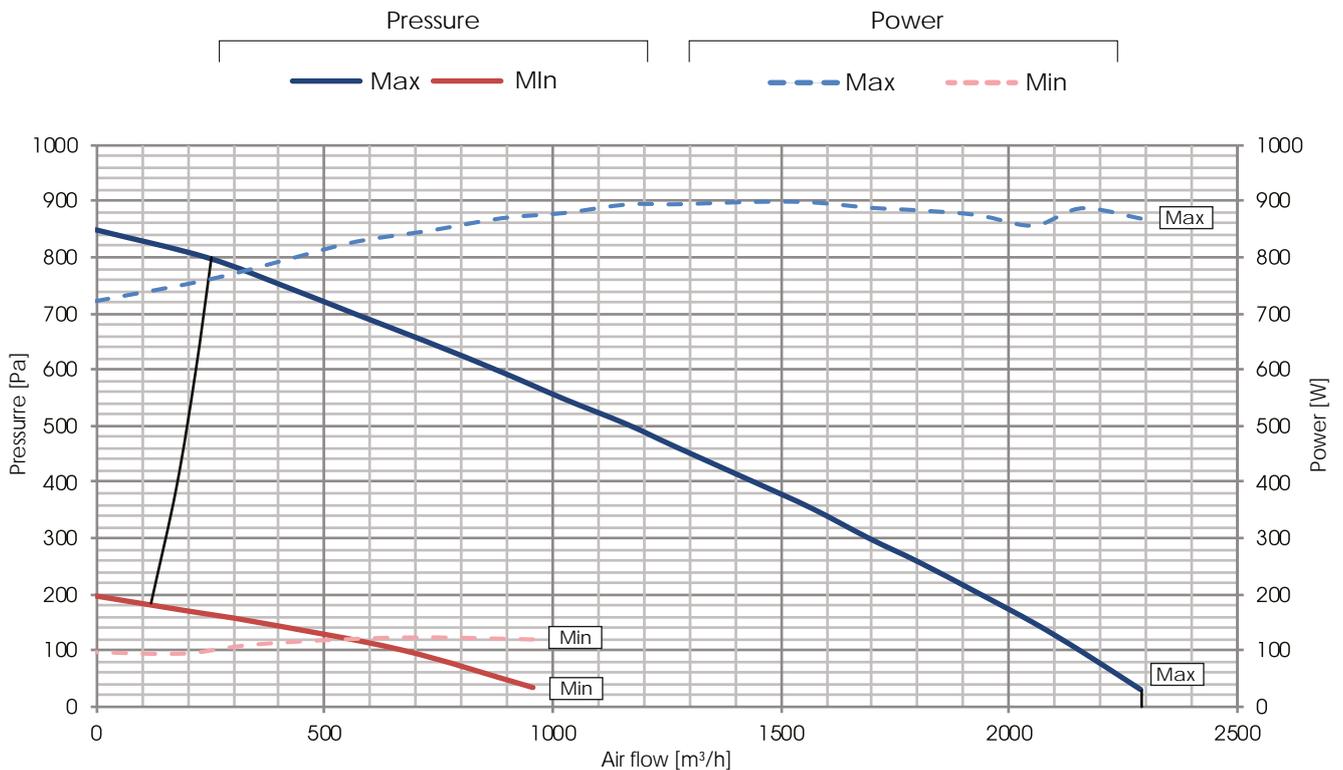


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CRHE-TOP 3



CRHE-TOP 4

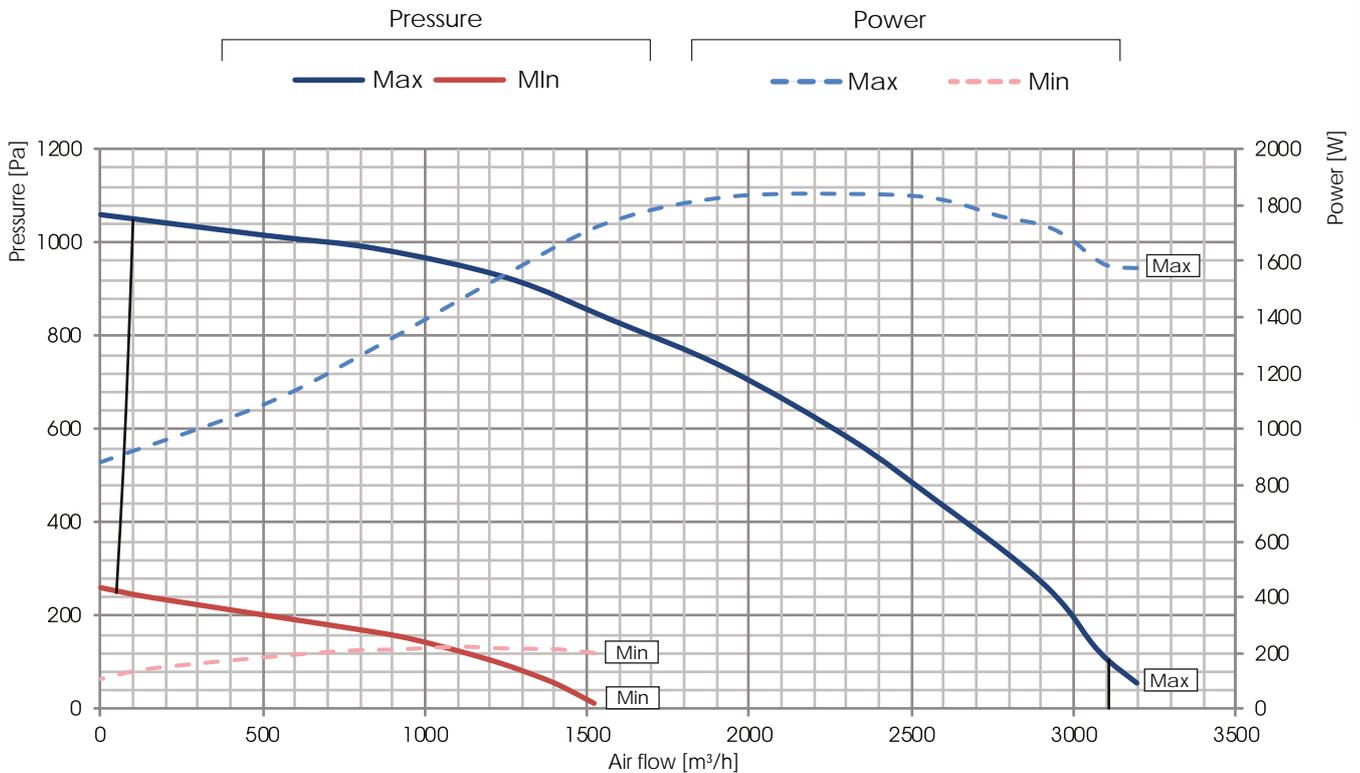


PERFORMANCE (UNI EN 13141-7)

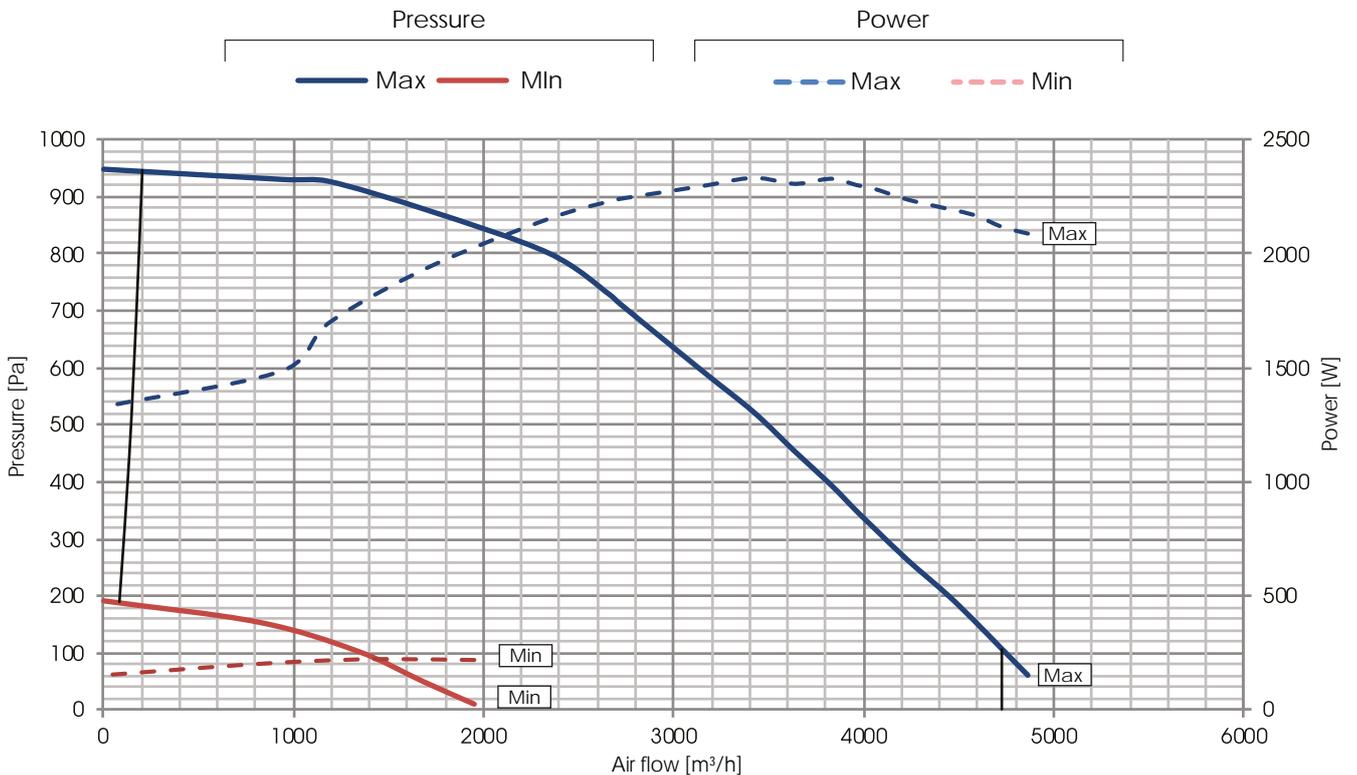


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The declared performances are with CLEAN filters, and guaranteed ONLY with the original filters UTEK low pressure drop.

CRHE-TOP 5



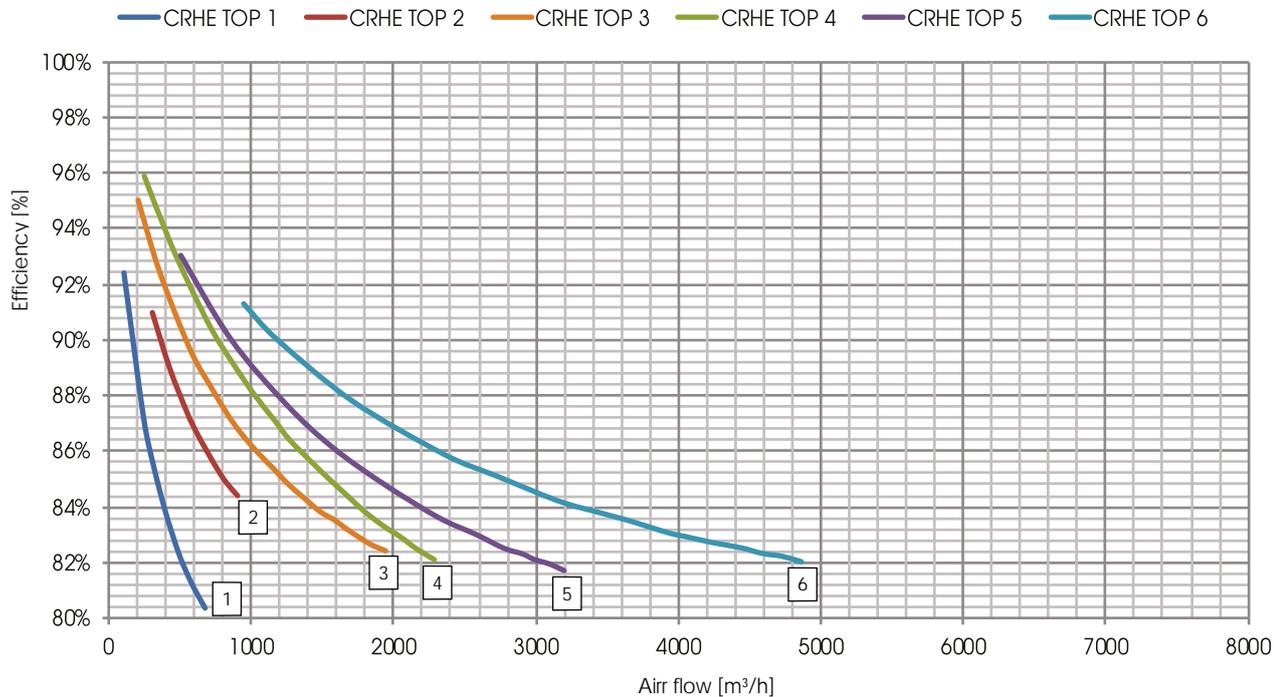
CRHE-TOP 6



RECOVERY EFFICIENCY (UNI EN 308:1998)



Outside air temperature 5°C; Outside relative humidity 72%; Indoor air temperature 25°C; Indoor relative humidity 38%
The stated performance is with CLEAN filters and is guaranteed EXCLUSIVELY with original UTEK low-pressure-drop filters



ECODESIGN

MOD.	$\eta_{L,nvru}$ [%]	Q_{nom} [m³/s]	$\Delta p_{s,ext}$ [Pa]	P [kW]	SFP _{int} [W/(m³/s)]	SFP _{int,lim 2016} [W/(m³/s)]	SFP _{int,lim 2018} [W/(m³/s)]	FRONTAL SPEED [m/s]	$\Delta p_{s,int}$ [Pa]	η_{Fan} [%]	* LEAKAGE internal [%]	* LEAKAGE external [%]
CRHE TOP 1	80,9	0,17	100	0,26	1017	1590	1310	1,80	749	58,8	10,1	7,8
CRHE TOP 2	84,9	0,23	100	0,31	915	1702	1422	1,66	681	60,5	8,7	5,1
CRHE TOP 3	82,6	0,52	100	0,88	1093	1590	1310	1,85	608	53,9	7,6	4,8
CRHE TOP 4	82,5	0,60	100	0,87	960	1576	1296	1,99	447	44,7	7,2	4,7
CRHE TOP 5	81,9	0,86	110	1,56	1226	1518	1238	2,16	700	53,9	4,4	3,6
CRHE TOP 6	82,2	1,31	110	2,12	1169	1459	1179	2,33	718	63,4	4,6	4,0

* Compared to q_{nom}

VALUES ACCORDING TO UNI EN 1886: 2008

MOD.	CASING STRENGTH	CASING LEAKAGE	FILTERS CLASS	THERMAL TRANSMITTANCE	THERMAL BRIDGE
CRHE TOP 1	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB4 (M)
CRHE TOP 2	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB4 (M)
CRHE TOP 3	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB4 (M)
CRHE TOP 4	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB4 (M)
CRHE TOP 5	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB4 (M)
CRHE TOP 6	D1 (M)	L3 (M)	ePM1 70% (F7) (M)	T4 (M)	TB4 (M)

TEST LEAKAGE (UNI EN 13141-7)

LEAKAGE	TEST CONDITIONS	LEAKAGE CLASSIFICATION					
		CRHE-TOP 1	CRHE-TOP 2	CRHE-TOP 3	CRHE-TOP 4	CRHE-TOP 5	CRHE-TOP 6
ESTERNO	Positive pressure 400 Pa	A3	A2	A2	A2	A2	A2
ESTERNO	Negative pressure 400 Pa	A3	A2	A2	A2	A2	A3
INTERNO	Pressure difference 250 Pa	A3	A3	A3	A3	A2	A2

NOISE LEVEL in accordance to UNI EN ISO 3747 - CLASS 3



CRHE-TOP 1	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	57,5	65,4	58,7	52,4	47,2	40,6	40,6	60,5
CRHE-TOP 1	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	67,2	78,9	64,3	59,9	56,8	55,4	57,4	71,7
CRHE-TOP 2	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	61,9	67,0	57,0	51,5	45,9	39,7	34,0	60,7
CRHE-TOP 2	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	67,8	84,1	60,0	61,6	60,8	60,0	56,3	76,1
CRHE-TOP 3	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	61,5	71,5	60,3	52,9	49,8	41,5	43,2	64,5
CRHE-TOP 3	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	72,8	77,9	69,4	69,9	66,7	63,4	72,4	76,6
CRHE-TOP 4	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	60,7	70,3	59,8	57,5	50,0	43,8	49,8	64,4
CRHE-TOP 4	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	71,6	80,6	70,4	70,5	68,0	64,1	68,8	77,0
CRHE-TOP 5	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	67,3	72,2	66,6	59,8	57,2	50,0	54,3	68,2
CRHE-TOP 5	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	77,6	82,3	81,6	78,0	73,6	70,6	80,2	84,5
CRHE-TOP 6	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	68,2	75,7	60,8	52,3	49,6	45,4	48,1	67,9
CRHE-TOP 6	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L _w dB(A)
	82,0	90,0	74,0	68,8	64,3	66,9	71,2	82,6

ELECTRICAL DATA

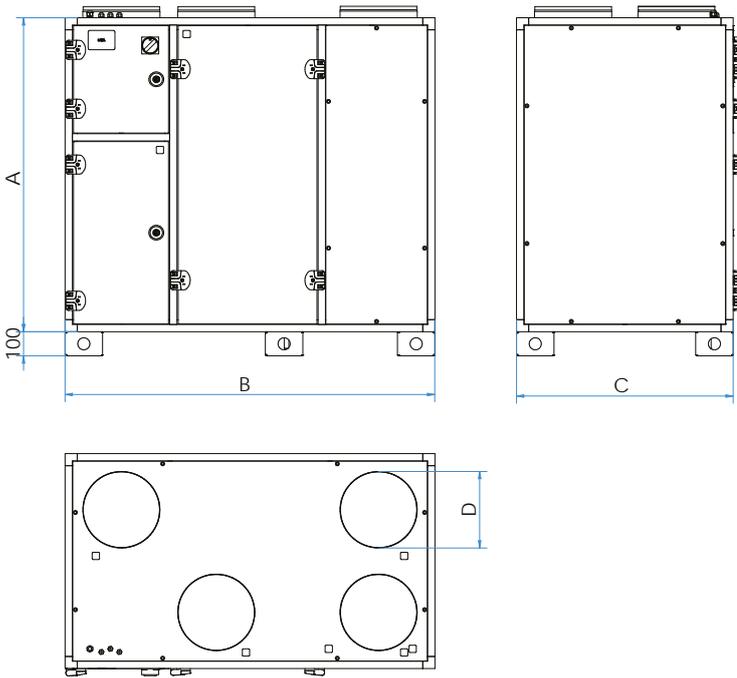
MODEL	FAN				UNIT CRHE-TOP		
	Power [W]	Supply	Current max. [A]	Insulation class	Supply	Current max. [A]	Insulation class
CRHE TOP 1	2 x 161	230V 50 Hz 1F	2 x 1,0	IP54 CLASS B	230V 50 Hz 1F	2,5	IP 20
CRHE TOP 2	2 x 193	230V 50 Hz 1F	2 x 1,2	IP54 CLASS B	230V 50 Hz 1F	2,9	IP 20
CRHE TOP 3	2 x 448	230V 50 Hz 1F	2 x 2,8	IP54 CLASS B	230V 50 Hz 1F	6,2	IP 20
CRHE TOP 4	2 x 448	230V 50 Hz 1F	2 x 2,8	IP54 CLASS B	230V 50 Hz 1F	6,2	IP 20
CRHE TOP 5	2 x 1000	400V 50 Hz 3F	2 x 1,6	IP55 CLASS F	400V 50 Hz 3F	3,3	IP 20
CRHE TOP 6	2 x 1100	400V 50 Hz 3F	2 x 1,7	IP54 CLASS B	400V 50 Hz 3F	3,8	IP 20



ELECTRICAL RESISTANCE DATA BEFORE/AFTER HEATING

MODEL	Supply	Power [kW]	Current [A]
CRHE TOP 1	230V, 50 Hz, 1 F	2	8,7
CRHE TOP 2	230V, 50 Hz, 1 F	3	13,4
CRHE TOP 3	400V, 50 Hz, 3 F	6	8,7
CRHE TOP 4	400V, 50 Hz, 3 F	6	8,7
CRHE TOP 5	400V, 50 Hz, 3 F	8	11,6
CRHE TOP 6	400V, 50 Hz, 3 F	12	17,3

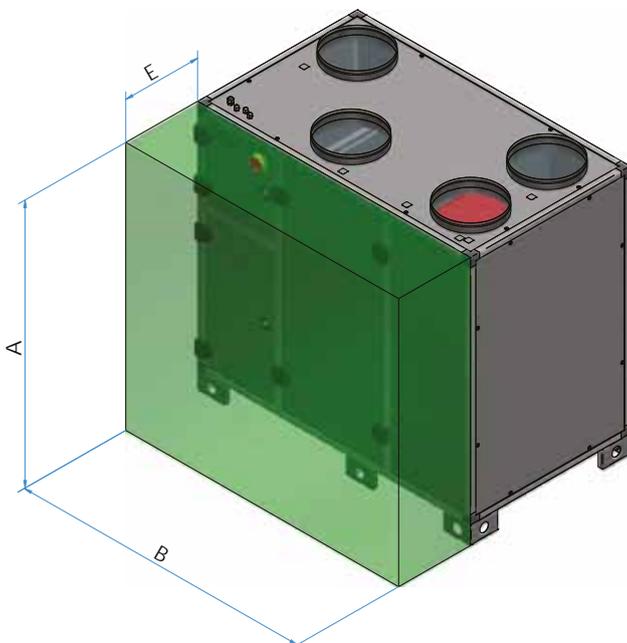
DIMENSIONS AND WEIGHT



MODEL	Dimensions [mm]				
	A	B	C	D	Weight [kg]
CRHE TOP 1	1100	1100	610	200	125
CRHE TOP 2	1200	1300	700	250	175
CRHE TOP 3	1300	1520	890	315	211
CRHE TOP 4	1300	1700	1000	355	252
CRHE TOP 5	1500	1900	1060	400	300
CRHE TOP 6	1600	2200	1400	500	419

FLOOR INSTALLATION

Minimum required space for maintenance (mm)



MODEL	Dimensions [mm]		
	A	B	E
CRHE TOP 1	1200	1100	500
CRHE TOP 2	1300	1300	500
CRHE TOP 3	1400	1520	750
CRHE TOP 4	1400	1700	500
CRHE TOP 5	1600	1900	500
CRHE TOP 6	1700	2200	650

A	Manufacturer's name	C.L.A. S.r.l.
B	Manufacturer's model identifier	
C	Declared typology	CRHE-TOP 1 EVO-PH SV
D	Type of drive installed	CRHE-TOP 2 EVO-PH SV
E		CRHE-TOP 3 EVO-PH SV
F	Thermal efficiency of heat recovery [%]	CRHE-TOP 4 EVO-PH SV
G	Nominal NRJU flow rate [m³/s]	
H	Effective electric power input [kW]	
I	SFPint [W/(m³/s)]	
J	Face velocity at design flow rate [m/s]	
K	Nominal external pressure [Pa]	
L	Internal pressure drop of ventilation components [Pa]	
M	Optional: internal pressure drop of non-ventilation components	
N	Static efficiency of fans used in accordance with Regulation (EU) No 327/2011 [%]	
O	Declared maximum external leakage rate of the casing of ventilation units [%]	
	Declared maximum internal leakage rate of bidirectional ventilation units or carry over (for regenerative heat exchangers only) [%]	
P	Energy performance, preferably energy classification, of the filters (declared information about the calculated annual energy consumption)	
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	Casing sound power level (LWA) [dB]	
S	Internet address for pre-/dis-assembly instructions	
		UVNR / UVB
		Variable speed drive
		other
		80,9
		0,17
		0,26
		1017
		1,8
		100
		749
		-
		58,8
		7,8
		10,1
		ePM1 55% (F7) ePM10 50% (M5)
		Filter warning is signaled on the display of the control system: the flashing writing "DirtyFilters" will appear. "To preserve the energy efficiency of the NRJU, it's recommended to replace the filters when signaled." Positioned near the filters inspection.
		60,5
		60,5
		5,1
		8,7
		ePM1 55% (F7) ePM10 50% (M5)
		ePM1 55% (F7) ePM10 50% (M5)
		64,4
		64,5
		60,7
		60,5
		www.utek-air.it



A	Manufacturer's name	C.L.A. S.r.l.	
B	Manufacturer's model identifier	CRHE-TOP 5 EVO-PH SV	CRHE-TOP 6 EVO-PH SV
C	Declared typology	UVNR / UVB	UVNR / UVB
D	Type of drive installed	Variable speed drive	Variable speed drive
E		other	other
F	Thermal efficiency of heat recovery [%]	81,9	82,2
G	Nominal NRVU flow rate [m ³ /s]	0,86	1,31
H	Effective electric power input [kW]	1,56	2,12
I		1226	1169
J	Face velocity at design flow rate [m/s]	2,16	2,33
K	Nominal external pressure [Pa]	100	100
L	Internal pressure drop of ventilation components [Pa]	700	718
M	Optional: internal pressure drop of non-ventilation components		-
N	Static efficiency of fans used in accordance with Regulation (EU) No 327/2011 [%]	53,9	63,4
	Declared maximum external leakage rate of the casing of ventilation units [%]	3,6	4,0
O	Declared maximum internal leakage rate of bidirectional ventilation units or carry over (for regenerative heat exchangers only) [%]	4,4	4,6
P	Energy performance, preferably energy classification, of the filters (declared information about the calculated annual energy consumption)	ePM1 55% (F7) ePM10 50% (M5)	ePM1 55% (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]	68,2	67,9
S	Internet address for pre-/dis-assembly instructions	www.utek-air.it	

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

AZIENDA CON
SISTEMA DI GESTIONE
AMBIENTALE CERTIFICATO
DA DNV
ISO 14001

CRHE-TOP_2022_1_IT validity from 10/10/2025



CLA & UTEK si riserva di apportare in qualsiasi momento le modifiche necessarie per migliorare i prodotti, senza obbligo di preavviso.



TERTIARY SECTOR AND INDUSTRY