Compact heat recovery unit with high efficiency counter-flow heat exchanger in 5 sizes from 580 m^3/h to 3.650 m^3/h. The casing is made from aluminium profile frame with simple skinned galvanized steel panels with internal insulation.
It is designed to be as compact as possible for false ceiling applications.
The casings incorporate top, bottom and side access panels for maintenance.
The units are available only in horizontal version.

Applications
Public buildings, commercial offices, stores, schools and restaurants.

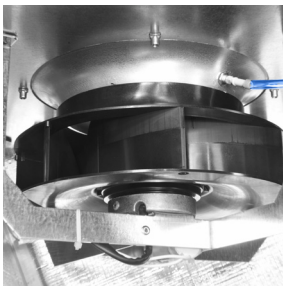
Fans
Equipped with backward plug-fans all the ENERGY-BOX HE models, comply with the ErP-2018 requirements

Motors
Multi-speed AC, IP-44, Class F (Models 600,1000,1400 and 2300). Not compatible with voltage regulators.
EC IP54, Clase B (Model 3700) Regulable by external signal 0-10V (Model 3700).

Filters
- F7: Low pressure F7 filters for supply air.
- M5: M5 filters for extract air.
- Possibility of mounting a second filter (accessory).

By-pass
All models include internal by-pass damper with rotative actuator factory mounted

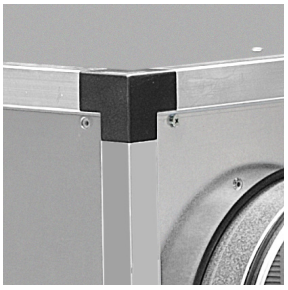
Additional information
Fans electrical supply (1/230V 50Hz)
By-pass electrical supply (1/230V 50Hz) can be actuated by means of a 3 position.
Horizontal version.
Highest mounting flexibility given by the interchangeable side panels.



Plug-fans
High efficiency backward fans with multispeed motor.
EC fans in ENERGY-BOX HE 3700

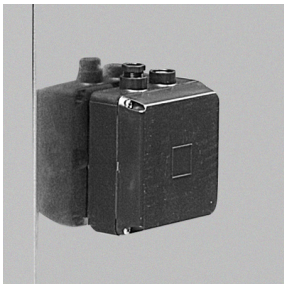
Easy mounting
Single phase models with integrated mounting feets

Airtight connectors
Inlet and discharge connection flanges with EPDM rubber seal strip.



Robust construction
High quality finishing with aluminium profile and Nylon corners.

Condensation drain
Units include the drain pipe to evacuate the condensate.



External terminal box
IP65 terminal box fixed on the casing for easy wiring access.

ErP OK

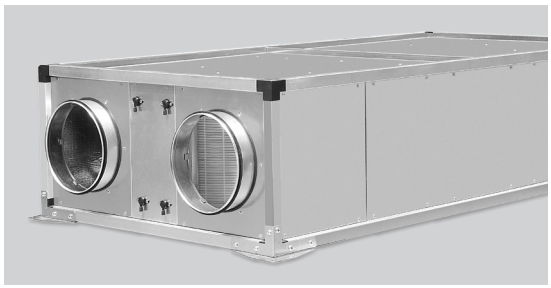
F7
Supply side

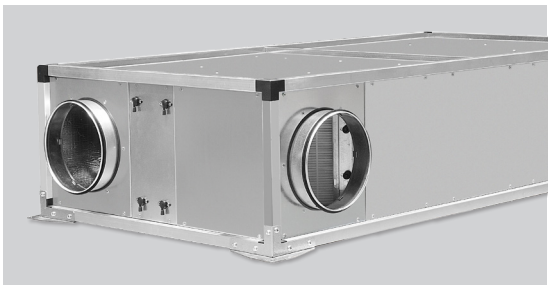
M5
Extract side

Specific applications

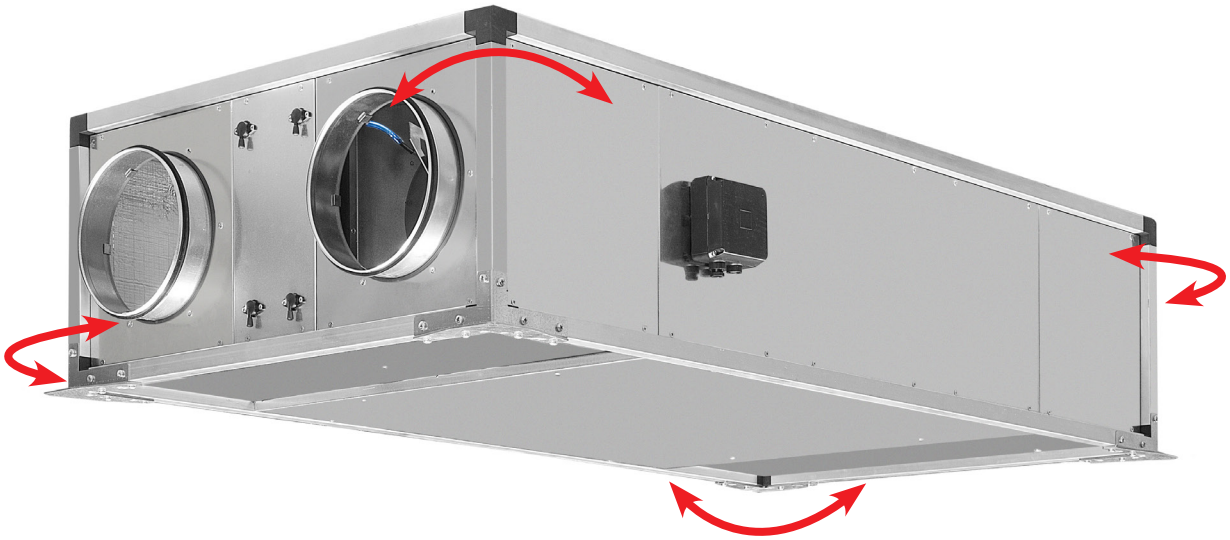
Heat recovery units

HIGHEST FLEXIBILITY



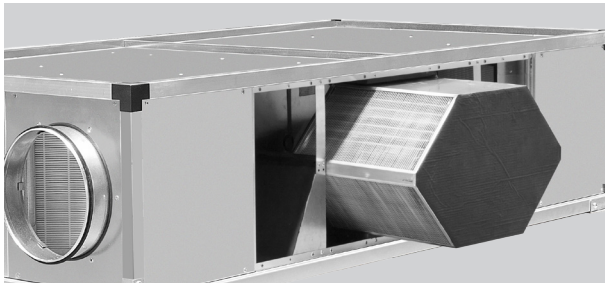


Versatile assembly
The design of our heat recovery units makes it possible for the user to configure them on site. All side panels are interchangable, which makes it possible to directly position the intake and outtake connections on site depending on the specific requirements.



All side panels are interchangable.

Easy maintainance
Rapid acces to the filters from bottom and side.



Easy access for cleaning the counterflow exchanger from top and bottom.
The counter-flow exchangers are certified by EUROVENT.

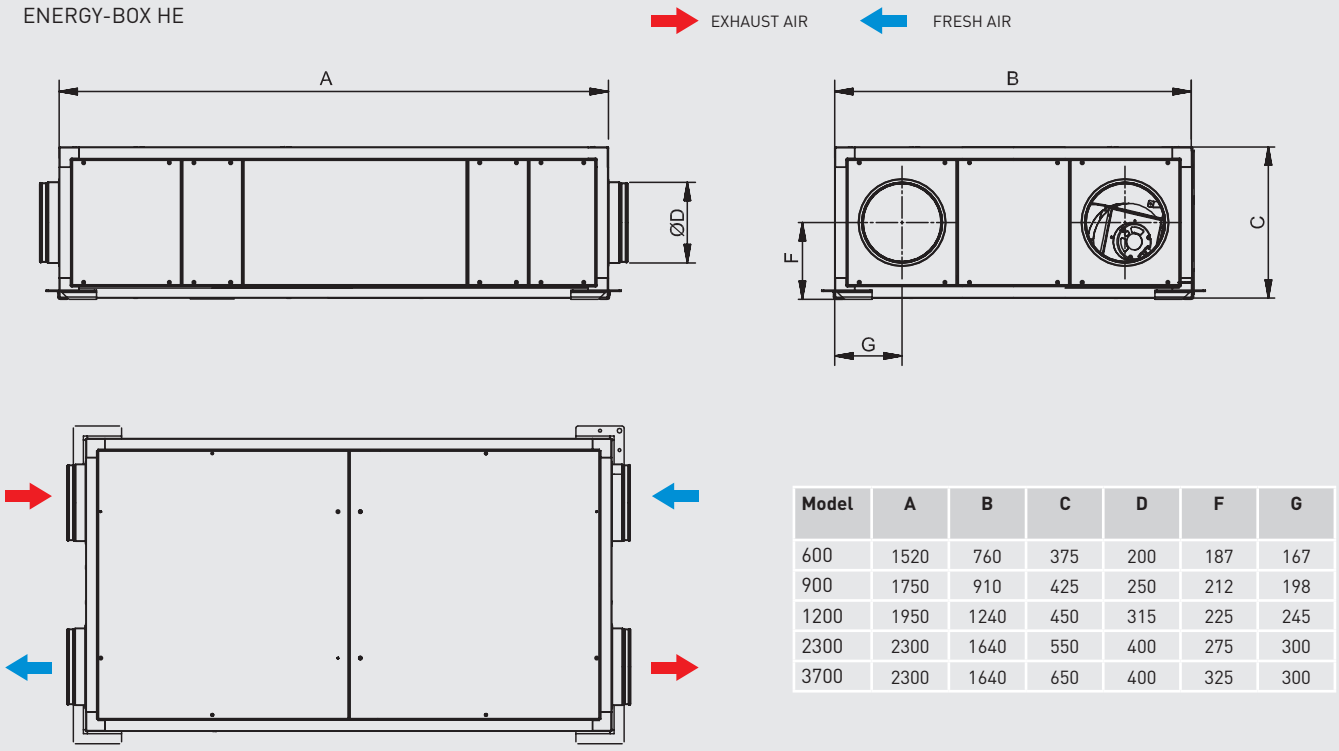
TECHNICAL CHARACTERISTICS

	Complete unit			Fan						
Model	**Air connections diameter (mm.)**	**Maximum airflow (m3/h)**	**Efficiency (%)***	**Electrical supply**	**Max. Speed (r.p.m.)**	**Maximum power (W) each fan side**	**Maximum Abs. Current (A) each fan side**	**Protection (IP)**	**Class**	**Weight (kg)**
ENERGY-BOX HE 600	200	580	84	1/230V, 50Hz	2783	144	0,6	IP44	F	76
ENERGY-BOX HE 900	250	920	84	1/230V, 50Hz	2744	244	1,1	IP44	F	119
ENERGY-BOX HE 1200	315	1230	85	1/230V, 50Hz	2600	286	1,3	IP44	F	178
ENERGY-BOX HE 2300	400	2200	84,5	1/230V, 50Hz	2630	647	2,9	IP44	F	302
ENERGY-BOX HE 3700	400	3650	88	1/230V, 50Hz	2257	1126	4,5	IP54	B	417

* Wet efficiency refered to the following conditions: Outdoor temperature -5ºC, Indoor temperature +20ºC and RH 50% / Airflow = 70% of maximum airflow.
** Sound pressure level in free field conditions.

DIMENSIONS (mm)

ENERGY-BOX HE

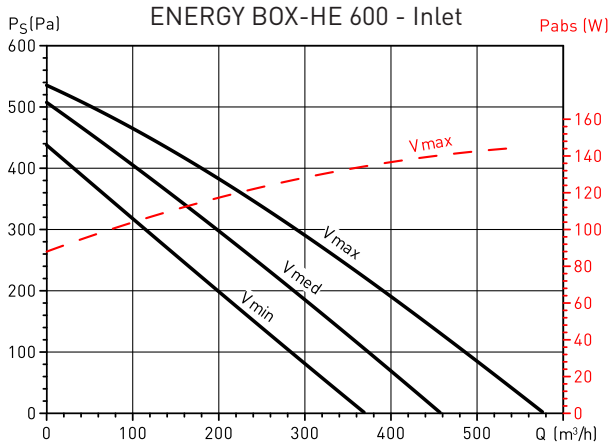


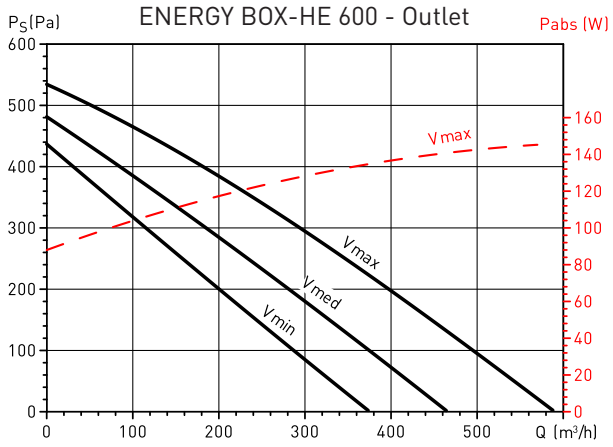
Model	A	B	C	D	F	G
600	1520	760	375	200	187	167
900	1750	910	425	250	212	198
1200	1950	1240	450	315	225	245
2300	2300	1640	550	400	275	300
3700	2300	1640	650	400	325	300

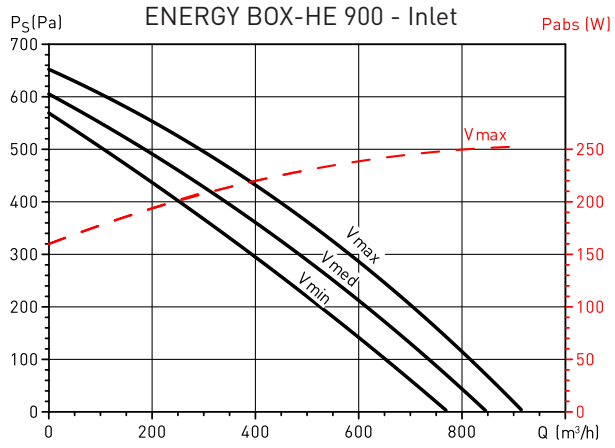
Note: It is possible to obtain the psimetrical configuration:
BLUE: EXHAUST AIR
RED: FRESH AIR
just by interchanging the position of the fans terminals

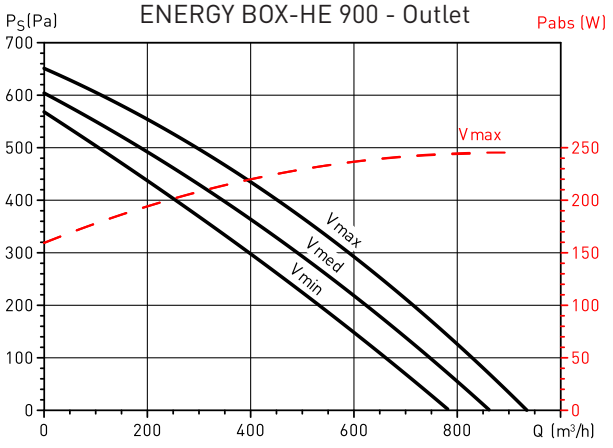
PERFORMANCE CURVES

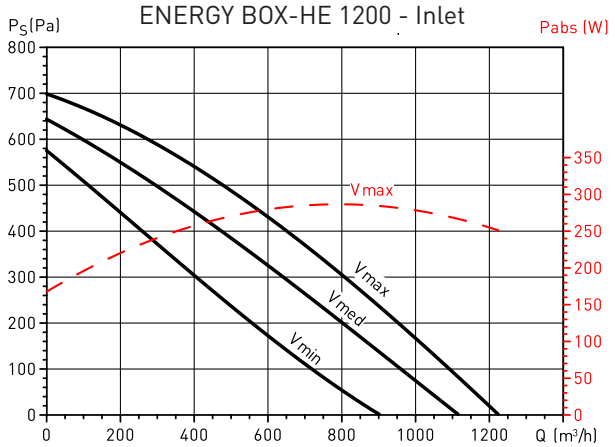
- q_v: Airflow in m^3/h.
- p_{sf}: Static pressure in Pa.
- Pabs: Absorbed power at maximum speed (W).
- Dry air at 20ºC and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.

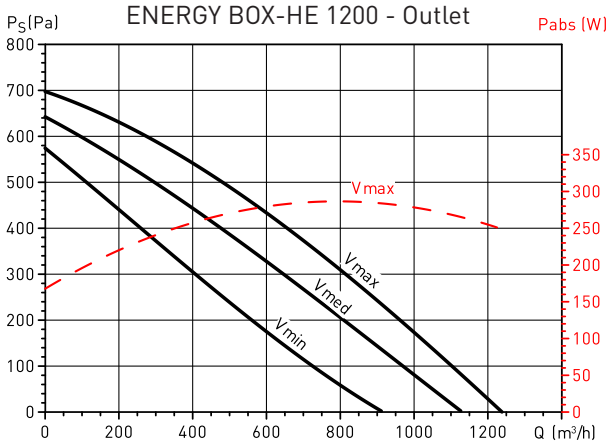












PERFORMANCE CURVES

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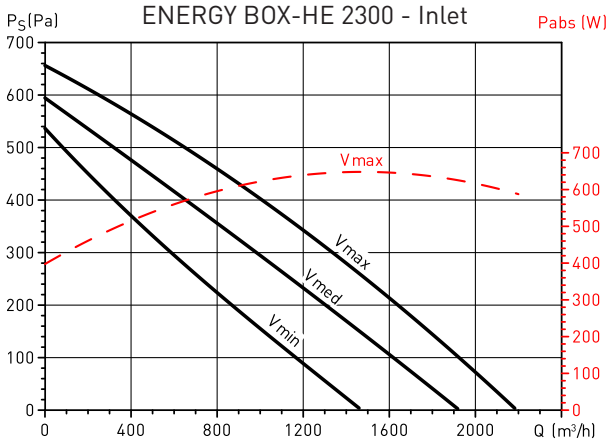
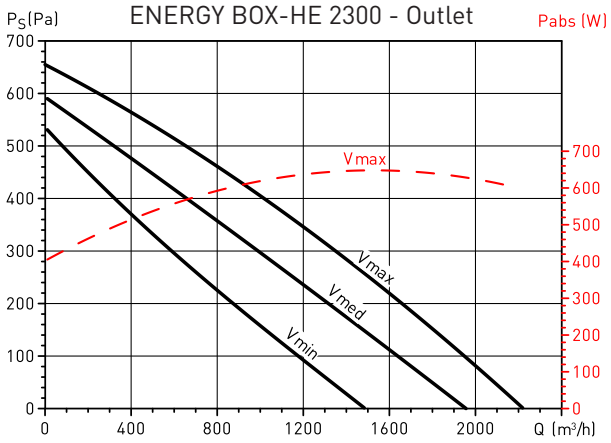
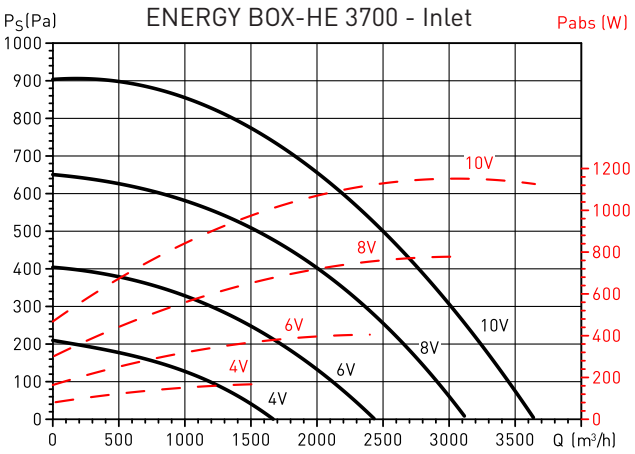
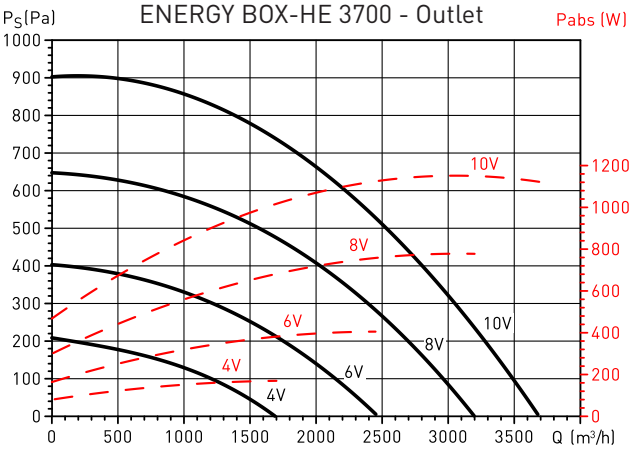


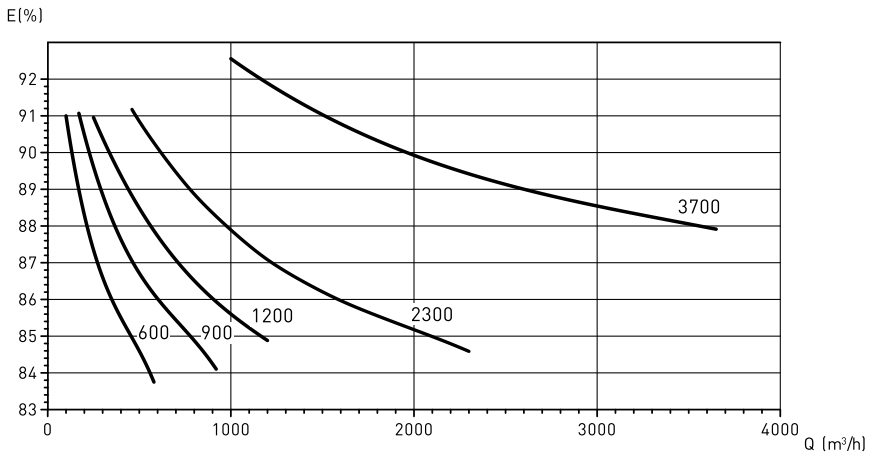






EVOLUTION OF RECOVERY EFFICIENCY DEPENDING ON THE AIRFLOW

Values with the following conditions:
Outside Air: Temperature= -5ºC, HR = 80%.
Inside Air: Temperature= 20ºC, HR = 50%.



ACCESSORIES TABLE

For more information see "Heat recovery accessories" and/or "Mounting accessories".
Mounting accessories supplied with a finish of galvanized sheet without painting.




Model	Ø (mm)	AFR-HE (Filters. Accessory and Spare parts)				SIL Silencer	APC Inlet/ Outlet protection guards	Circular flexible connector
		G4	M5	F7	F9			
ENERGY-BOX HE 600	200	AFR-HE 200/04 G4	AFR-HE 200/04 M5	AFR-HE 200/04 F7	AFR-HE 200/04 F9	SIL-200	APC-200	ACOPEL F400-200/160N
ENERGY-BOX HE 900	250	AFR-HE 250/08 G4	AFR-HE 250/08 M5	AFR-HE 250/08 F7	AFR-HE 250/08 F9	SIL-250	APC-250	ACOPEL F400-250/160N
ENERGY-BOX HE 1200	315	AFR-HE 315/16 G4	AFR-HE 315/16 M5	AFR-HE 315/16 F7	AFR-HE 315/16 F9	SIL-315	APC-315	ACOPEL F400-315/160N
ENERGY-BOX HE 2300	400	AFR-HE 400/21 G4	AFR-HE 400/21 M5	AFR-HE 400/21 F7	AFR-HE 400/21 F9	SIL-400	APC-400	ACOPEL F400-400/160N
ENERGY-BOX HE 3700	400	AFR-HE 400/33 G4	AFR-HE 400/33 M5	AFR-HE 400/33 F7	AFR-HE 400/33 F9	SIL-400	APC-400	ACOPEL F400-400/160N

ELECTRICAL ACCESSORIES

Required control elements for regulating the fan speed.

For more information see "Heat recovery accessories" and/or "Electrical accessories".


Model	Accessories for manual speed control	
	3 Speed+Off Switch	0-10V potentiometer
ENERGY-BOX HE 600	INTER-4P	-
ENERGY-BOX HE 900	INTER-4P	-
ENERGY-BOX HE 1200	INTER-4P	-
ENERGY-BOX HE 2300	INTER-4P	-
ENERGY-BOX HE 3700	-	REB-ECOWATT