



FILTERS

Compact heat recovery unit with cross-flow heat exchanger in 8 sizes from 500 m³/h to 5.400 m³/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.

Motors

IP44, Class F (Models 500, 900, 4400 and 5200).

IP20, Class F (Models 1200, 1900, 2400 and 3300).

Fans

All fans installed in ENERGY BOX models, comply with the efficiency requirements of the ErP Directive 

Filters

- G4: Low pressure G4 filters for supply and extract air.

Additional information


Single phase and three phase models.

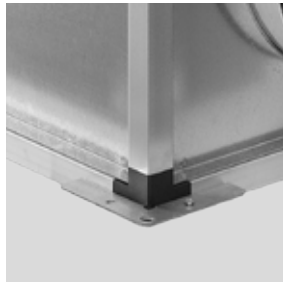
Horizontal version.

Highest mounting flexibility given by the interchangeable side panels.

Specific applications



All fans installed in CADB/T-N models, comply with the efficiency requirements of the ErP Directive. 



Easy mounting
Single phase models with integrated mounting feet (from 500 to 3200).



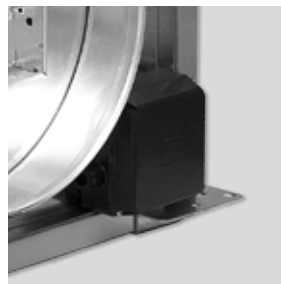
Airtight connectors
Inlet and discharge connection flanges with EPDM rubber seal strip.



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



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



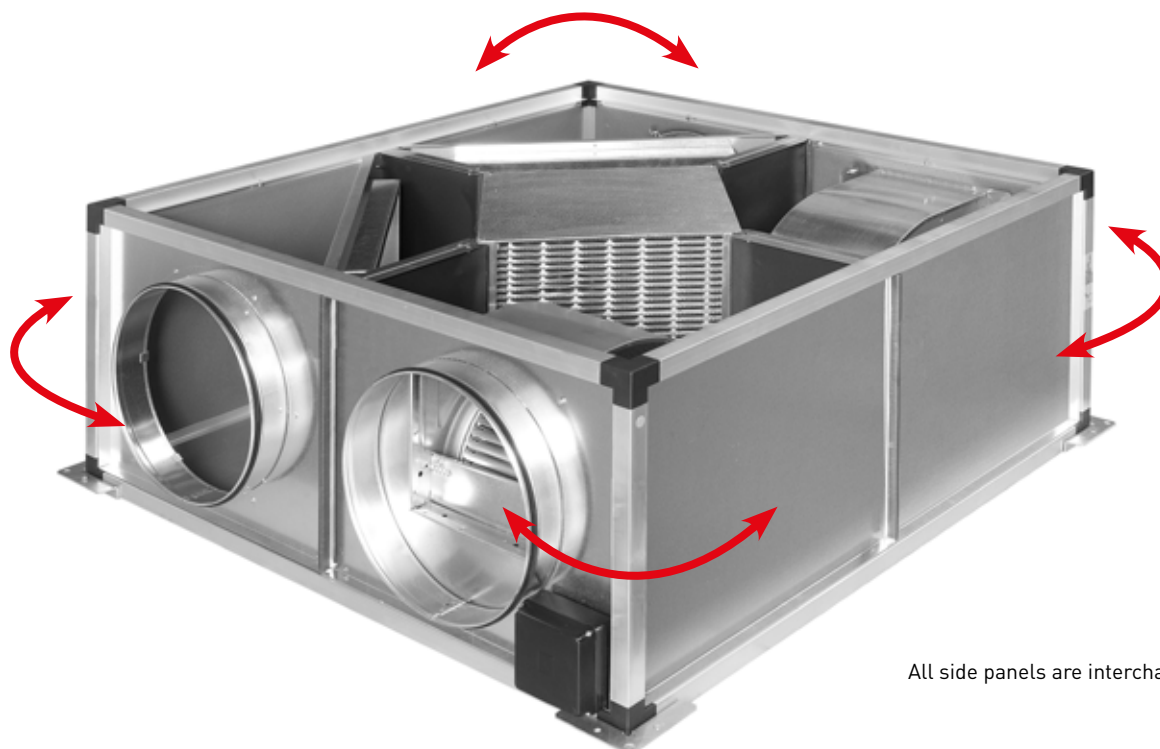
External terminal box
IP65 terminal box fixed on the casing for easy wiring access.

HIGHEST FLEXIBILITY

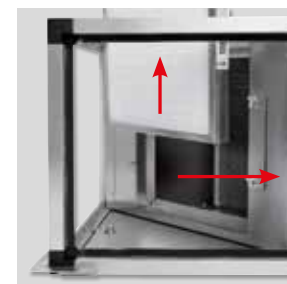


Versatile assembly

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



All side panels are interchangeable.



Easy maintainance

Rapid access to the filters from top, bottom and side.



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

TECHNICAL CHARACTERISTICS

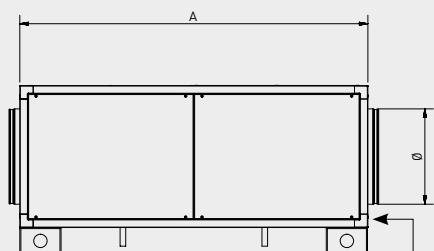
| Model | Maximum airflow (m ³ /h) | Motor power (kW) | Maximum absorbed current (A) | | Speed (rpm) | Protection (IP) | Efficiency* (%) | Sound pressure level at 3m** (dB(A)) | | |
|-----------------|-------------------------------------|------------------|------------------------------|---------------|-------------|-----------------|-----------------|--------------------------------------|--------|----------|
| | | | 230V 50Hz | 230/400V 50Hz | | | | Inlet | Outlet | Radiated |
| ENERGY BOX 500 | 500 | 2 x 0,29 | 2 x 1,32 | - | 2880 | IP44 | 53,9 | 42 | 55 | 41 |
| ENERGY BOX 900 | 890 | 2 x 0,3 | 2 x 1,38 | - | 2880 | IP44 | 57,9 | 42 | 55 | 41 |
| ENERGY BOX 1200 | 1.420 | 2 x 0,373 | 2 x 2,75 | - | 1357 | IP20 | 57,5 | 54 | 66 | 52 |
| ENERGY BOX 1900 | 2.000 | 2 x 0,373 | 2 x 2,75 | - | 1357 | IP20 | 52,0 | 54 | 66,5 | 52,5 |
| ENERGY BOX 2400 | 2.400 | 2 x 0,55 | 2 x 4,44 | - | 1324 | IP20 | 52,8 | 55 | 67 | 53 |
| ENERGY BOX 3300 | 3.350 | 2 x 0,55 | 2 x 4,4 | - | 1251 | IP20 | 51,7 | 55 | 67,5 | 53 |
| ENERGY BOX 4400 | 4.600 | 2 x 1,5 | - | 2 x 10,1/5,8 | 1462 | IP44 | 50,6 | 57 | 70 | 56 |
| ENERGY BOX 5200 | 5.400 | 2 x 1,5 | - | 2 x 10,1/5,8 | 1462 | IP44 | 51,5 | 58 | 71 | 57 |

* Values referring to the following conditions: Outdoor temperature -5°C, Indoor temperature +20°C and RH 50% / Airflow = 70% of maximum airflow.

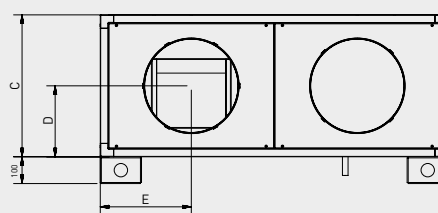
** Sound pressure level in free field conditions.

DIMENSIONS (mm)

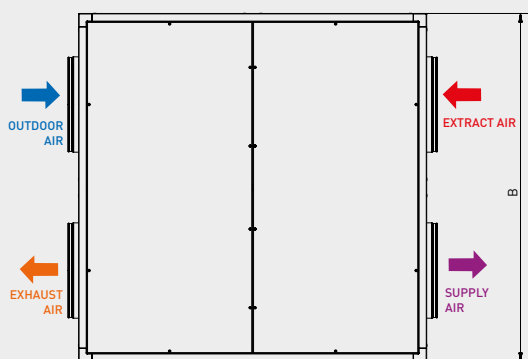
VERSION D - Horizontal configuration (H)



Mounting bracket (models 500 to 3300)



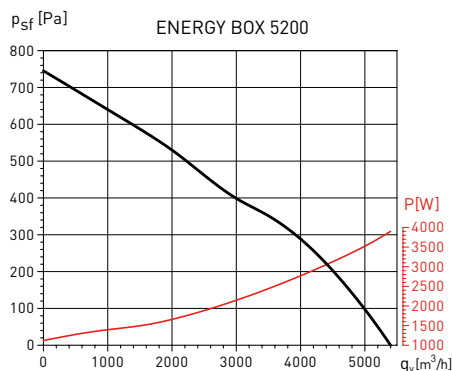
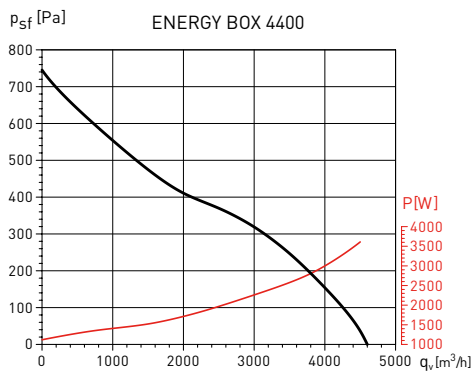
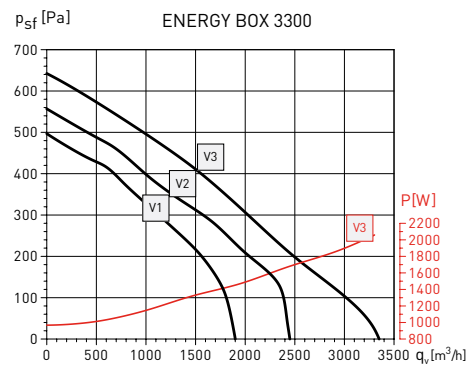
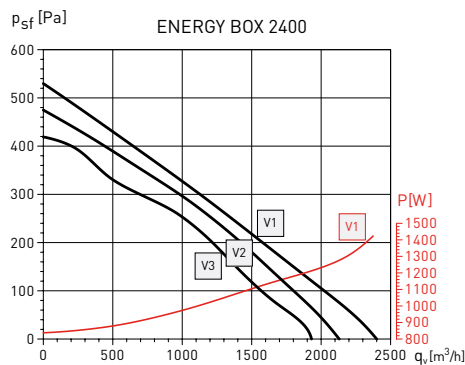
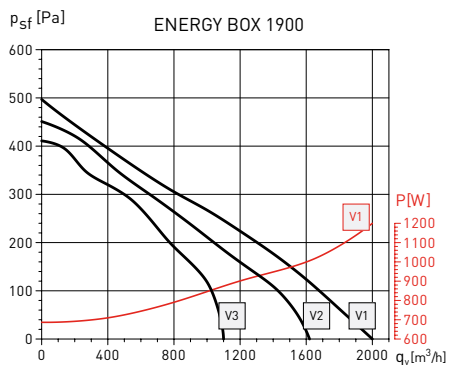
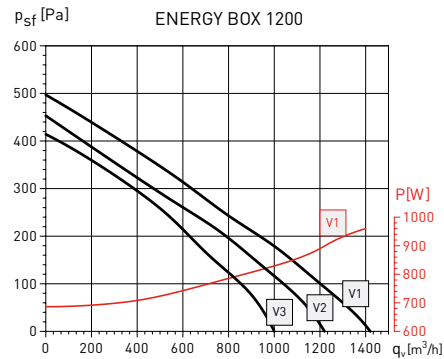
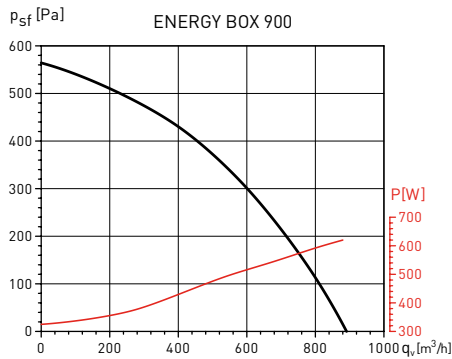
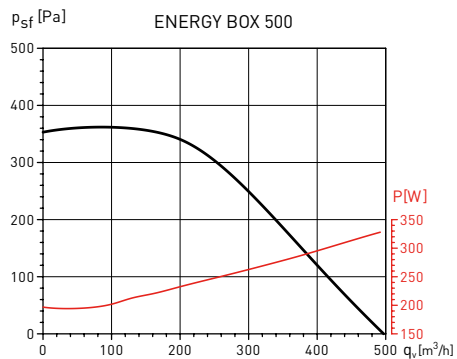
Support feet (models 4400 and 5200). Only location on flat surface.



| Model | A | B | C | D | E | Ø | Weight (kg) |
|-----------------|------|------|-----|-----|-----|-----|-------------|
| ENERGY BOX 500 | 650 | 650 | 360 | 180 | 178 | 200 | 46 |
| ENERGY BOX 900 | 850 | 850 | 360 | 180 | 228 | 250 | 65 |
| ENERGY BOX 1200 | 1050 | 1050 | 500 | 250 | 278 | 315 | 113 |
| ENERGY BOX 1900 | 1150 | 1150 | 500 | 250 | 303 | 355 | 123 |
| ENERGY BOX 2400 | 1300 | 1300 | 530 | 265 | 340 | 355 | 154 |
| ENERGY BOX 3300 | 1500 | 1500 | 530 | 265 | 390 | 400 | 190 |
| ENERGY BOX 4400 | 1600 | 1600 | 600 | 300 | 415 | 450 | 215 |
| ENERGY BOX 5200 | 2000 | 2000 | 650 | 325 | 515 | 500 | 400 |

PERFORMANCE CURVES

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

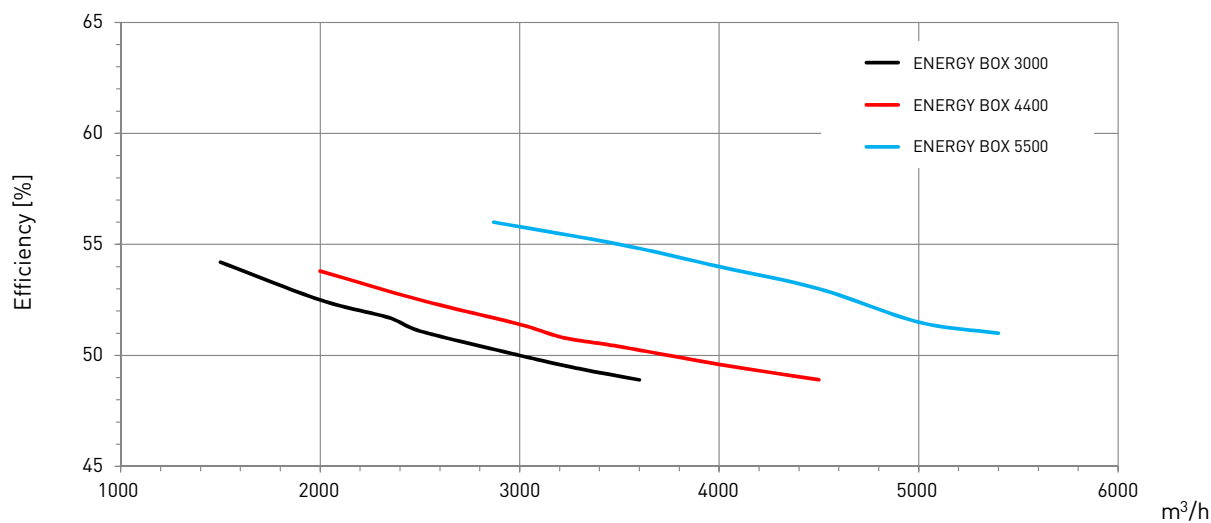
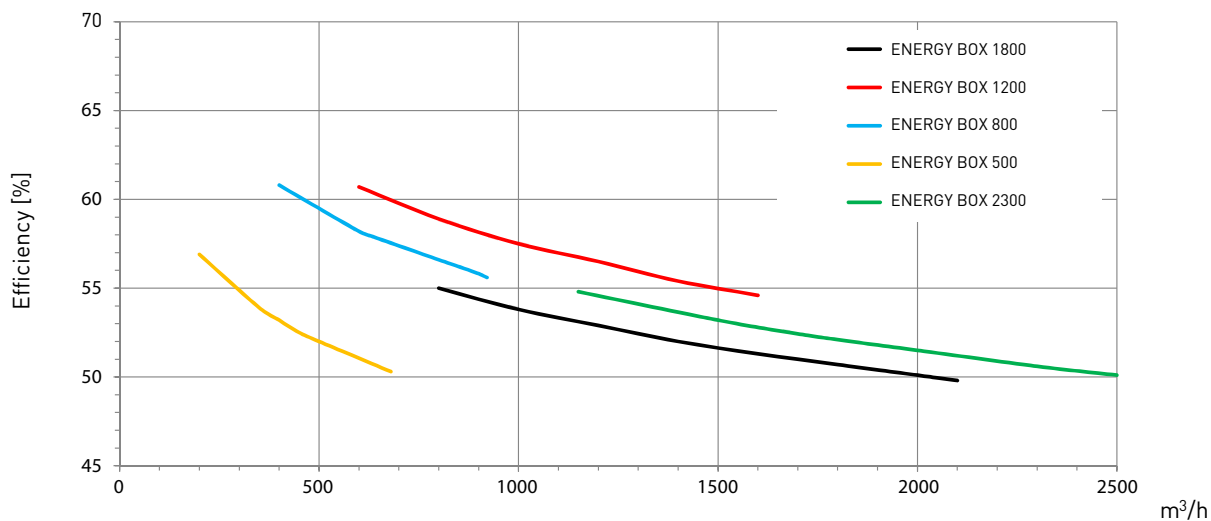


EVOLUTION OF RECOVERY EFFICIENCY DEPENDING ON THE AIRFLOW

Values with the following conditions:

Outside Air: Temperature= -5°C, HR = 80%.

Inside Air: Temperature= 20°C, 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-N (spare filter for CADB/T-N) | | | | APC Inlet/outlet protection guards | ACOPEL F400 N Circular flexible connector | SIL Circular sound attenuators |
|-----------------|--------|-----------------------------------|-----------------|-----------------|-----------------|------------------------------------|-------------------------------------------|--------------------------------|
| | | AFR-N G4 | AFR-N M5 | AFR-N F7 | AFR-N F9 | | | |
| ENERGY BOX 500 | 200 | AFR-N-200/05 G4 | AFR-N-200/05 M5 | AFR-N-200/05 F7 | AFR-N-200/05 F9 | APC-200 | ACOPEL F400-200/160 N | SIL-200 |
| ENERGY BOX 900 | 250 | AFR-N-250/08 G4 | AFR-N-250/08 M5 | AFR-N-250/08 F7 | AFR-N-250/08 F9 | APC-250 | ACOPEL F400-250/160 N | SIL-250 |
| ENERGY BOX 1200 | 315 | AFR-N-315/12 G4 | AFR-N-315/12 M5 | AFR-N-315/12 F7 | AFR-N-315/12 F9 | APC-315 | ACOPEL F400-315/160 N | SIL-315 |
| ENERGY BOX 1900 | 355 | AFR-N-355/18 G4 | AFR-N-355/18 M5 | AFR-N-355/18 F7 | AFR-N-355/18 F9 | APC-355 | ACOPEL F400-355/160 N | SIL-355 |
| ENERGY BOX 2400 | 355 | AFR-N-355/23 G4 | AFR-N-355/23 M5 | AFR-N-355/23 F7 | AFR-N-355/23 F9 | APC-355 | ACOPEL F400-355/160 N | SIL-355 |
| ENERGY BOX 3300 | 400 | AFR-N-400/30 G4 | AFR-N-400/30 M5 | AFR-N-400/30 F7 | AFR-N-400/30 F9 | APC-400 | ACOPEL F400-400/160 N | SIL-400 |
| ENERGY BOX 4400 | 450 | AFR-N-450/45 G4 | AFR-N-450/45 M5 | AFR-N-450/45 F7 | AFR-N-450/45 F9 | APC-450 | ACOPEL F400-450/160 N | SIL-450 |
| ENERGY BOX 5200 | 500 | AFR-N-500/55 G4 | AFR-N-500/55 M5 | AFR-N-500/55 F7 | AFR-N-500/55 F9 | APC-500 | ACOPEL F400-500/160 N | SIL-500 |

TPP-N

Rain Protection Cowls

Rain protection cowls are supplied with a finish of galvanized sheet without painting.

| Heat recovery unit model | Rain protection cowl model TPP-N |
|--------------------------|----------------------------------|
| ENERGY BOX 500 | TPP-N D-H 05 |
| ENERGY BOX 900 | TPP-N D-H 08 |
| ENERGY BOX 1200 | TPP-N D-H 12 |
| ENERGY BOX 1900 | TPP-N D-H 18 |
| ENERGY BOX 2400 | TPP-N D-H 23 |
| ENERGY BOX 3300 | TPP-N D-H 30 |
| ENERGY BOX 4400 | TPP-N D-H 45 |
| ENERGY BOX 5200 | TPP-N D-H 55 |

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 switch | Electronic speed control | Autotransformer | Variable frequency inverter |
| ENERGY BOX 500 | - | REB-5 | RMB-3,5 | - |
| ENERGY BOX 900 | - | REB-5 | RMB-3,5 | - |
| ENERGY BOX 1200 | COM-3 | REB-10 | RMB-8 | - |
| ENERGY BOX 1900 | COM-3 | REB-10 | RMB-8 | - |
| ENERGY BOX 2400 | COM-3 | REB-10 | RMB-10 | - |
| ENERGY BOX 3300 | COM-3 | REB-10 | RMB-10 | - |
| ENERGY BOX 4400 | - | - | - | VFTM TRI 4 |
| ENERGY BOX 5200 | - | - | - | VFTM TRI 4 |