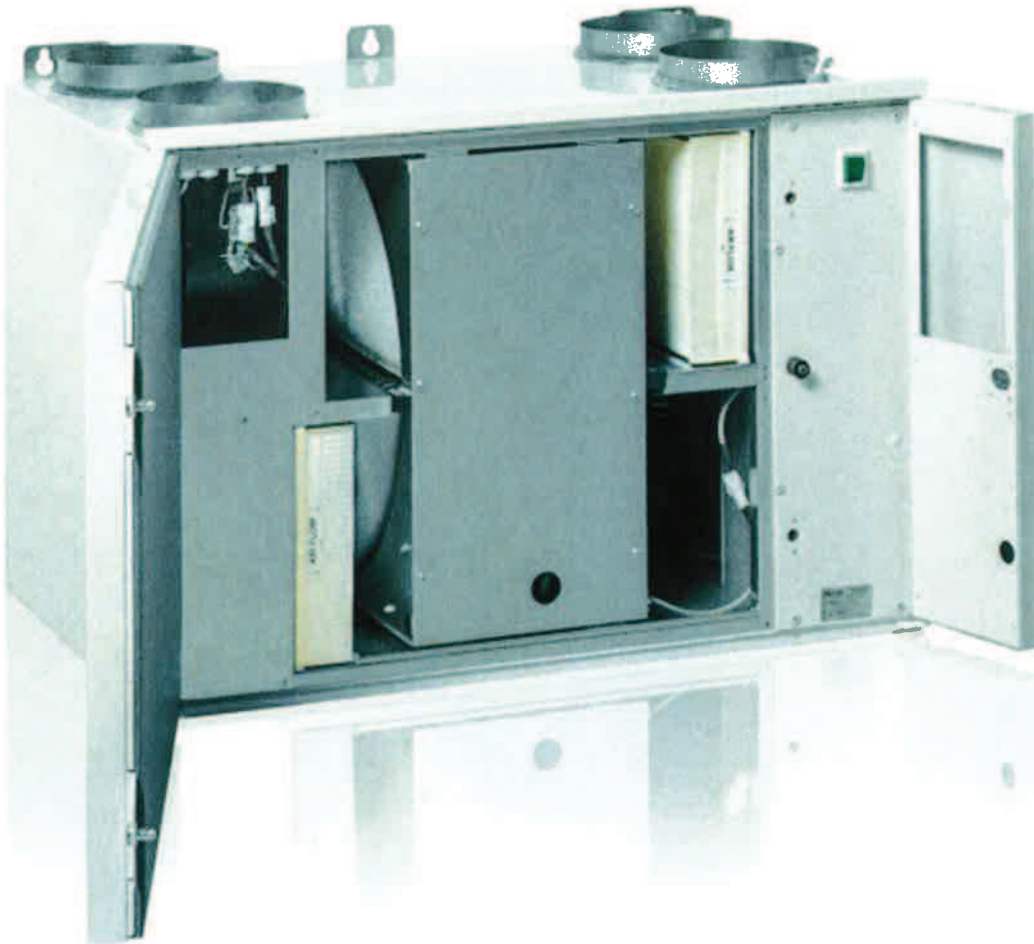




Saves Your Energy

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revision 5  
1 (20)

## Pingvin XL epbd-test



Performance of ventilation units Enervent Pingvin XL eco ECE, eco EC, eco EDE and MDE

- thermal efficiency
- maximum electric power
- Summer by-pass (summer night cooling)



### **Assignment**

Performance of ventilation unit Enervent Pingvin XL eco EC, eco ECE, eco EDE and MDE

### **Measurements**

The thermal efficiency of the ventilation unit was determined following the standard NBN EN 308 in accordance with the procedure described in §5.2.1 of document doc\_4.4\_S.a. of EPBD specific procedures.

The maximum electric power used by the machine was measured in accordance with the procedure described in §5.1.3 of document doc\_4.4\_S.a. of EPBD specific procedures.

Pingvin XL eco EC was the same unit as Pingvin XL eco ECE but with the supply air heater detached from the unit.

The measurements took place in August-September 2013 and in May 2014 in the lab of Ensto Enervent Oy, Kipinätie 1, 06150 Porvoo, FINLAND

### **Results of the measurements**

#### Pingvin XL eco EC

- Thermal efficiency  $\eta_{t,epb}$  79,2 % at flow rate  $\leq 255 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,1 % at flow rate  $\leq 407 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,2 % at flow rate  $\leq 455 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  77,3 % at flow rate  $\leq 497 \text{ m}^3/\text{h}$
- Maximum electric power F5/F5 filters 344 W
- Maximum electric power F7/F5 filters 343 W
- Summer by-pass: By-pass complete

#### Pingvin XL eco ECE

- Thermal efficiency  $\eta_{t,epb}$  79,2 % at flow rate  $\leq 255 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,1 % at flow rate  $\leq 407 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,2 % at flow rate  $\leq 455 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  77,3 % at flow rate  $\leq 497 \text{ m}^3/\text{h}$
- Maximum electric power F5/F5 filters 344 W
- Maximum electric power F7/F5 filters 343 W
- Summer by-pass: By-pass complete



### Pingvin XL eco EDE

- Thermal efficiency  $\eta_{t,epb}$  79,2 % at flow rate  $\leq 255 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,1 % at flow rate  $\leq 407 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,2 % at flow rate  $\leq 455 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  77,3 % at flow rate  $\leq 497 \text{ m}^3/\text{h}$
- Maximum electric power F5/F5 filters 347 W
- Maximum electric power F7/F5 filters 349 W
- Summer by-pass: By-pass complete

### Pingvin XL MDE

- Thermal efficiency  $\eta_{t,epb}$  79,2 % at flow rate  $\leq 255 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,1 % at flow rate  $\leq 407 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  78,2 % at flow rate  $\leq 455 \text{ m}^3/\text{h}$
- Thermal efficiency  $\eta_{t,epb}$  77,3 % at flow rate  $\leq 497 \text{ m}^3/\text{h}$
- Maximum electric power M5/M5 filters 347 W
- Maximum electric power F7/M5 filters 347 W
- Summer by-pass: By-pass complete

### Additional information:

Fans motor type: All models are equipped with DC fans

Automatic regulation: No

Humidity-based control: One built-in humidity sensor on Pingvin XL eco EDE and MDE models. Controls fan speed according to indoor humidity level.

Possible on Pingvin XL eco EC and eco ECE models with separate hygrostat (sold separately).

CO<sub>2</sub> level control: Possible on Pingvin XL eco EDE and MDE models; CO<sub>2</sub> sensors are sold separately. Controls fan speed according to indoor Carbon dioxide level.

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