



## Heat recovery units without heating battery $\leq 2400 \text{ m}^3/\text{h}$ (counterflow) type Neotime First

High efficiency heat recovery unit up to 85%. The range includes 5 sizes and 2 types for flow rates from 100 to  $2400 \text{ m}^3/\text{h}$ . Each **Neotime First** model comes with 2 adjustable flow rates as standard.

The **Neotime First** is a self-regulating unit without a built-in post-heating battery. The unit is only suitable for an indoor installation.

### Brand

- R-COVERY by ZEHNDER CALADAIR

### Application

- Automatic ventilation and high efficiency heat recovery of air in non residential and industrial applications
- Air filtration, temperature control
- Compact monoblock ventilation unit, with plug & play and energy-saving control system (EN 15232)

### Composition

- Double skinned panels with high-density mineral wool insulation 25 mm M0, fire class A2-S1
- Outer layer: prelacquered steel plate in light grey (RAL 7035) with protection sheet
- Inner layer: galvanized steel plate 10/10
- Access panel for access to all internal elements
- Corner pieces for ceiling mounting
- Round connections with lip sealing for all models
- Appropriate for indoor installation, ceiling mounting
- Condensation tray and drain  $\frac{1}{2}$ "
- Built-in 100% Bypass, motorised and auto regulating
- Built-in regulation with external display IP65
- Integrated FREE-COOLING and NIGHT-COOLING function
- Built-in temperature sensors (4)
- Built-in clock for operation between two flow rates
- Built-in week clock and public holidays
- Safety switch
- Pressure switch on inlet filter F7
- Pressure switch on each fan
- Standard Modbus or Bacnet available
- Only available in left execution (see configuration)

### Fan

- Direct driven EC motor with electronic commutation (EC) with high efficiency, thermal protection and integrated speed control
- The EC technology ensures limited energy consumption by managing and controlling the operating point (regulation from 10 to 100%)
- Low noise level for a better acoustic comfort

**I.10**

Heat recovery units

### Neotime First

- Non residential
- Counterflow heat exchanger
- R-COVERY by ZEHNDER CALADAIR
- $Q_v \leq 2400 \text{ m}^3/\text{h}$
- Horizontal
- Heat recovery unit with efficiency  $\geq 85\%$



### Exchanger

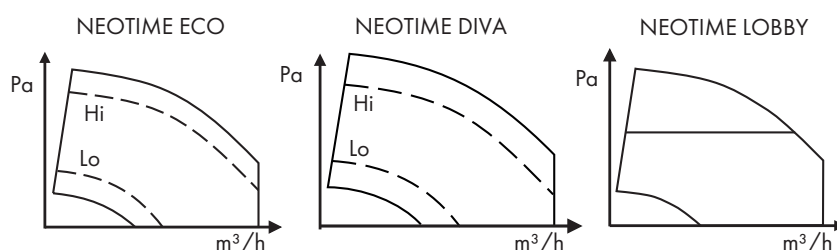
- Static counter-flow heat exchanger made of seawater resistant aluminium
- Efficiency >85% (EN308)

### Filter

- Filters are placed directly in front of the components for optimal protection
- Mounted on sliding rails with lip sealing to ensure efficient air tightness
- **Neotime First** basic configuration with a **F7** - ISO 16890 ePM1 55% - (inlet air) filter and a **M5** - ISO 16890 ePM10 50% - (exhaust air) filter, thickness 48mm
- **F7** high efficiency filter: 10x higher filtration surface than a gravimetric filter and 2.5x longer life span

### Options

- **ECO®**: adjusting the speed of the fans by entering 2 air flow rates (high – low flow) in the regulation
- **LOBBY®**: Constant pressure for each fan for use with e.g. VAV boxes
- **DIVA®**: Proportional modulating flow rate (between a set min. and max. flow rate) of each fan according to a built-in CO2 measurement.



### Certification

- **The device is tested according to NBN EN 308: [www.epbd.be](http://www.epbd.be)**
- Efficiency of the heat exchanger of more than 85% (EN308), in accordance with RT2012 and ErP 2009/125/EC directives
- EUROVENT classifications according to EN1886 and EN13053
- Standard construction with double skinned panels of 25mm
- Mechanical strength class: D2
- Air tightness: Class L1
- Conductivity: T3
- Thermal bridge factor: TB2
- Filter leakage class: F9
- Exterior panel made of lacquered steel 10/10
- Finish RAL7035 - 25µm, gloss 40%, film 80µm
- Primer RAL7032 - 5µm
- Inner panel made of galvanized steel 10/10
- Insulation: high density 25mm mineral wool, class A2-S1 (M0)

### Accessories

- Airtight control valves, type **AKH**
- Galvanised canopy with grille, type **UT**
- **Controllers for Neotime First up to serial number 225190:**
  - **E3-DSP** controller mounted on the unit as standard
  - Remote controller available as an option
    - **E3-DSP** remote display (up to 100 metres, to be provided by the installer) with 3-metre **EDSP-K3** or 10-metre **EDSP-K10** Belden cable
    - **ED Touch** digital controller for units type GTDHR/V, Hexamotion(-S), Freetime(-S), Silvertop, Neotime (First and Premium)
      - Cable 4-wire 24 Vdc (Corrigo C+/GO) of 10 rmt included
- **Controllers for Neotime First from serial number 225191:**
  - **Easy 5.0** controller mounted on the unit as standard
    - Master touch screen controller
  - **EDT2** remote controller available as an option
    - Touch screen controller for end user

### Other available products

- **Neotime Premium**

### Text for tender

See downloads

### Order example

#### Neotime 600 First ECO

Explanation

**Neotime** = type of heat recovery unit

**600** = size (600-900-1300-1800-2500)

**First** = First execution

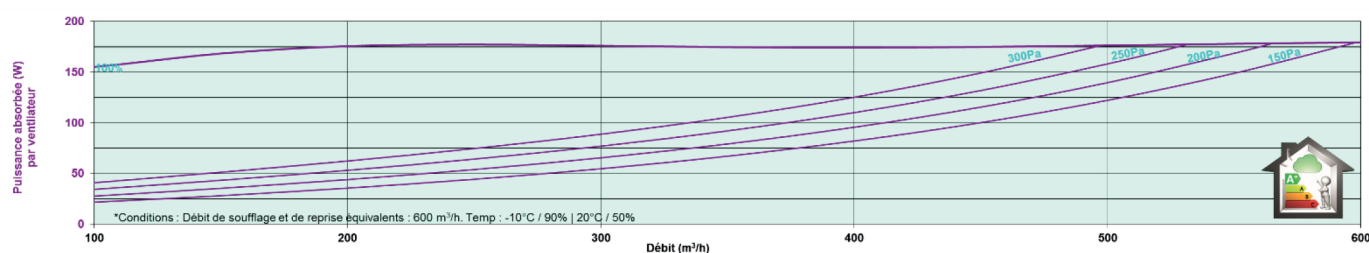
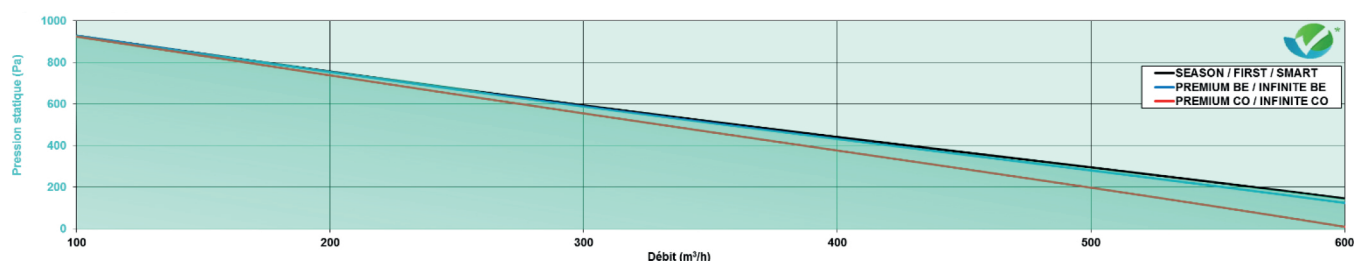
**ECO** = ECO EC regulation

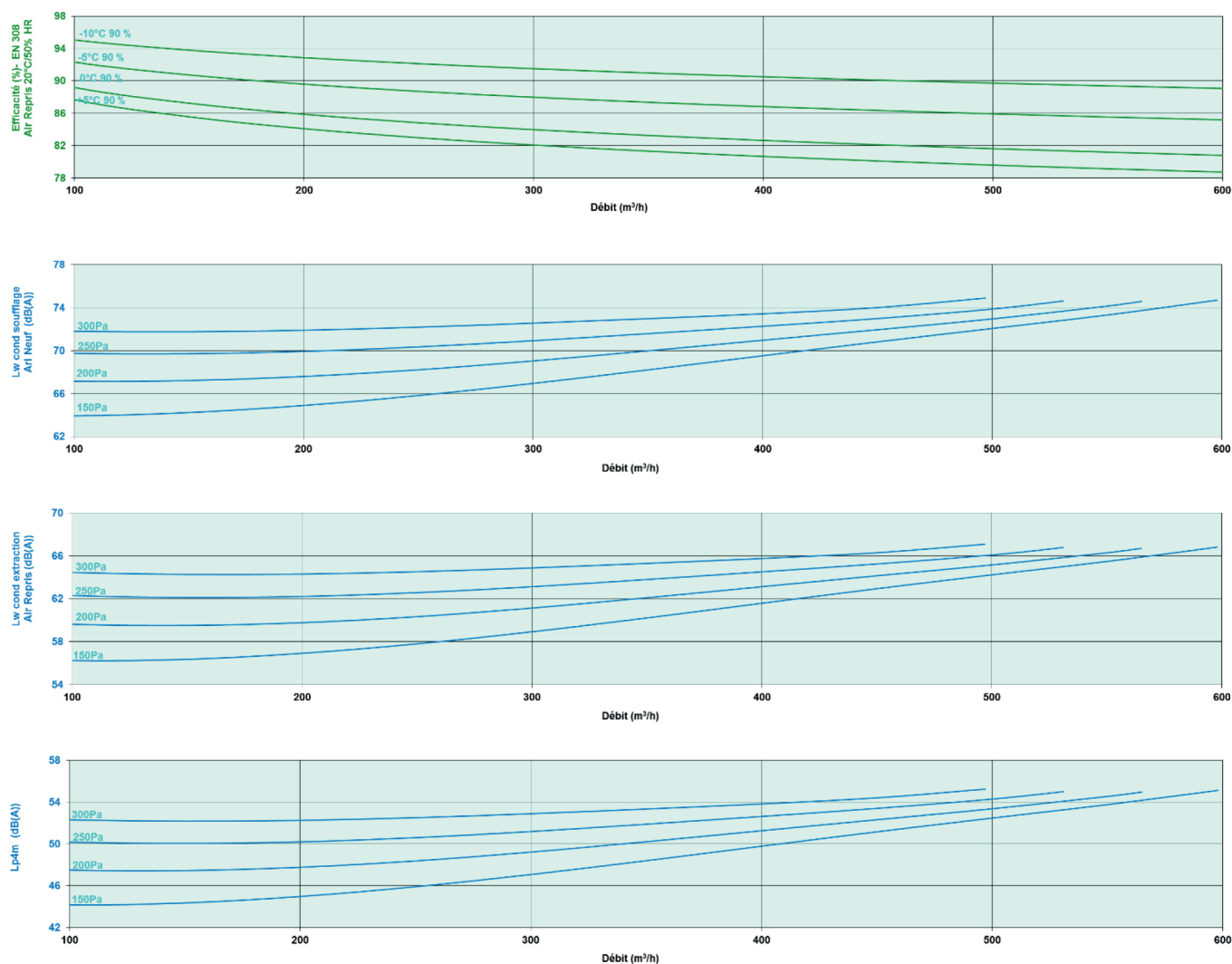
**D** = DIVA EC regulation

**L** = LOBBY EC regulation

### Selection curves

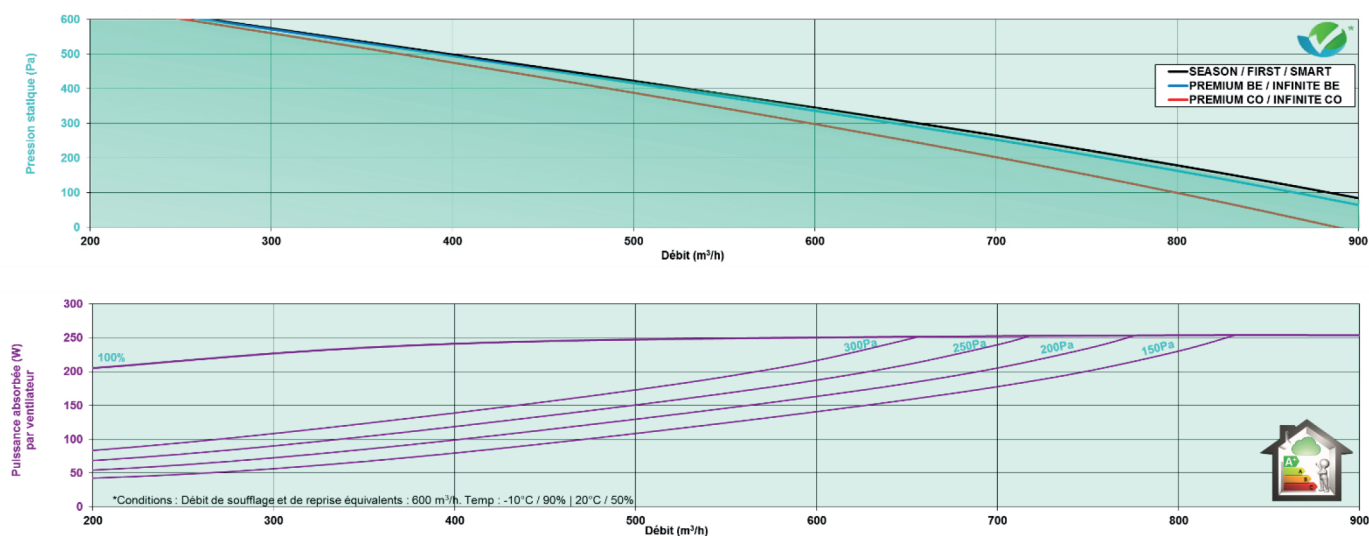
## Neotime 600



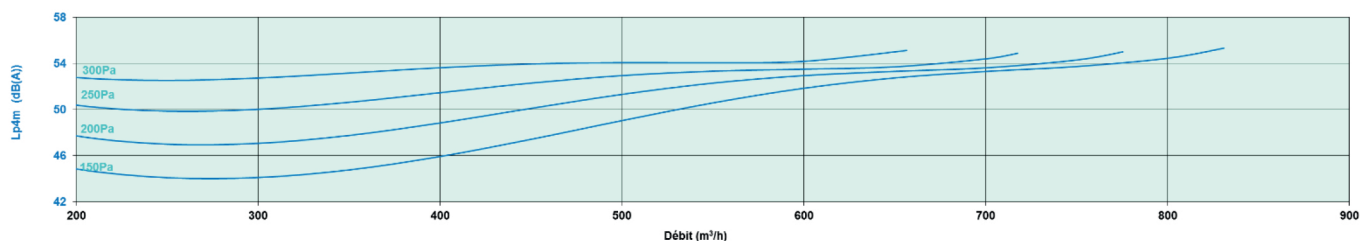
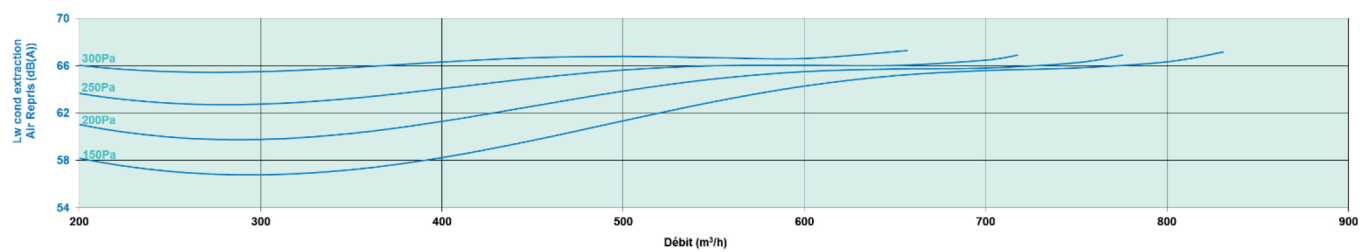
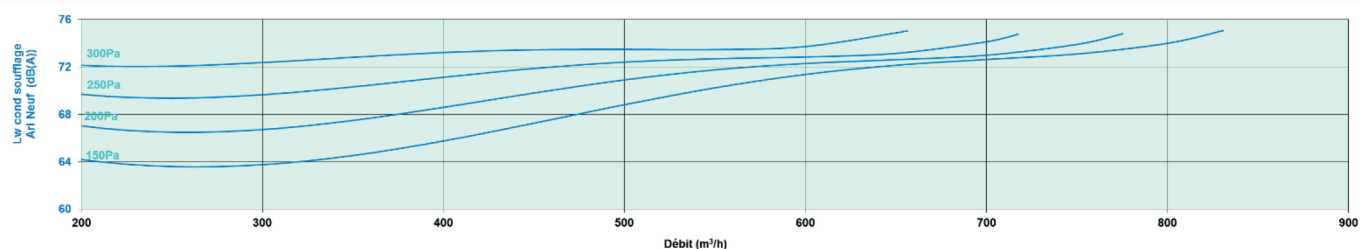
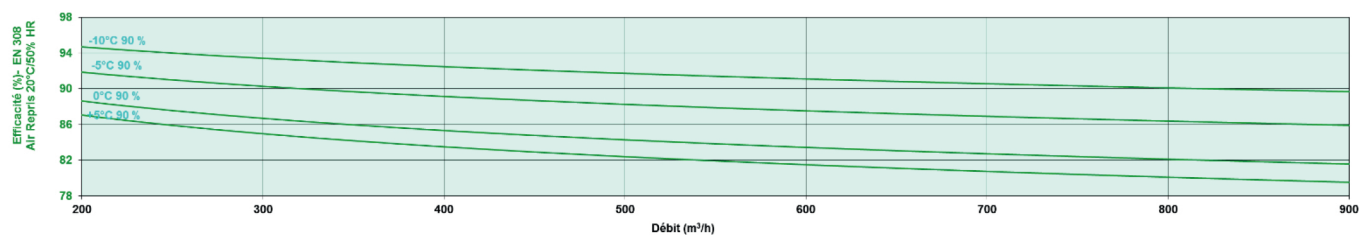


## Selection curves

# Neotime 900

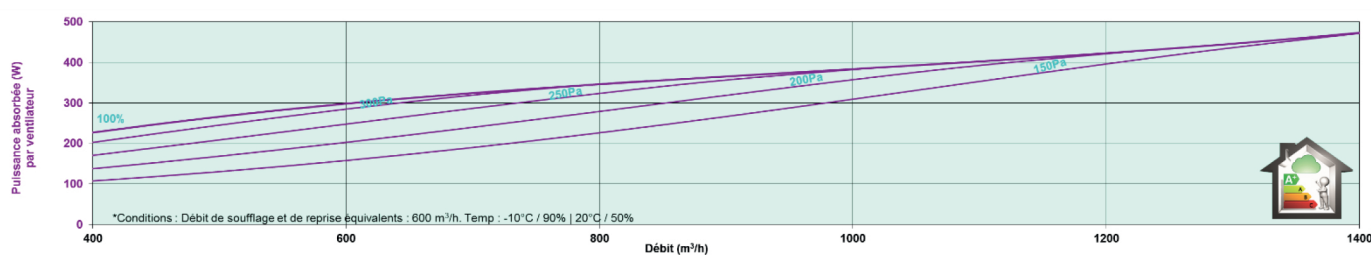
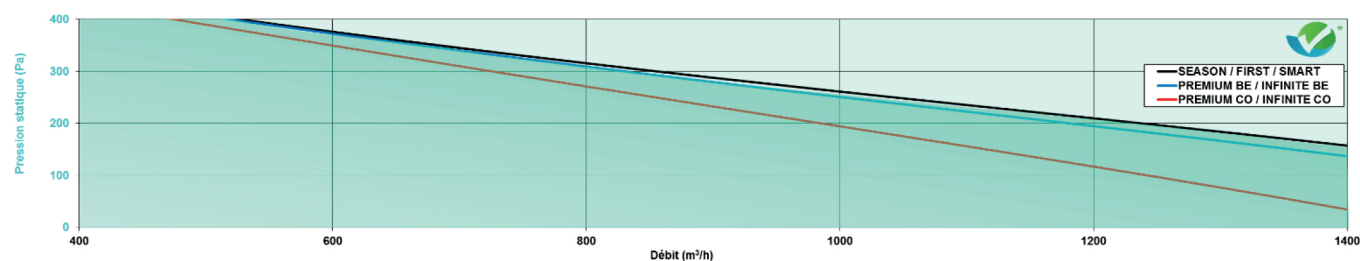


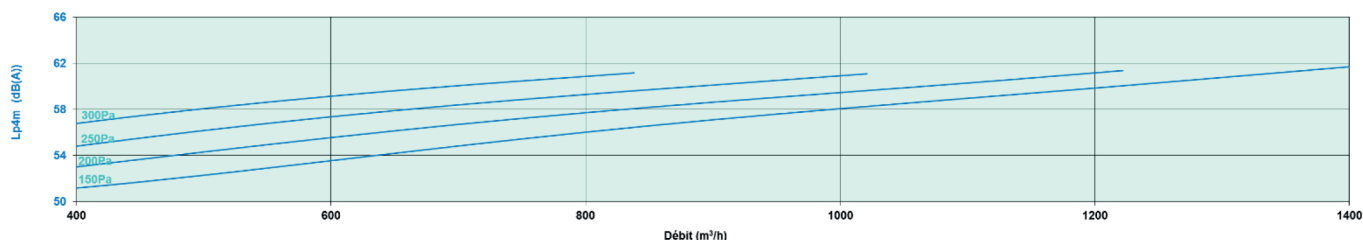
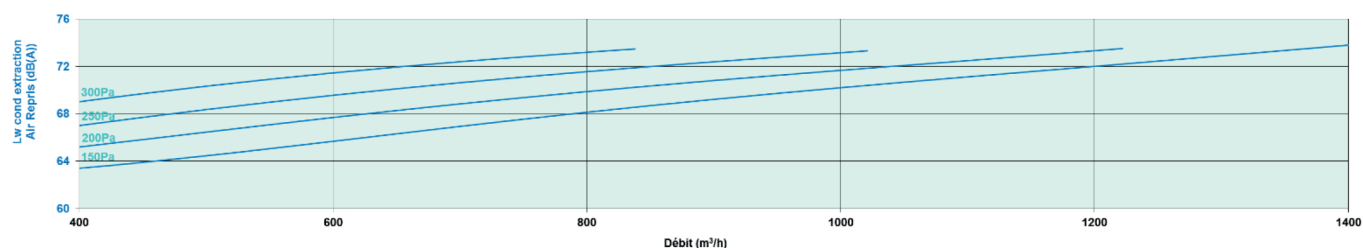
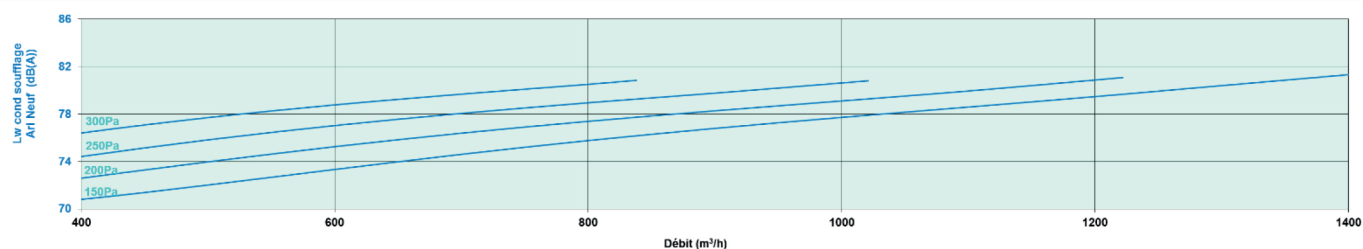
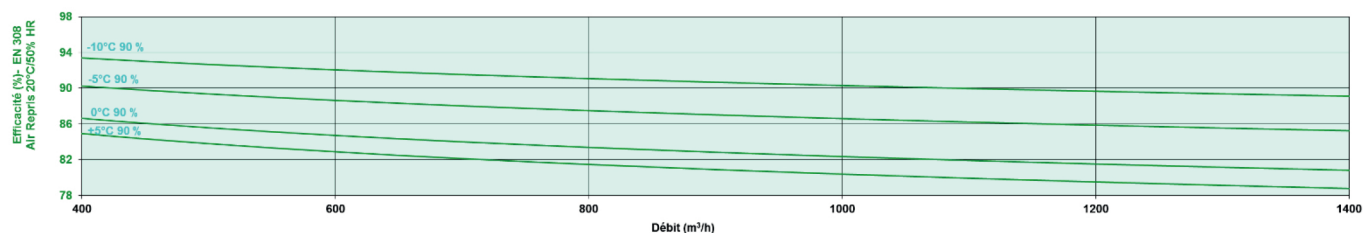




## Selection curves

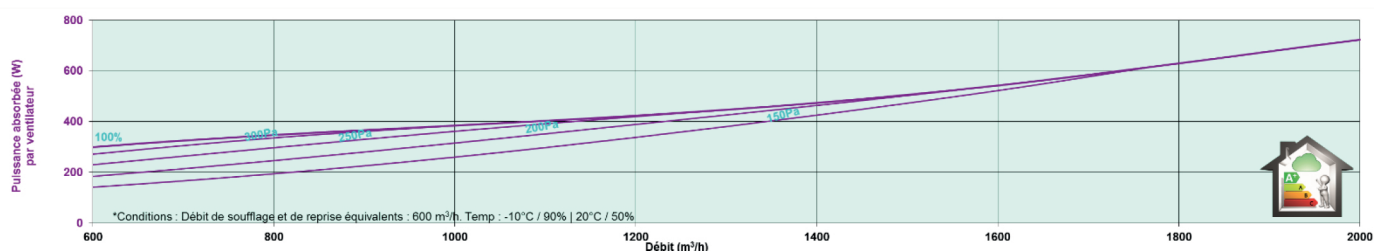
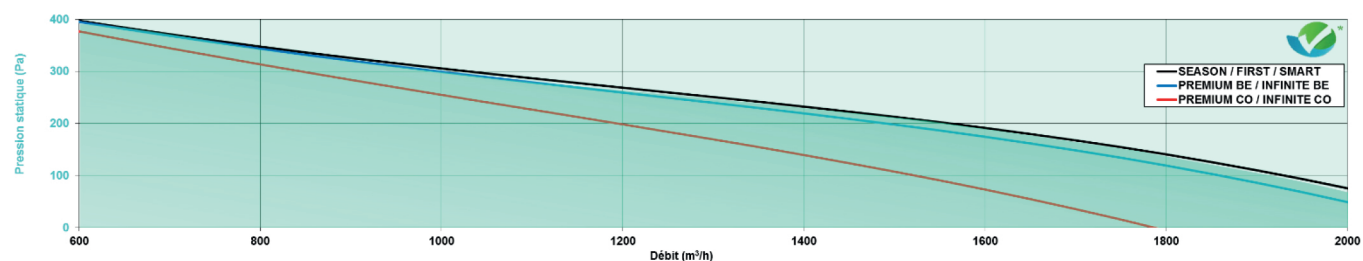
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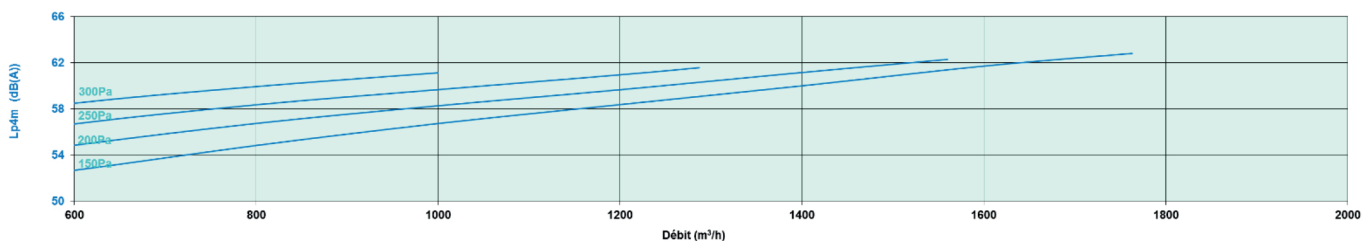
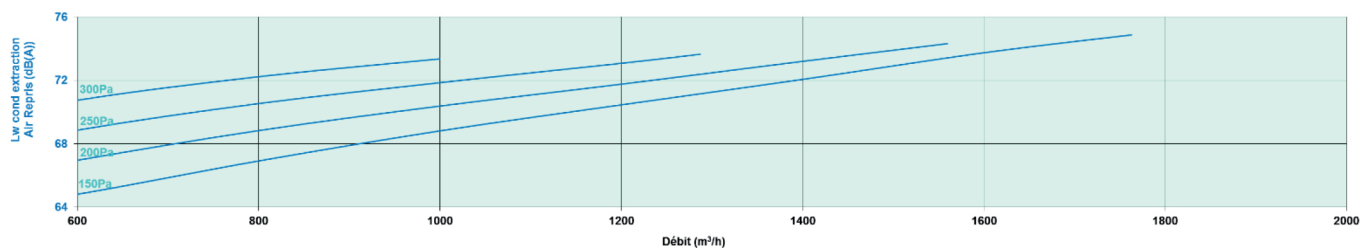
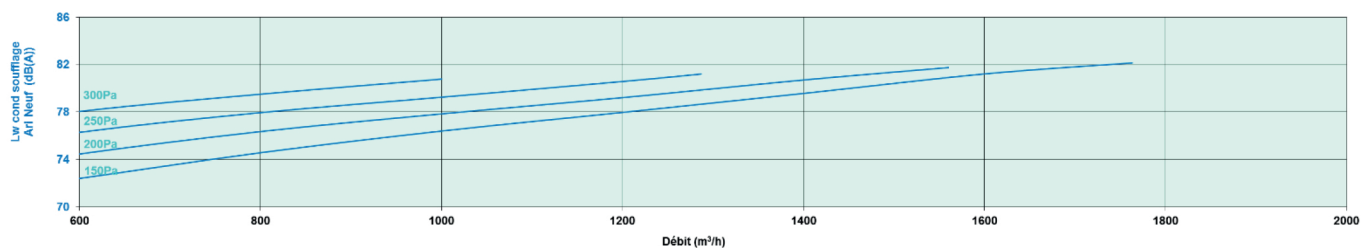
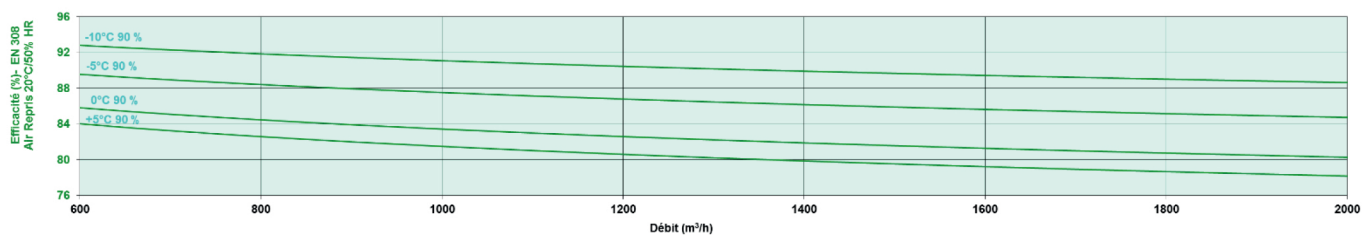




## Selection curves

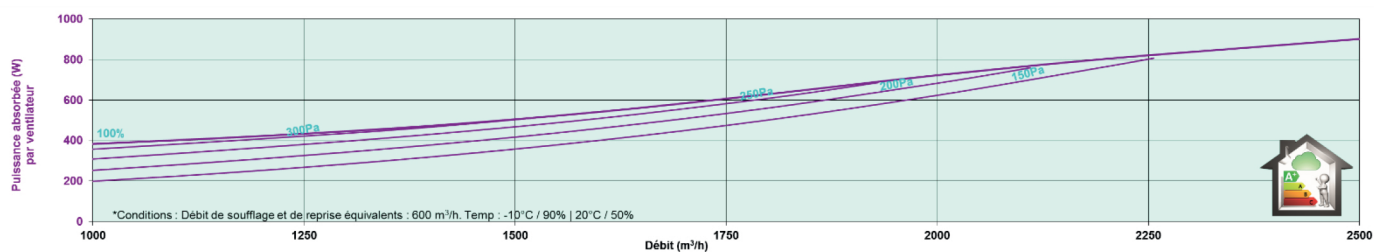
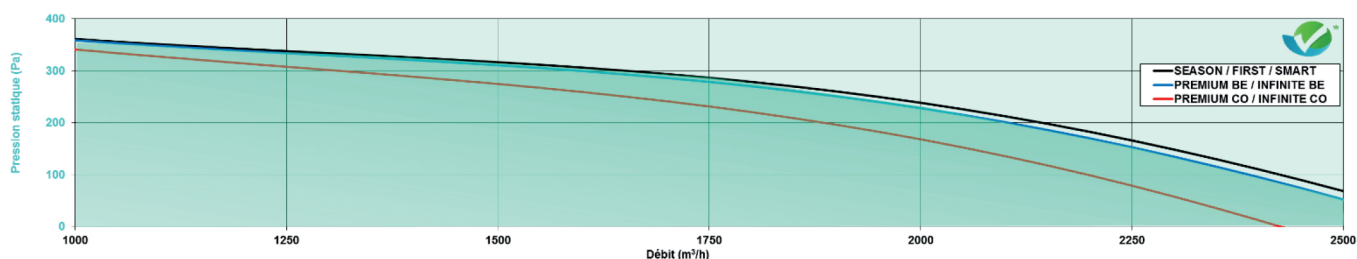
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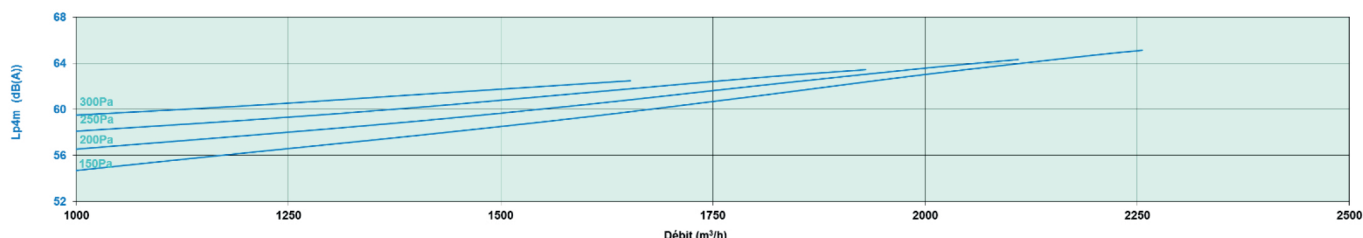
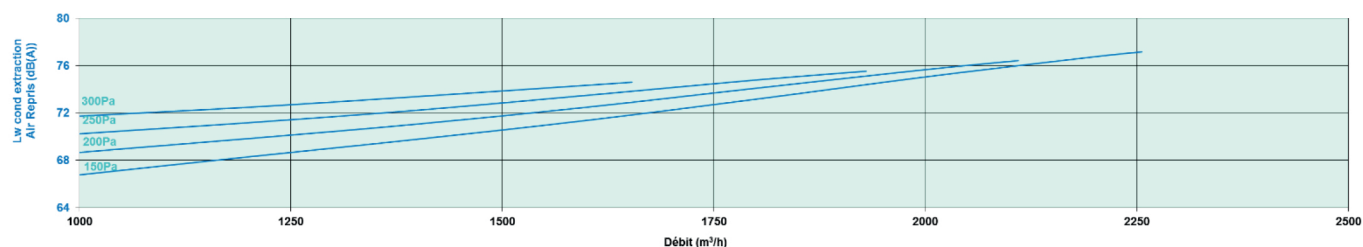
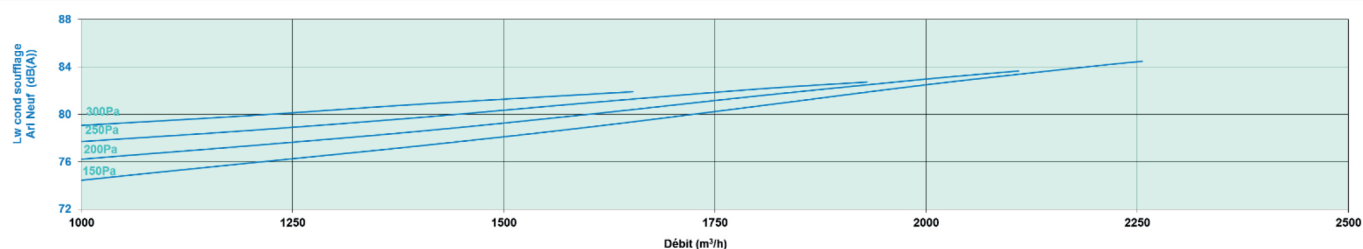
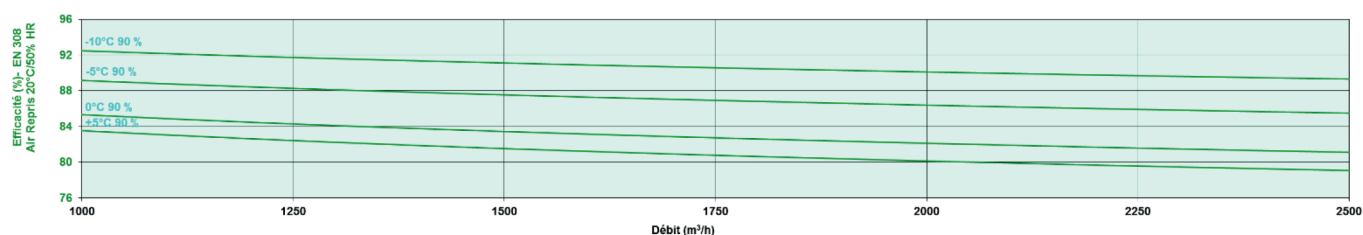




## Selection curves

# Neotime 2500

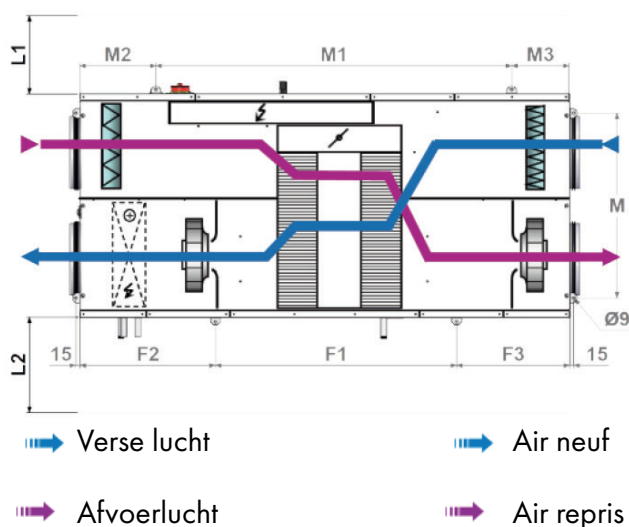




- Q [m³/h] = Flow rate
- Pst [Pa] = Static pressure
- P<sub>bat</sub> [Pa] = Pressure loss batteries
- BE = Electrical battery
- BC = Hot water battery
- BF = Chilled water battery
- DX = Direct expansion
- P<sub>ab</sub> [W] = Absorbed power per fan
- η [%] - EN 308 (20°C / 50%) = Efficiency
- Lwa pu = Sound power level in duct motor side
- Lwa ex = Sound power level in duct filter side
- Lpa @ 4m = Sound pressure level in free field with mounted inlet and outlet flanges

|      | Technical data |              |        |     |                    |     |
|------|----------------|--------------|--------|-----|--------------------|-----|
|      | P<br>[W]       | T<br>[°C/°C] |        |     | FIRST<br>[V/Ph/Hz] | [A] |
| 600  | 2 x 169        | -20 / 60     | IP54/B | PTI | 230/1/50           | 2.8 |
| 900  | 2 x 220        | -20 / 60     | IP44/B | PTI | 230/1/50           | 3.4 |
| 1300 | 2 x 400        | -20 / 60     | IP44/F | PTI | 230/1/50           | 8.6 |
| 1800 | 2 x 400        | -20 / 40     | IP44/F | PTI | 230/1/50           | 8.6 |
| 2500 | 2 x 400        | -20 / 40     | IP44/F | PTI | 230/1/50           | 8.6 |

## Horizontal configurations - side by side flow - top view



The Neotime First is **only** available in a **left** execution, viewed from the top of the device, following the direction of the airflow.

|      | Dimensions |           |           |           |           |           |            |            |            |           |            |            |           |           |           |            |            |            |           |            | First BE<br>[kg] | First CO<br>[kg] |
|------|------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|-----------|------------|------------|-----------|-----------|-----------|------------|------------|------------|-----------|------------|------------------|------------------|
|      | Ø<br>[mm]  | A<br>[mm] | B<br>[mm] | C<br>[mm] | D<br>[mm] | E<br>[mm] | F1<br>[mm] | F2<br>[mm] | F3<br>[mm] | G<br>[mm] | G1<br>[mm] | G2<br>[mm] | J<br>[mm] | K<br>[mm] | M<br>[mm] | M1<br>[mm] | M2<br>[mm] | M3<br>[mm] | T<br>[mm] | T1<br>[mm] |                  |                  |
| 600  | 250        | 1700      | 780       | 330       | 160       | 370       | -          | -          | -          | 150       | 50         | 145        | 170       | 645       | 640       | -          | -          | -          | 1/2"      | 1/2"       | 127              |                  |
| 900  | 315        | 2020      | 965       | 415       | 210       | 460       | -          | -          | -          | 150       | 50         | 145        | 250       | 760       | 770       | -          | -          | -          | 1/2"      | 1/2"       | 190              |                  |
| 1300 | 355        | 2190      | 1220      | 415       | 195       | 600       | 795        | 735        | 660        | 430       | 50         | 425        | 250       | 860       | 950       | 1170       | 510        | 510        | 1/2"      | 1/2"       | 265              |                  |
| 1800 | 400        | 2270      | 1220      | 495       | 245       | 600       | 915        | 725        | 630        | 430       | 50         | 425        | 330       | 885       | 950       | 1110       | 580        | 580        | 1/2"      | 1/2"       | 285              |                  |
| 2500 | 400        | 2395      | 1740      | 495       | 245       | 910       | 840        | 785        | 770        | 430       | 50         | 425        | 330       | 985       | 1350      | 1235       | 580        | 580        | 3/4"      | 1/2"       | 390              |                  |

