



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

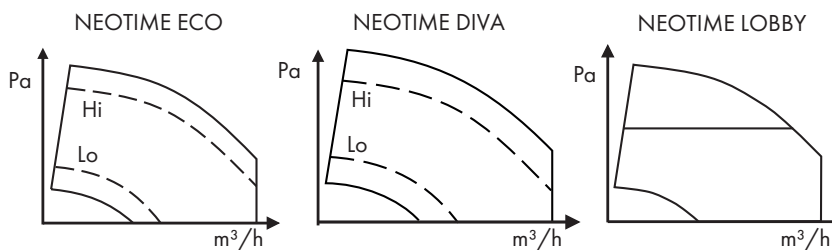
- Static counter-flow heat exchanger made of seawater resistant aluminium
- Efficiency >85% (EN308)

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**
- 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

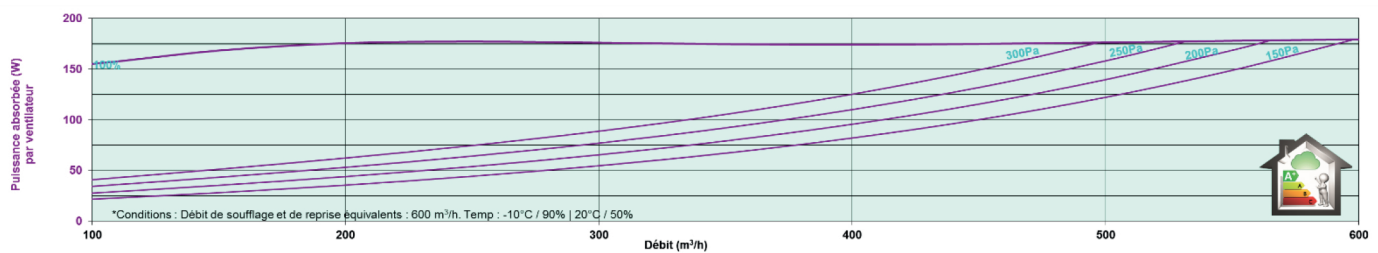
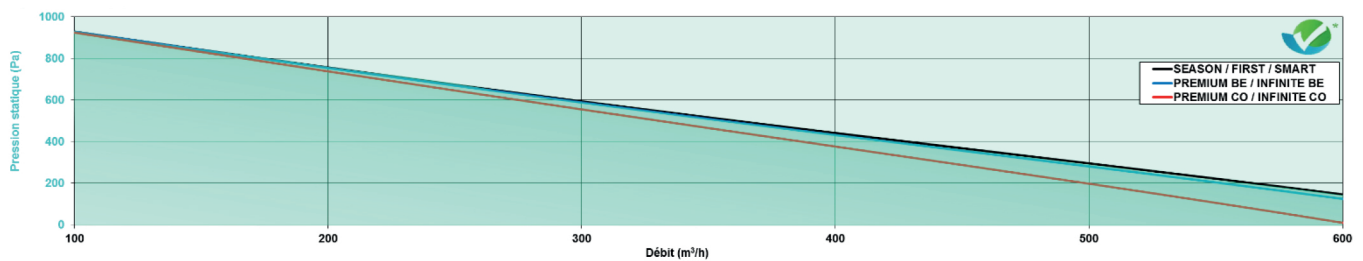
ECO = ECO EC regulation

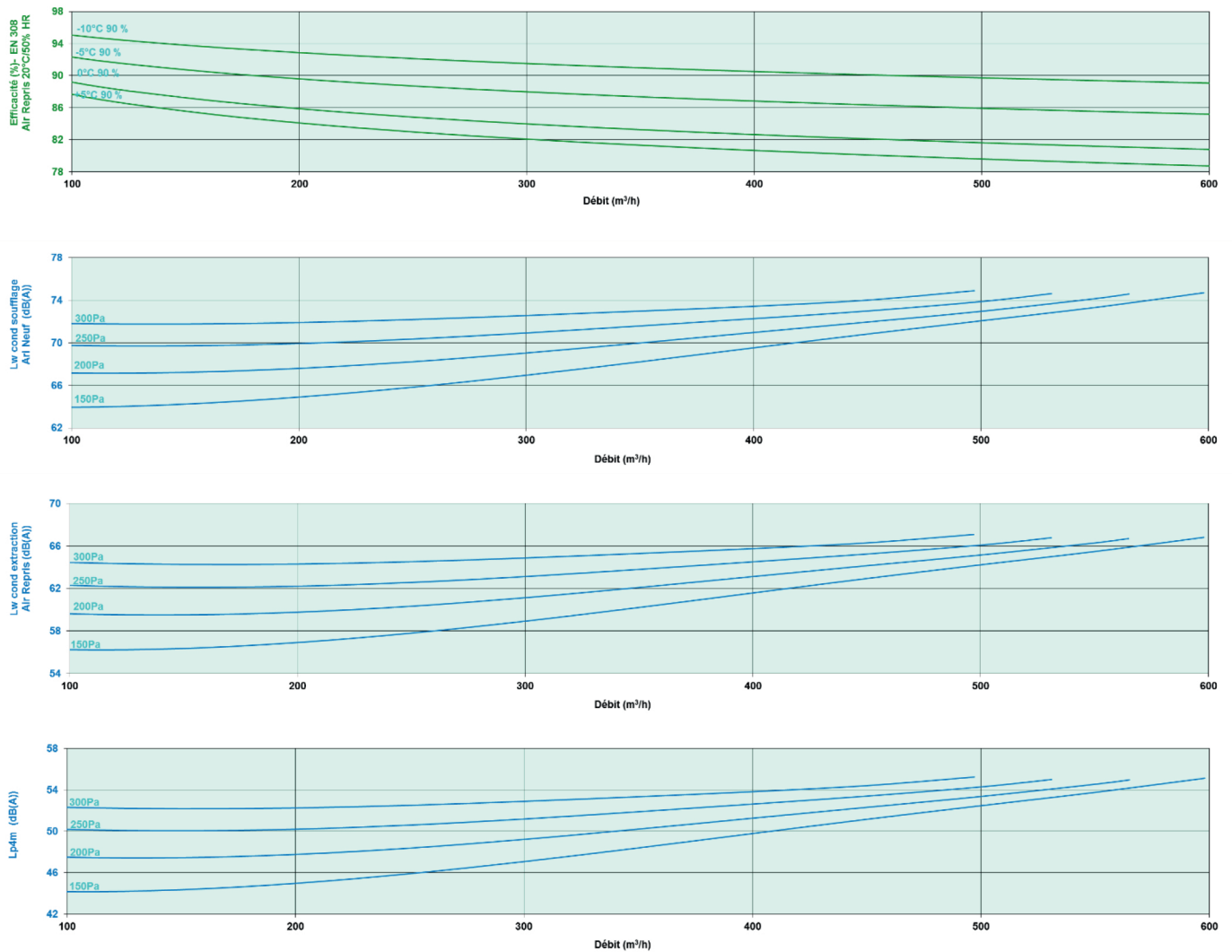
D = DIVA EC regulation

L = LOBBY EC regulation

Selection curves

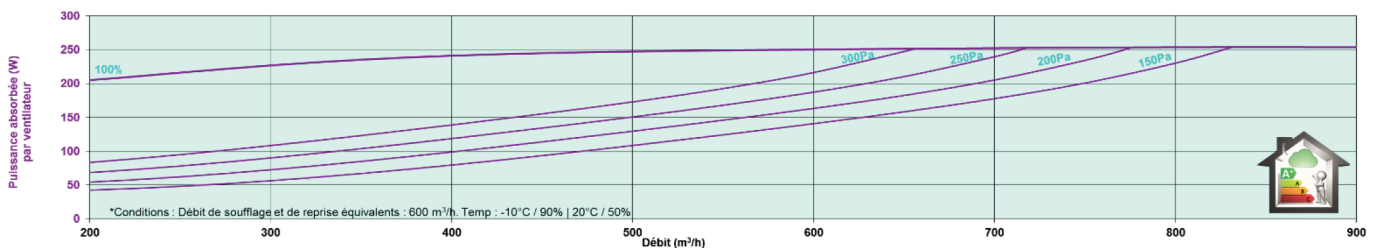
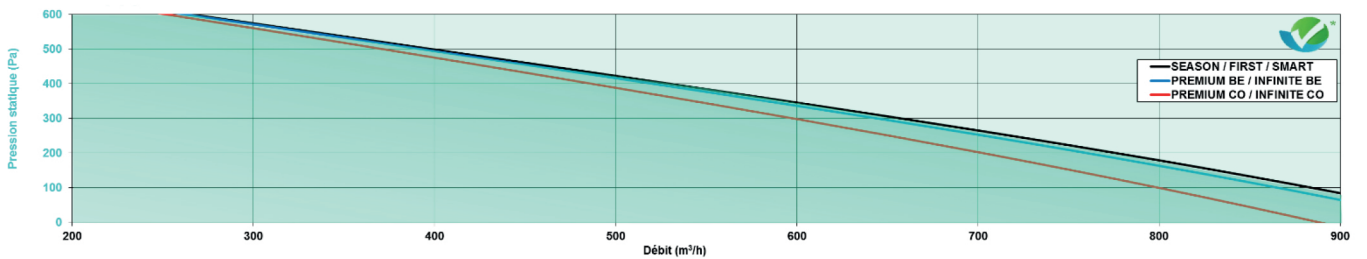
Neotime 600

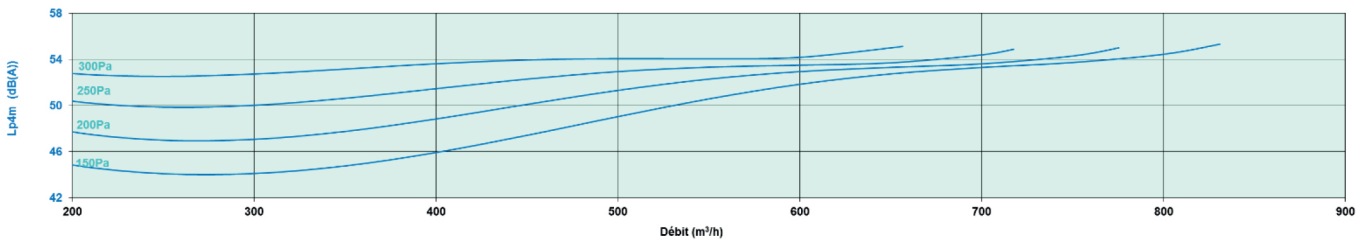
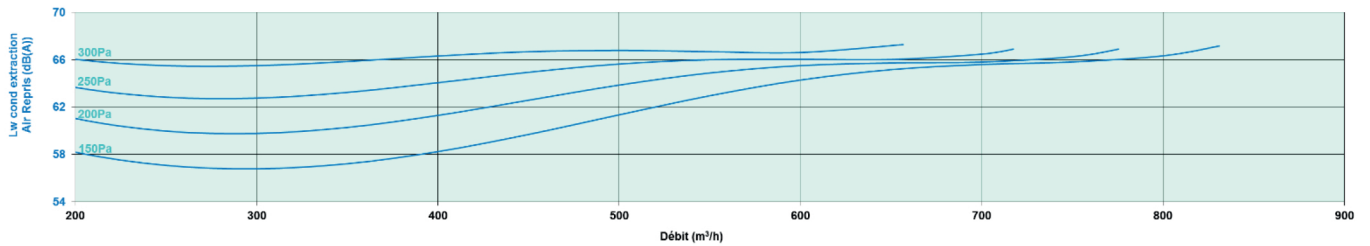
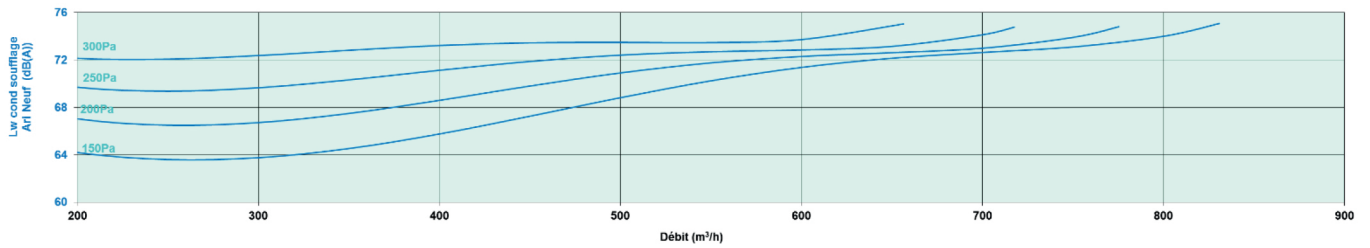
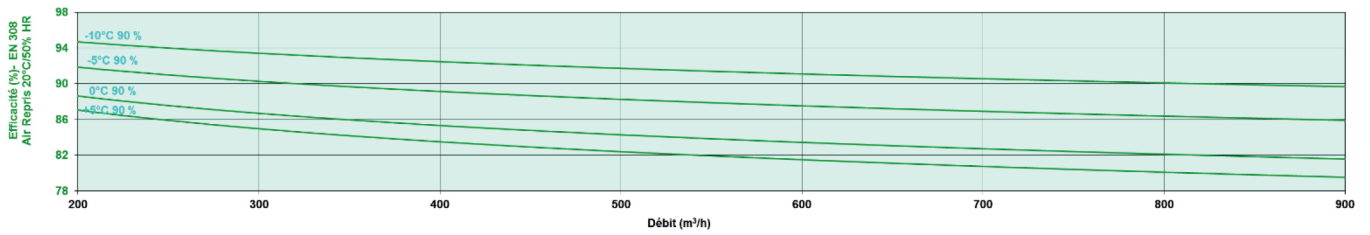




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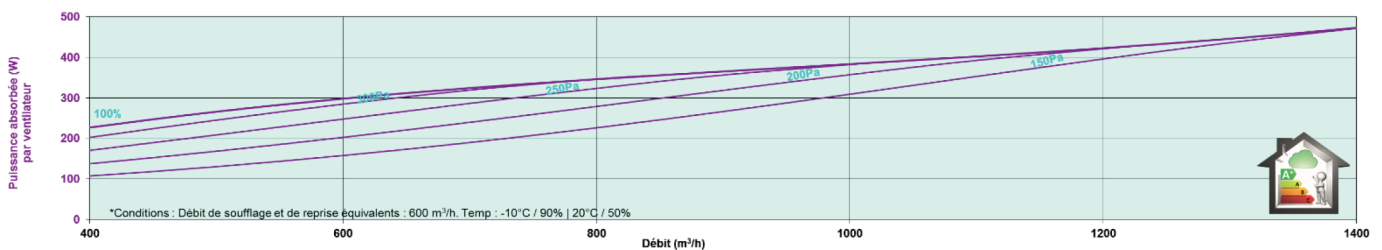
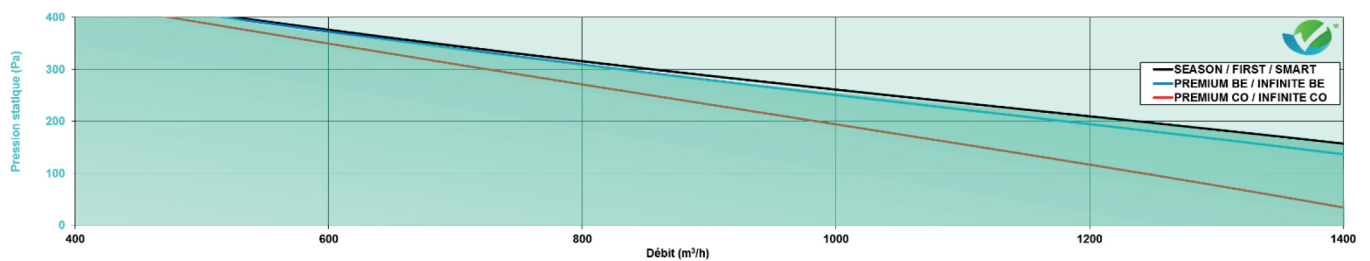
Neotime 900

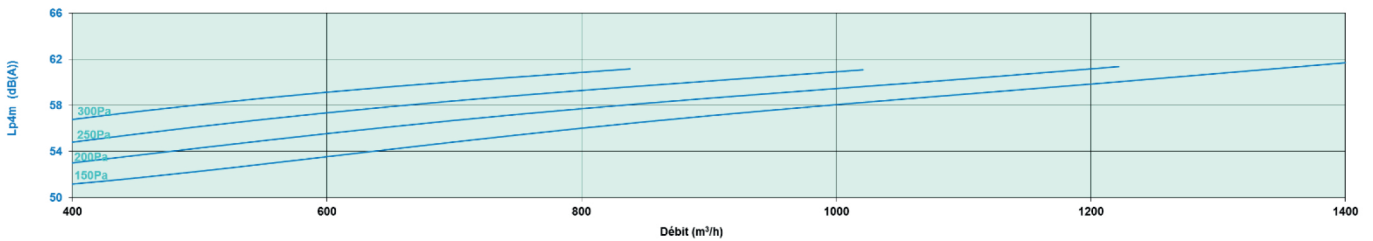
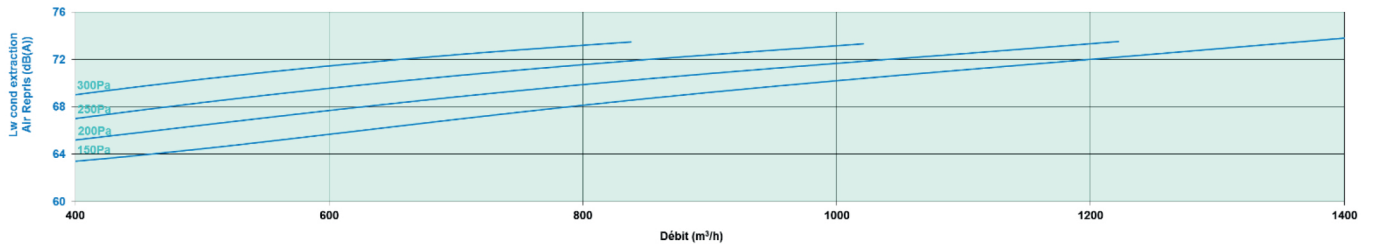
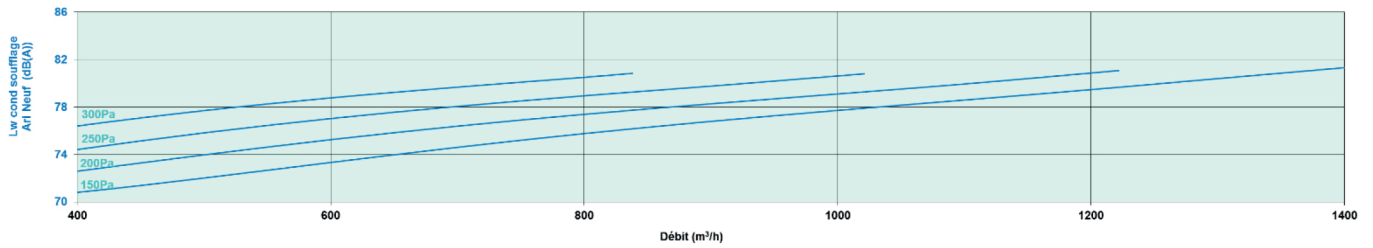
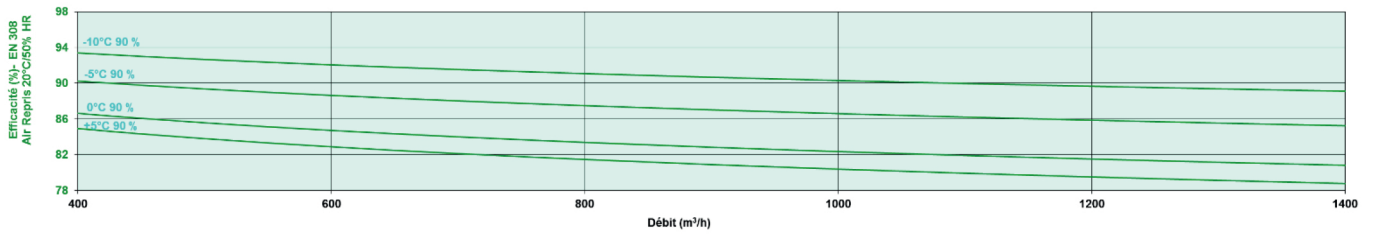




Selection curves

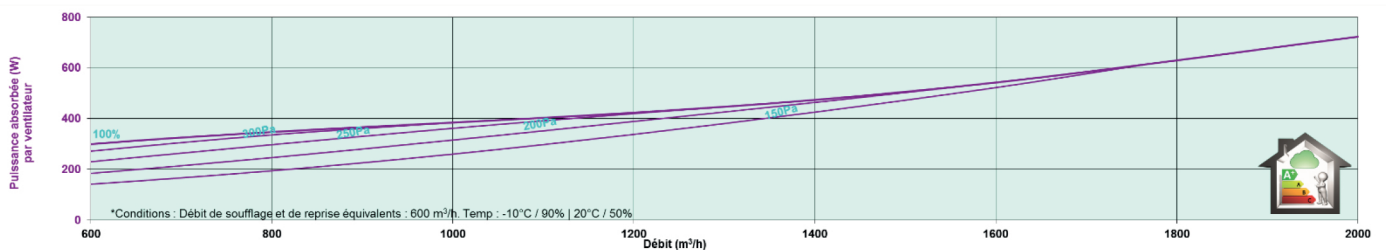
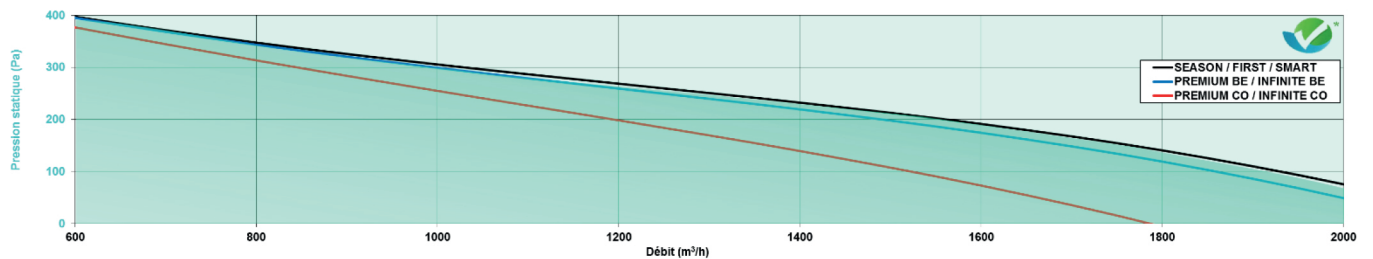
Neotime 1300

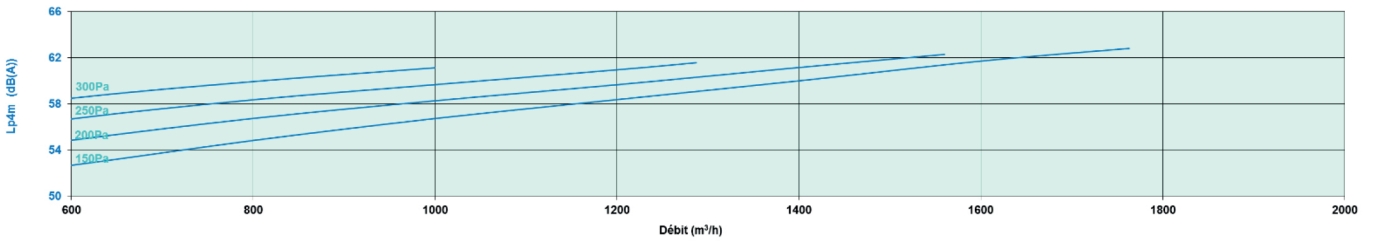
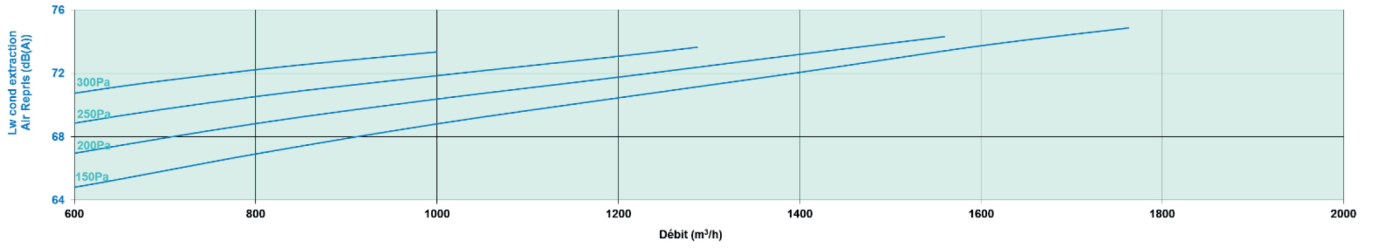
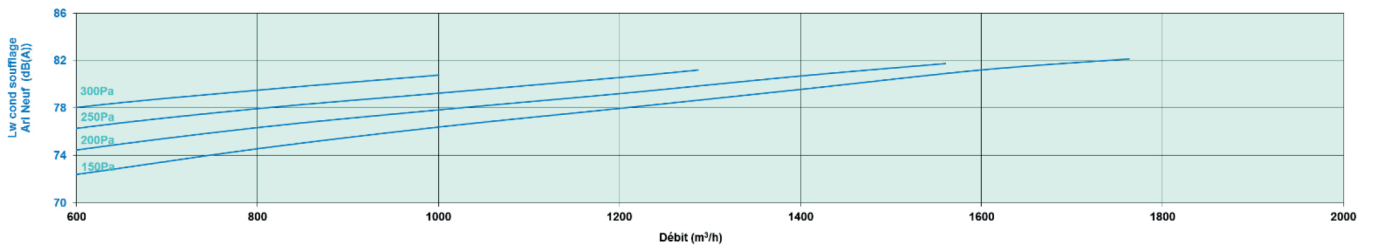
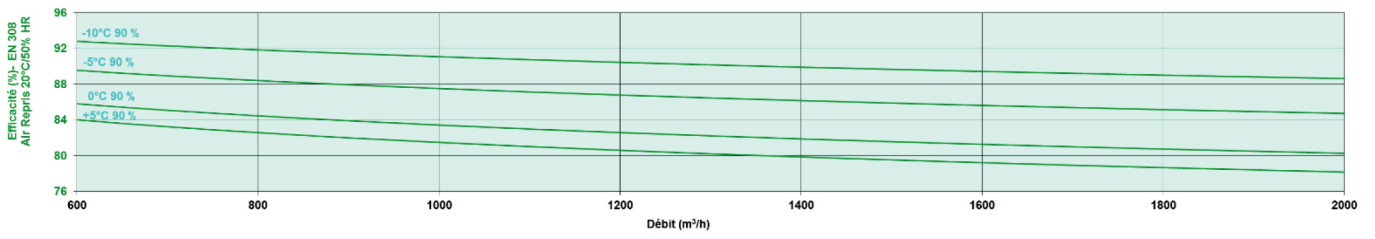




Selection curves

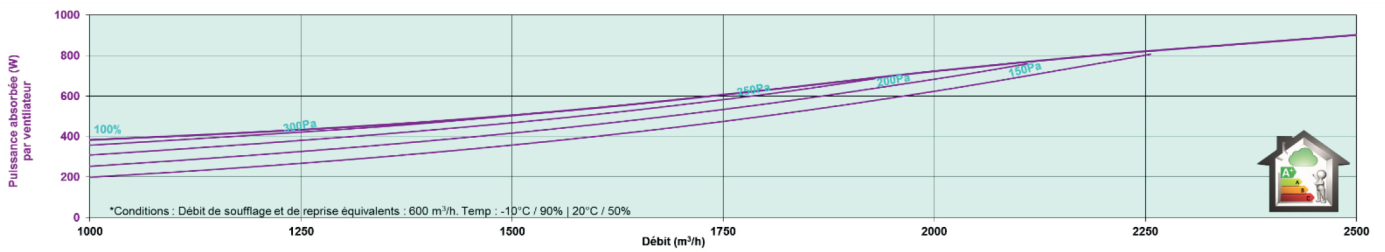
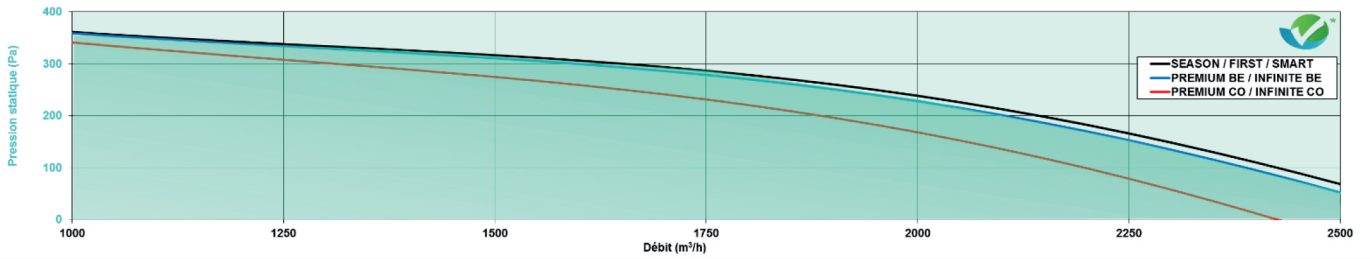
Neotime 1800

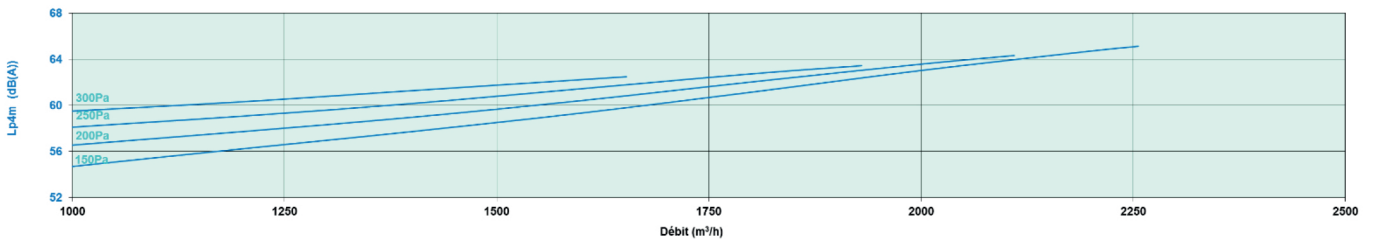
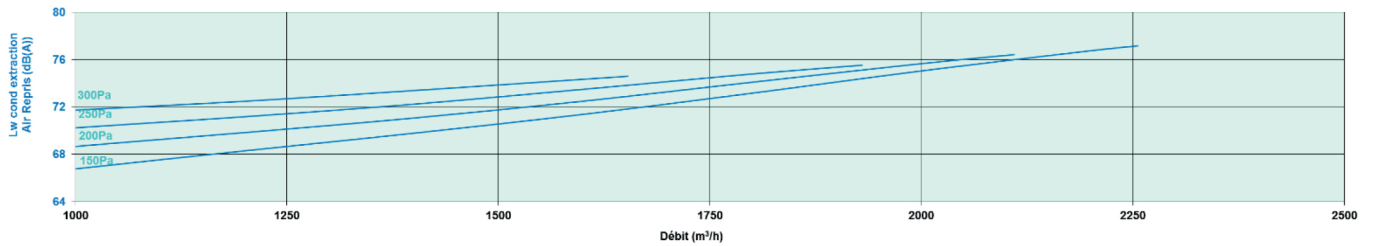
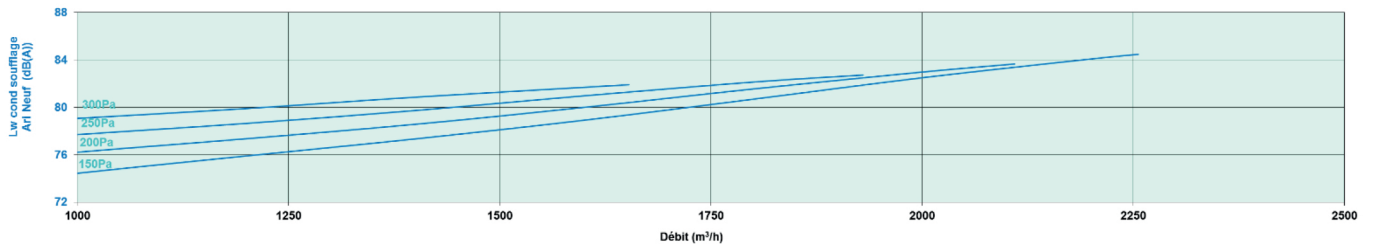
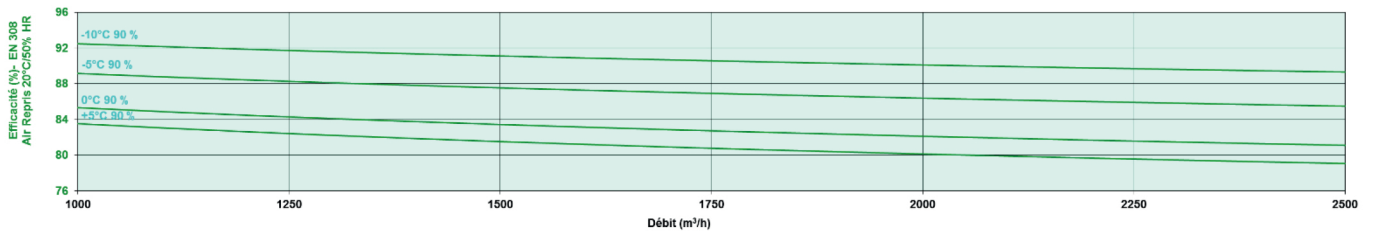




Selection curves

Neotime 2500

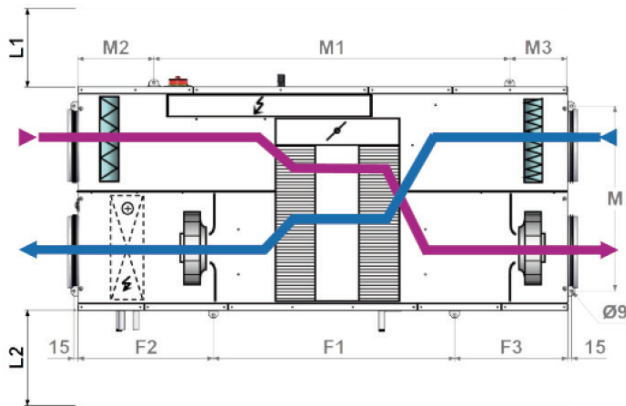




- Q [m³/h] = Flow rate
- Pst [Pa] = Static pressure
- P_{bat} [Pa] = Pressure loss batteries
- BE = Electrical battery
- BC = Hot water battery
- BF = Chilled water battery
- DX = Direct expansion
- P_{ab} [W] = Absorbed power per fan
- η [%] - EN 308 (20°C / 50%) = Efficiency
- Lwa pu = Sound power 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 | | | | | FIRST | |
|------|----------------|-----------|--------|-----|--|-----------|-----|
| | P [W] | T [°C/°C] | | | | [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



- Verse lucht → Air neuf
- Afvoerlucht → Air repris

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 [kg] | First CO [kg] |
|------|------------|--------|--------|--------|--------|--------|---------|---------|---------|--------|---------|---------|--------|--------|--------|---------|---------|---------|--------|---------|---------------|---------------|
| | Ø [mm] | A [mm] | B [mm] | C [mm] | D [mm] | E [mm] | F1 [mm] | F2 [mm] | F3 [mm] | G [mm] | G1 [mm] | G2 [mm] | J [mm] | K [mm] | M [mm] | M1 [mm] | M2 [mm] | M3 [mm] | T [mm] | T1 [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 | |

