

Compact P2

Compact P2 is an energy-efficient and compact indoor climate solution. It is suitable for all types of low energy houses, standard single family houses, apartment buildings and small commercial buildings with an energy requirement of up to 425 m³/h.

Compact P2 is a multi-unit comprising several installations and it therefore requires limited space. It can ventilate the dwelling using heat recovery and produce domestic hot water. The unit recovers the energy from the extract air by means of a high-efficiency counterflow heat exchanger. The remaining energy that is not used by the counterflow heat exchanger is utilised by the heat pump for production of domestic hot water and for additional heating of the supply air. That way you can avoid draughts and coldness from the stack effect.

Cooling reduces the humidity level in the supply air. This creates a more comfortable indoor climate in the dwelling, even at high indoor temperatures. When Compact P2 cools the supply air, the heat is stored in the hot water tank. That way you have hot water "for free" when the unit is cooling. You can combine the unit with a geothermal heat pump or an air source heat pump. Both of these can be fully integrated in Compact P2.

Compact P2 is supplied with a Nilan Gateway for App option.

Control system: CTS602 with HMI-panel



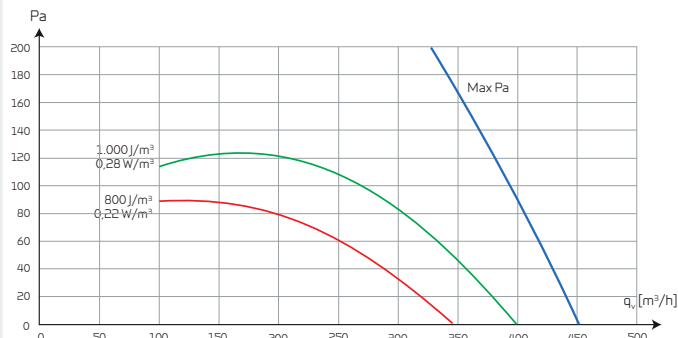
 **MADE IN DENMARK**

Dimensions (W x D x H)	900 x 610 x 2065 mm
Weight	205 kg
Plate type casing	Aluzinc steel plate, white powder coating RAL9016
Heat exchanger type	Polyethylenerephthalat counterflow heat exchanger
Fan type	EC, constant rotation
Filter class	Greencycle ISO Coarse >75% (G4)
Duct connections	Ø 160 mm
Condensate drain	PVC, Ø 20x1,5 mm
Refrigerant	R134a
Refrigerant filling	2 kg
Capacity hot water tank	180 l
Supplementary electrical heating (sanitary hot water)	1,5 kW

Connection dimension	3/4"
Supply voltage	230 V (±10 %), 50/60 HZ
Max. input/power (*1)	2,2 kW/ 9,6 A
Max. input/power (*2)	3,4 kW/14,8 A
Tightness class	IP31
Standby power	3 W
Ambient temperature	-20/+40 °C
Power consumption build-in preheating element (Polar)	1,2 kW
External leakage (*3)	< 1,82%
Internal leakage (*4)	< 2,04%

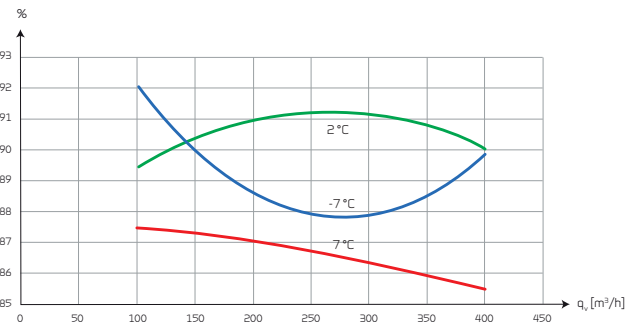
* 1 Input without heating element (accessory).
 * 2 Input Compact Polar (with heating element).
 * 3 According EN 13141-7.
 * 4 According EN 13141-7.

Capacity



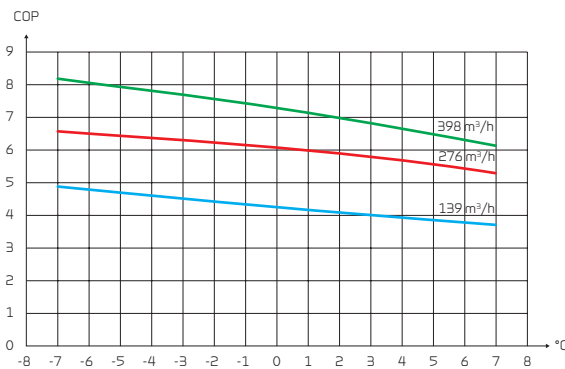
Capacity of standard unit as a function of q_v and $P_{t,ext}$. Acc. EN 13141-7 for standard units with ISO Coarse >75% (G4) filters and without heating element. SEL values comprise the unit's total power consumption.

Temperature efficiency



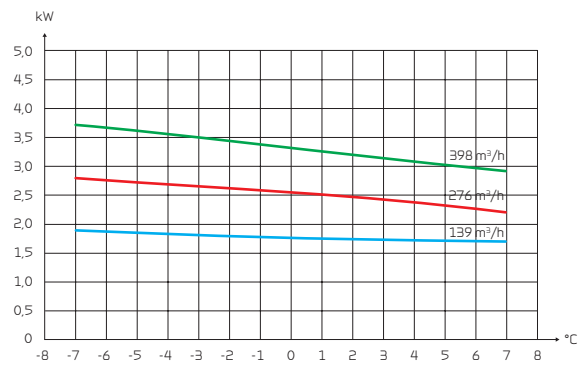
Temperature efficiency as function of volume flow q_v [m^3/h] for unit with counterflow heat exchanger. Temperature efficiency acc. EN13141-7 Extract air temp. = 20°C. Temperature efficiency is for the heat exchanger only (without heat pump operation).

COP (air-air)



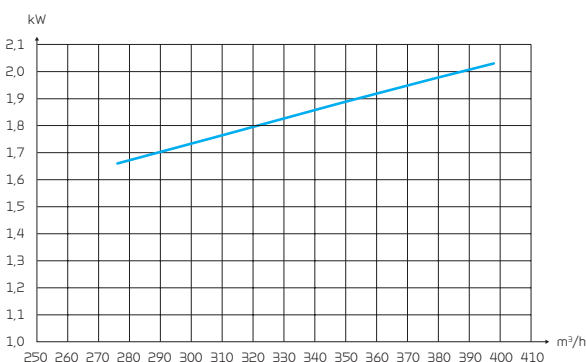
Heat output factor COP [-] supply air as a function of outdoor temperature t_{20} [°C] and volume flow q_v [m^3/h] acc. EN14511 at a room temperature $t_{11} = 20^\circ C$. COP acc. EN14511 is calculated for the heat pump and counter flow heat exchanger combined.

Supply air (heating)



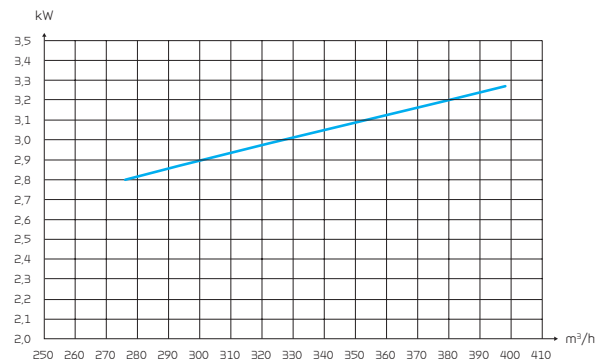
Heat output Q_c [W] as a function of q_v [m^3/h] and outdoor air temperature t_{20} [°C]. Acc. EN 14511, $t_{11} = 20^\circ C$ (extract air). Contribution to room heating added to the fresh air via Compact P2 to the supply air.

Supply air (cooling)



Cooling effect Q [kW] as a function of volume flow [m^3/h] according to EN14511, extract air = 27°C, outdoor air = 35°C. The cooling effect is the contribution added to the fresh air via the Compact P2 to the supply air.

EER (cooling)



Energy efficiency ratio EER [-] for supply air as a function of volume flow [m^3/h] acc. to EN 14511 at extract air temp. = 27°C and outdoor air temp. = 35°C. NB! COP acc. to EN 14511 is calculated for the heat pump and counter flow heat exchanger combined.

Accessories

- Electrical pre-heating element
- Electrical heating element
- EM-box
- Expansion PCB
- CO₂-sensor
- Vibration absorbers
- Flexible silencing
- Pollenfilter ISO ePM1 50-65% (F7)
- Extension cable HMI control panel
- Trolley