



MARKET LEADING COMMERCIAL AND DOMESTIC VENTILATION WITH HEAT RECOVERY



... high
performance
for private
homes

- Built-in filters
- Filter compartment for pollen and other airborne particles
- Improved assembly conditions

Nilan VP 18

Active heat recovery
with cooling option
(air-to-water / air-to-air)



Heat pump VP 18 with built-in filters

Domestic ventilation with heat recovery and water heating (air-to-water / air-to-air)

VP 18 is a heat recovery unit with combined air and water heating designed for use in homes of up to 230 m².

Function

Nilan VP 18 is an active heat recovery unit for extracting hot, humid air from kitchens, bathrooms, utility rooms, etc. Dust particles, moisture and smells are thus removed from the dwelling, ensuring a comfortable indoor climate.

The energy recovered is used to provide domestic hot water and to heat the incoming air. During winter, the production of hot water has first priority while any excess energy is used to heat the incoming air.

Nilan VP 18 consists of a 180 litre hot water tank and two fans for inlet and exhaust respectively. The inside of the hot water tank has a two-layer enamel coating and is equipped with a sacrificial anode to provide optimum corrosion protection and maximise tank service life. The unit is supplied with a built-in water trap on the condensation outlet.

Nilan VP 18 is equipped with four-step EC fans capable of providing up to 330 m³/h air (at 100 Pa). The unit is operated via electronic CTS 600 control.

VP 18 is also available with a cooling system, allowing the unit to cool the incoming air. The energy contained in the incoming air is utilised for water heating before the cooled air is used to ventilate the dwelling. "Free" air cooling is thus provided whenever the water requires heating.

For households with high hot water consumption, a VP 18 version is available with a supplementary heating coil for connection to solar panels, oil or gas fired central heating, district heating or any other type of heating system.

Benefits

Nilan VP 18 is a compact unit requiring no more space than a standard tall cupboard. VP 18 helps establish a comfortable and healthy indoor climate by preventing dampness, removing undesirable smells, reducing allergy problems, etc.

The units have been tested by the Danish Technological Institute and approved by the Danish authorities. VP 18 has also been tested by the German TÜV institute. The tests showed that VP 18 has an efficiency of 114%, i.e. during winter, VP 18 adds 14% more heat to the inlet than is necessary to heat the air to room temperature. This surplus covers part of the energy lost through heat transmission in winter.



VP 18 control panel

Using a weekly program, the CTS 600 controls can be set for night setback, Legionella bacteria control, or any other wishes the user might have.



Clear the air and recover the heat



Facts

- Heat recovery and domestic water heating
- Dwellings of up to 230 m²
- Capable of replacing up to 330 m³ air per hour (at 100 Pa)
- Inlet and exhaust
- 180 litre hot water tank with two-layer enamel coating and sacrificial anode
- Duct connections: Ø160 mm
- Dimensions: W60 x D60 x H180 cm
- Built-in filters
- Filter compartment for pollen and other airborne particles

Benefits

- Reduced need for heating as the temperature of the incoming air is higher than room temperature
- No draughts as there are no outside openings in the dwelling (balanced ventilation in/out)
- No problems with moisture or smells
- Fresh air ventilation and stale air extraction
- Relief of allergy problems
- High heat recovery rates
- Cheap hot water
- Available with cooling system
- Usually installed in utility room or similar
- Easy access to filters in the front

Models

• VP 18 Sun cool EC

For households with high hot water requirements (e.g. those with spas), this unit is available with additional heating coil for connection to the primary heating system, solar panels or underfloor heating circuits in small bathrooms. The cooling facility cools the incoming air to approx. 8°C below outside temperature (max. 1 kW cooling capacity) while simultaneously producing hot water. With an air turnover of 50% per hour, room temperature will be lowered 2-3°C at most. This is because the air is continuously replaced and not recirculated as in an air conditioning system.

• VP 18 EK EC

Complete solution for low-energy houses, designed in accordance with the latest Danish Building Regulations (BR 2006). The unit provides heat recovery ventilation, domestic water heating and home heating via a water based heating system. The electronic CTS 600 control monitors the various temperatures within the system, e.g. the central heating flow temperature, irrespective of whether underfloor heating or radiators are used. The system contains weather compensated boiler controls. VP 18 EK EC heats the home via heated ventilation air and activates the central heating system when outdoor temperatures are low. As an additional benefit, VP 18 EK EC is equipped with a cooling system.

A pollen filter can be fitted to most Nilan units, allowing those who suffer from pollen allergy to keep their doors and windows closed while "airing" their homes via a Nilan system.



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Technical data

Type	m ³ /h	W	D	H	Weight	Heat	Cool	Water tank	Volt	Amp
VP 18 EC	330	600	600	2000	150	2,1		180	230	10
VP 18 cool/EC	330	600	600	2000	154	2,1	1	180	230	10
VP 18 Sun/cool/EC	330	600	600	2000	154	2,1	1	180	230	10
VP 18 EK EC w/cool	330	600	600	2200	174	2,1/9	1	180	400	16

Operating costs

Many factors must be taken into account when estimating operating costs for such advanced ventilation systems as the VP 18. Amongst other things, such parameters as the number of people in the household and the heating and ventilation requirements strongly influence operating costs. It is possible, however, to make certain assumptions about the required quantity of hot water and the way in which operating times and temperatures are set.

A standard VP 18 will typically consume 1600-2100 kWh per annum under the following conditions:

- Modern 160 m² single-family home insulated in accordance with current standards
- Household of two adults and two children

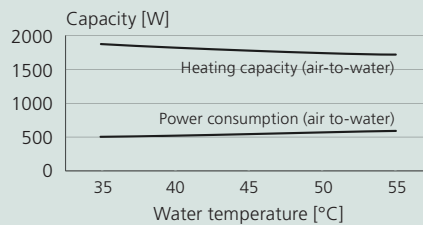
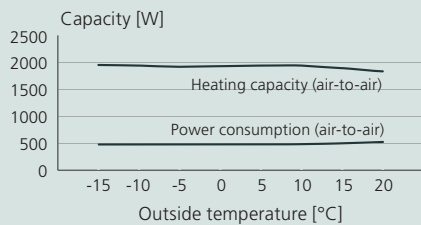
This information has been checked and compared with standard consumption patterns before being used to estimate the above-mentioned operating costs.

The operating costs are therefore for guidance purposes only and may vary for individual households.

Heating capacity and power consumption (compressor)

Values are based on an air-extraction rate of 300 m³/h.

Air properties: 20°C, 50% relative humidity. Values are based on automatic mode.



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**Nilan creates well-being
for your family!**