

Enervent ventilation

SYSTEMS FOR NON-RESIDENTIAL INDOOR CLIMATE



enervent



Decentralized ventilation systems

Planning decentralized ventilation in nonresidential buildings makes sense. Dividing the building into zones with their own ventilation and indoor climate makes the building adaptable.

Changing habits

Traditionally residential buildings like detached houses have been equipped with one small ventilation unit and big nonresidential buildings with one big ventilation unit. We want to change that way of thinking. We recommend decentralization of the ventilation system, especially in big buildings, but sometimes also in small buildings.

Adaptable buildings are the future

Thanks to decentralized ventilation the indoor climate can easily be altered zone-specificly when the functions in the building change over the years. Decentralized ventilation makes a building adaptable. Different operations have different indoor climate requirements. With

centralized ventilation all different operations in the building get the same indoor climate. It is average and doesn't really fit anyone. With decentralization the indoor climate in the zones can be optimized for the operation in that zone.

Cost savings with decentralized ventilation

It is actually cheaper to install a decentralized ventilation system compared to a centralized even if several ventilation units are needed. The savings come in installation and duct system;

- The ducts are smaller and cheaper
- Smaller ducts are also easier to install
- No expensive fire dampers are needed.

Enables superb energy efficiency

Envervent has developed EnergyBUS, a system for superb energy efficiency in nonresidential buildings with decentralized ventilation.

EnergyBUS collects excess energy from all the different zones, stores it in water and distributes the energy back to the zones according to need. The energy is transferred by water and can be used in underfloor heating and in water heating coils in ventilation. EnergyBUS can also circulate cold water for cooling.



Fresh, hot & cool

Enervent ventilation units with built-in extract air heat pump provide supply and extract air ventilation, heating and cooling through ventilation, dehumidifying, humidifying and superb energy efficiency with EnergyBUS.

Easy solution

The ventilation units with built-in heat pump are an easy, yet versatile solution where excellent indoor climate is wanted.

The unit series' features:

- Fresh and clean indoor air
- Heating and cooling by extract air heat pump
- No indoor units: air is evenly distributed via the ventilation ducts
- Smart control system with shortcuts
- Double heat recovery
- The unit shoulders part of the heating requirement
- Suitable for use alongside all types of heating systems

- Two separate units replaced by a single, integrated one
- No cold installation
- Integrated unit saves space

More than heating and cooling

Enervent ventilation solutions can control the indoor climate based on the absolute humidity level of the indoor air.

In spaces where the humidity level is vital, the ventilation unit can keep it on the desired level (g/kg). The heat pump technology in the units enable dehumidification of the outdoor air before it is blown into the building. The air is cooled down by the heat pump allowing moisture to

be removed from the air.

In order to keep the supply air temperature on a comfortable level the air is heated to the desired temperature before it is blown into the building. If needed an external humidifier can be installed and controlled via the Enervent ventilation system.



Energy efficiency

Enervent is a leading innovator in the field of energy efficiency in ventilation. We have been one of the trendsetters in this field since the 1980's.

Carefully chosen components

Enervent has been a leading company in developing energy efficient ventilation systems since the 1980's.

We constantly develop our products by seeking for new, even more energy efficient components. Energy efficiency and high quality are key points of interest when we choose components and suppliers for our ventilation systems.

Heat recovery

All Enervent solutions for residential buildings are equipped with a rotating heat exchanger. The rotating heat exchanger transfers waste heat energy from the extract air to the fresh air.

The rotating heat exchanger can similarly recover coolness lowering cooling costs in the summer.

When the temperature drops below 0°C the rotating heat exchanger recovers part of the humidity in the extract air keeping the indoor humidity at a healthy level.

Integrated heat pumps

Enervent offers a range of ventilation units with built-in extract air heat pump.

These solutions are cutting edge products when it comes to energy efficiency. The product line has double heat recovery - first the heat

is recovered by the heat pump and then with the rotating heat exchanger.



Under the right circumstances energy efficiency in these systems can be over 90 % and annual efficiency over 80 %.

Excess energy from the process can in these solutions be used to heat up water. The water can be used as domestic hot water or to heat up the building with. The system is too good to be true with a annual heat recovery efficiency over 100 %.



Control

Control is one of our specialities. We have developed different control systems for different needs. They are all optimized for good user experience, both for the installer and the end user.

		
Function	eAir	eWind
Fan speed settings	Through operation modes	4-step
Supply air temperature set point	X	X
Control of electrical after heater	X	X
Over pressure mode	X	X
Alarm and maintenance reminder	X	X
Humidity boosting	X	X
Possibility to connect two panels to one unit	X	X
Cooling recovery	Automatic	Automatic
KNX connectivity	X	X
Commissioning parameters view	X	X
On-off control for CHG brine pump	X	X
On-off control for GWC damper motor		
Control for CHG coil 3-way valve motor	X	X
Exercising of brine pumps during stand-by	X	X

Function	eAir	eWind
Exercising of the HRW during standby	X	X
Modbus RTU	X	X
Stepless control of heat recovery	X	X
Control of damper motors	X	X
Control of electrical pre-heater	X	X
Control of water pre-heater/cooler	X	X
Control of water heater	X	X
Eco mode	X	X
Control of water cooler	X	X
Boosting function	X	X
Measurements view	X	X
Carbon dioxide boosting	Extra equipment	Extra equipment
Time programs	X	
Summer night cooling	X	
Temperature boosting	Extra equipment	
Compensation for hood/central vacuum cleaner	Extra equipment	
Constant duct pressure mode	X	
Internet user interface	X	
Extended duty control	X	
Set-up wizard	X	
Modbus TCP/IP	X	

Ventilation solutions for nonresidential buildings



PEGASOS

Air volum flow	140...1 100 m ³ /h
Duct connections	Ø 250 mm
Standard filters	M5/M5
Width	1 250 mm
Depth	677 mm
Hight	1 400 mm
Weight	203 kg
Electr. after heater	4 000 W
Water after heater	Yes
Cooling	Yes
Installation	Warm space



PEGASOS XL

Air volum flow	140...1 404 m ³ /h
Duct connections	Ø 250 mm
Standard filters	M5/M5
Width	1 250 mm
Depth	677 mm
Hight	1 400 mm
Weight	203 kg
Electr. after heater	4 000 W
Water after heater	Yes
Cooling	Yes
Installation	Warm space



LTR-7

Air volum flow	580...1 120m ³ /h
Duct connections	Ø 250 mm
Standard filters	M5/M5
Length	1510 mm
Depth	707 mm
Hight	720 mm
Weight	130 kg
Electr. after heater	4 000 W
Water after heater	Yes
Cooling	Yes
Installation	Warm/cold space



LTR-7 XL

Air volum flow	620...1 400m ³ /h
Duct connections	Ø 250 mm
Standard filters	M5/M5
Length	1510 mm
Depth	707 mm
Hight	720 mm
Weight	130 kg
Electr. after heater	4 000 W
Water after heater	Yes
Cooling	Yes
Installation	Warm/cold space



PALLAS

Air volum flow	720...2 160 m ³ /h
Duct connections	300x600 mm
Standard filters	F7/F7
Width	1 800 mm
Depth	890 mm
Hight	1 610 mm
Weight	450...500 kg
Electr. after heater	9 000 W
Water after heater	Yes
Cooling	Yes
Installation	Warm space

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