

# Enervent Pallas

COMPREHENSIVE TECHNICAL DETAILS



***enervent***

# Enervent Pallas

The Enervent Pallas is best suited for public spaces, such as offices, coffee shops, schools, industrial facilities, in addition to blocks of flats. Pallas can be used as a single unit, if the efficiency allows, or as a part of a de-centralized ventilation system, i.e. as a fire zone specific unit. In blocks of flats, Pallas is well suited as a floor or stairway specific unit.

Whenever possible a rotating heat exchanger is used for heat recovery. If local regulations require otherwise, a fluid heat exchanger with a heat pump is used as heat recovery method.

Pallas can be fitted with a built-in extract air heat pump (HP). All heating and cooling coils, as well as the heat pump unit, are built-in to the unit. The Pallas HP with a built-in heat pump effectively cools and heats the air on demand. The cooled and heated air is evenly distributed throughout the building via the ventilation ducts (not local point formed distribution, as in traditional heat pumps). In addition, the heat pump offers the unique feature of heating water (Aqua). The water can be used as domestic hot water or in a water-borne heating system.

Enervent EnergyBUS (pat.pend.) is an ideal solution for a de-centralized ventilation system. With EnergyBUS, the building's energy flow and energy consumption can be optimized by moving energy in time and space. This is enabled by a network of ventilation units with built-in heat pumps connected to each other.

Enervent Pallas is a 'non-residential ventilation unit' (NRVU) according to the EU Commission Regulation No 1253/2014. Ventilation units with maximum flow rate between 250 and 1 000 m<sup>3</sup>/h which the manufacturer has not declared intended as being exclusively for a residential ventilation application are called non-residential.

Non-residential ventilation units (NRVUs) are excluded from EcoDesign labelling.

Our calculation software Energy Optimizer, located on our website [www.enervent.com](http://www.enervent.com), reports whether the chosen NRVU unit fulfills the EcoDesign requirements or not for the intended project.

## Technical details

### General information

Air volume flow	720...2 160 m <sup>3</sup> /h
Pressure difference	40 to 300 Pa
Leakage	external < 2% (test pressure 250Pa) internal < 4%
Duct size	Exhaust air: 300 x 600 Supply air: 300 x 600 Fresh air: 300 x 600 Waste air: 300 x 600
Weight	450 ... 500 kg
Standard filters, 2 x bag filter Filter dimensions (WxHxD)	F7/M5 Supply 340 x 810 - 305 mm Extract 340 x 700 - 340 mm
Alternative filter 2x bag filter Filter dimensions (WxHxD)	F7/F7 Supply 340 x 810 - 305 mm Extract 340 x 700 - 340 mm
IP class	IP44 (external control IP20)
Nominal voltage	400 V (AC) 3~
Nominal current	Motors 3.2 A total Electrical after heating 3x7,5 A

### Fans

Supply and exhaust air fan type	Ebm-Papst
Supply and exhaust air motor type	K3G280-AU11-C2
Nominal voltage	400 V (AC) 3~, EC-type with external electronics
Type of fan blade	Radial forward
Nominal power	1 000 W
Fan control MD control	Stepless (supply and exhaust running separately)

### Heat exchanger

Heat exchanger type	Rotating heat exchanger
Material	Aluminium
Heat exchanger surface	175 m <sup>2</sup>
Heat exchanger dimensions	720 x 200 mm (60 µ)
Heat exchanger motor	54 W
Heat exchanger efficiency	75 – 85 % p.a.

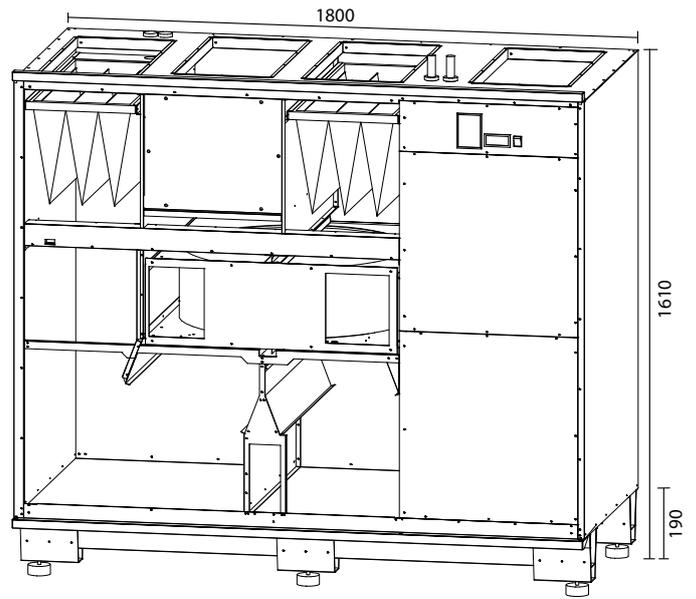
### Other information

Material inside cover	Steel sheet, zinc coated
Material outside cover	Steel sheet, zinc coated
Standard electric after heater efficiency	9 000 W
Positioning of a cooling coil	Built-in

### Sound levels

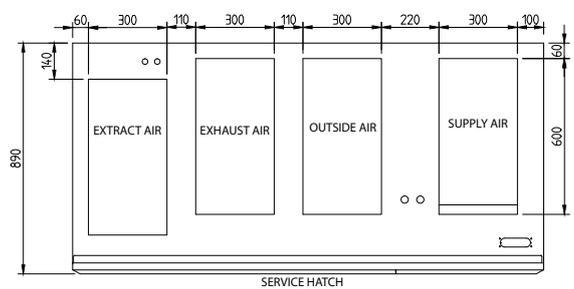
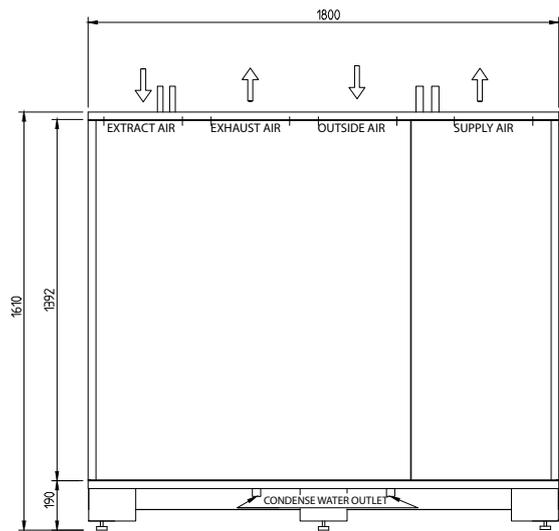
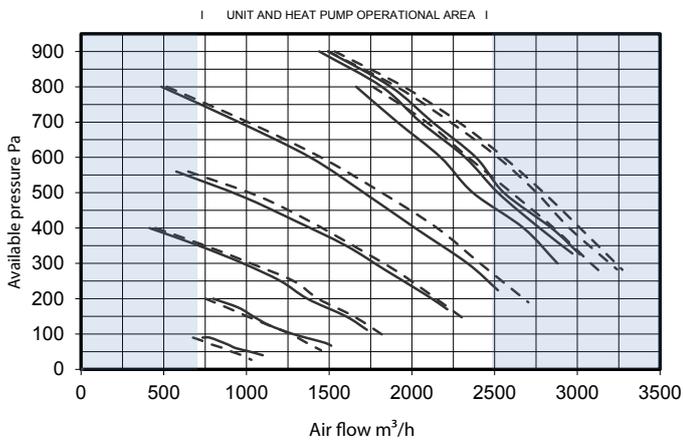
	L <sub>w</sub>	L <sub>WA</sub>
Supply air duct	75,7 dB	73,4 dB(A)
Extract air duct	65,4 dB	56,2 dB(A)
Outdoor air duct	62,6 dB	54,0 dB(A)
Exhaust air duct	76,0 dB	74,4 dB(A)
Through casing	68,6 dB	60,6 dB(A)
-> 10 m <sup>2</sup> absorption L <sub>pA</sub>	56,6-- dB(A)	

## Dimension drawings



## Characteristics

Pallas HP Aqua KI-W supply and extract air characteristic curves with F7/M5 filters



## Installation

Mounting	Floor	X	Wall	Ceiling
Frame alternatives			Right	X
				Left

Enervent Oy  
Kipinätie 1, FI-06150 PORVOO  
Tel +358 207 528 800  
enervent@enervent.com  
www.enervent.com

***enervent***