

# ECO 275



- Low energy consumption
- Sized for installation in closet module of 60 cm
- Right/left function

ECO 275 is a ventilation system for heat recovery with a high-efficiency counterflow heat exchanger that has a heat recovery rate up to 94% as well as fans with energy saving EC motors. ECO 275 is particularly suitable for apartment construction or single family houses, where the ventilation system is built into a closet or mounted freely on the wall.

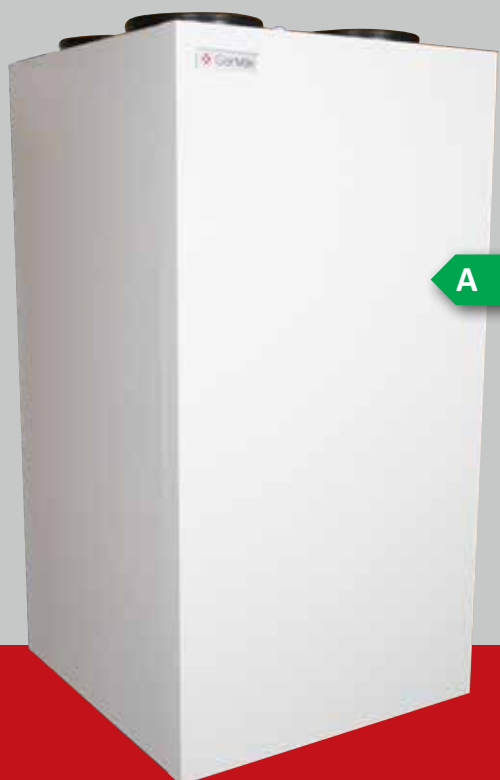
ECO 275 is suitable for installation in buildings with an area up to 350 m<sup>2</sup>. Despite the compact dimensions for installation in a standard 60x60 cm closet module, the performance of the ECO 275 is on par with systems which is significantly more space consuming. By default, the ECO 275 is supplied with G4/Coarse filters on outdoor air intakes and on extract air (M5/F7 filter is supplied as an accessory). ECO 275 can be supplied as either a right- or left-configured system (defined by the connection of the extract air).

As an accessory for the ECO 275, a built-in modulating 1200 watt preheater is available – ensuring a balanced air supply, even in very cold outdoor temperatures, with a minimal energy consumption.

#### The system comes with an Optima 270 control:

- Passive comfort cooling with fully automatic 100% bypass.
- Reduced energy consumption by means of modulating humidity control and calendar program.
- Connection of electric preheater or post heater, which adjusts the temperature according to needs.
- Can be connected to a BMS system via Modbus communication.
- Integrated RJ45 connection for cloud connection.
- Can be used without a display or with the option to connect either of two display types (Basic/Touch).
- Built-in data logging and the option of remote monitoring.

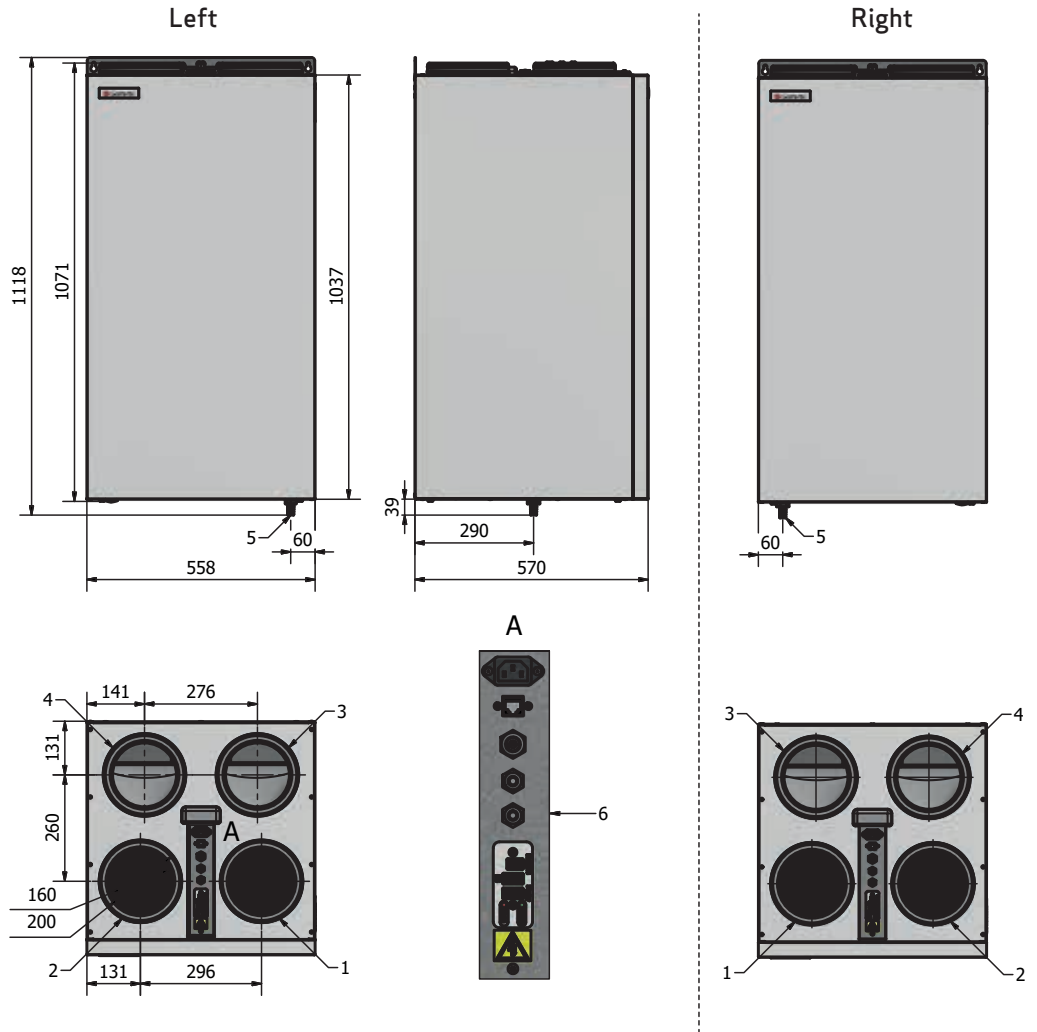
Please note that displays are sold separately.



# Dimensional sketch

Dimensions in mm

1. Outdoor air
2. Extract air
3. Exhaust air
4. Supply air
5. Condensate drain
6. External electrical connection



# Technical data

ECO 275	
Electrical connection	1 x 230V + N + PE 10 A, 50 Hz
Fans	Ø180 mm backward-curved blades
Motor type	EC motor with integrated electronics
Insulation class for fan	B
Fan protection class	IP 54
Fan speed	3740 rpm
Power consumption (max. per motor)	90 W
Electricity consumption for fan	0.9 A
Dimensions (h x l x d) excl. connectors	104 x 56 x 57 cm
Cabinet	Exterior: 0,7 mm galvanised sheet metal, powder coated RAL 9016
Duct connection	Ø160/200 mm
Front	Exterior: 0,7 mm galvanised sheet metal, powder coated RAL 9016
Wall mounting	Wall bracket with keyholes
Heat exchanger	PET (Enthalpy option)
Preheater (modulating)	1,200 W
Temperature workspace	-20°C to +50°C
Condensate drain	Ø15 mm hose coupling nipple
Filters	G4/Coarse (outdoor air/exhaust air) - F7/ePM1 (accessory)
Sound pressure level (Lp) at 1 m.	47 dB (A) @ 301 m3/h, 50 Pa
Weight	40 kg/(25 kg light version)
Energy class	A

## ECO 275 and ECO 275 light

There are two models: ECO 275 and ECO 275 light. ECO 275 light is 15 kg lighter than ECO275 due to the reduced amount of metal used for the ECO 275's plate cabinet.

For the lowest noise levels, Genvex recommends the standard version of ECO 275. ECO 275 is by default fitted with a plastic heat exchanger to achieve the highest heat recovery rate. However, the system can also be configured with an Enthalpy heat exchanger that - in addition to heat - can recover moisture from the extract air.



ECO 275

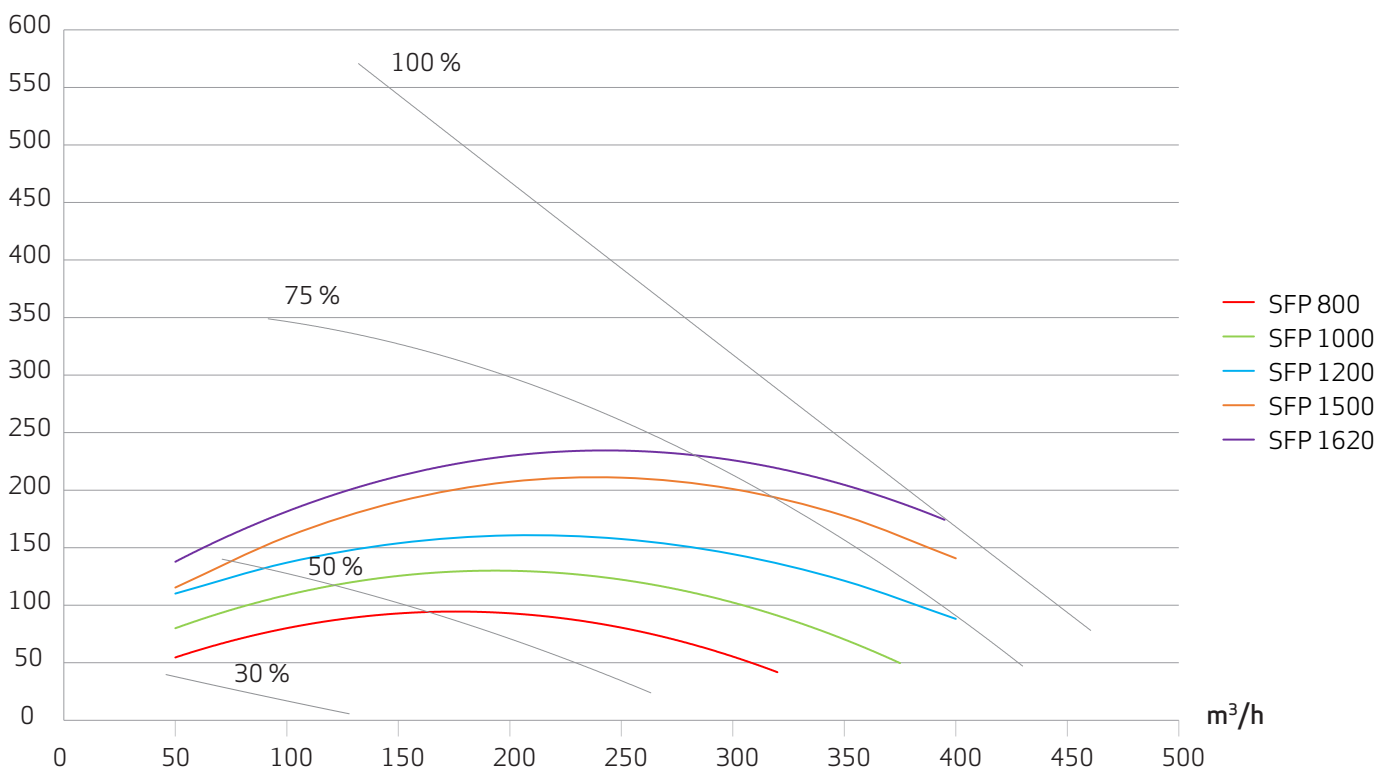


ECO 275 light

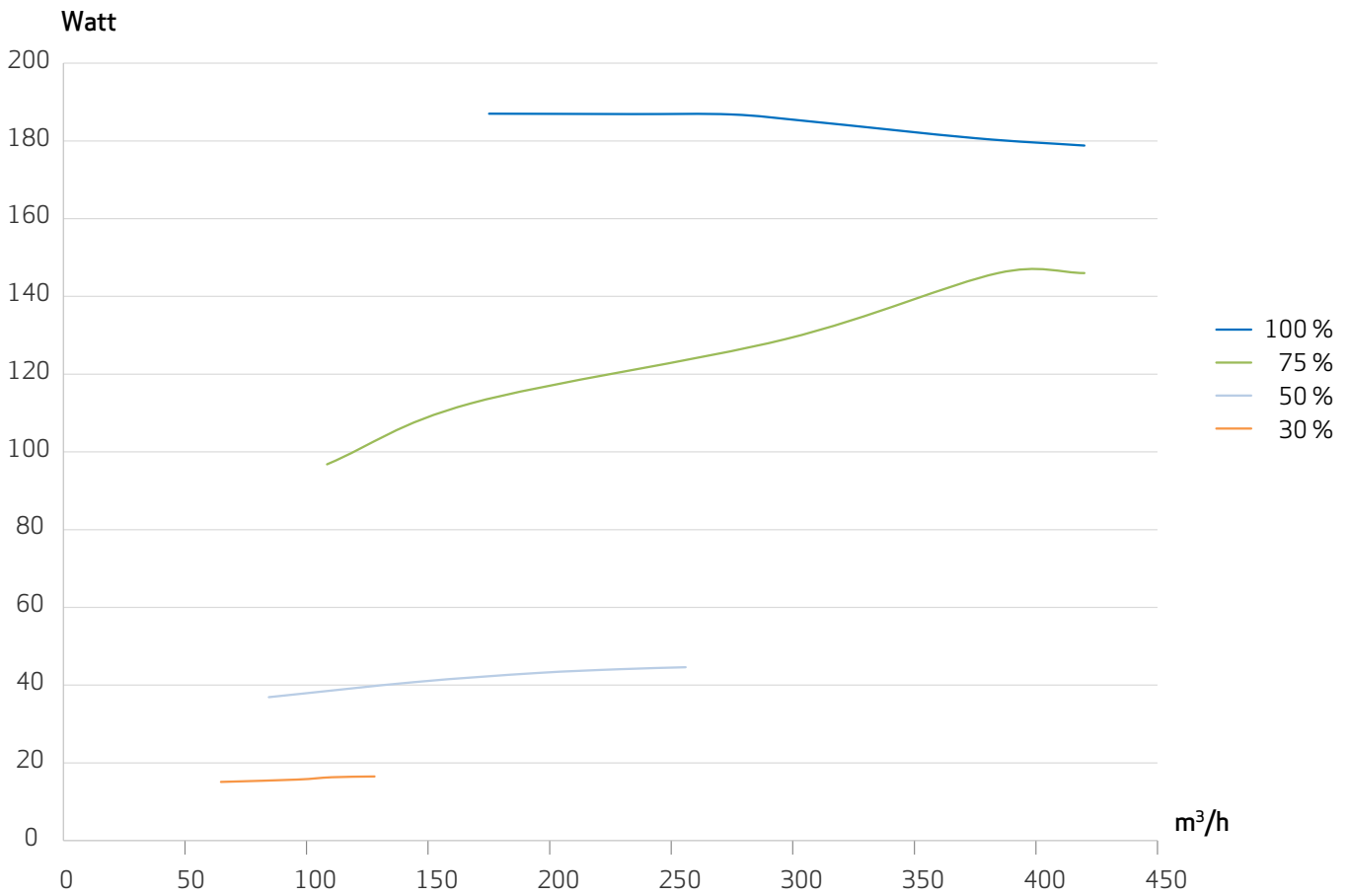
## Capacity

The capacity lines are based on an average value of supply air and exhaust air volumes in a unit. The graphs indicate the average external pressure available at a given air volume. Power consumption for control is not included in the SFP value (approx. 6 watt).

SFP factors ECO 275 - measured in accordance with EN13141-7 (G4/G4 PET)



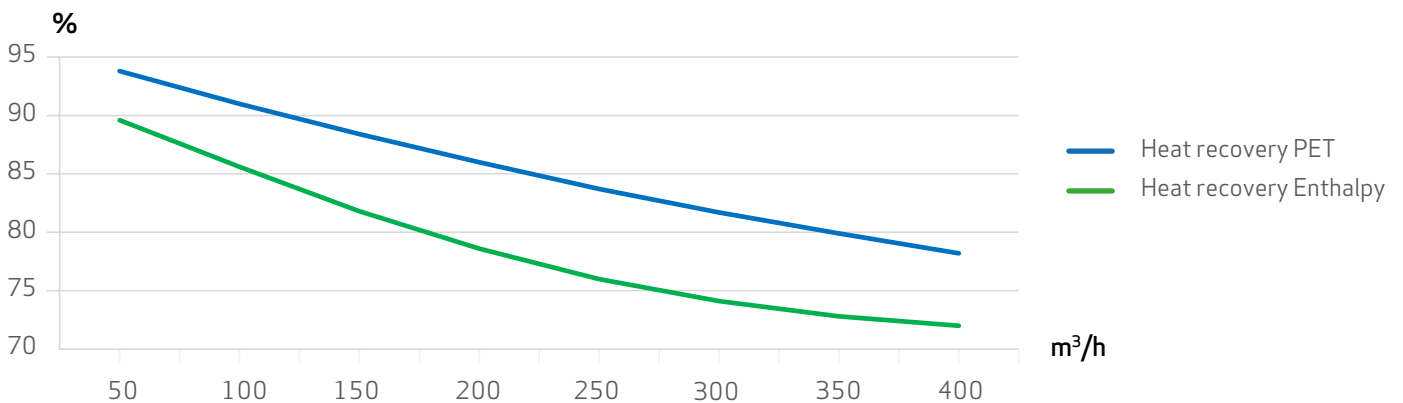
## Power consumption



## Temperature efficiency

“Dry” temperature efficiency in accordance with EN 308 and balanced air flow on the outdoor air and extract air side. This does not account for any ice that may accumulate on the heat exchanger at low outdoor temperatures.

### Temperature efficiency in accordance with EN 308



# Sound data

Air flow (m³/h)	Pressure (Pa)			Frequency/Hz								
				63	125	250	500	1000	2000	4000	8000	Total
126	70	Sound power level Lw dB(A)	Supply air	30,4	45,6	47,5	45,6	41,5	43,0	30,6	24,2	52,2
			Exhaust	35,9	49,4	53,5	54,8	48,0	48,7	34,8	24,8	58,3
			Outdoor	34,3	47,9	53,4	55,4	49,2	50,3	35,9	25,9	59,3
			Extract	29,3	39,1	41,7	43,7	41,7	40,8	30,0	24,1	49,2
	Sound pressure level Lp dB(A)@ 1 m.	Cabinet (light)	21,3	34,1	40,0	39,0	36,2	33,1	24,1	20,0	46,0	
		<b>Cabinet</b>	22,2	32,3	37,9	36,6	32,5	29,7	24,0	20,5	43,8	
	100	Sound power level Lw dB(A)	Supply air	29,98	46,54	50,42	48,6	45,3	45,7	32,6	21,5	54,6
			Exhaust	38,25	52,28	58,49	57,7	51,4	52,2	39,0	28,5	62,0
			Outdoor	35,99	50,83	57,78	57,9	51,0	51,9	39,1	28,2	61,0
			Extract	29,44	42,62	46,51	47,3	45,9	44,4	32,1	21,8	52,8
Sound pressure level Lp dB(A)@ 1 m.		Cabinet (light)	22,3	38,1	44,1	42,9	40,0	36,5	26,6	20,2	49,8	
		<b>Cabinet</b>	27,0	35,22	40,78	40,52	35,59	32,56	25,89	21,48	46,8	
162	70	Sound power level Lw dB(A)	Supply air	27,8	45,6	48,7	48,5	43,2	44,2	31,1	20,9	53,6
			Exhaust	33,9	48,9	54,9	56,2	49,6	51,8	37,6	28,4	59,6
			Outdoor	34,9	48,7	55,8	57,5	50,5	51,4	38,6	28,3	60,1
			Extract	26,9	38,8	43,5	45,4	44,9	43,7	31,0	22,1	51,2
	Sound pressure level Lp dB(A)@ 1 m.	Cabinet (light)	20,5	35,9	42,3	41,5	39,3	34,7	26,4	22,0	48,5	
		<b>Cabinet</b>	23,0	33,43	39,43	39,38	35,09	31,58	24,44	20,48	45,7	
	100	Sound power level Lw dB(A)	Supply air	29,53	46,38	52,8	49,7	46,6	47,1	34,5	23	55,8
			Exhaust	36,07	50,86	58,26	57,7	51,2	53,4	40,0	30,3	61,8
			Outdoor	35,55	49,97	59,55	58,8	53,0	53,8	41,3	31,7	61,9
			Extract	29,27	40,98	45,66	47,5	46,3	45,2	33,4	23	51,6
Sound pressure level Lp dB(A)@ 1 m.		Cabinet (light)	21,7	38,2	44,6	44,7	41,9	37,5	28,0	20,6	51,1	
		<b>Cabinet</b>	23,8	34,8	42,3	40,8	37,9	36,8	29,2	22,7	48,2	
216	70	Sound power level Lw dB(A)	Supply air	29,8	45,5	52,0	49,4	47,6	48,8	35,4	23,3	54,5
			Exhaust	33,0	47,9	56,8	58,3	53,5	55,3	42,1	33,4	61,1
			Outdoor	37,8	48,2	59,3	59,6	55,3	55,5	42,7	34,0	62,8
			Extract	28,7	39,1	44,8	47,1	47,5	46,9	34,1	24,1	51,6
	Sound pressure level Lp dB(A)@ 1 m.	Cabinet (light)	22,1	35,7	43,4	44,6	41,6	38,0	27,8	20,8	50,1	
		<b>Cabinet</b>	24,5	33,2	41,3	40,9	36,9	33,3	26,3	21,8	47,3	
	100	Sound power level Lw dB(A)	Supply air	31,49	45,82	54,07	51,6	49,6	50,4	37,3	25,2	56,4
			Exhaust	37,03	50,2	59,87	59,8	54,4	57,3	44,5	35,8	63,2
			Outdoor	38,42	48,51	59,72	60,0	55,9	56,2	44,1	35,3	63,3
			Extract	29,7	40,25	46,67	49,3	49,6	48,8	36,7	26,0	53,5
Sound pressure level Lp dB(A)@ 1 m.		Cabinet (light)	21,3	36,5	45,9	45,0	43,3	39,7	29,7	21,4	51,5	
		<b>Cabinet</b>	24,9	34,6	43,8	43,1	38,9	35,0	26,0	20,9	49,3	
200	150	Sound power level Lw dB(A)	Supply air	47,0	53,5	58,2	54,5	52,5	53,0	41,0	28,1	59,1
			Exhaust	39,0	51,6	62,5	62,3	56,1	58,6	46,3	37,1	65,9
			Outdoor	41,0	52,8	66,2	64,4	59,2	60,3	48,0	38,7	66,9
			Extract	30,7	42,9	51,3	51,9	51,0	49,9	38,6	27,4	56,0
	Sound pressure level Lp dB(A)@ 1 m.	Cabinet (light)	22,6	37,5	48,0	46,8	44,8	41,7	31,9	22,3	53,5	
		<b>Cabinet</b>	23,5	36,0	46,6	45,2	40,6	36,5	27,2	21,7	51,9	
	200	Sound power level Lw dB(A)	Supply air	39,61	49,46	60,35	57,0	55,2	55,5	45,4	34,9	64,9
			Exhaust	42,04	54,09	67,16	65,4	59,8	61,5	49,9	41,0	71,5
			Outdoor	42,28	53,96	70,19	67,6	61,6	62,9	50,8	41,3	73,4
			Extract	40,86	45,85	52,63	56,5	55,0	54,0	43,5	33,2	62,4
Sound pressure level Lp dB(A)@ 1 m.		Cabinet (light)	27,2	38,6	52,0	50,1	47,5	44,5	35,0	24,3	57,0	
		<b>Cabinet</b>	24,3	37,7	49,3	47,9	42,6	39,2	30,0	23,5	54,3	
250	150	Sound power level Lw dB(A)	Supply air	38,4	47,7	60,0	55,6	54,4	55,4	43,9	31,9	63,2
			Exhaust	40,4	52,2	65,4	64,3	59,6	61,8	50,1	41,8	70,5
			Outdoor	40,3	50,8	69,6	65,3	61,0	61,6	49,9	41,0	72,1
			Extract	43,0	46,1	52,6	54,8	54,9	53,4	42,8	32,7	61,3
	Sound pressure level Lp dB(A)@ 1 m.	Cabinet (light)	27,4	37,3	51,0	49,7	46,7	44,1	35,0	24,3	56,7	
		<b>Cabinet</b>	24,6	35,7	48,1	46,1	42,3	39,0	28,5	22,2	52,3	
	200	Sound power level Lw dB(A)	Supply air	44,36	49,72	62,24	59,4	56,9	57,2	47,5	36,7	66,1
			Exhaust	44,06	54,68	67,26	66,9	62,4	64,0	52,6	44,1	72,8
			Outdoor	41,99	52,56	70,31	68,5	62,9	63,1	51,7	42,6	73,8
			Extract	49,98	54,08	56,02	57,7	57,6	56,6	46,7	36,4	65,7
Sound pressure level Lp dB(A)@ 1 m.		Cabinet (light)	25,3	39,4	53,2	52,8	49,2	45,3	36,1	25,1	58,8	
		<b>Cabinet</b>	25,7	37,3	49,4	48,6	44,1	40,6	30,2	23,4	53,9	

## Automatic control

ECO 275 is delivered with the Optima 270 controller.

The Optima Control comes with a factory setting that allows operation of the system without first needing to configure the system's operating menu.

The factory setting is just a basic setting that can be changed to match the operational desires and requirements of your home.

### ECO 275 can be delivered with the following accessories:

- Genvex Automatic Fire Control.
- Water-based post-heating surface, incl. motor valve, or electric heating surface for installation in ventilation duct.
- Brine-based preheating/cooling surface.
- Integrated electric preheating surface.
- Optima Basic or Optima Touch control panel.
- Wireless CO<sub>2</sub> sensors.
- Level switch for condensate.

## Control panel - Optima Touch



#### Speed

With this function, it is possible to set the fan speed in steps 0-1-2-3-4.



#### Extended operation

With this function, it is possible to set the timer for forced operation for between 0 and 9 hours.



#### Lock display

This function locks the display for 5 seconds. Typically used when wiping down the display



#### Main menu

With this function, it is possible to enter the main menu, where you will find the following sub-items: calendar, user menu, display, information menu and service menu.



#### Information

With this function, it is possible to get a good overview of the system's current operating condition, e.g. temperature, fan setting, relay status/functions, alarm, timer, etc.



#### Temperature

With this function, it is possible to set the desired temperature.

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