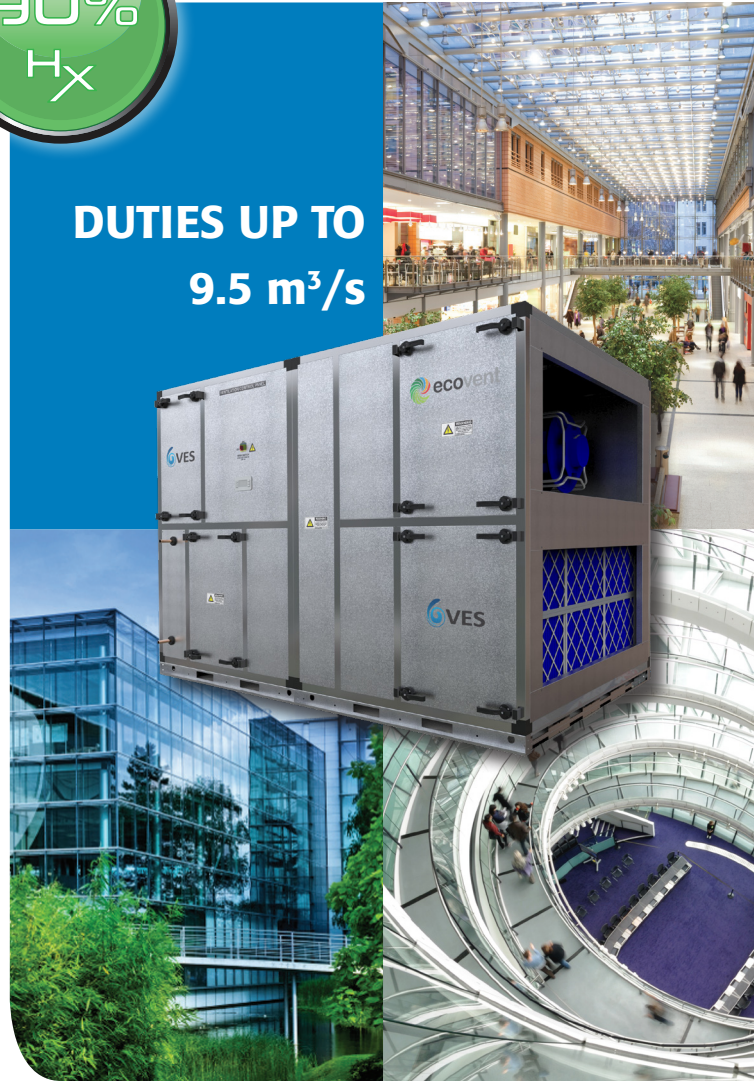


# Ecovent<sup>®</sup> Wheel

- ▶f Premium efficiency heat recovery
- ▶f ErP 1253/2014 2018 compliant
- ▶f Heat recovery efficiency up to 90%
- ▶f ErP 2015 compliant low energy EC fans
- ▶f Low SFP to achieve L2 building regulations
- ▶f Thermal bridge free construction
- ▶f Fitted BlueSense controls for simple installation
- ▶f BIM files available
- ▶f Weatherproof and plantroom units available



**DUTIES UP TO  
9.5 m<sup>3</sup>/s**



Ecovent<sup>®</sup> Wheel  
*part of a complete range of innovative, flexible products  
from the HVAC experts*



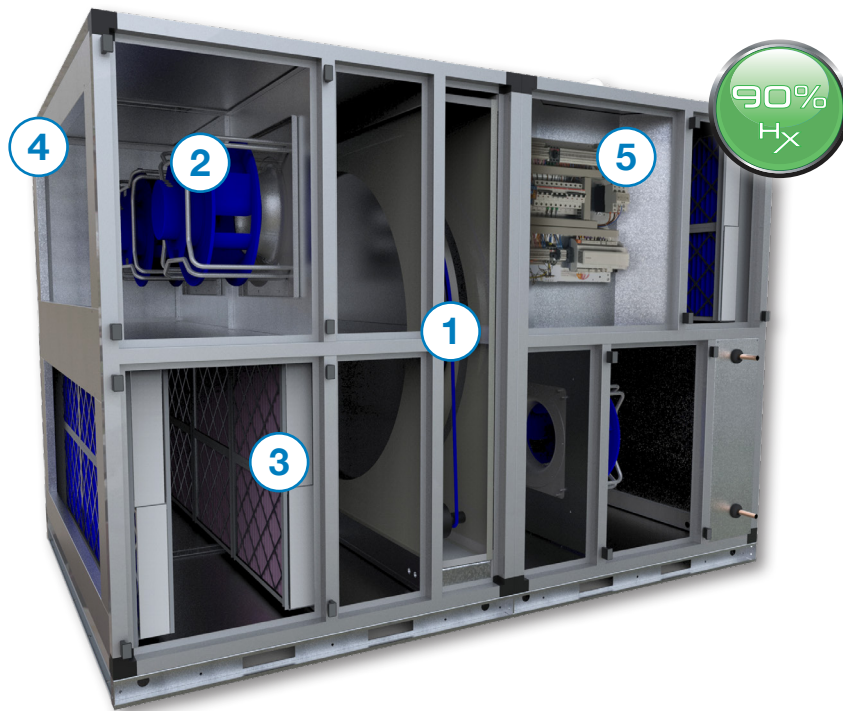
**Pre-print edition October 2018**

# Ecovent<sup>®</sup> Wheel

## Ecovent<sup>®</sup> Wheel

Ecovent has been the acknowledged market leader in heat recovery air handling units for over 10 years. The new premium efficiency Wheel heat recovery range includes units with duties up to 9.5m<sup>3</sup>/s, all with low specific fan power and low energy, high efficiency fans.

Constructed to meet recognised engineering standards, the Ecovent Wheel range achieves the highest rating for deflection, leakage, thermal transmittance and thermal bridging in independent tests to BS:EN1886. Heat and airflow losses are minimised capitalising on the energy recovered from the high efficiency thermal wheel.



### Ecovent<sup>®</sup> Wheel Features and Benefits

#### Energy Saving

Meet regulations, minimise noise and maximise performance.

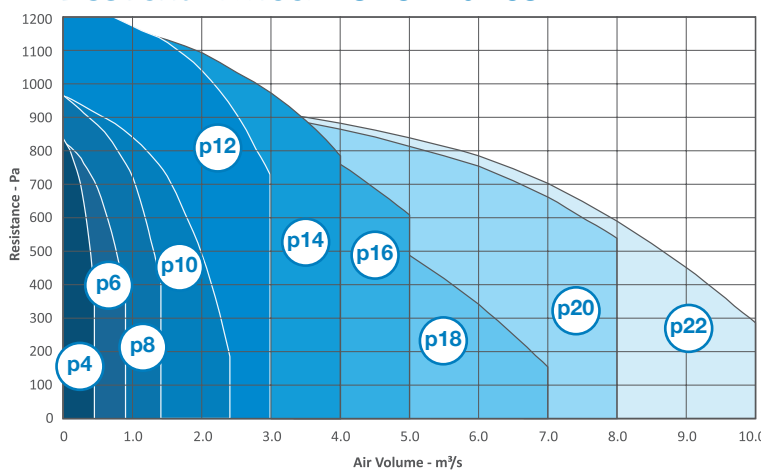
Energy saving packages combine intelligent controls technology, products and services.

#### Simple installation and maintenance

Simple connection and pre-installed features save on site costs and reduce lead times. Carefully designed maintenance features minimise downtime and total cost of ownership.

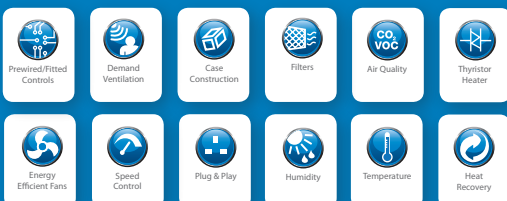
### Ecovent<sup>®</sup> Wheel Performance

Duty performance curves



#### Robust Construction

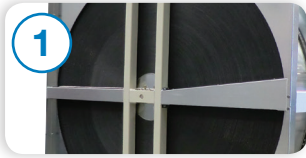
Excellent build quality ensures minimal noise breakout, low SFPs and airtight performance



### Energy Saving

Intelligent controls enhance performance whilst saving energy and money.

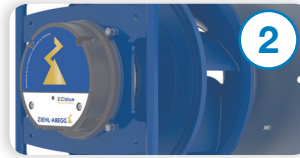
# Premium efficiency heat recovery units



1

## Heat recovery

Rotary Heat Wheel. Efficiency up to 90% with variable speed control. Cooling and heat recovery are modulated to optimise efficiency, and utilise available free heating and cooling where possible. Summer bypass can be achieved by stopping the wheel rotation.



2

## High performance fans

EC fans offering maximum efficiency, minimum energy consumption. Fully controllable and ErP2015 compliant.



## Energy efficient

Energy efficient units with low SFPs to help achieve L2 Building Regulations. Units are fully tested to DIN 45635-38 (acoustic performance).



## Complete ventilation package

VES offer the expertise, products and services to provide a complete ventilation package including heat recovery unit, integrated controls and site assistance, providing peace of mind through reliable products and expert knowledge.



3

## Filter maintenance

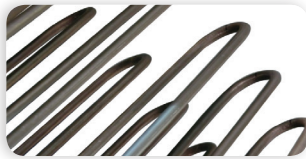
A range of high efficiency, pre and main filtration, with side access panels for easy and safe filter maintenance. If a VES control panel is ordered it will provide condition based servicing information.



4

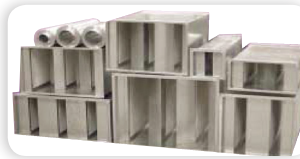
## Duct connections

Each unit features spigot-free duct connections ensuring an easy and efficient fit whilst minimising potential noise break out.



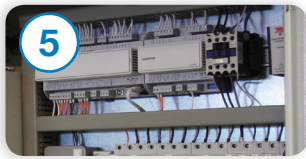
## Heating options

A variety of modulating low pressure hot water (LPHW) and electric heater options are available to suit the required application.



## Silencer

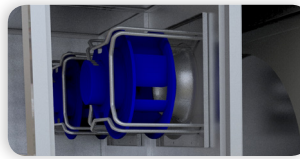
Manufactured by VES to suit noise levels required by application. Various options include duct mounted, bolt on or built in. Removable splitters to enable cleaning and various infill and material types. Mitre bend and cylindrical pods available. Powder coating finish available with galvanised finish as standard.



5

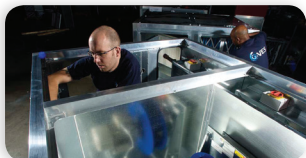
## Integrated controls

BlueSense energy saving packages combine intelligent technologies with energy saving products, services and engineering expertise.



## Airflow commissioning

The unit air volume can automatically be commissioned when purchased with a VES control panel. Volumes for supply or extract can be adjusted at the user interface, allowing more control of demand ventilation and night set back volume.



## Case Construction

All units built with an aluminium tubular frame and galvanised steel sheet panels tested to EN1886 to achieve Thermal Bridging (TB), Thermal Transmittance (T), Deflection (D) Class 1.

D1 construction ensures the case will withstand the forces applied when in operation and maintain the Leakage(L) Class 1 rating. T1 construction minimises heat loss within the AHU reducing energy consumption from associated heating and cooling plant whilst TB1 mitigates the risk of condensation prolonging the lifespan of the AHU. L1 construction minimises the air leakage through the unit reducing wasted energy and guaranteeing performance.

## BlueSense Energy Saving Package



Ecovent Wheel unit with integral controls

+



EC fan with full control

+



Sensor options

=



The sign of energy saving products, services and expertise



# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW01602-1

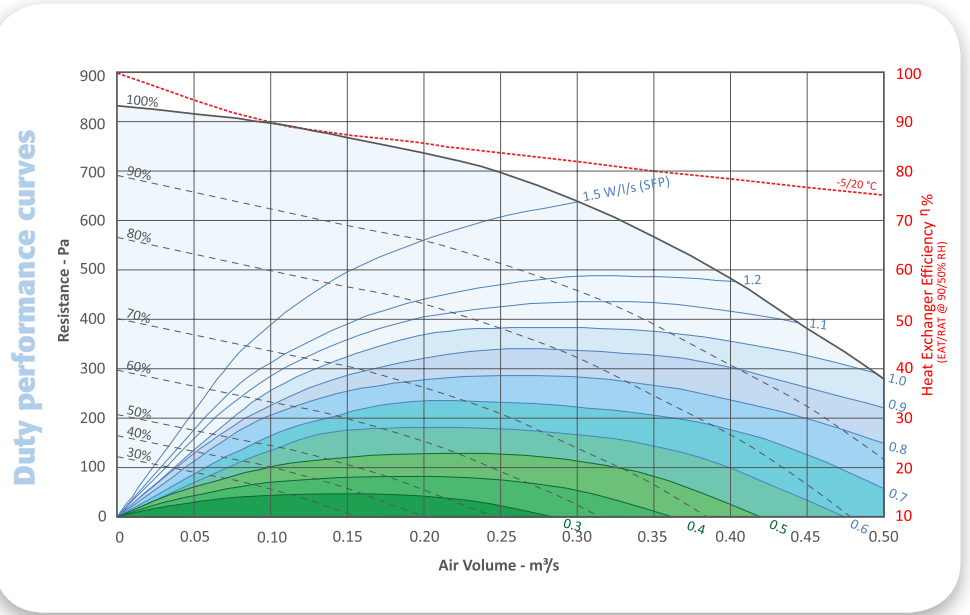
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



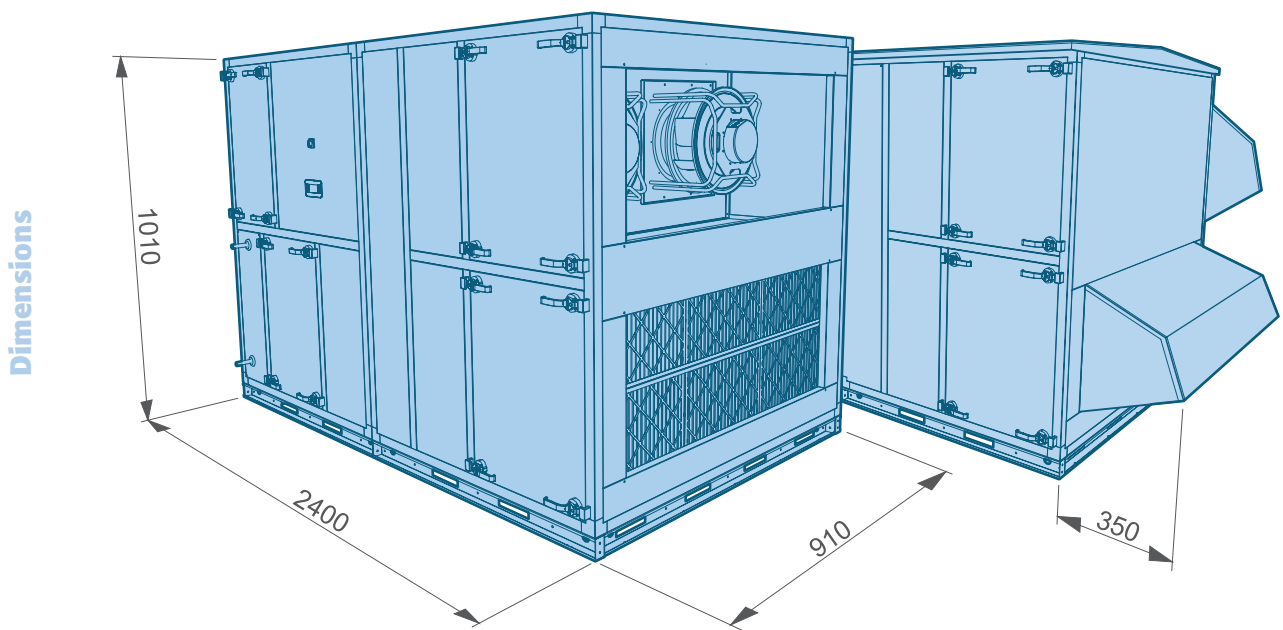
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW01602-1	1 Phase	0.500 kW	230 VAC	3080 rpm	2.50 A	EC

## Configuration

Configuration and Handling

EVW01602-1 / **SP** ..... / **L** ..... /  
**SW** **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 398kg  
Weatherproof - 437kg

**Note:** Data for design guidance only. Detailed information is available upon request.



# Premium efficiency heat recovery units

## Heating and Controls

Heating

EVW01602-1 / SP- **W** / TB / R  
 SW **E** EE L  
 null

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	0.20	33.6	9.35	0.114	3.0	3/4"
	0.30	30.8	13.01	0.159	5.2	
	0.40	28.4	16.18	0.198	7.6	
	0.50	26.1	18.84	0.230	10.1	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 3/4" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating options
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	3ph - Electric Heater
Electric Thyristor Heating	0.100	28.1	4	EHEW1/4KW/1X3
	0.125	21.4		
	0.150	28.1	6	EHEW1/6KW/1X3
	0.175	23.3		

Air off temperature based upon entering air of -5 °C. Power = Air Volume x Constant x Temperature Rise. Note: If no control panel is purchased the unit will be supplied with a main isolator.

kW = m<sup>3</sup>/s x 1.21 x ΔT °C.

UNIT EVW01602-1

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	76	55	59	56	49	48	44	49	48	38	50	41
	Intake	60	57	63	67	66	66	59	51				
	Outlet	79	64	59	72	73	72	67	63				
80%	Casing Radiated	61	51	56	51	43	42	38	44	43	34	45	35
	Intake	59	53	60	52	60	60	53	46				
	Outlet	64	60	66	67	67	66	61	58				
60%	Casing Radiated	59	58	58	45	36	33	28	32	41	31	43	33
	Intake	57	60	62	56	53	51	43	34				
	Outlet	62	67	68	61	60	57	51	46				
40%	Casing Radiated	61	55	44	39	30	26	21	22	29	18	35	25
	Intake	61	57	48	50	47	44	36	24				
	Outlet	64	64	54	55	54	50	44	36				

Sound Spectrum dB re 10<sup>-12</sup> W PWL.

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW02602-1

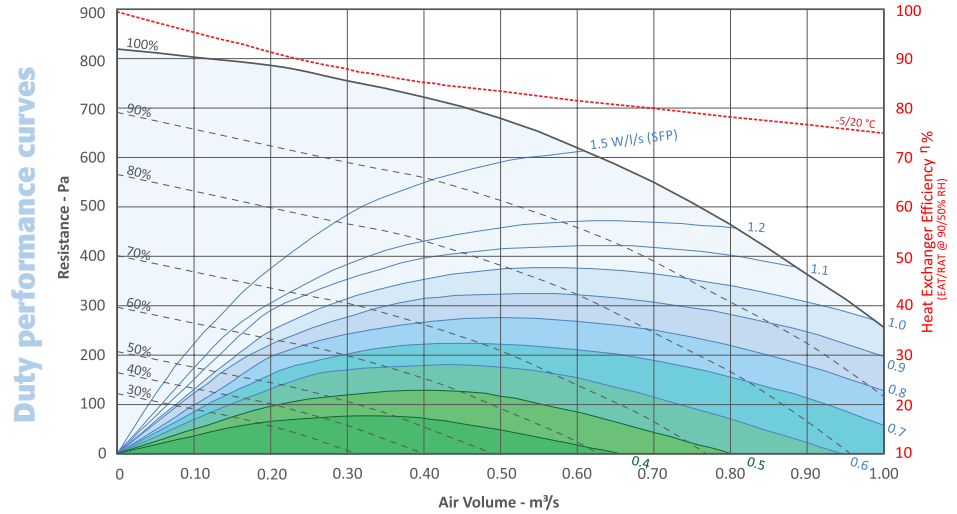
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



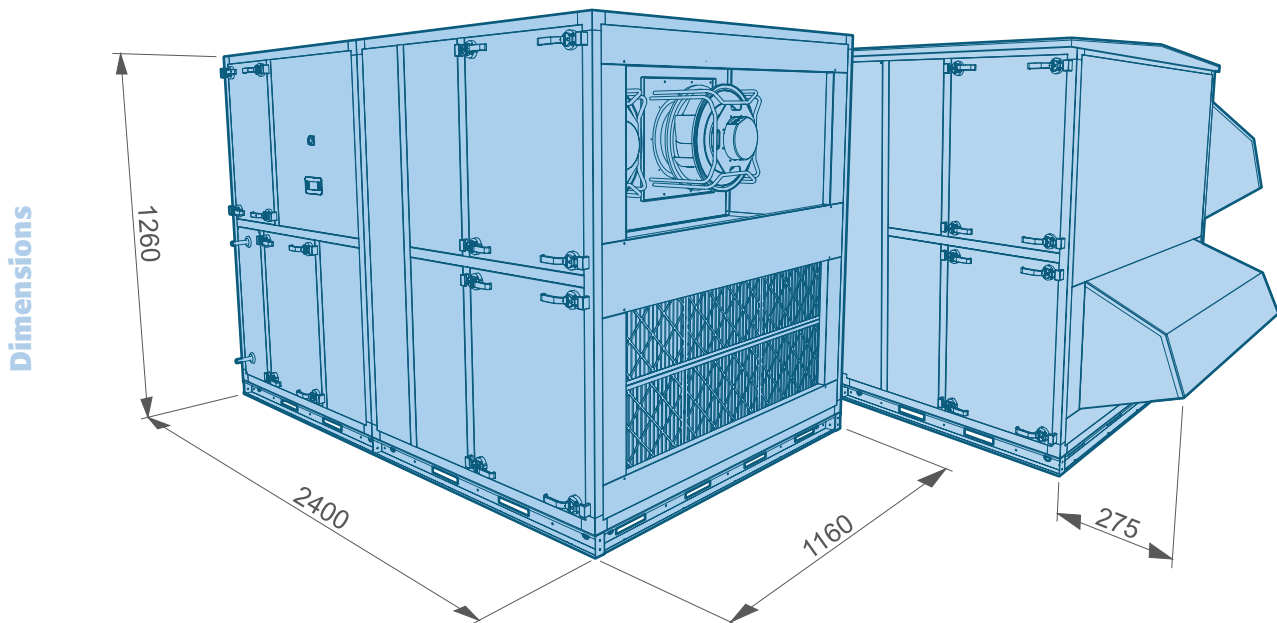
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW02602-1	1 Phase	0.500 kW	230 VAC	3080 rpm	2.50 A	EC

## Configuration

Configuration and Handling

EVW02602-1 / **SP** ..... / **L** ..... /  
**SW**                      **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 545kg  
Weatherproof - 595kg

**Note:** Data for design guidance only. Detailed information is available upon request.

# Premium efficiency heat recovery units

## Heating and Controls

Heating

EVW02602-1 / SP- **W** / TB / R  
SW **E** EE L  
**null**

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	0.40	33.6	18.72	0.229	5.2	1"
	0.60	30.7	25.97	0.317	9.3	
	0.80	28.2	32.14	0.392	13.6	
	1.00	25.7	37.20	0.454	17.7	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 1" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating options	
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	3ph - Electric Heater	
Electric Thyristor Heating	0.100	28.1	4	EHEW2/4KW/1X3	
	0.125	21.4			
	0.150	28.1	6	EHEW2/6KW/1X3	
	0.175	23.3			
	0.200	32.2	9	EHEW2/9KW/1X3	
	0.225	28.1			

Air off temperature based upon entering air of -5 °C. Power = Air Volume x Constant x Temperature Rise. Note: If no control panel is purchased the unit will be supplied with a main isolator.

kW = m<sup>3</sup>/s x 1.21 x ΔT °C.

UNIT EVW02602-1

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	79	58	62	59	52	51	47	52	51	41	53	44
	Intake	64	60	66	70	69	69	62	54				
	Outlet	82	67	72	75	76	75	70	66				
80%	Casing Radiated	64	55	61	54	46	45	40	47	46	36	48	39
	Intake	64	57	65	65	63	63	55	49				
	Outlet	67	64	71	70	70	69	63	61				
60%	Casing Radiated	62	60	61	48	39	36	31	35	44	34	46	36
	Intake	61	62	65	59	56	54	46	37				
	Outlet	65	69	71	64	63	60	54	49				
40%	Casing Radiated	64	58	47	42	33	29	24	25	33	22	38	28
	Intake	65	60	51	53	50	47	39	27				
	Outlet	67	67	57	58	57	53	47	39				

Sound Spectrum dB re 10<sup>-12</sup> W PWL.

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.



# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW03603-1

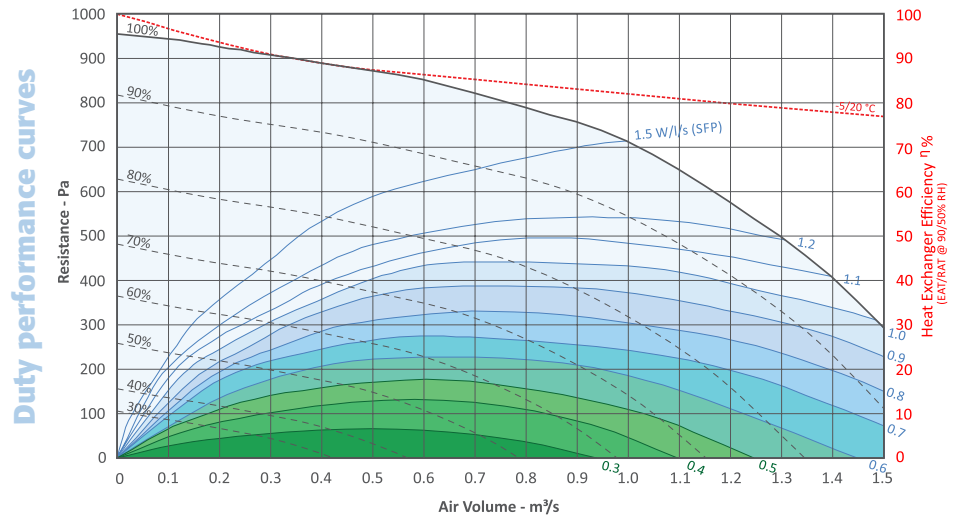
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



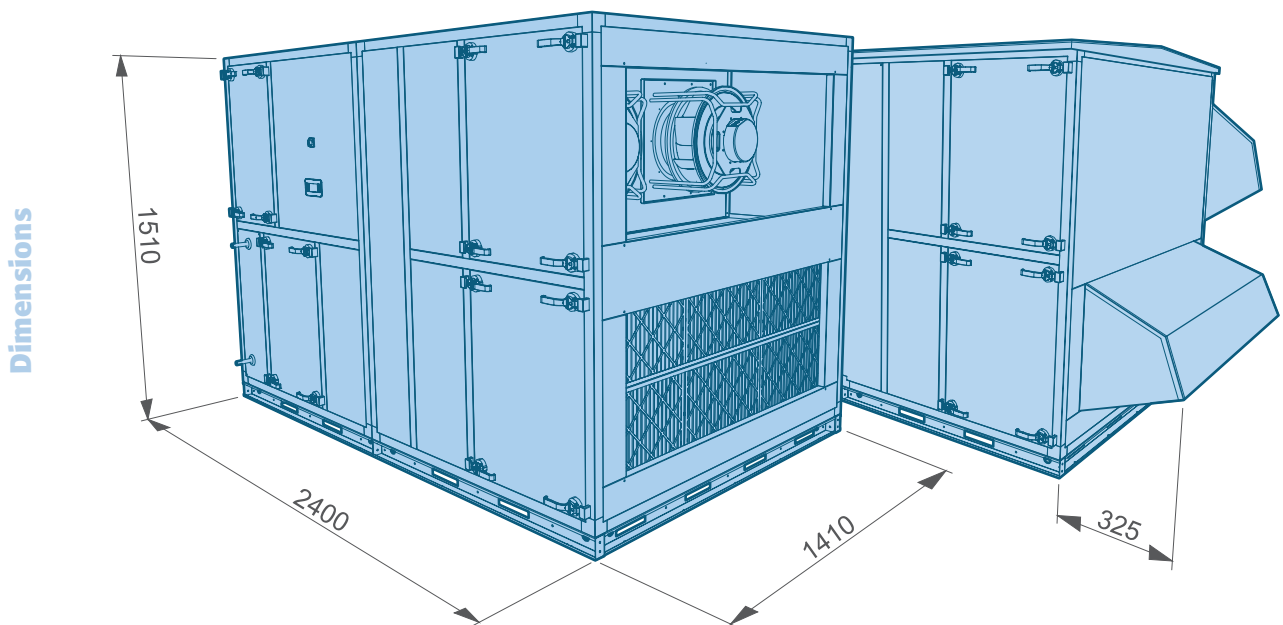
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW03603-1	1 Phase	0.780 kW	230 VAC	2960 rpm	3.90 A	EC

## Configuration

Configuration and Handling

EVW03603-1 / **SP** ..... / **L** ..... /  
**SW**                    **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 721kg  
Weatherproof - 782kg

**Note:** Data for design guidance only. Detailed information is available upon request.

# Premium efficiency heat recovery units

## Heating and Controls

Heating

EVW03603-1 / SP- **W** / TB / R  
SW **E** EE L  
**null**

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	0.80	31.3	35.17	0.429	3.1	1 1/4"
	1.00	29.6	41.95	0.512	4.1	
	1.20	28.1	48.08	0.587	5.1	
	1.40	26.6	53.55	0.654	6.1	
	1.60	25.1	58.37	0.712	7	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 1 1/4" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

	Technical Data			Heating options
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	3ph - Electric Heater
Electric Thyristor Heating	0.150	28.1	6	EHEW3/6KW/1X3
	0.200	32.2	9	EHEW3/9KW/1X3
	0.250	24.8		
	0.300	28.1	12	EHEW3/12KW/1X3
	0.350	23.3		
	0.400	32.2	18	EHEW3/18KW/1X3

Air off temperature based upon entering air of -5 °C. Power = Air Volume x Constant x Temperature Rise.  
Note: If no control panel is purchased the unit will be supplied with a main isolator.

kW = m<sup>3</sup>/s x 1.21 x ΔT °C.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	71	62	71	64	57	55	52	57	55	46	58	49
	Intake	71	64	75	75	74	73	67	59				
	Outlet	74	71	81	80	81	79	75	71				
80%	Casing Radiated	64	56	65	57	50	48	44	50	49	39	52	42
	Intake	63	58	69	68	67	66	59	52				
	Outlet	67	65	75	73	74	72	67	64				
60%	Casing Radiated	61	52	56	49	43	41	35	41	40	31	44	34
	Intake	60	54	60	60	60	59	50	43				
	Outlet	64	61	66	65	67	65	58	55				
40%	Casing Radiated	62	57	48	41	34	30	22	24	32	21	37	28
	Intake	62	59	52	52	51	48	37	26				
	Outlet	65	66	58	57	58	54	45	38				

Sound Spectrum dB re 10<sup>-12</sup> W PWL.

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

UNIT EVW03603-1

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW04603-1

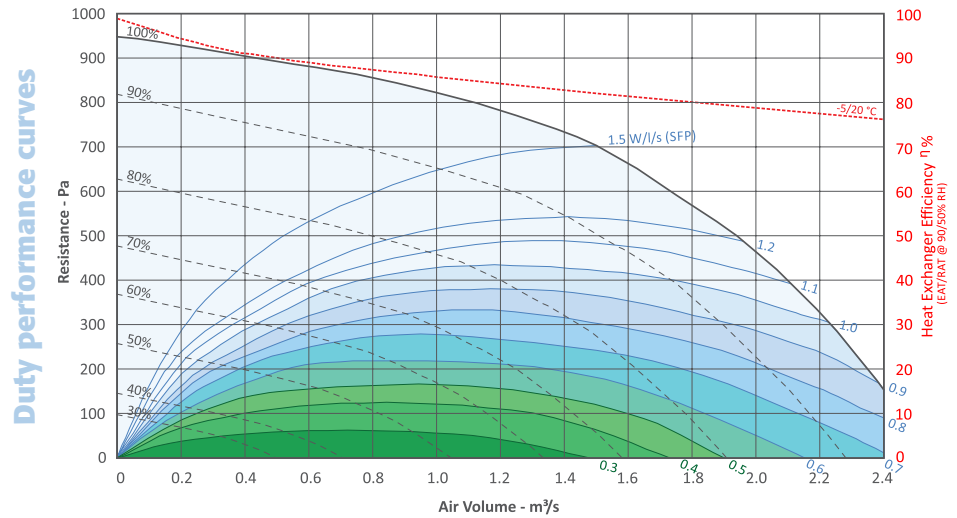
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



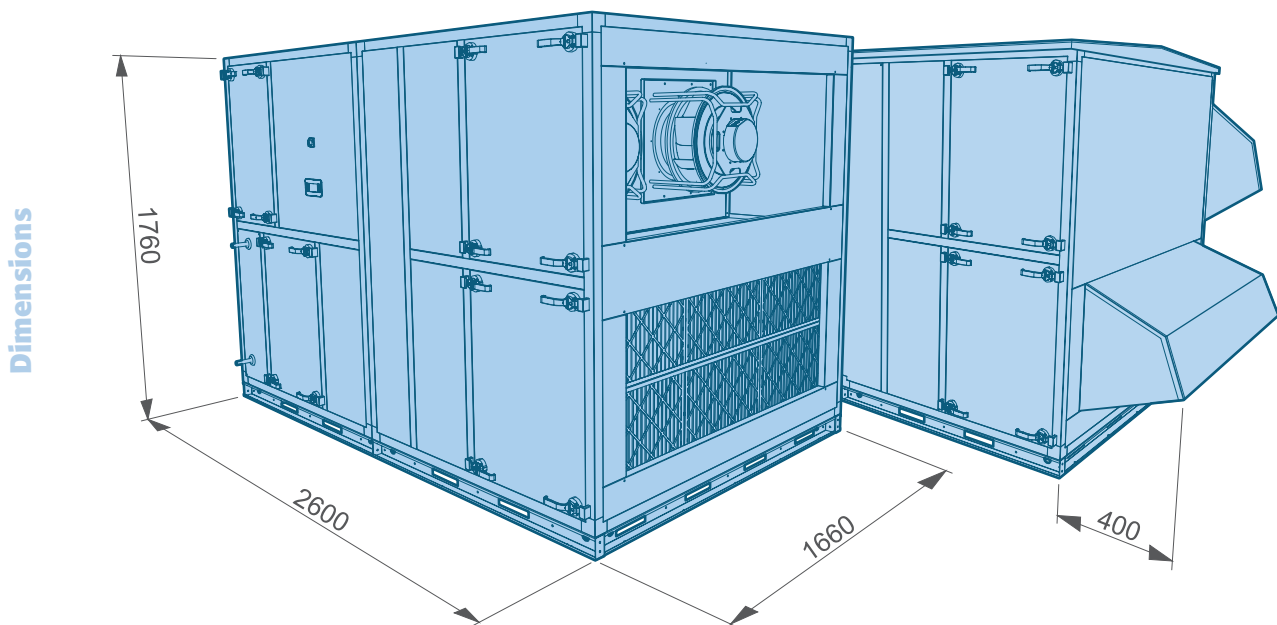
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW04603-1	1 Phase	0.780 kW	230 VAC	2960 rpm	3.90 A	EC

## Configuration

Configuration and Handling

EVW04603-1 / **SP** ..... / **L** ..... /  
**SW**                      **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 944kg  
Weatherproof - 1022kg

**Note:** Data for design guidance only. Detailed information is available upon request.



# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW04603-1 / SP- **W** / TB / R  
SW **null** EE L

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	1.25	32.5	56.75	0.693	6.1	1 1/4"
	1.50	31.2	65.72	0.802	7.7	
	1.75	29.9	74.08	0.904	9.3	
	2.00	28.8	81.82	0.999	11	
	2.25	27.6	88.94	1.086	12.6	
	2.50	26.5	95.43	1.165	14.1	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 1 1/4" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	74	64	74	66	59	57	54	60	58	49	61	51
	Intake	74	66	78	77	76	75	69	62				
	Outlet	77	73	84	82	83	81	77	74				
80%	Casing Radiated	66	58	67	59	52	50	46	52	51	41	54	44
	Intake	65	60	71	70	69	68	61	54				
	Outlet	69	67	77	75	76	74	69	66				
60%	Casing Radiated	64	57	60	52	45	43	36	43	43	33	47	37
	Intake	64	59	64	63	62	61	51	45				
	Outlet	67	66	70	68	69	67	59	57				
40%	Casing Radiated	61	51	48	36	30	24	16	21	30	20	34	25
	Intake	62	53	52	47	47	42	31	23				
	Outlet	64	60	58	52	54	48	39	35				

Sound Spectrum dB re 10<sup>-12</sup>W PWL..

UNIT EVW04603-1

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW05606-3

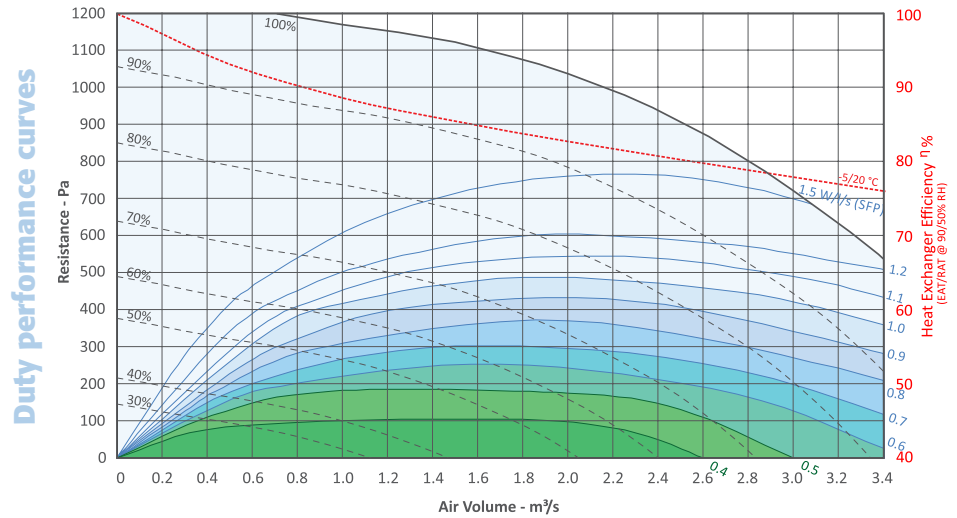
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



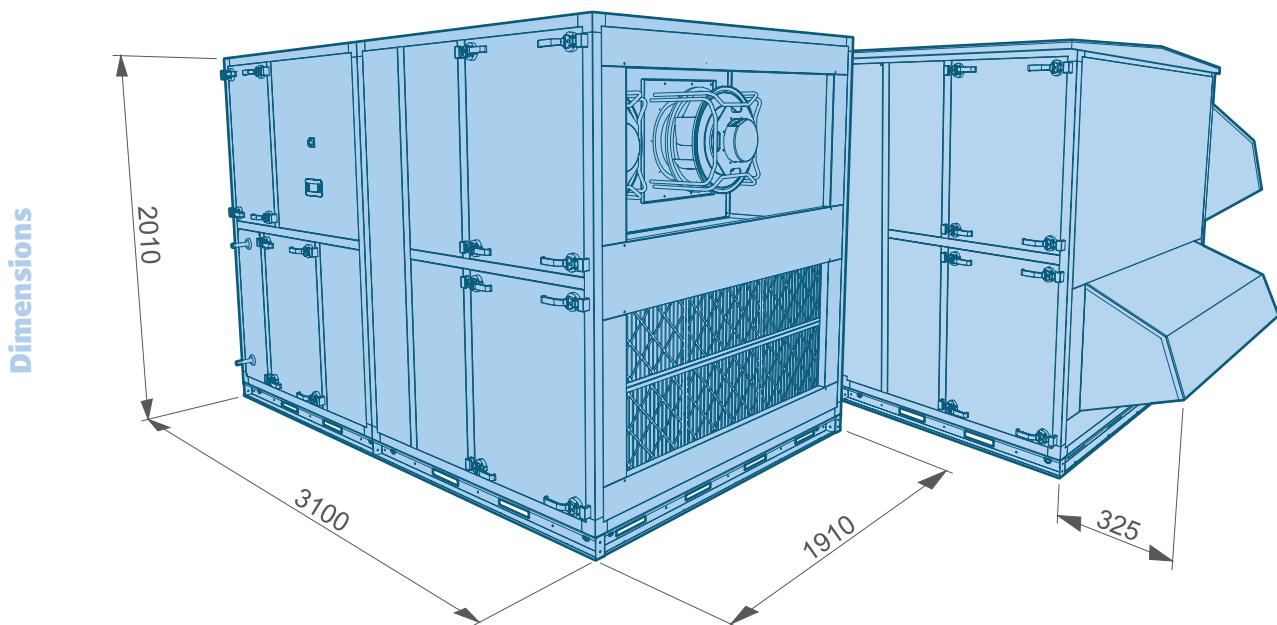
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW05606-3	3 Phase	2.400 kW	400 VAC	2400 rpm	3.90 A	EC

## Configuration

Configuration and Handling

EVW05606-3 / **SP** ..... / **L** ..... /  
**SW** **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 1274kg  
Weatherproof - 1381kg

**Note:** Data for design guidance only. Detailed information is available upon request.

# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW05606-3 / SP- **W** / TB / R  
SW **null** EE L

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	2.25	31.5	99.47	1.214	4.7	1 1/2"
	2.50	30.6	107.82	1.316	5.2	
	2.75	29.7	115.71	1.412	5.7	
	3.00	28.9	123.14	1.503	6.2	
	3.25	28.0	130.10	1.588	6.7	
	3.50	27.2	136.59	1.667	7.2	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 1 1/2" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	71	64	77	66	62	61	54	65	63	54	63	54
	Intake	67	66	81	77	79	79	69	67				
	Outlet	74	73	87	82	86	85	77	79				
80%	Casing Radiated	69	63	72	64	56	51	50	62	60	51	59	49
	Intake	67	65	76	75	73	69	65	64				
	Outlet	72	72	82	80	80	75	73	76				
60%	Casing Radiated	59	64	59	54	48	43	41	42	43	33	48	38
	Intake	56	66	63	65	65	61	56	44				
	Outlet	62	73	69	70	72	67	64	56				
40%	Casing Radiated	60	57	53	46	39	34	29	29	36	25	41	31
	Intake	59	59	57	57	56	52	44	31				
	Outlet	63	66	63	62	63	58	52	43				

Sound Spectrum dB re 10<sup>-12</sup>W PWL.

UNIT EVW05606-3

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.



# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW06608-3

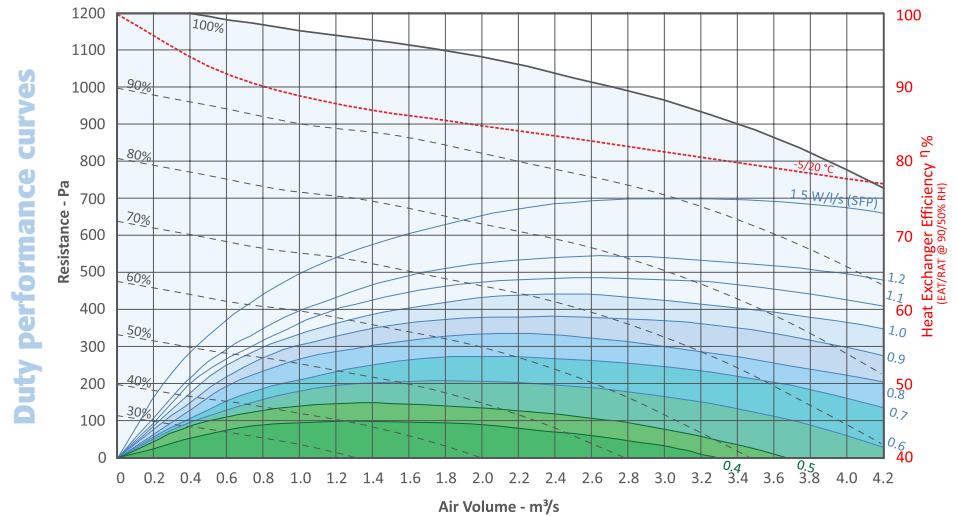
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



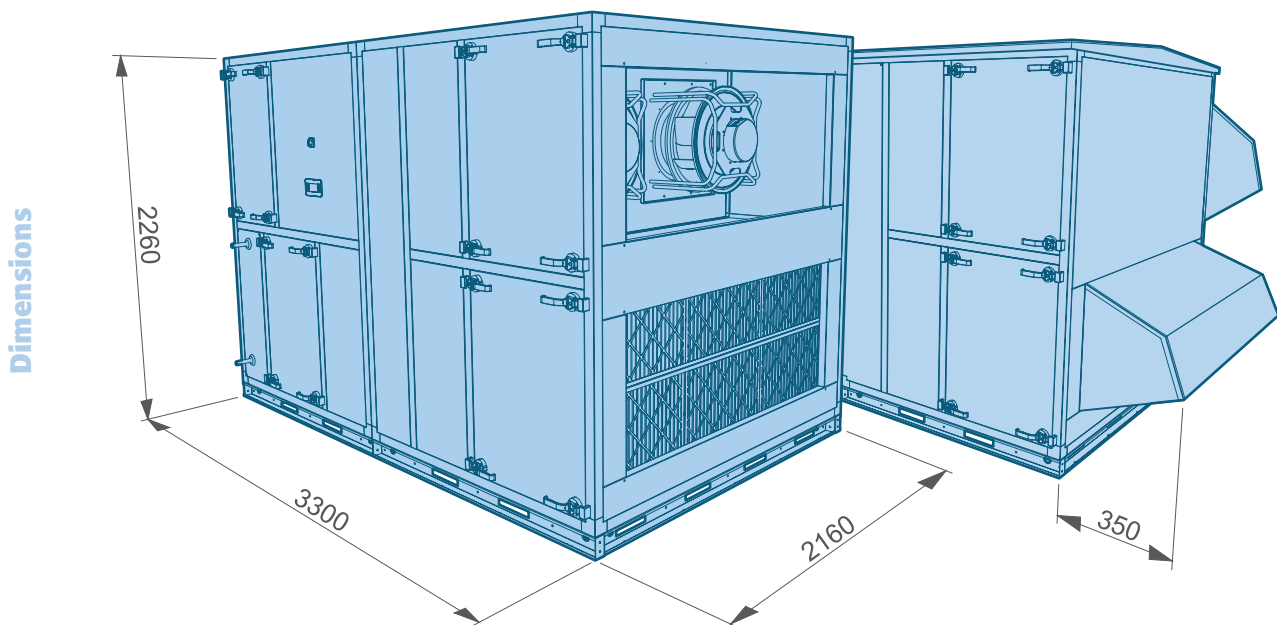
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW06608-3	3 Phase	3.500 kW	400 VAC	1860 rpm	5.60 A	EC

## Configuration

Configuration and Handling

EVW06608-3 / **SP** ..... / **L** ..... /  
**SW**                    **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 1729kg  
Weatherproof - 1859kg

**Note:** Data for design guidance only. Detailed information is available upon request.

# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW06608-3 / SP- **W** / TB / R  
SW **null** EE L

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	3.00	39.6	125.74	1.535	6.9	1 1/2"
	3.25	39.0	133.79	1.633	7.5	
	3.50	28.4	141.53	1.728	8.1	
	3.75	27.8	148.97	1.818	8.7	
	4.00	27.2	156.11	1.908	9.3	
	4.25	26.6	162.93	1.989	9.9	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 1 1/2" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	76	73	82	70	61	59	56	60	67	56	67	57
	Intake	71	75	86	81	78	77	71	62				
	Outlet	79	82	91	86	85	83	79	74				
80%	Casing Radiated	71	77	74	66	57	52	50	55	58	48	61	51
	Intake	70	79	78	77	74	70	65	57				
	Outlet	74	86	84	82	81	76	73	69				
60%	Casing Radiated	65	68	64	56	47	44	40	43	47	37	51	41
	Intake	63	70	68	67	64	62	55	45				
	Outlet	68	77	74	72	71	68	63	57				
40%	Casing Radiated	69	57	54	47	38	34	27	28	37	26	42	32
	Intake	69	59	58	58	55	52	42	30				
	Outlet	72	66	64	63	62	58	50	42				

Sound Spectrum dB re 10<sup>-12</sup>W PWL.

UNIT EVW06608-3

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW07609-3

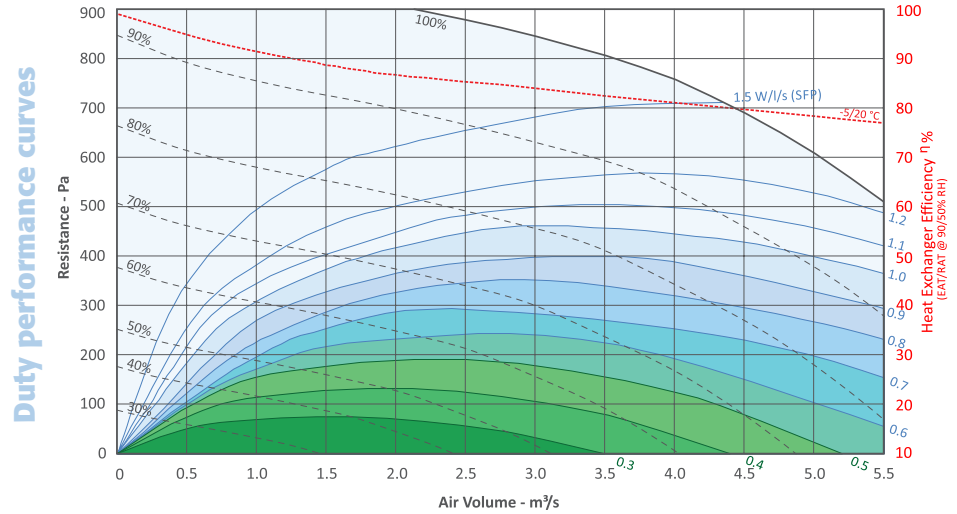
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



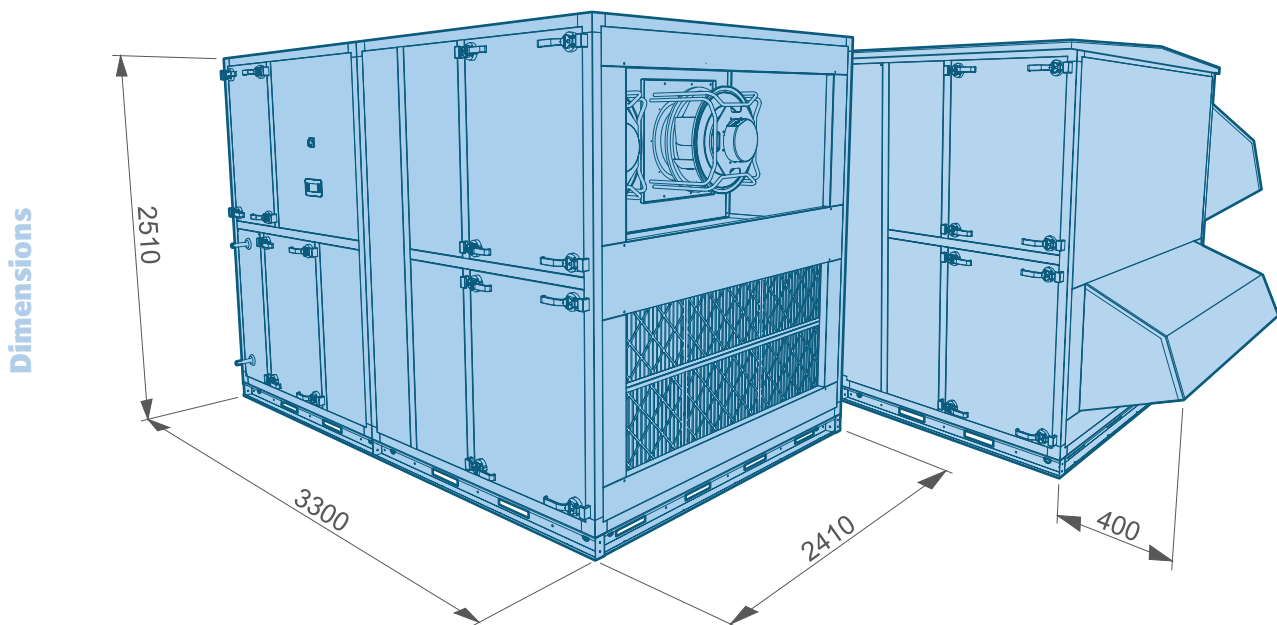
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW07609-3	3 Phase	3.400 kW	400 VAC	1550 rpm	5.40 A	EC

## Configuration

Configuration and Handling

EVW07609-3 / **SP** ..... / **L** ..... /  
**SW** **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 2017kg  
Weatherproof - 2162kg

**Note:** Data for design guidance only. Detailed information is available upon request.



# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW07609-3 / SP- **W** / TB / R  
SW **null** EE L

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	3.50	30.8	151.77	1.853	5.7	2"
	4.00	29.8	168.67	2.059	6.6	
	4.50	28.9	184.61	2.253	7.4	
	5.00	28.0	199.60	2.436	8.3	
	5.50	28.0	199.60	2.436	8.3	
	5.50	27.1	213.63	2.608	9.1	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 2" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	73	76	79	69	59	54	53	58	63	53	64	55
	Intake	66	78	83	80	76	72	68	60				
	Outlet	76	85	89	85	83	78	76	72				
80%	Casing Radiated	67	74	70	63	52	48	47	53	54	44	57	48
	Intake	63	76	74	74	69	66	62	55				
	Outlet	70	83	80	79	76	72	70	67				
60%	Casing Radiated	64	66	62	55	45	42	37	43	45	35	49	40
	Intake	62	68	66	66	62	60	52	45				
	Outlet	67	75	72	71	69	66	60	57				
40%	Casing Radiated	72	58	53	47	38	32	25	30	37	26	42	33
	Intake	70	60	57	58	55	50	40	32				
	Outlet	75	67	63	63	62	56	48	44				

Sound Spectrum dB re 10<sup>-12</sup>W PWL.

UNIT EVW07609-3

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW08610-3

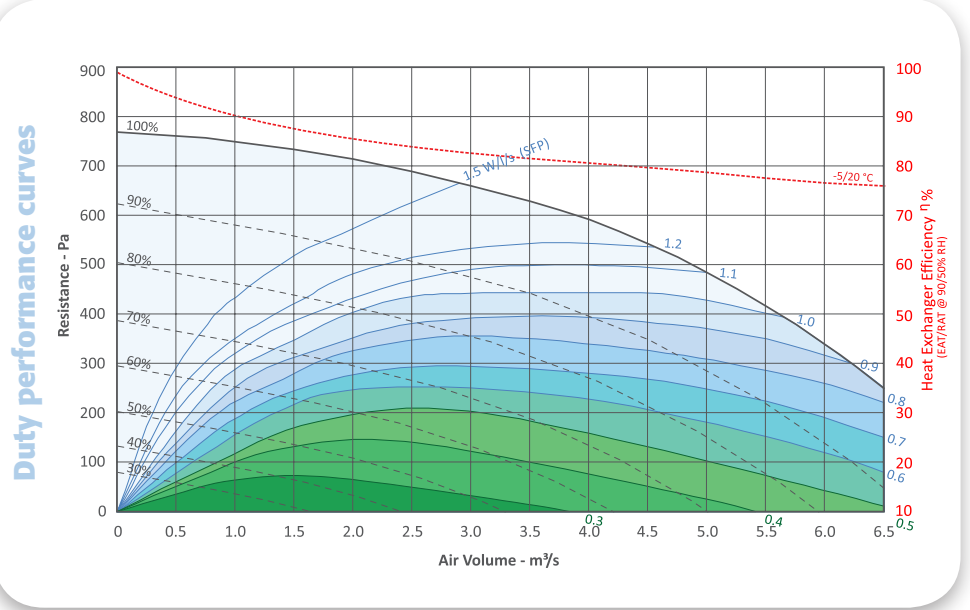
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



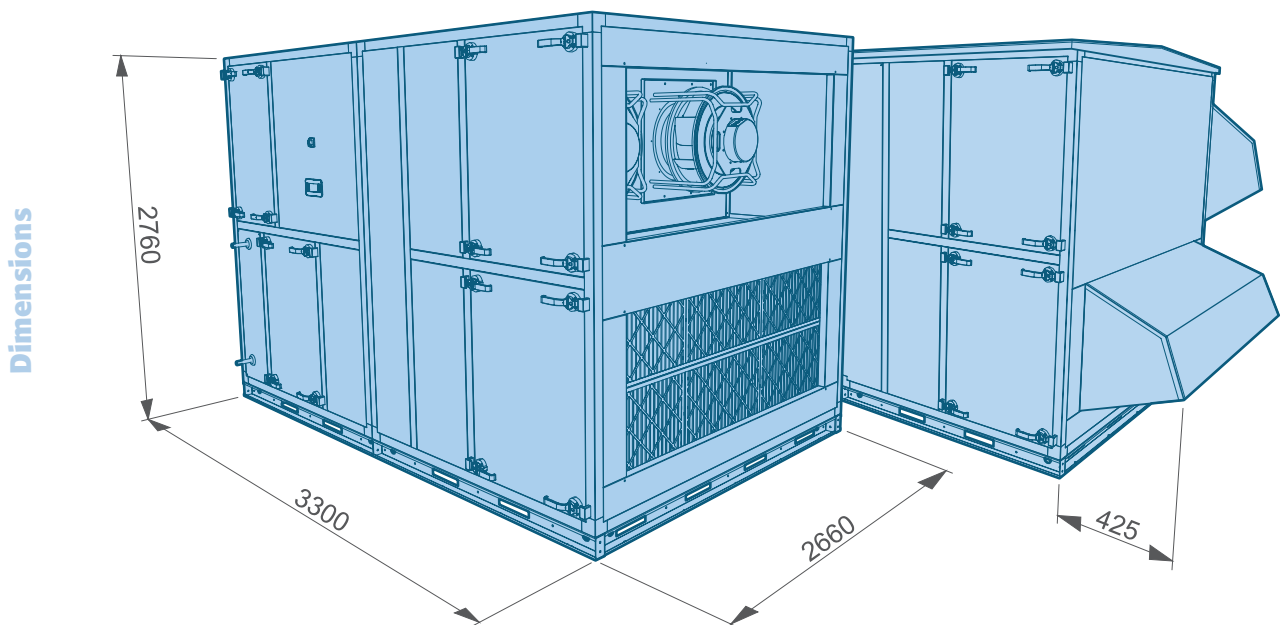
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW08610-3	3 Phase	2.900 kW	400 VAC	1200 rpm	4.80 A	EC

## Configuration

Configuration and Handling

EVW08610-3 / **SP** ..... / **L** ..... /  
**SW** **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 2375kg  
Weatherproof - 2530kg

**Note:** Data for design guidance only. Detailed information is available upon request.

# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW08610-3 / SP- **W** / TB / R  
SW **null** EE L

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	4.00	36.0	198.69	5.425	6.3	2"
	4.50	33.6	210.33	2.567	6.9	
	5.00	31.5	221.08	2.699	7.4	
	5.50	29.7	231.08	2.821	7.9	
	6.00	28.1	240.41	2.935	8.4	
	6.50	26.6	249.17	3.041	8.8	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 2" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	72	77	72	67	55	50	46	53	56	46	60	50
	Intake	69	79	76	78	72	68	61	55				
	Outlet	75	86	82	83	79	74	69	67				
80%	Casing Radiated	69	70	66	60	49	43	38	43	50	39	53	44
	Intake	66	72	70	71	66	61	53	45				
	Outlet	72	79	76	76	73	67	61	57				
60%	Casing Radiated	71	61	58	53	41	35	29	32	42	32	46	36
	Intake	69	63	62	64	58	53	44	34				
	Outlet	74	70	68	69	65	59	52	46				
40%	Casing Radiated	66	55	52	46	34	25	17	22	35	25	40	30
	Intake	64	57	56	57	51	43	32	24				
	Outlet	69	64	62	62	58	49	40	36				

Sound Spectrum dB re 10<sup>-12</sup>W PWL.

UNIT EVW08610-3

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW09609-3

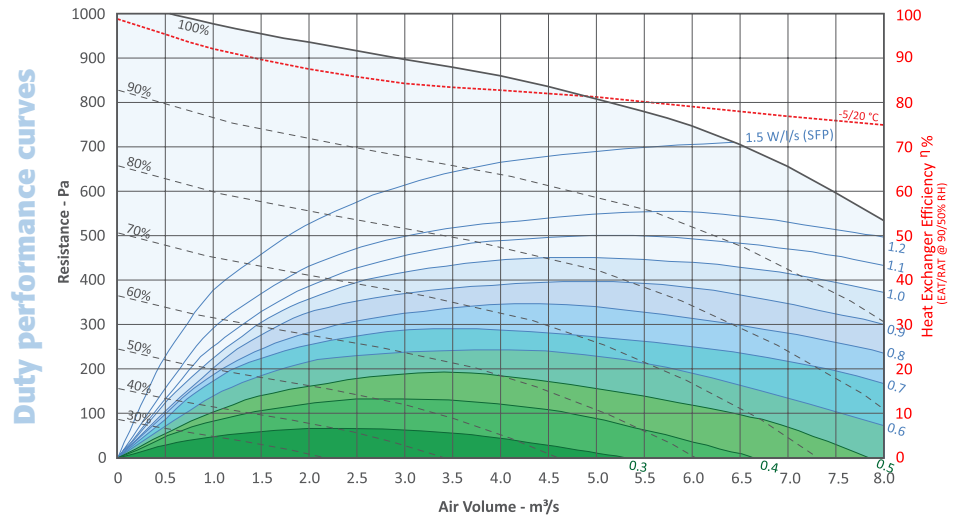
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



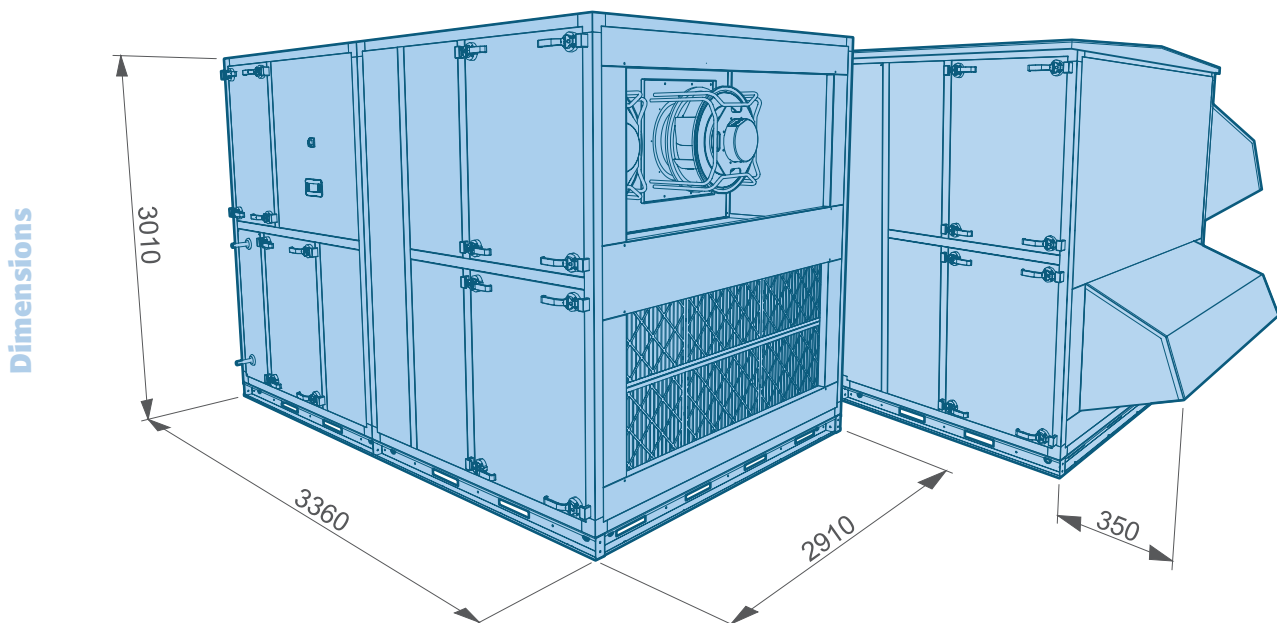
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW09609-3	3 Phase	3.400 kW	400 VAC	1550 rpm	5.40 A	EC

## Configuration

Configuration and Handling

EVW09609-3 / **SP** ..... / **L** ..... /  
**SW** **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 2739kg  
Weatherproof - 2911kg

**Note:** Data for design guidance only. Detailed information is available upon request.



# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW09609-3 / SP- **W** / TB / R  
SW **null** EE L

	Technical Data					Coil Connection Size BSP
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	
LPHW Heating	5.50	33.6	257.29	3.141	6.5	2 1/2"
	6.00	31.9	268.13	3.273	6.9	
	6.50	30.3	278.31	3.397	7.3	
	7.00	29.0	287.94	3.515	7.7	
	7.50	27.7	297.04	3.626	8	
	8.00	36.5	305.68	3.731	8.4	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 2 1/2" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	76	78	82	71	61	57	55	60	67	56	67	57
	Intake	69	80	86	82	78	75	70	62				
	Outlet	79	87	92	87	85	81	78	74				
80%	Casing Radiated	69	77	72	65	54	50	49	55	56	46	59	50
	Intake	66	79	76	76	71	68	64	57				
	Outlet	72	86	82	81	78	74	72	69				
60%	Casing Radiated	66	69	64	57	47	44	39	45	47	37	51	42
	Intake	64	71	68	68	64	62	54	47				
	Outlet	69	78	74	73	71	68	62	59				
40%	Casing Radiated	75	62	57	51	41	35	28	33	40	30	46	37
	Intake	74	64	61	62	58	53	43	35				
	Outlet	78	71	67	67	65	59	51	47				

Sound Spectrum dB re 10<sup>-12</sup> W PWL.

UNIT EVW09609-3

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

# Ecovent<sup>®</sup> Wheel

## Selection Data

Ecovent EVW10609-3

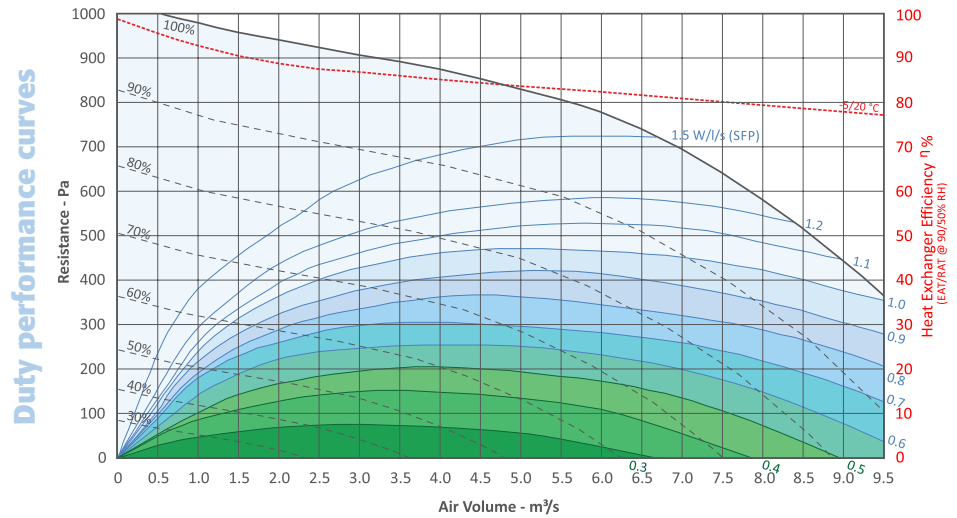
## Performance

$$\text{SFP} = \frac{\text{Electrical input power (Watts)}}{\text{Air volume flow rate (litres/second)}}$$

Notes:  
SFP figures quoted at voltages tested in accordance with BS EN ISO 5801:2017 for supply or extract airflow.

Heat exchanger efficiency is calculated based upon EAT -5 °C and RAT +20 °C.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB



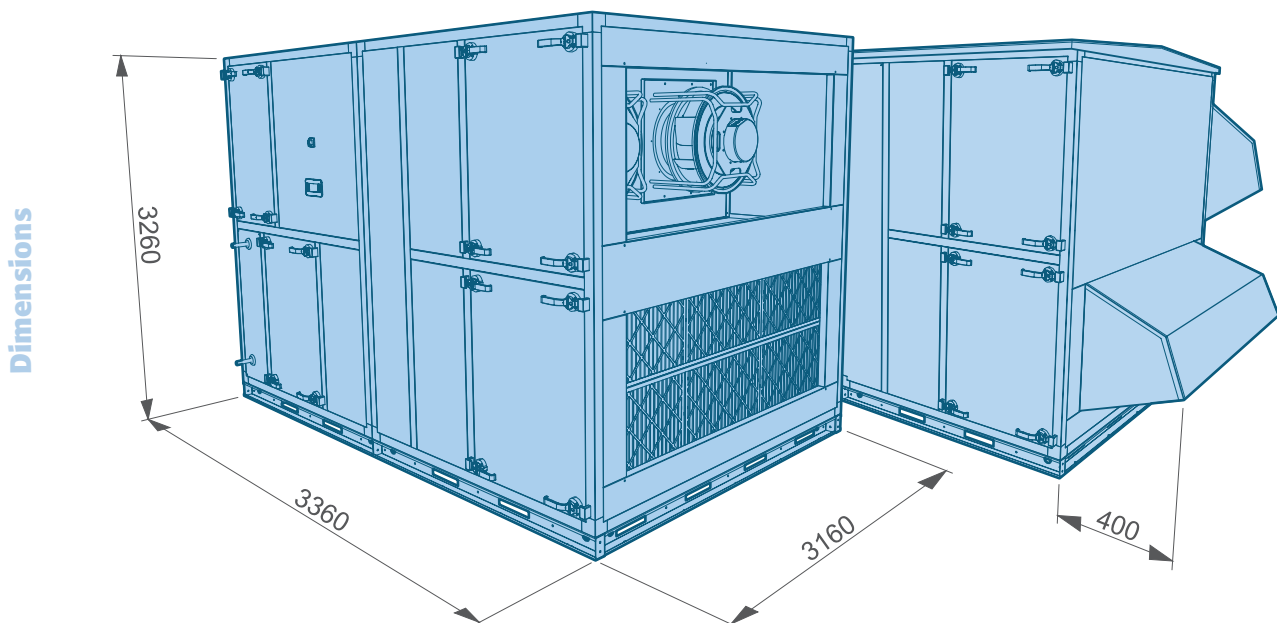
Size	Phase	Motor Size	Voltage	Fan Speed	Motor Full Load Current	Speed Control
EVW10609-3	3 Phase	3.400 kW	400 VAC	1550 rpm	5.40 A	EC

## Configuration

Configuration and Handling

EVW10609-3 / **SP** ..... / **L** ..... /  
**SW** **R**

- SP** Stacked plantroom
- SW** Stacked weatherproof



Weight:  
Plantroom - 3296kg  
Weatherproof - 3483kg

**Note:** Data for design guidance only. Detailed information is available upon request.

# Premium efficiency heat recovery units

Heating

## Heating and Controls

EVW10609-3 / SP- **W** / TB / R  
SW **null** EE L

Technical Data						
	Air Volume m <sup>3</sup> /s	Maximum Leaving Air Temp °C	Maximum kW Output	Water Flow Rate l/s	Water Pressure kPa	Coil Connection Size BSP
LPHW Heating	7.00	32.6	318.74	3.891	9	2 1/2"
	7.50	31.2	329.24	4.019	9.4	
	8.00	30.0	339.21	4.141	9.8	
	8.50	28.9	348.74	4.257	10.3	
	9.00	27.8	357.83	4.368	10.7	
	9.50	26.8	366.88	4.474	11	

LPHW coil, designed for LPHW 80/60 °C, EAT -5 °C, LAT +25 °C, coil construction copper tubes, aluminium fins, coil connections 2 1/2" BSP. Note: If no control panel is purchased the unit will be supplied with a main isolator.

## Acoustic Data

Fan Speed	Sound Power Levels	Frequency (Hz)								Casing Radiated			
		63	125	250	500	1k	2k	4k	8k	NR@1m	NR@3m	dBA@1m	dBA@3m
100%	Casing Radiated	75	78	83	73	62	56	56	63	68	58	68	58
	Intake	70	80	87	84	79	74	71	65				
	Outlet	78	87	93	89	86	80	79	77				
80%	Casing Radiated	70	77	72	66	55	50	50	56	56	46	60	50
	Intake	65	69	64	57	47	43	39	45				
	Outlet	73	86	82	82	79	74	73	70				
60%	Casing Radiated	65	69	64	57	47	43	39	45	47	37	51	42
	Intake	63	71	68	68	64	61	54	47				
	Outlet	68	78	74	73	71	67	62	59				
40%	Casing Radiated	75	61	56	50	40	34	27	32	40	29	45	36
	Intake	73	63	60	61	57	52	42	34				
	Outlet	78	70	66	66	64	58	50	46				

Sound Spectrum dB re 10<sup>-12</sup>W PWL.

UNIT EVW10609-3

**Pre-print edition October 2018**

**Note:** Data for design guidance only. Detailed information is available upon request.

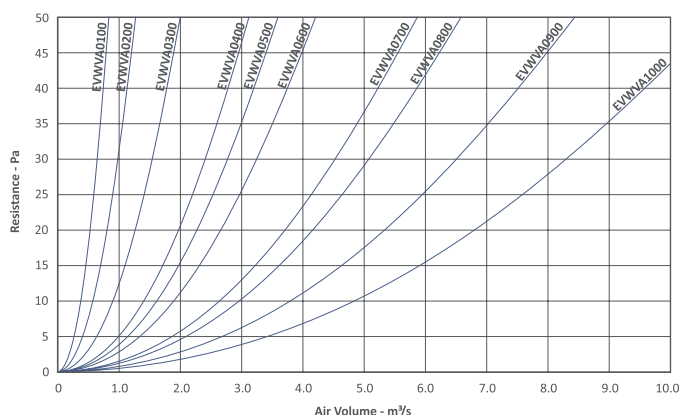
# Ecovent® Wheel

## Ecovent® Silencers Performance

Notes:  
Single skinned silencers are required for each individual spigot connection.

Tolerances:  
On flow rates: +/- 5%  
On acoustic power and pressure: Levels: +/- 3 dB  
By octave band: +/- 5 dB

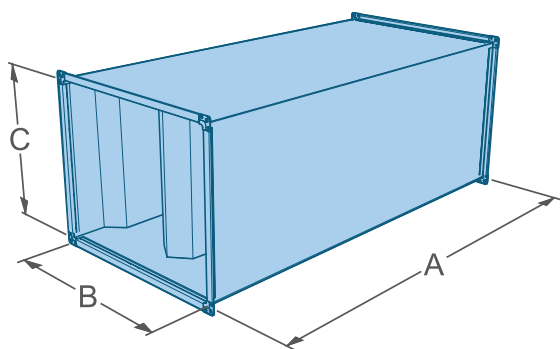
Performance curves



## Configuration

EVWVA--- / **SS** (single skinned)

Dimensions



Single skinned Silencers	Dimensions mm			Weight kg
	A	B	C	
EVWVA0100/SS/STD	1200	700	300	24
EVWVA0200/SS/STD	1200	950	425	41
EVWVA0300/SS/STD	1200	1150	500	52
EVWVA0400/SS/STD	1200	1400	625	71
EVWVA0500/SS/STD	1200	1650	750	98
EVWVA0600/SS/STD	1200	1750	725	97
EVWVA0700/SS/STD	1200	2000	850	129
EVWVA0800/SS/STD	1200	2250	975	157
EVWVA0900/SS/STD	1200	2500	1100	189
EVWVA1000/SS/STD	1200	2750	1225	223

## Acoustic Data

Silencer Induct Losses		Frequency (Hz)							
		63	125	250	500	1k	2k	4k	8k
EVWVA.../1200	Standard 1200 mm airway	-6	-11	-18	-22	-25	-17	-22	-20
EVWVA.../900	Non-standard 900 mm airway	-5	-9	-16	-30	-39	-39	-31	-26
EVWVA.../1500	Non-standard 1500 mm airway	-8	-15	-26	-43	-53	-53	-45	-32

Sound Spectrum dB re 10<sup>-12</sup>W PWL. Units are independently tested at ISVR in accordance with BS EN ISO 3741:2010.

**Note:** Data for design guidance only. Detailed information is available upon request.

## Save energy and costs with BlueSense Controls

### Demand ventilation solutions

BlueSense philosophy combines intelligent control technologies with energy saving products, services and engineering expertise. BlueSense helps meet energy reduction commitments by optimising equipment performance, improving energy efficiency, saving money and increasing equipment life expectancy.

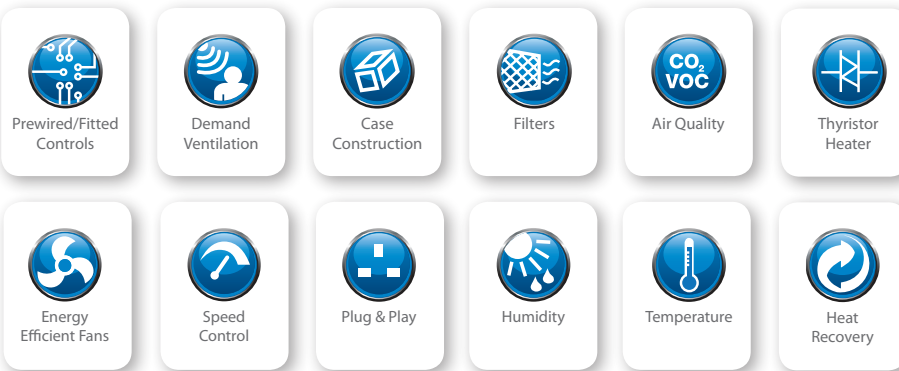
BlueSense can be applied to a variety of projects and applications, providing efficient solutions whilst supporting design for best practice and sustainability.

## Control packages for performance and efficiency



### BlueSense Features

- ▶ Inbuilt intelligent controls technology
- ▶ Optimises performance and efficiency
- ▶ Demand ventilation control improves air quality, reducing energy consumption and lowering operating costs
- ▶ Combined CO<sub>2</sub> and VOC sensing technology with energy efficient speed control
- ▶ Extending equipment life expectancy and reducing maintenance
- ▶ Short term payback on capital expenditure
- ▶ Extended warranty



### Ecovent Wheel BlueSense

All products in the Ecovent range can form part of a BlueSense energy saving package. Specify BlueSense to ensure units are optimised with pre-wired controls, energy efficient speed controller and air quality sensor. All of these work in unison, reducing energy consumption and saving money.

### A BlueSense Example



Ecovent Wheel unit with integral controls

+



EC fan with full control

+



Sensor options

=



The sign of energy saving products, services and expertise



# Ecovent® Series

## Ecovent® Counterflow

Ecovent has been the acknowledge market leader in heat recovery air handling units for over 10 years. The new premium efficiency Counterflow heat recovery range includes units with duties up to 0.7 m<sup>3</sup>/s, all with low specific fan power and low energy, high efficiency fans.

Suitable for many installations including offices, schools, hotels and retail establishments, the Ecovent Counterflow range is designed to fit any application. With a wide range of models for ceiling void, plantroom and external locations, including a variety of control options, there will be an Ecovent unit to suit.



## Ecovent® Counterflow

### Features and Benefits



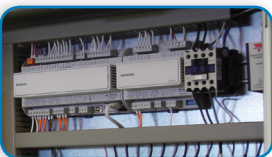
#### Premium Efficiency Heat Recovery

Using the latest Computational Fluid Dynamics simulations, the plate heat exchangers in Ecovent Counterflow units have been designed to optimise airflow. This enables a true rate of heat transfer, giving efficiencies of up to 90% to BS EN 308:1997 specification.



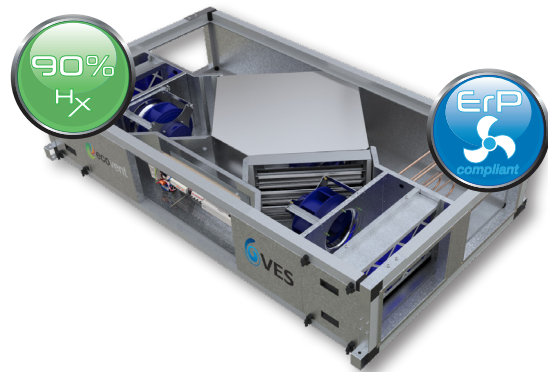
#### High Performance Fans

EC fans offering maximum efficiency, minimum energy consumption. Fully controllable and ErP2015 compliant.

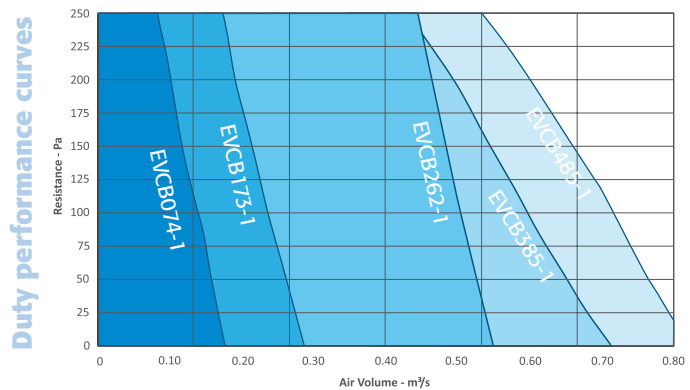


#### Pre-wired Controls & Isolator

BlueSense energy saving packages combine intelligent technologies. The unit is pre-wired to an integral controls package or isolator to reduce onsite wiring requirements.



## Ecovent® Counterflow Performance



## Ecovent® Hybrid

In the UK, all new school designs must comply with standard building regulations. Additional school design specifications and guidelines are also in place to ensure best practice.

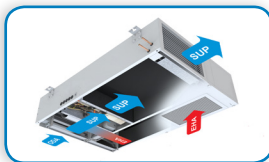
VES products and services enable compliance with these guidelines, in all spaces throughout the school building, regardless of size or function. Our schools project portfolio extends through both the public and private sectors. Working with VES ensures occupant comfort and low operating costs over the lifetime of the ventilation system.

The Hybrid ventilation system uses a combination of automatic mechanical ventilation and manually operated windows to achieve classroom comfort conditions. These conditions are maintained by supplying a variable volume of fresh air to manage room CO<sub>2</sub> and temperature levels.



## Ecovent® Hybrid

### Features and Benefits



#### Operation

The Hybrid unit operates by regulating fresh and recirculated air, controlling the CO<sub>2</sub> and temperature, balancing comfort and air quality. A controls philosophy detailing the full operation is available.



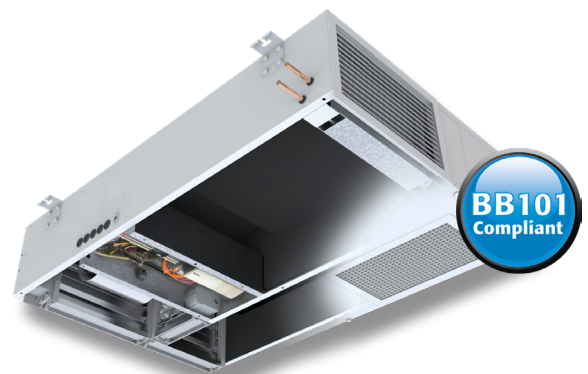
#### Unit Configuration

Room units are available in 3 sizes. Any of these units can be combined to achieve the required duty. This enables ideal room placement to give the best ventilation coverage.

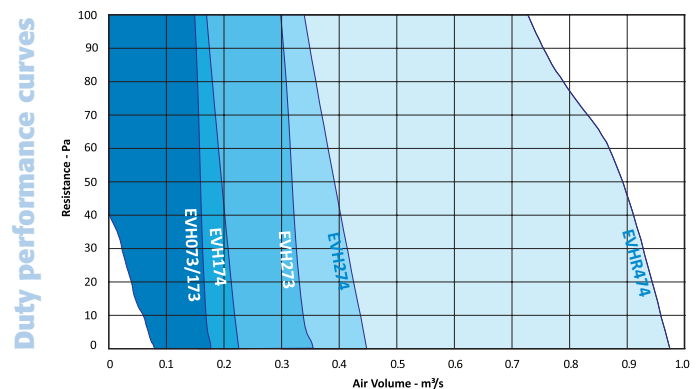


#### Roof Unit

For larger spaces, such as gymnasias, a roof mounted unit is also available. The two part EVHR474 features a weatherproof external turret and a room-side fan section. Mode of operation is the same as the room mounted unit.



## Ecovent® Hybrid Performance



To find our more information about our Ecovent® range, contact your local representative or VES head office - 023 8046 1150.

## Bespoke Solutions

As well as offering a wide range of standard Ecovent units VES are able to build bespoke versions for special applications and requirements.

Units can be adapted for higher specifications to address challenging locations and applications. Our experience with controls also enables high levels of integration with Building Management Systems or existing solutions, as well as matching to niche applications.

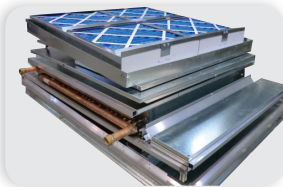
With VES you really get the full package without needing to mix and match suppliers.

### Bespoke Options

- ▶ Acoustic options for noise sensitive applications
- ▶ EC Plug fans for duties above 1.3 m³/s
- ▶ Controls integration into new and existing building management systems
- ▶ Aesthetic requirements and paint colour finishes
- ▶ Saline environment protection
- ▶ Cooling coils
- ▶ Specialist filtration applications i.e carbon, grease, HEPA
- ▶ Flatpack and site assistance

## Specialist Site Services

VES operates a Specialist Site Services division, which is a market leader in the repair and refurbishment of any make or model of air handling equipment.



### Flatpacking

- ▶ To suit difficult access locations
- ▶ Saves craneage costs
- ▶ No need for road closures
- ▶ Reduced manual handling risks



### Post Installation Commissioning

VES technical engineers can ensure the unit has been installed and set up correctly. Also, VES can check all control wiring, set the unit running and measure air volumes (if suitable traverse point is available).



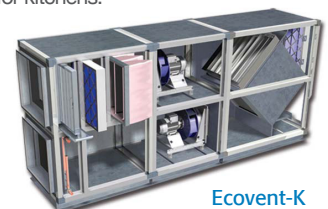
### Spares and Maintenance

VES holds stock, or can source parts for all VES and other manufacturers products. A reminder service and regular user discount are available. VES offers varied maintenance agreements to suit location and budget.



### Energy Saving Solutions for Kitchens

VES can manufacture special Ecovent-K's, complete with grease filters, designed specifically for kitchens.



Ecovent-K

### Site Assistance By Specialist Site Services

VES has an accomplished Site Services division. Ecovent units can be delivered in flat pack form and re-assembled "in situ" in restricted and difficult locations.





## Product Specification

### Ecovent® Wheel

#### 1.1. General

- A. Provide an air handling unit to meet the performance and configuration as indicated in the schedule and detail drawings. The air handling unit shall be tested to BS EN ISO 5801:2017 and shall be of the Ecovent type as manufactured by VES Andover Ltd, a company accredited with BS EN ISO 9001:2015.
- B. The unit shall conform to the schedule regarding case construction, component layout & finish. The detail drawings shall be supplied for approval where indicated in the schedule.

#### 1.2. Unit Construction

- A. The unit shall be provided pre-assembled comprising a rigidly constructed tubular aluminium case & double skinned galvanised sheet steel panels.
- B. The unit shall be constructed to BS EN1886 standard & fully BSRIA tested for compliance to -
  - Deflection rating class D1
  - Leakage class L1
  - Thermal transmittance classes of T1
  - Thermal bridging TB1.
 Testing certificates shall be available on request.
- C. Unit sizes 1-7 will be supplied as one piece, and units 8-10 shall be supplied in multiple sections for transporting & site installation as indicated in the schedule & detail drawings. The unit shall be pre-drilled & gusseted for sectional re-assembly on-site by others as indicated in the detail drawings and O&M documentation.
- D. The unit shall be available in a partially disassembled 'flat pack' form for ease of installation with awkward on-site access. Flat pack units shall be reassembled on-site by VES technical personnel as indicated in the schedule.
- E. The unit shall be available in plantroom or weatherproof construction as indicated in the schedule and detail drawings. Weatherproof units shall have an extended pitched lid supplied fitted as standard.
- F. The unit shall have component arrangement as indicated in the schedule & detail drawings.
- G. The unit shall have rectangular connections compatible with Mez flange connections as indicated in the schedule and detail drawings.
- H. The unit casework shall incorporate high quality leak resistant EPDM memory retaining clip-on gaskets on service & access panels.

- I. Unit casework shall be available with optional double-glazed inspection portholes supplied fitted as indicated in the schedule & detail drawings.
- J. The case panels shall be filled with expanded polystyrene infill as standard.
- K. The case tubes shall be unfilled.
- L. Units shall have access as indicated in the schedule & detail drawings. Where unit access details are not supplied, the unit shall be handed LHS looking in direction of supply airflow as standard, to be confirmed by drawing approval.
- M. Plantroom unit casework & spigots shall be supplied naturally finished in high quality galvanised steel as standard.
- N. Weatherproof units shall be supplied powdercoated signal grey RAL7004.
- O. The casework shall be available with internal epoxy powder coating suitable for coastal or corrosive environments as indicated in the schedule & detail drawings.
- P. The unit shall be designed to be secured to a suitable base or support frame, ensuring the use of correct fixings for the application and taking into account individual section & overall unit weight as indicated in the schedule and detail drawings.

#### 1.3. Unit Base Frame

- A. The unit shall be supplied as standard on galvanised sheet steel channel base.
- B. The frame shall be 100mm high as standard, height as indicated in the schedule & detail drawing.
- C. The frame shall be available with lifting slots, suitable for use with strops or fork lifts.
- D. The frame shall be finished to match the unit casework.

#### 1.4. Inlet/Outlet Cows

- A. Weatherproof unit casework shall be supplied with fresh air inlet & exhaust discharge cowl/louvers where indicated in the schedule & detail drawing.
- B. Cows shall be single skinned galvanised sheet steel, finished to match the unit casework.
- C. Cows shall be available with optional flame retardant acoustic internal lining to ensure maximum thermal insulation and reduced noise transmission.

Download specification from [www.ves.co.uk/information-centre](http://www.ves.co.uk/information-centre)

### Product Code Guide

Ecovent® Wheel						Unit options						Ancillaries Examples	
Product	HREC type	Unit size	Fan type	Fan size	Phase	Unit config	Main heating	Case construction	Wheel type	Handing	Colour	Name	Part no.
EV	W	01	6	02	-1	/SP	[null]	/TB	/C	/L	[null]	Control panel	CPB0-1/18KW-3/P/C
		02	6	02	-1	/SW	-E	/EE	/H	/R	/R7004	Electric heater battery	EHEVW1/18KW/1X3
		03	6	03	-1		-W		/S			Valve & actuator kit	EVWCWKT100
		04	6	03	-1							Silencer	EVVWA100/SS/1200
		05	6	06	-3								
		06	6	08	-3								
		07	6	09	-3								
		08	6	10	-3								
		09	6	09	-3								
		10	6	09	-3								

Product  
EV

Example codes

Plantroom EVW02602-1/SP-E/TB/C/L  
Weatherproof EVW04603-1/SW-W/EE/H/R

Unit config.  
/SP = Stacked plantroom  
/SW = Stacked weatherproof

Heating  
[null] = no heating  
-E = electric heating  
-W = water heating

Case construction  
TB (thermal bridge free)  
EE (50mm)

Wheel type  
C = condensate  
H = hygroscopic  
S = Sorption

Colour  
null = galv or standard WP

Other products and services from the complete range of VES HVAC solutions

### Air Handling Units

- ▶ Supply and extract, combined or separate
- ▶ Heat recovery including crossflow plate heat exchangers, thermal wheels and run-around coils
- ▶ Plantroom or weatherproof, flat or stacked
- ▶ Fitted silencers, inverters and controls
- ▶ Matching DX condensing units
- ▶ Various case constructions including EN 1886 certified units

### Duct Fans

- ▶ In-line centrifugal, with forward or backward curved impellers
- ▶ Round, axial and mixed flow fans
- ▶ Fitted silencers available on all units
- ▶ Manual and automatic speed controllers available

### Twin Fans

- ▶ For ceiling void, plantroom and weatherproof
- ▶ Many models and configurations
- ▶ Fitted auto-changeover system

### Hybrid Units

- ▶ Natural ventilation enhanced by a low power fan
- ▶ Utilises a combination of automatic mechanical ventilation and manually operated windows to achieve classroom comfort conditions
- ▶ Simple user interface with indication of operating mode
- ▶ Slimline, lightweight construction, saving space and easing installation
- ▶ Available in a range of sizes with the ability to add heating coils when required

### Roof Extract Units

- ▶ Three ranges for volume and pressure
- ▶ Curb and soaker sheet bases

### Wall and Ceiling Fans

- ▶ All types for commercial, industrial and domestic premises

### Kitchen Hood Extract Fans

- ▶ Heavy duty high temperature fans for hot greasy air
- ▶ Motors out of airstream
- ▶ Single inlet fans, in-line and vertical jet roof units

### Control Panels

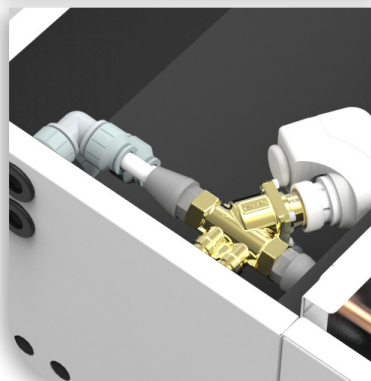
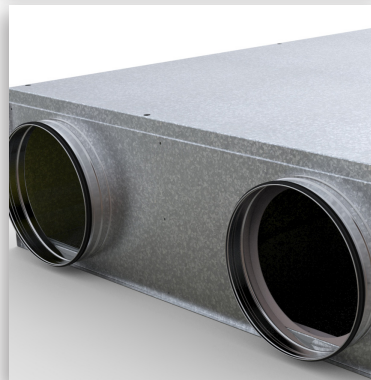
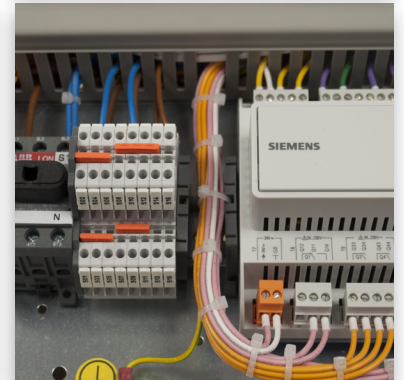
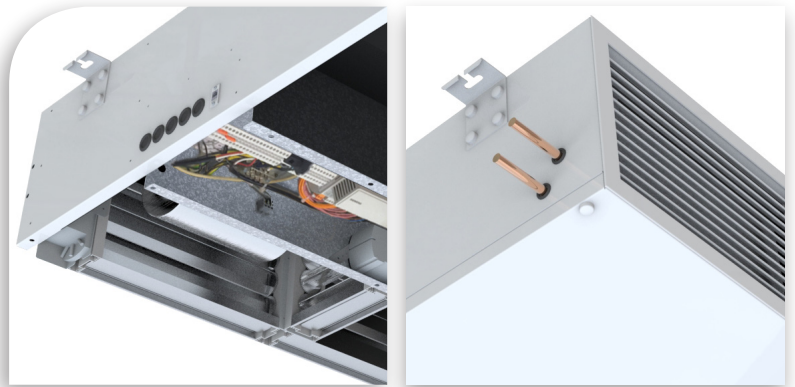
- ▶ Off the shelf and built to order panels
- ▶ Air quality sensors and energy savers
- ▶ Intelligent control software
- ▶ A range of remotes including touch screen

### Noise Control

- ▶ Matching silencers available for all ventilation products
- ▶ Silencers designed to meet noise criteria
- ▶ Cleanable silencers
- ▶ Weatherproof silencers

### Specialist Site Services

- ▶ Plant refurbishment
- ▶ Energy saving upgrades
- ▶ Noise reduction
- ▶ Site surveys
- ▶ Kitchen ventilation
- ▶ AHU flat pack installation
- ▶ Maintenance
- ▶ Spares



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VES reserves the right to amend product specifications and details without notice.