

NEW

# BROOKVENT aircycle<sup>3.1</sup>

## UNRIVALLED PERFORMANCE

*in Heat Recovery Ventilation*



Suitable for  
Medium to Large  
Dwellings and  
Apartments



**0.37** W/l/s  
SPECIFIC FAN  
POWER

**93%**  
HEAT RECOVERY  
EFFICIENCY



brookvent.co.uk

# BROOKVENT aircycle<sup>3.1</sup>

▶ **QUITE  
SIMPLY,**

*the most efficient  
heat recovery ventilation  
system in its class*

**5 Year  
Manufacturers  
Guarantee**



The **aircycle 3.1** operates by efficiently recovering heat from the air extracted from wet rooms (bathroom, kitchen etc.) that would normally be expelled to the atmosphere.

This heat is then transferred to the fresh air being drawn into the system, which is then filtered and distributed throughout the habitable rooms (living room, bedroom etc.).

The **aircycle 3.1** can significantly reduce the space heating demand of a property whilst also delivering a healthier and more comfortable indoor environment for the occupier.

## Core Features

- Up to 93% heat recovery efficiency
- Down to 0.37 W/l/s specific fan power
- 100% Variable fan speed control
- Independent fan speed control
- 230v Auto-boost integration
- Potentiometer or digital control models
- Variable boost over-run timer
- Tempering Summer Bypass, 100% filtered
- Integral humidistat
- Automated frost protection
- Wall or floor mount models
- Top and side duct connections
- On-site invert capability (LH / RH)
- Easy access air filters
- 5 year guarantee



# ► UNRIVALLED PERFORMANCE

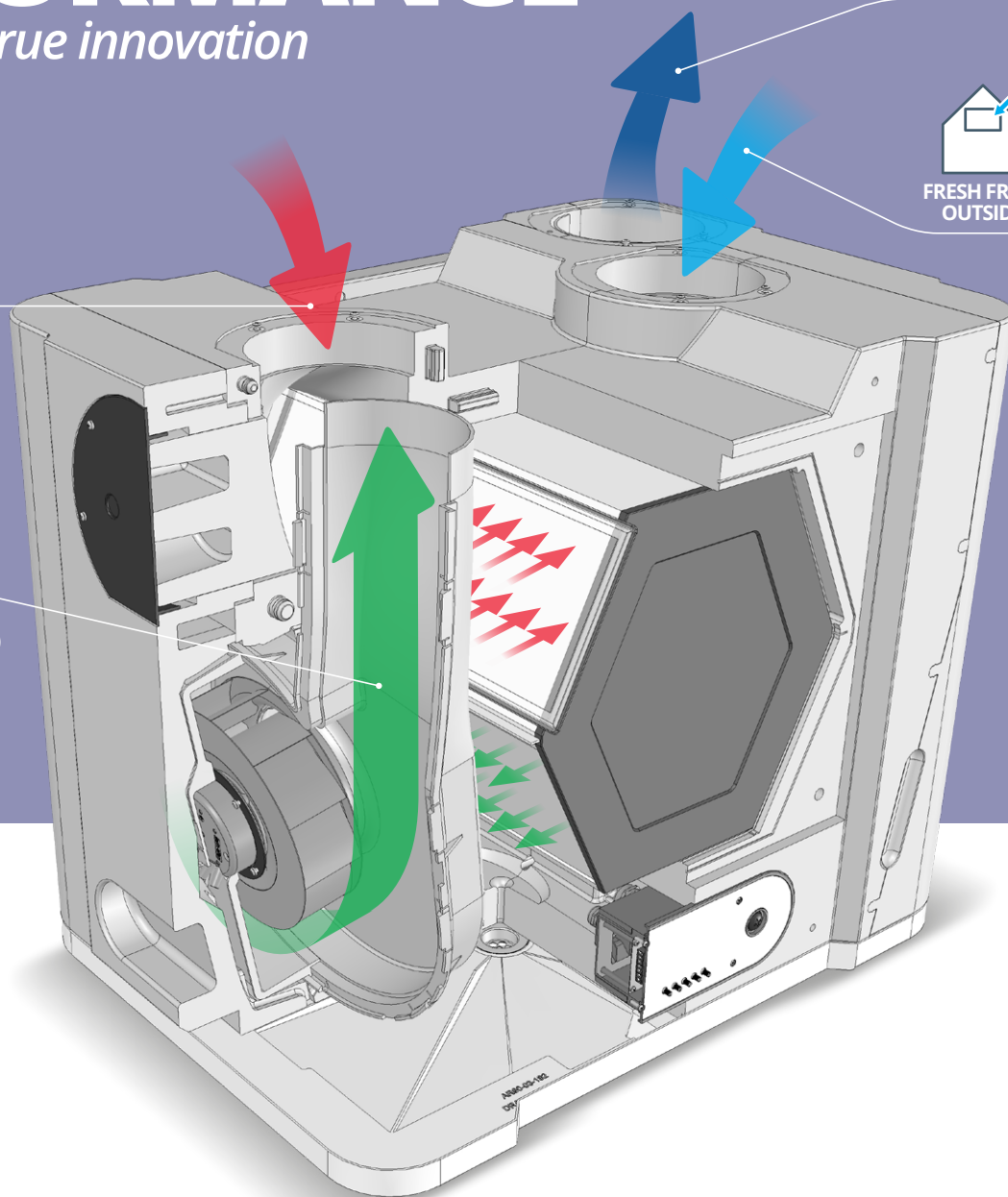
*delivered by true innovation*



Warm, moisture-laden, polluted air extracted from wet rooms (bathroom, kitchen etc.)



Warm, filtered, fresh air supplied to the habitable rooms (living room, bedroom etc.)



## 0.37 W/l/s

*Specific Fan Power*

Streamlined, low-turbulence airflow path design coupled with state of the art EC fan technology ensures the **aircycle 3.1** has the *lowest power consumption* (W) per volume of air (l/s) output in its class, minimising running costs and setting a new standard in HRV system efficiency.

## 93%

*Heat Recovery Efficiency*

Incorporating the market leading Recair™ counter-flow, air-to-air heat exchanger, the **aircycle 3.1** succeeds in transferring up to 93% of the heat from the extract air being taken from the wet rooms to that of the fresh air supply stream.

This ensures *high levels of indoor air quality* can be maintained while greatly minimising heat loss.

# ► VERSATILE INSTALLATION

*features for a quick and easy fit*

Suitable for  
Medium to Large  
Dwellings and  
Apartments



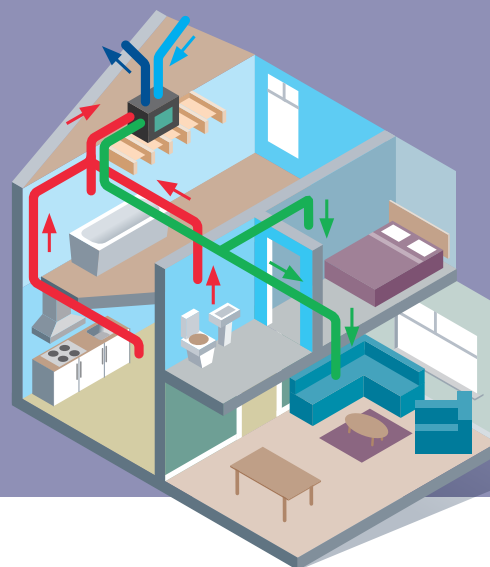
## WALL or FLOOR Mount

The **aircycle 3.1** can be supplied as a wall or floor mounted unit. Intelligent design allows for retention of high efficiency, low specific fan power and airflow performance with both installation variations.



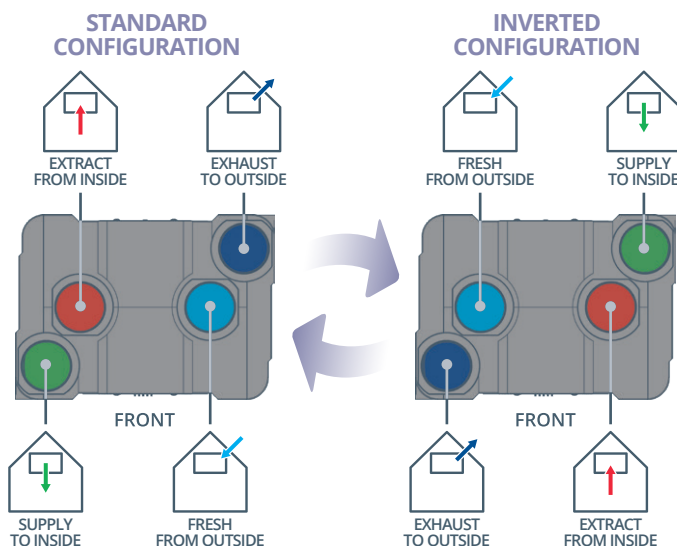
## TOP & SIDE Duct Connections

Interchangeable top and side duct connections offer the installer ultimate flexibility, catering for those tricky installations with limited space/clearance.



## ON-SITE Inversion

A quick and easy process allows the **aircycle 3.1** system to be inverted on-site, changing the external duct connections from the right to the left of the system as required for specific property types thus minimising ducting runs, system pressure and installation time.



## POTENTIOMETER or Digital Control Options

Benefit from precise and responsive potentiometer controls or, for added intelligence, choose our new digital option that sets a new benchmark in engineer and end user control.

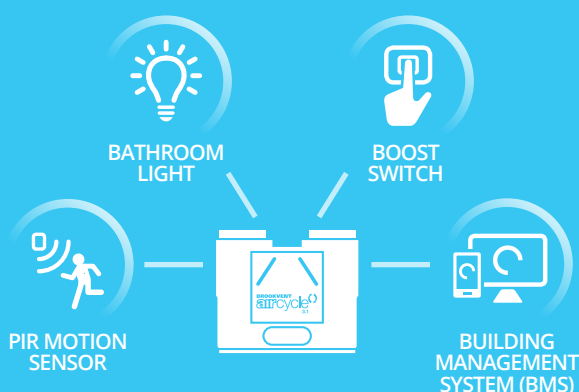


# AIR QUALITY CONTROL

*delivered by intelligent sensor technology*

## AUTO-BOOST Integration

The programmed boost (high) speed setting can be easily triggered via any 230v switched live signal (e.g. bathroom light, PIR motion sensor, boost switch, BMS) offering multiple means of intelligent, automatic control integration. This ensures pollutants are extracted immediately when created and at a much quicker rate.



## Integral HUMIDISTAT

Continuously monitoring the humidity level (% RH) of the extract air from the property, the system's integral humidistat automatically operates the boost (high) setting of each fan to reduce indoor humidity levels to the preferred, adjustable RH comfort level.

## Tempering SUMMER BYPASS

A variable, tempering summer bypass mechanism operates by gradually increasing the amount of air directed around the heat recovery core as the temperature of the extract air from the property rises. This automatic feature helps to ensure total user comfort during warmer summer months by reducing the amount of heat being added to the fresh, filtered supply air.

## QUIET by Design

The **aircycle 3.1's** streamlined airflow path design coupled with custom engineered fan scrolls help to ensure low internal air turbulence and guaranteed balanced fan operation, *greatly minimising occurrences of in-duct noise transference.*

A high density, expanded polypropylene casing further succeeds in limiting any potential break-out noise from the fan operation.

Aircycle 3.1 Acoustic Performance												
Airflow %	Measurement	Airflow l/s	Full Octave LwA dB								Overall Sound Power Level (A Weighted) LwA dB @3m	Dba @3m
			63	125	250	500	1 k	2 k	4 k	8 k		
20	Inlet	25	3.2	24.6	32.5	32.1	26.6	17.3	15	20.6	36.5	22
	Outlet		-0.3	11	19.8	22.8	14.7	10.8	13.3	19.9	26.6	12.1
	Breakout		5.7	26.5	29.3	25.3	19.6	10.8	13.4	19.9	32.8	15.3
40	Inlet	51	15.5	29.9	36.6	40.5	37.4	30.9	20.2	21.9	43.8	29.3
	Outlet		7.3	22.2	28.8	33.6	28.8	17.2	13.6	19.9	36.1	21.6
	Breakout		9	30.2	35	38.4	31.1	21.7	15.5	19.9	41	23.5
60	Inlet	78	21.2	35.9	44.9	48.8	45.8	42.4	31.4	26.9	52.3	37.8
	Outlet		13.2	28.3	39.1	38.7	35.4	27.1	16.1	20.3	43.2	28.7
	Breakout		15.3	39.4	39.3	41.3	36.5	29.6	20.9	20.1	45.6	28.1
80	Inlet	105	22.9	43.8	52.6	55.7	53.2	51.1	41.7	37.1	59.7	45.2
	Outlet		14.3	33.2	44.1	44.1	40.4	33.6	21.2	21	48.3	33.8
	Breakout		18.4	42	43.3	47	39.4	35.5	27.4	22.5	50	32.5
100	Inlet	135	23.3	47.4	53.9	64.3	59.6	56.5	48.4	44.5	66.4	51.9
	Outlet		18.4	37.7	46.3	51.9	46.9	39.8	29.4	25.7	54.2	39.7
	Breakout		20.4	38.6	48.3	54.7	47.1	42.9	36.2	26.4	56.4	38.9

\*Case radiated sound at 3m is calculated based on Hemi-spherical propagation.

\*\*Inlet and Extract sound at 3m is calculated based on uniform line source.

\*\*\*Airflow values shown plotted from fan curves.



# aircycle 3.1 Range Specification

Weight: 29kg Guarantee Period: 5 Years

## Materials:

- Main enclosure: High density, impact resistant EPP (Expanded Polypropylene)
- PCB & control panel enclosure: ABS FR
- Filters: Polyester media (G3)
- Filter cover: Rubber
- Mounting Bracket: Zinc Plated Steel
- Fan Scrolls: ABS

## Electrical & Controls:

- 230v EC Low energy, backward curved centrifugal fans
- Supplied complete with 4 core flying lead: (Live: Brown), (Neutral: Black), (Earth: Yellow & Green), (230v Switched Live (Boost): Grey)
- Plug and play fan components for easy maintenance

Control Features	Potentiometer Model	Digital Model
Independent fan speed control, 100% variable (Trickle & Boost)	•	• +/- 1%
230v boost input (light switch, PIR, etc.)	•	•
Boost over-run timer (0-15 mins)	•	•
Integral humidity sensor (Boost activation) - Variable RH%, Factory set: 70%	•	• +/- 1%
Frost protection, factory set at 5°C	•	•
Tempering Summer Bypass - Automatic	•	•
100% variable (3rd Purge Speed)		•
Fault alert/ diagnostics		•
Filter check reminder		•
Hours run meter		•
Status indication (Summer bypass, frost protection, etc.)		•
Performance indication (W/l/s, Temp)		•
PIN Protect engineering settings		•
Commissioning settings upload		•
Night mode		•

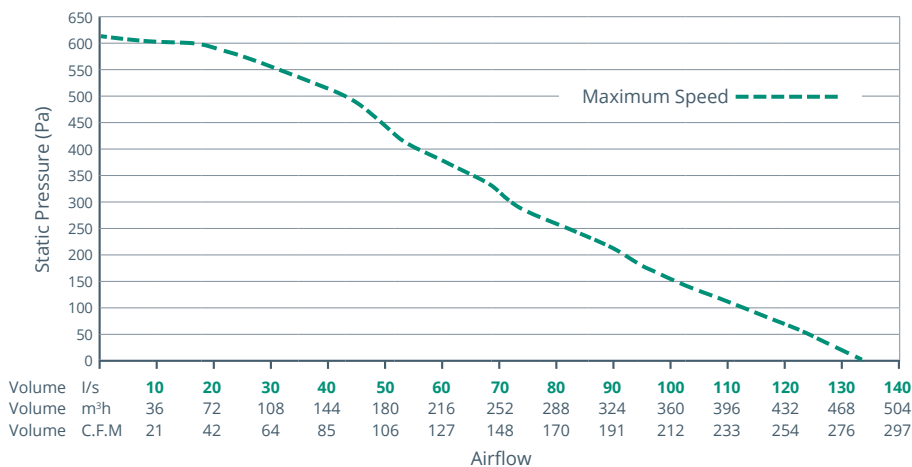
## Standards:

Fully complies with Building Regulations for UK & Ireland  
SAP Appendix Q Listed | Energy Savings Trust Best Practice | CE

## SAP Appendix Q: Listed Results

Configuration	Specific Fan Power (W/l/s)		Heat Exchange Efficiency (%)	
	SAP 2009	SAP 2012	SAP 2009	SAP 2012
Kitchen + 1 Wet Room	0.38	0.41	93	93
Kitchen + 2 Wet Rooms	0.37	0.43	93	92
Kitchen + 3 Wet Rooms	0.40	0.51	92	91
Kitchen + 4 Wet Rooms	0.46	0.64	92	91
Kitchen + 5 Wet Rooms	0.53	0.78	91	91
Kitchen + 6 Wet Rooms	0.62	0.98	91	89
Kitchen + 7 Wet Rooms	0.75	1.2	90	89

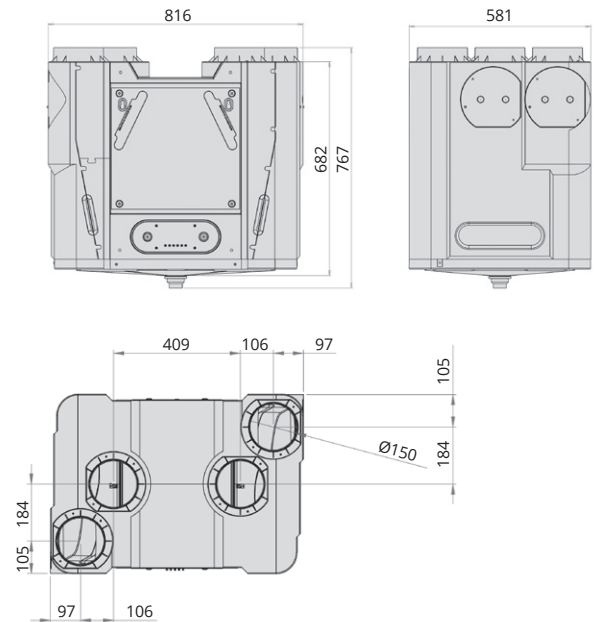
## Airflow Performance Curve



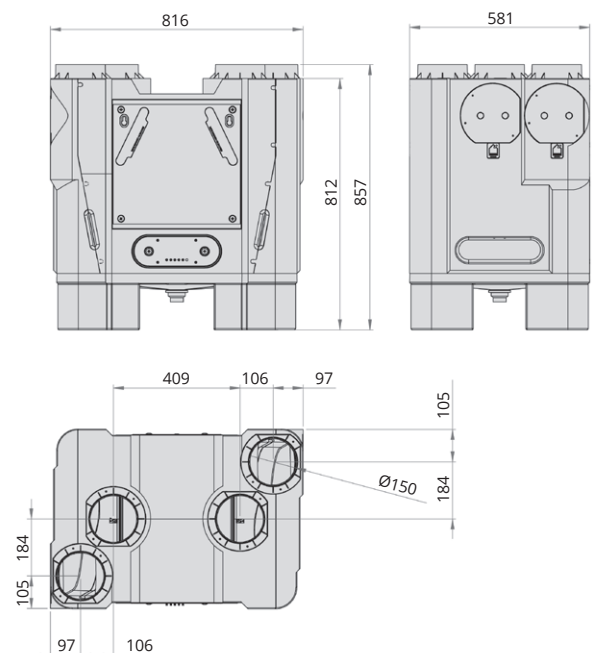
Aircycle MVHR Product Type	Aircycle 3.1 Potentiometer Control	Aircycle 3.1 Digital Control
c/w Humidistat, Bypass - Wall Mount	AS 90-0301-WINS-01	AS 90-0301-WDS-01
c/w Humidistat, Bypass - Floor Mount	AS 90-0301-FINS-01	AS 90-0301-FDS-01

# Product Dimensions

## Wall Mount



## Floor Mount



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