

# BROOKVENT aircycle<sup>®</sup> 1.3 RANGE

## QUIET, EFFICIENT AND HIGHLY VERSATILE

*Heat Recovery Ventilation*



Wall Mount



Ceiling Mount



Floor Mount



Range down to

**0.42** W/1/s  
SPECIFIC FAN  
POWER

Range up to

**92%**  
HEAT RECOVERY  
EFFICIENCY

# BROOKVENT aircycle<sup>1.3</sup>

5 Year  
Manufacturers  
Guarantee

## ▶ ENGINEERED FOR RELIABILITY

*in a range of options to meet  
your project demands*



The **aircycle 1.3** range 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 1.3** range 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 92% heat recovery efficiency
- Down to 0.42 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, floor or ceiling mount models
- Standard or inverted (LH, RH duct connection) options
- Easy access filters
- 5 year guarantee



# ▶ UNRIVALLED PERFORMANCE

*delivered by true innovation*



EXTRACT  
FROM INSIDE

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



SUPPLY  
TO INSIDE

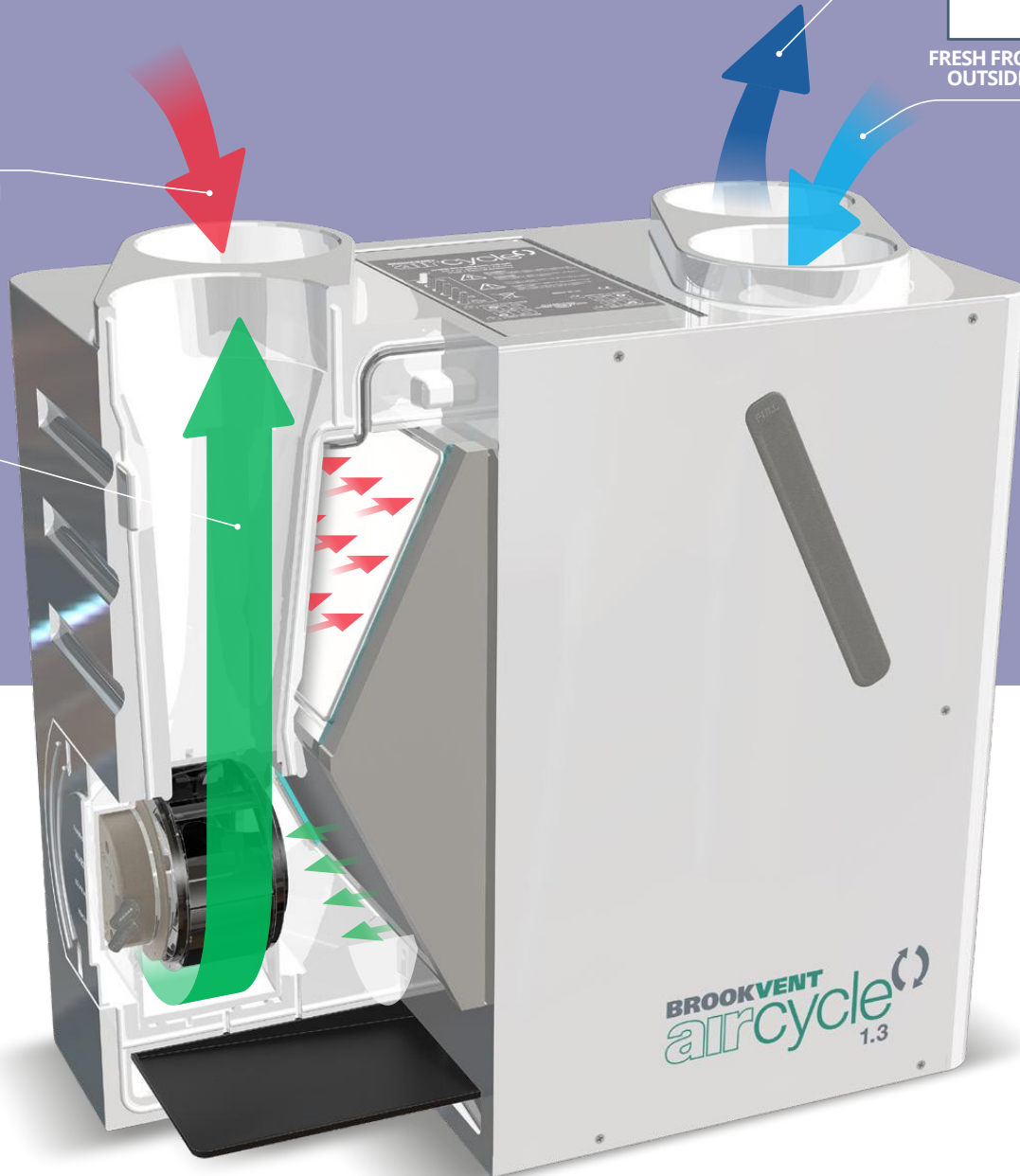
Warm, filtered, fresh air supplied to the habitable rooms (living room, bedroom etc.)



EXHAUST  
TO OUTSIDE



FRESH FROM  
OUTSIDE



Range down to

## 0.42 W/l/s

Specific Fan Power

Streamlined, low-turbulence airflow path design coupled with state of the art EC fan technology ensures the **aircycle 1.3** range has one of the *lowest power consumption* (W) per volume of air (l/s) outputs in its class, minimising running costs and setting a new standard in HRV system efficiency.

Range up to

## 92%

Heat Recovery Efficiency

Incorporating the market leading Recair™ counter-flow, air-to-air heat exchanger, the **aircycle 1.3** range succeeds in transferring up to 92% 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

*options for a quick and easy fit*

Suitable for  
Small to Medium  
Dwellings and  
Apartments



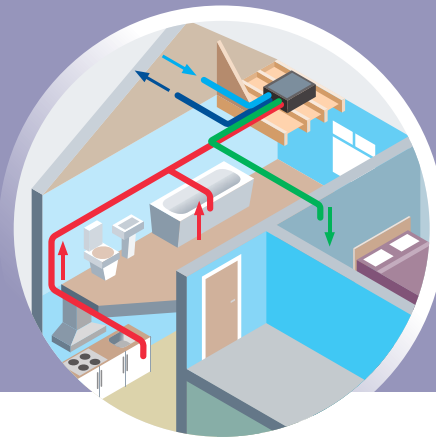
## WALL, FLOOR or CEILING Mount

Three different mounting types to suit your project requirements. One performance standard. Zero compromise. Unlike competitor products, the **aircycle 1.3** range allows it to be supplied in wall, floor or ceiling mount while retaining the same high efficiency, low specific fan power and airflow performance.

WALL MOUNT



FLOOR MOUNT



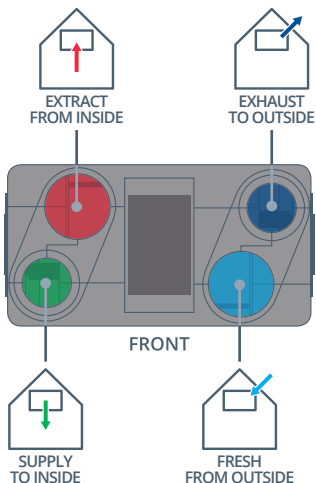
CEILING MOUNT



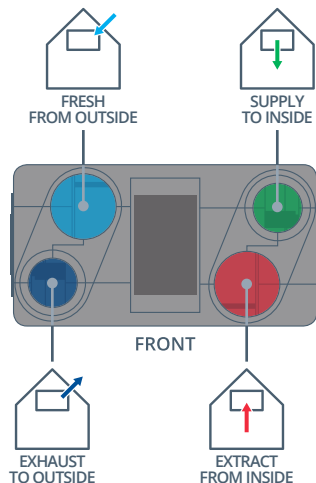
## DUCT CONFIGURATION *Set-up*

The ducting configuration of **aircycle 1.3** range is factory set and supplied to order, 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.

STANDARD CONFIGURATION

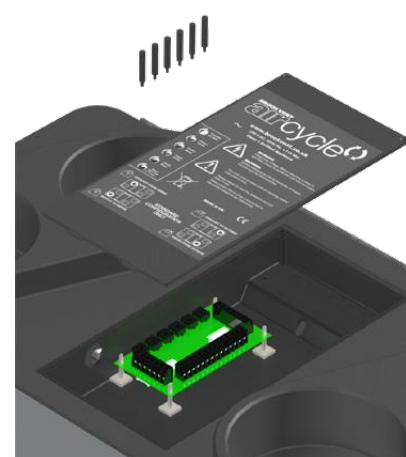


INVERTED CONFIGURATION



## 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.



Potentiometer



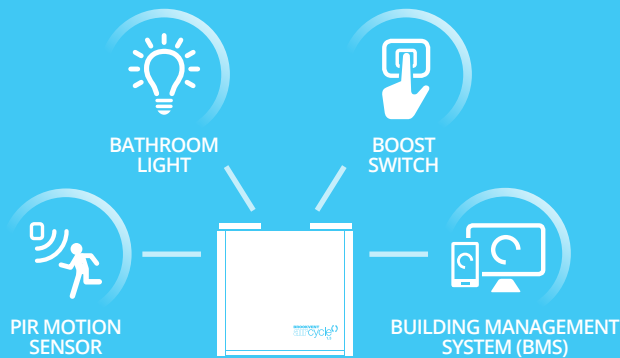
Digital Control

# 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 supply air from outside 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

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 1.3 Acoustic Performance													
Airflow l/s	Speed %		Frequency Hz								LwA dB	LwA dB @3m	
			63	125	250	500	1 k	2 k	4 k	8 k			
20.6	30%	Inlet	30.1	30.8	33.3	30.3	22.1	7.8	7.2	17.8	37.5	30.3	20.5
		Outlet	16.0	24.7	25.3	22.8	10.8	7.5	7.4	17.6	29.8	23.4	13.6
		Breakout	23.3	22.6	26.6	22.3	11.2	5.5	6.9	17.6	30.4	23.4	8.8
34.5	50%	Inlet	27.8	30.4	33.2	30.7	24.9	7.6	7.2	17.8	37.3	31.0	21.2
		Outlet	18.4	29.2	28.3	23.0	14.7	9.6	8.6	18.0	32.8	24.9	15.2
		Breakout	20.0	21.7	26.4	22.3	10.5	5.7	7.1	17.7	29.7	23.3	8.8
48.7	70%	Inlet	26.5	30.3	31.3	35.9	26.0	7.7	7.2	17.8	38.6	34.1	24.3
		Outlet	15.3	24.2	23.5	20.2	13.6	7.2	7.4	17.6	28.6	22.3	12.5
		Breakout	21.3	22.4	25.7	22.8	11.3	5.6	6.9	17.6	29.8	23.4	8.8
62.8	90%	Inlet	36.2	40.3	45.6	48.5	37.1	21.1	12.9	18.2	51.1	46.5	36.7
		Outlet	23.1	36.0	39.3	37.4	26.4	20.5	17.9	21.5	42.8	36.7	27.0
		Breakout	25.2	28.7	39.6	36.4	23.8	13.4	8.3	17.6	41.7	35.7	21.1
69.4	100%	Inlet	35.3	41.3	48.6	49.6	40.1	28.1	14.2	18.4	52.8	48.2	38.4
		Outlet	27.1	42.6	43.5	39.8	27.6	21.5	18.4	22.1	47.1	39.6	29.8
		Breakout	24.4	28.1	40.1	36.5	23.1	13.3	8.6	17.6	42.0	35.9	21.3

Aircycle 1.3+ Acoustic Performance													
Airflow l/s	Speed %		Frequency Hz								LwA dB	LwA dB @3m	
			63	125	250	500	1 k	2 k	4 k	8 k			
24.6	30%	Inlet	28.1	30.3	34.1	33.0	23.6	7.6	7.0	17.6	38.2	32.1	22.4
		Outlet	18.1	27.8	28.0	23.3	12.9	8.6	7.7	17.6	32.1	24.6	14.8
		Breakout	20.4	23.3	28.0	30.6	13.5	5.8	6.9	17.6	33.4	28.6	11.1
41.3	50%	Inlet	27.5	30.8	33.8	33.2	23.7	7.2	7.0	17.6	38.2	32.2	22.4
		Outlet	17.4	31.8	30.0	23.7	14.6	9.7	8.4	17.6	34.6	25.8	16.1
		Breakout	20.3	22.7	27.7	30.6	12.6	5.9	7.2	17.7	33.3	28.6	11.0
57.6	70%	Inlet	28.0	29.7	31.6	42.1	29.9	12.4	7.2	17.6	43.1	39.6	29.8
		Outlet	15.4	20.1	21.0	18.5	14.0	7.1	7.4	17.6	26.3	21.4	11.6
		Breakout	21.2	24.0	27.9	31.1	13.4	6.5	6.9	17.6	33.8	29.0	11.4
74.1	90%	Inlet	36.7	40.2	49.4	45.7	38.0	22.9	14.5	18.4	51.7	45.7	35.9
		Outlet	24.6	39.3	41.6	37.6	28.2	22.6	20.1	22.9	44.8	37.9	28.1
		Breakout	27.0	30.1	40.0	38.9	26.9	15.2	9.2	17.5	43.0	37.6	20.0
82.4	100%	Inlet	35.8	39.6	45.4	46.8	38.7	24.1	15.3	18.5	50.2	45.6	35.8
		Outlet	22.7	38.4	42.8	37.6	29.2	23.0	20.5	24.0	45.2	38.5	28.7
		Breakout	26.5	28.9	40.6	38.6	27.1	15.3	9.8	17.6	43.1	37.6	20.0

Tested according to BS EN 13141-7:2010; Breakout quoted spherical. Supply and extract quoted hemispherical. For sound data at a specific airflow duty, please contact us directly for a bespoke acoustic schedule for your project. Further sound data at increasing pressure (Pa) levels is also available in the O&M manual.

# aircycle 1.3 Range Specification

**Weight:** 11kg **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	•	•

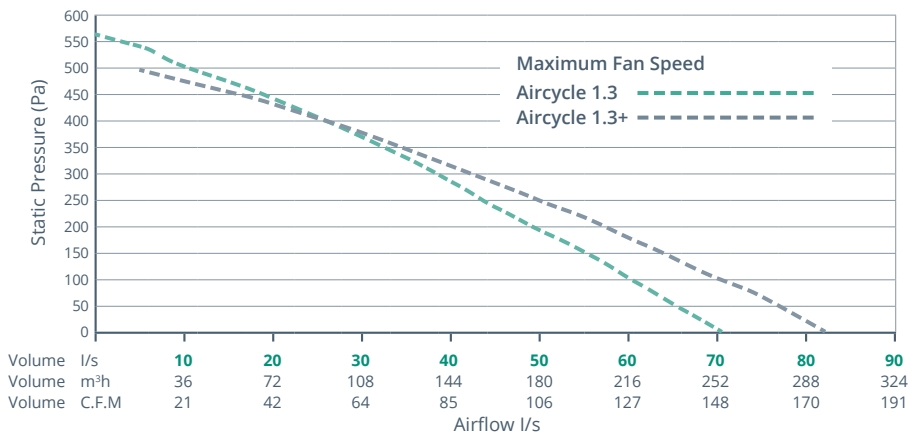
## Standards:

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

## SAP Appendix Q: Listed Results

Model Configuration	Aircycle 1.3				Aircycle 1.3+			
	Specific Fan Power (W/l/s)		Heat Exchange Efficiency (%)		Specific Fan Power (W/l/s)		Heat Exchange Efficiency (%)	
	SAP 2009	SAP 2012	SAP 2009	SAP 2012	SAP 2009	SAP 2012	SAP 2009	SAP 2012
Kitchen + 1 Wet Room	0.51	0.57	92	90	0.42	0.45	88	87
Kitchen + 2 Wet Rooms	0.54	0.68	90	87	0.43	0.54	87	84
Kitchen + 3 Wet Rooms	0.63	0.85	88	85	0.5	0.67	85	83
Kitchen + 4 Wet Rooms	0.75	1.1	86	84	0.6	0.87	84	81
Kitchen + 5 Wet Rooms	0.91	-	85	-	0.72	-	83	-
Kitchen + 6 Wet Rooms	1.08	-	84	-	0.85	-	81	-

## Airflow: Pressure / Performance Curve

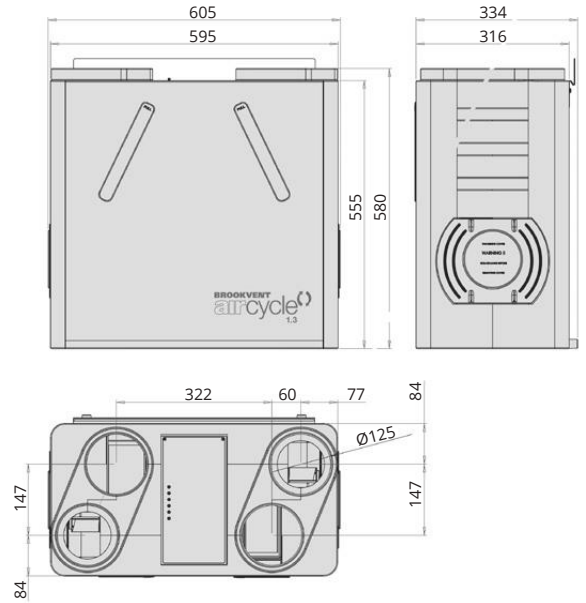


Aircycle MVHR Product Type	Aircycle 1.3 Potentiometer Control	Aircycle 1.3 Digital Control	Aircycle 1.3+ Potentiometer Control	Aircycle 1.3+ Digital Control
c/w Humidistat, Bypass - Wall Mount	AS 90-0103-WINS-01	AS 90-0103-WDS-01	AS 90-0103P-WINS-01	AS 90-0103P-WDS-01
c/w Humidistat, Bypass - Floor Mount	AS 90-0103-FINS-01	AS 90-0103-FDS-01	AS 90-0103P-FINS-01	AS 90-0103P-FDS-01
c/w Humidistat, Bypass - Ceiling Mount	AS 90-0103-CINS-01	AS 90-0103-CDS-01	AS 90-0103P-CINS-01	AS 90-0103P-CDS-01

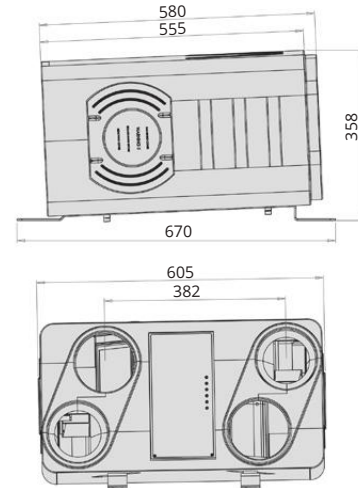
Product codes shown refer to 'standard' duct configuration.  
Add 'V' to the end of each product code for an 'inverted' duct configuration.

# Product Dimensions

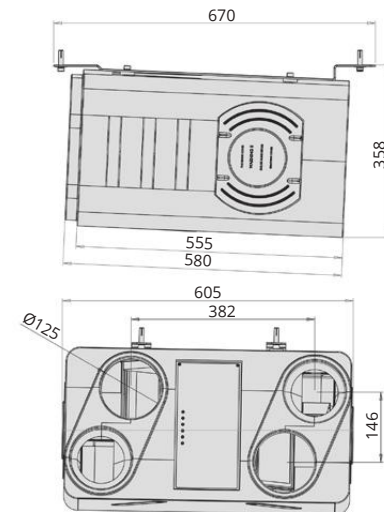
## Wall Mount



## Floor Mount



## Ceiling Mount



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