

# BROOKVENT aircycle

1.3 DIGITAL RANGE

**QUIET, EFFICIENT  
AND HIGHLY  
VERSATILE**

*Heat Recovery Ventilation*



Wall Mount



Ceiling Mount



Floor Mount



Digital Controller

Range down to

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

Range up to

**92%**  
HEAT RECOVERY  
EFFICIENCY

Suitable for  
Small to Medium  
Dwellings and  
Apartments



# 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
- 4 Airflow modes (100% variable): Night, General, Boost, Purge
- Programmable 25%+ boost setting
- Remote digital control
- Status & airflow mode Indication
- Filter maintenance alert
- Fault alert
- Hours run meter
- 230V Auto-boost compatible
- Integral humidistat
- Automated frost protection
- Automatic Summer bypass, 100% filtered
- Variable boost over-run timer



# UNRIVALLED PERFORMANCE

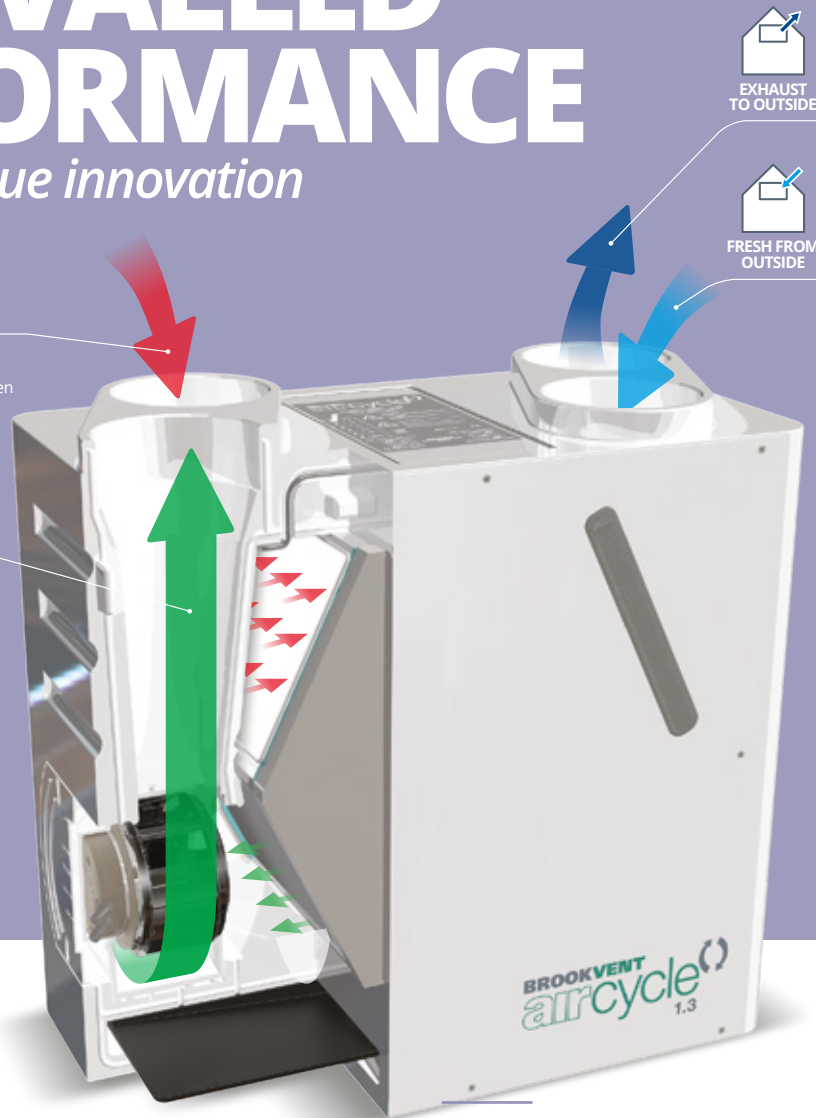
delivered by true innovation



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.)



## 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.

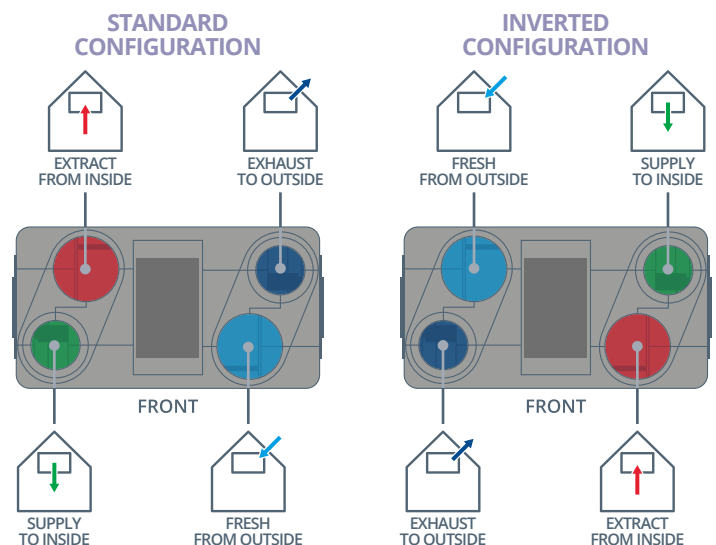
## Range up to **92%** Heat Recovery Efficiency

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.

## 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.



# ▶ VERSATILE INSTALLATION

*options for a quick and easy fit*

Suitable for  
Small to Medium  
Dwellings and  
Apartments



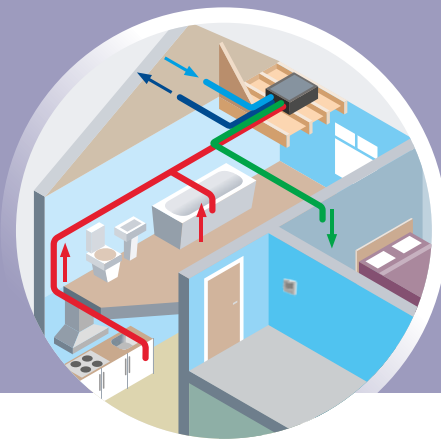
## WALL, FLOOR or CEILING Mount

Three different mounting types to suit your project requirements. One performance standard. Zero compromise. Unlike competitor products, the intelligent design of 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



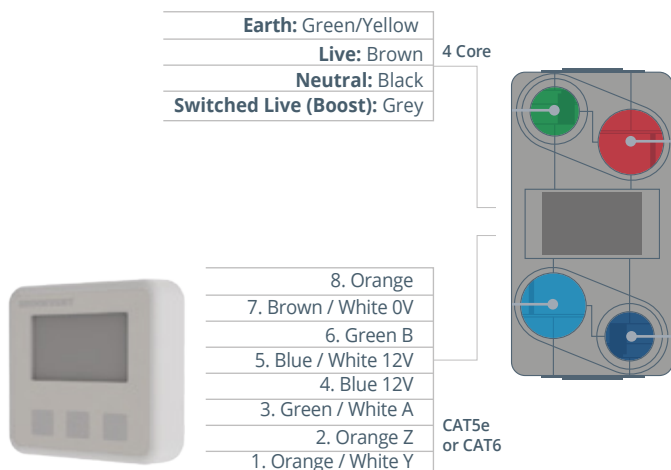
## PLUG & PLAY

*Electrical connections*

aircycle1.3 systems come complete with a flying lead for power and boost functions, a CAT6 digital control cable with an (R) J45 connection already installed, and Molex connected fans and sensors reference future maintenance. True plug and play, saving time and mitigating errors on site.

## REMOTE DIGITAL Control

Enhanced controllability packaged in a user friendly interface allows for bespoke commissioning to suit each project, while giving the end user the flexibility to adjust settings based on their individual needs (within commissioned parameters). Its remote design allows it to be mounted in a visible location to aid interaction and inform the user.

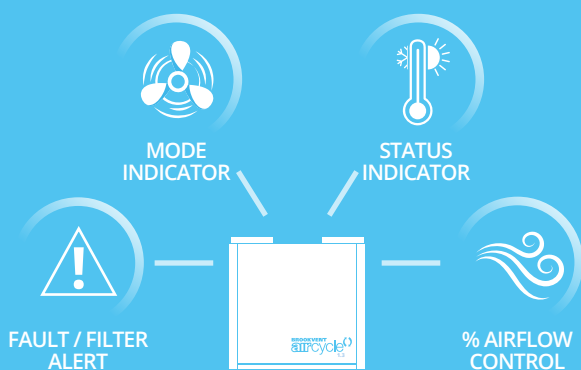


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# ► TGD F & L 2019 & NZEB COMPLIANCE

## CONTROL INDICATION

The digital control indicates to the occupant that the system is operating correctly, if a fault has occurred, if maintenance is required, and which mode it is in. This can be mounted in a visible location to the occupant to aid interaction; one of the key requirements of TGD F 2019.



## +25% AIRFLOW SETTING

TGD F 2019 requires an MVHR system to be able to provide 25% over the calculated general (trickle) ventilation rate. The aircycle 1.3's digital control allows for a 3rd speed (in addition to general and boost) to be set precisely to this +25% rate.

## AIR QUALITY CONTROL

TGD F & L 2019 aims to minimise uncontrollable infiltration by means of increasing air-tightness while supplying sufficient, purpose-provided ventilation. This means ultimate reliance on the MVHR system to be capable of managing occupier comfort. The Brookvent aircycle 1.3 automatically works for the occupier in each season, recovering heat in the winter months, bypassing heat in the summer, and the ability to further help control summertime over-heating by activating a temperature sensitive airflow setting.

## 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										
			63	125	250	500	1 k	2 k	4 k	8 k	Lw dB	LwA dB	LwA dB @3m
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										
			63	125	250	500	1 k	2 k	4 k	8 k	Lw dB	LwA dB	LwA dB @3m
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
- Digital Control Enclosure: ABS

## Digital Control Features:

- Independent fan speed control,
- 230V Boost input (light switch relay, PIR, boost switch etc.)
- Boost over-run timer (0- 99 mins)
- Integral humidity sensor (Boost activation) - 100% Variable RH
- Automatic frost protection
- Automatic Summer Bypass (100% Filtered)
- 4 Airflow modes (100% variable): Night, General, Boost, Purge
- Smart filter maintenance alert
- Fault alert
- Status indication (Summer bypass, frost protection etc.)
- PIN Protect engineering settings
- Hours run meter
- Commissioning Settings Upload
- Statistics display (Temp, humidity etc.)

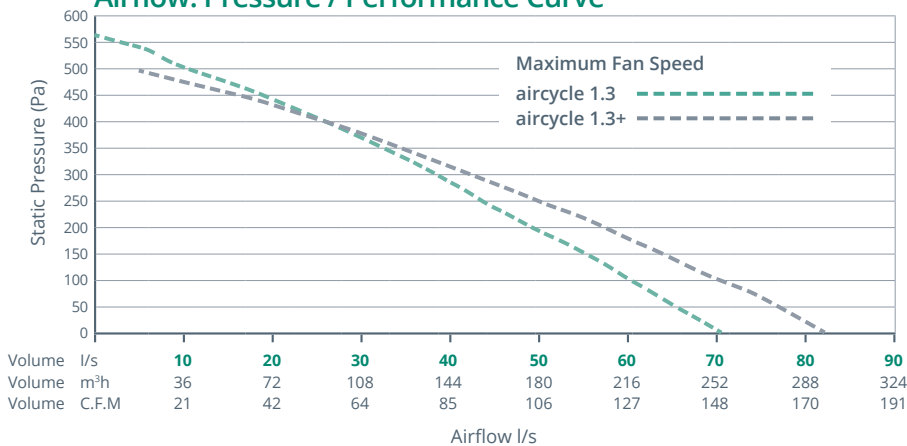
## Standards:

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

## SAP Appendix Q: Listed Results

Model	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



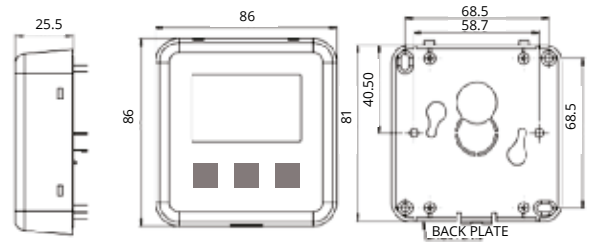
Product Description	AirCycle 1.3 Product Code	AirCycle 1.3+ Product Code
Wall Mount - c/w Integral Humidistat & Bypass	AS 90-0103-WDS-01	AS 90-0103P-WDS-01
Floor Mount - c/w Integral Humidistat & Bypass	AS 90-0103-FDS-01	AS 90-0103P-FDS-01
Ceiling Mount - c/w Integral Humidistat & Bypass	AS 90-0103-CDS-01	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.

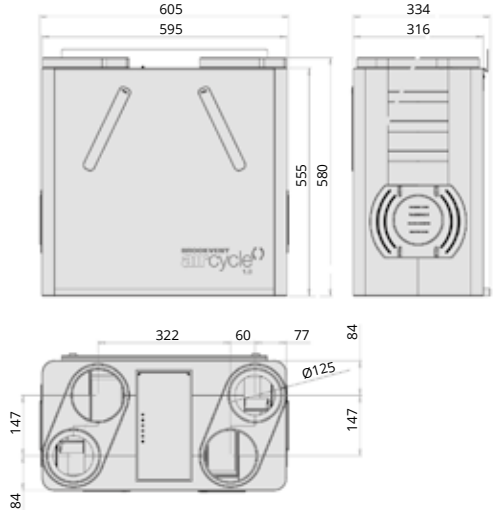
	Product Code
Digital Controller	AM 90-02-301

## Product Dimensions (mm)

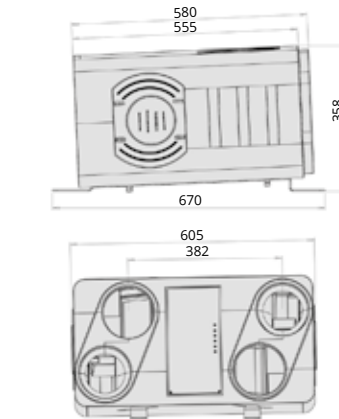
### Digital Controller



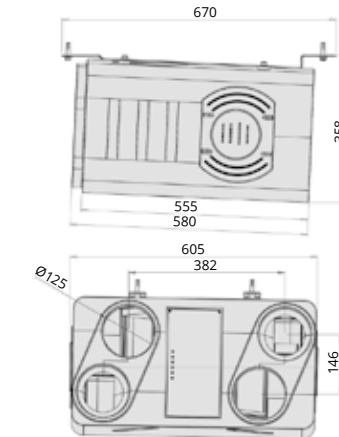
### Wall Mount



### Floor Mount



### Ceiling Mount



## BROOKVENT

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