environmentally friendly-economical-energy efficient

vectaire

ventilation

low energy environmentally friendly economical residential ventilation with EC motors

SAP Q Eligible

February 2016: Issue 7

low energy, environmentally friendly, economical, low carbon Whole House Mechanical Ventilation MVHR, MEV, dMEV

WHHR Midi & Midi Lite (MVHR) - Pages 4 & 8

- Whole house ventilation unit with heat recovery
- For wall or loft installation in homes and offices
- EC motor for high efficiency low energy usage
- Recovers up to 94/91% of heat from extracted, polluted air
- Up to 94/55 litre/sec at 50Pa - max 102/62 litre/sec capacity
- Specific Fan Power from 0.50/0.60 w/l/sec
- Continuous running - choice of trickle and boost speeds
- Universal handing
- With or without summer bypass

With electronic control "Plus"

WHHR Maxi & Maxi PLUS (MVHR) - Page s12 & 16

- Whole house ventilation units with heat recovery
- For wall or loft installation in homes and offices
- EC motors for high efficiency low energy usage
- Recovers up to 92% of heat from extracted, polluted air
- Up to 124/190 litre/sec at 50Pa - max 130/200 litre/sec capacity (140 litre/sec recommended maximum duty - Maxi Plus)
- Specific Fan Power from 0.40 w/l/sec
- Continuous running - choice of trickle and boost speeds
- Universal handing
- With or without summer bypass

With electronic control "Plus"

EVO200DC & EVO250DC (MVHR) - Pages 20 & 24

- Whole house ventilation unit with heat recovery
- For in-line installation in homes and offices
- EC motor for high efficiency low energy usage
- Recovers up to 94/88% of heat from extracted, polluted air
- Up to 74/82 litre/sec at 50Pa - max 81/87 litre/sec capacity
- Specific Fan Power from 0.64/0.70 w/l/sec
- Continuous running - choice of trickle and boost speeds
- With summer bypass

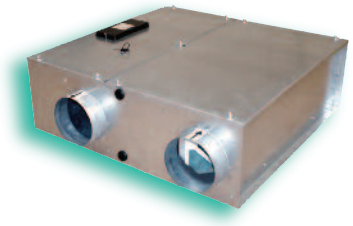
With electronic control "Plus"

WHHR100/90DC-B Plus (MVHR) - Page 28

- Whole house horizontal ventilation unit with heat recovery
- For in-line installation in homes and offices
- EC motor for high efficiency low energy usage
- Recovers up to 92% of heat from extracted, polluted air
- Up to 67 litre/sec at 50Pa - max 83 litre/sec capacity
- Specific Fan Power from 0.63 w/l/sec
- Continuous running - choice of trickle and boost speeds
- With or without summer bypass

WHHR100/90DC (MVHR) - Page 32

- **Slimline** whole house horizontal ventilation unit with heat recovery
- Only **200mm** deep
- For in-line installation in homes and offices
- EC motor for high efficiency low energy usage
- Recovers up to 79% of heat from extracted, polluted air
- Up to 74 litre/sec at 50Pa - max 80 litre/sec capacity
- Specific Fan Power from 0.71 w/l/sec
- Continuous running - choice of trickle and boost speeds



Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

low energy, environmentally friendly, economical, low carbon Whole House Mechanical Ventilation MVHR, MEV, dMEV

EVO90DC (MVHR) - Page 36

- Whole house horizontal ventilation unit with heat recovery
- For in-line installation in homes and offices
- EC motor for high efficiency low energy usage
- Recovers up to 79% of heat from extracted, polluted air
- Up to 74 litre/sec at 50Pa - max 80 litre/sec capacity
- Specific Fan Power from 0.71 w/l/sec
- Continuous running - choice of trickle and boost speeds
- With summer bypass

With electronic control "Plus"

WHHR Mini DC (MVHR) - Page 40

- Whole house horizontal ventilation unit with heat recovery
- For in-line installation in small dwellings, hotel bedrooms, student accommodation etc
- EC motor for high efficiency low energy usage
- Recovers up to 83% of heat from extracted, polluted air
- Up to 29.8 litre/sec at 50Pa - max 34 litre/sec capacity
- Continuous running - choice of trickle and boost speeds
- With or without summer bypass

With electronic control "Plus"

MBOX125/2DC-B (MEV) - Page 44

- Slimline whole house horizontal mechanical extract ventilation unit
- Less than **184mm** deep
- For in-line installation in homes and offices
- EC motor for high efficiency low energy usage
- Up to 96 litre/sec at 50Pa - max 105 litre/sec capacity
- Specific Fan Power from 0.20 w/l/sec
- Continuous running - choice of trickle and boost speeds

Elegance (dMEV) - Page 48

- Three speed (2 trickle speeds and boost) axial fan
- EC motor for high efficiency low energy usage.
- For installation in all domestic wet rooms
- Up to 28.5 litre/sec capacity
- Specific Fan Power from 0.09 w/l/sec
- Continuous running - choice of trickle and boost speeds
- **Best SFP in Class**

Elix (dMEV) - Page 52

- Three speed (2 trickle speeds and boost) centrifugal fan
- EC motor for high efficiency low energy usage
- For installation in all domestic wet rooms
- Up to 28 litre/sec capacity
- Specific Fan Power from 0.14 w/l/sec
- Continuous running - choice of trickle and boost speeds
- **Best SFP in Class**

E-Smile (dMEV) - Page 56

- Three speed (2 trickle speeds and boost) axial fan
- High performance motor for efficient low energy usage
- For installation in all domestic wet rooms
- Up to 21 litre/sec capacity
- Specific Fan Power from 0.37 w/l/sec
- Continuous running - choice of trickle and boost speeds

Heatrec1003 - Page 60

- Single room heat recovery unit
- EC motors for high efficiency low energy usage
- Recovers up to 75% of heat from extracted, polluted air
- 3 speed for any domestic wet room
- Continuous running - choice of trickle and boost speeds
- Heat recovery tube available in 3 lengths
- With summer bypass and frost-stat

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

WHHR Midi

NEW

MVHR - WHHR Midi Plus

- with or without summer bypass
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 6 wet rooms
- up to 94% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for wall, cupboard or loft installation
- universal handing - left or right
- low noise levels and running costs
- complies with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

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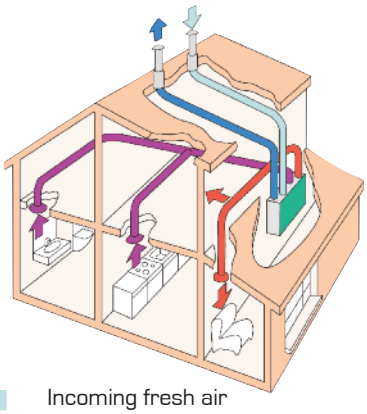
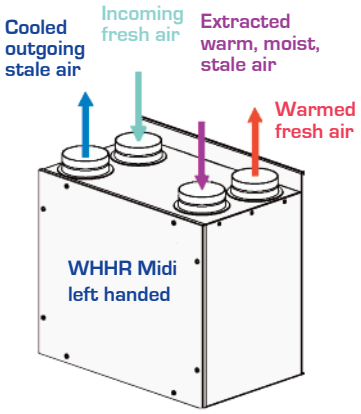
WHHR Midi

GENERAL FEATURES

- Up to 94 litre/sec at 50Pa - max 102 litre/sec capacity
- for areas up to 230m²
- up to 94% of heat recovered
- easy to install and maintain
- universal handing - left or right
- for fitting vertically into lofts, or cupboards - wall fixing bracket supplied
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

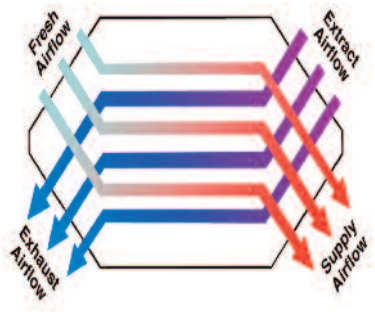


- Incoming fresh air
- Warmed fresh air
- Extracted warm, moist, stale air
- Cooled outgoing stale air
- WHHR-Midi



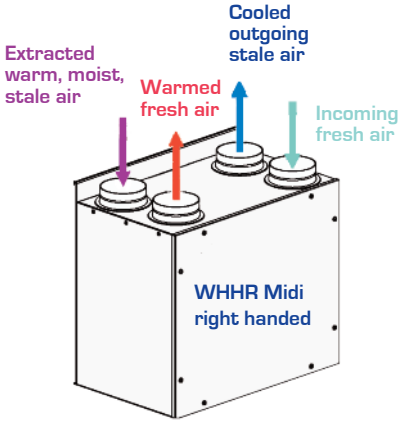
TECHNICAL FEATURES

- compact unit
- casing from steel sheet - epoxy paint finish
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, forward curved impellors
- operates in temperature up to 60ºC
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**
- **EST Best Practice Performance compliant**



CONTROL FEATURES

Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently

> **boost setting** - with integral overrun timer adjustable up to 20 minutes

> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes (adjustable from 0-20 mins)

> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls

Factory Set Options

> **change of ductwork handing on humidistat version**

> **purge boost** - for rapid air change

> **BMS connections** - for remote motor shut off

> **integral humidistat** - proportionally increases motor speeds with rising humidity

> **summer bypass** - automatic bypass of heat exchanger

MODELS AVAILABLE:

- WHHR Midi - standard, universal
- WHHR Midi BY - bypass, universal
- WHHR Midi HL - humidistat, left drain
- WHHR Midi HR - humidistat, right drain
- WHHR Midi LBYH - left drain, by-pass, humidistat
- WHHR Midi RBYH - right drain, by-pass, humidistat

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

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Web: www.vectaire.co.uk

WHHR Midi

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
WHHR Midi Plus	102	84	66	48	36	120	103	51	25	20

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only				RESULTS for Approved Document F	
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	EST Best Practice Performance Compliant	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.50**	**94**	**yes**	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.50**	**93**	**yes**	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.55**	**92**	**yes**	**27.0**	**27.0**
Kitchen + **4** additional wet rooms	**0.65**	**91**	**yes**	**33.0**	**33.0**
Kitchen + **5** additional wet rooms	**0.76**	**89**	**yes**	**39.0**	**39.0**
Kitchen + **6** additional wet rooms	**0.88**	**89**	**yes**	**45.0**	**45.0**
Figures from BRE test results at minimum flow rate conditions					

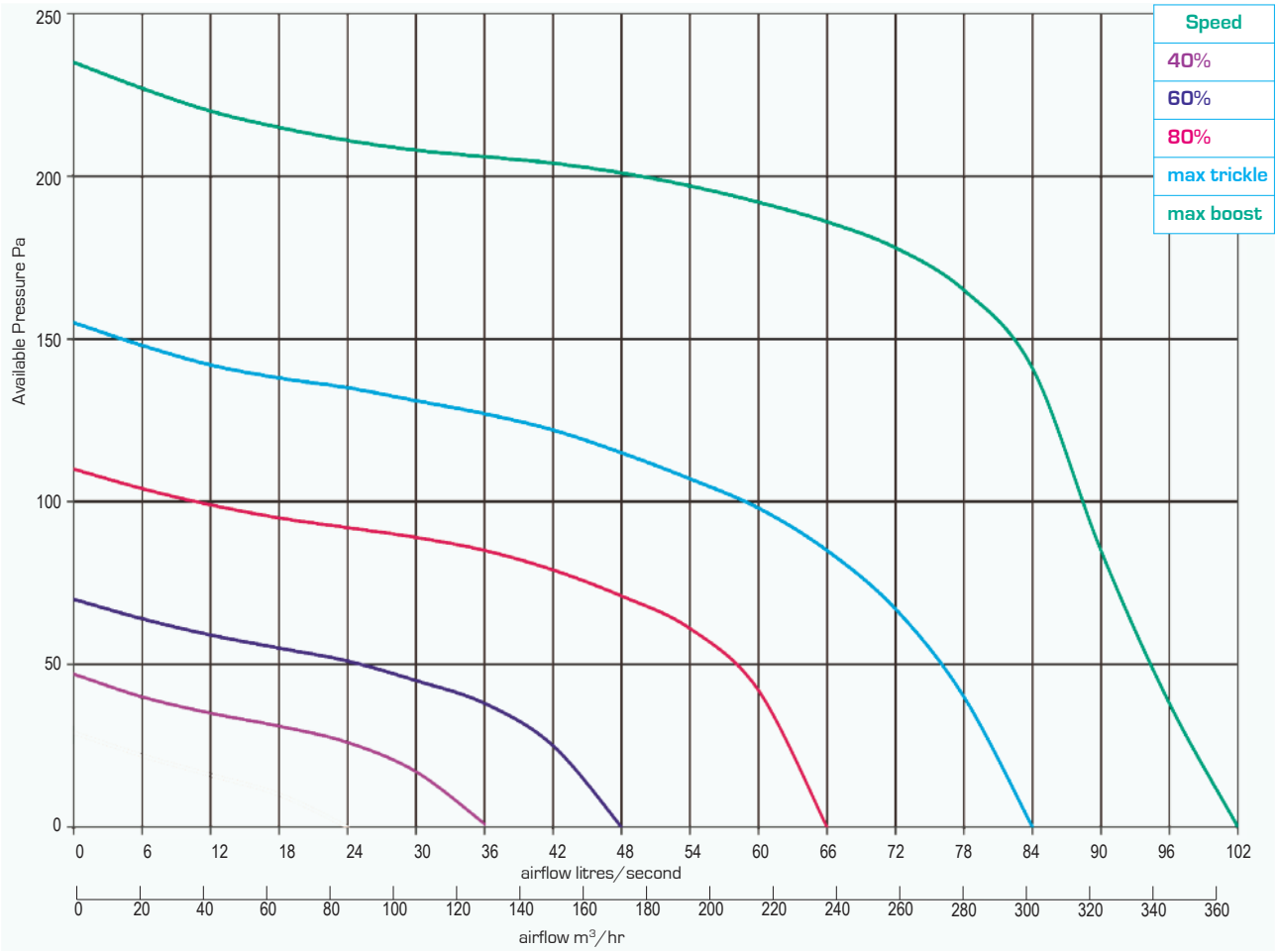
WHHR-Midi Plus		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.							Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (102 l/sec)	Extract	62	57	53	51	50	44	39	36	31
	Supply	60	57	65	61	62	58	54	51	
	Breakout	56	51	56	49	45	42	37	33	
Max Trickle (84 l/sec)	Extract	59	53	50	48	47	40	35	31	29
	Supply	58	55	61	60	61	53	50	47	
	Breakout	55	54	53	45	43	39	34	30	
80% (66 l/sec)	Extract	54	48	45	43	42	34	29	26	26
	Supply	54	50	55	54	54	47	45	40	
	Breakout	52	57	48	41	40	33	28	25	
60% (48 l/sec)	Extract	46	47	40	37	35	25	20	22	23
	Supply	45	47	49	48	46	37	30	26	
	Breakout	46	54	45	42	37	25	20	22	
40% (36 l/sec)	Extract	44	46	36	33	32	22	17	21	22
	Supply	42	45	46	45	42	34	30	22	
	Breakout	42	52	43	42	35	21	17	21	

TYPICAL SPECIFICATION

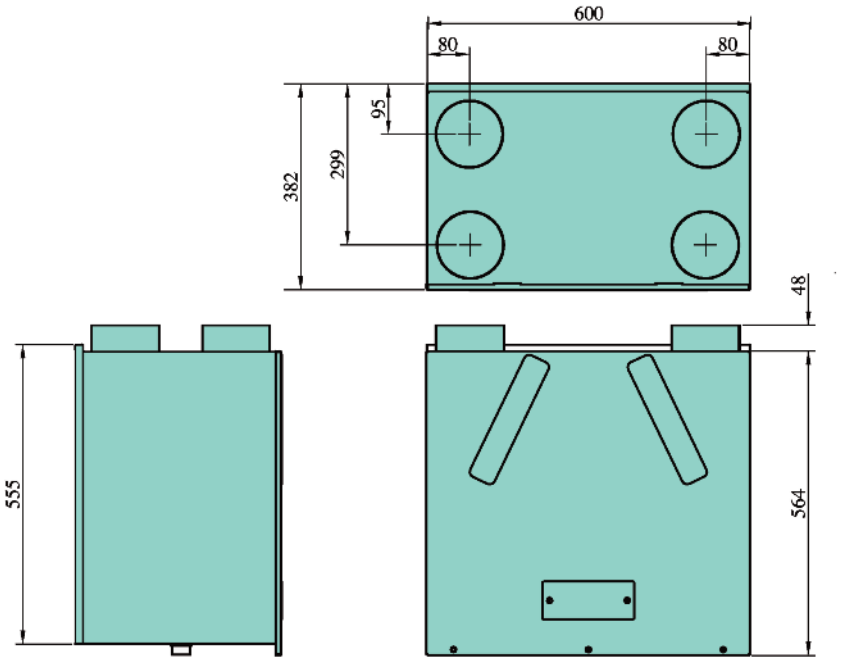
Supply and install a Vectaire WHHR Midi Plus energy efficient MVHR which has been tested and is SAP Q Eligible as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and up to six other wet rooms and should be for cupboard, loft or false ceiling installation recovering up to 94% of heat from extracted air separating the airflows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.50 w/l/s. It should have as standard: independent variable speed adjustment for boost and trickle; boost setting with integral overrun timer; optional delay-on timer and integral frost-stat. It should also have the facility for: change of ductwork handing; purge boost; BMS connections; integral proportional dynamic humidistat; and an automatic summer bypass. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked, be SAP Q eligible and EST Best Practice Performance compliant.

WHHR Midi

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

WHHR Midi Lite

environmentally friendly · economical · energy efficient

NEW

MVHR - WHHR Midi Lite

- with summer bypass
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 3 wet rooms
- up to 91% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for wall, cupboard or loft installation
- universal handing on standard model
- low noise levels and running costs
- complies with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

Tel: +44(0)1494 522333
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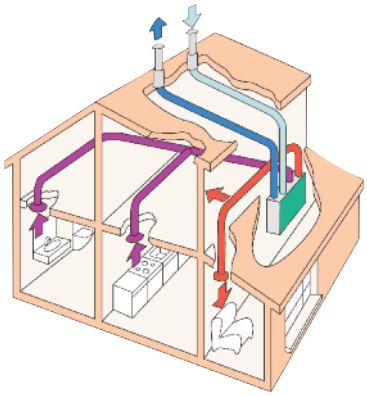
Web: www.vectaire.co.uk

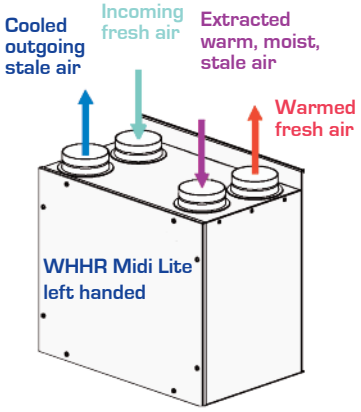
WHHR Midi Lite

GENERAL FEATURES

- Up to 55 litre/sec at 50Pa - max 62 litre/sec capacity
- for areas up to 140m²
- up to 91% of heat recovered
- easy to install and maintain
- universal handing on standard model
- for fitting vertically into lofts, or cupboards - wall fixing bracket supplied
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

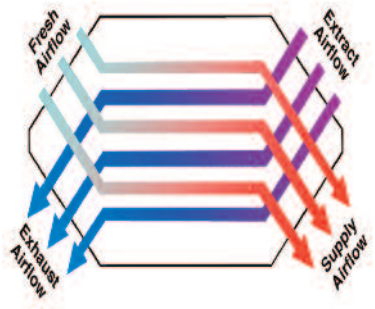


- Incoming fresh air
- Warmed fresh air
- Extracted warm, moist, stale air
- Cooled outgoing stale air
- WHHR-Midi Lite



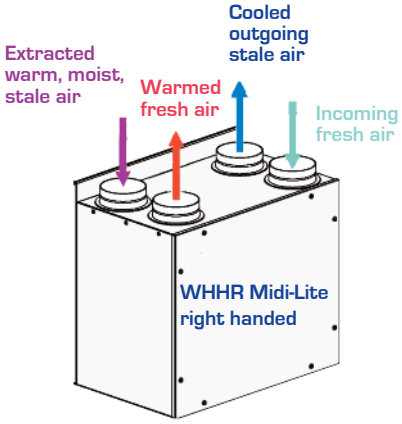
TECHNICAL FEATURES

- compact unit
- casing from steel sheet - epoxy paint finish
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, forward curved impellors
- operates in temperature up to 60ºC
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked



CONTROL FEATURES

Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently

> **boost setting** - with integral overrun timer adjustable up to 20 minutes

> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes (adjustable from 0-20 mins)

> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls

> **summer bypass** - automatic bypass of heat exchanger

Factory Set Options

> **change of ductwork handing**

> **purge boost** - for rapid air change

> **BMS connections** - for remote motor shut off

> **integral humidistat** - proportionally increases motor speeds with rising humidity

MODELS AVAILABLE:

- Midi Lite - universal, bypass
- Midi Lite/LH - left drain, by-pass, humidistat
- Midi Lite/RH - right drain, bypass, humidistat

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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WHHR Midi Lite

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
WHHR Midi Lite	62	49	36	24	13	120	103	51	25	20

ENERGY LEVEL PERFORMANCE - using rigid ducting only				RESULTS for Approved Document F	
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	EST Best Practice Performance Compliant	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.60**	**91**	**yes**	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.65**	**90**	**yes**	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.70**	**89**	**yes**	**27.0**	**27.0**
Figures at minimum flow rate conditions					

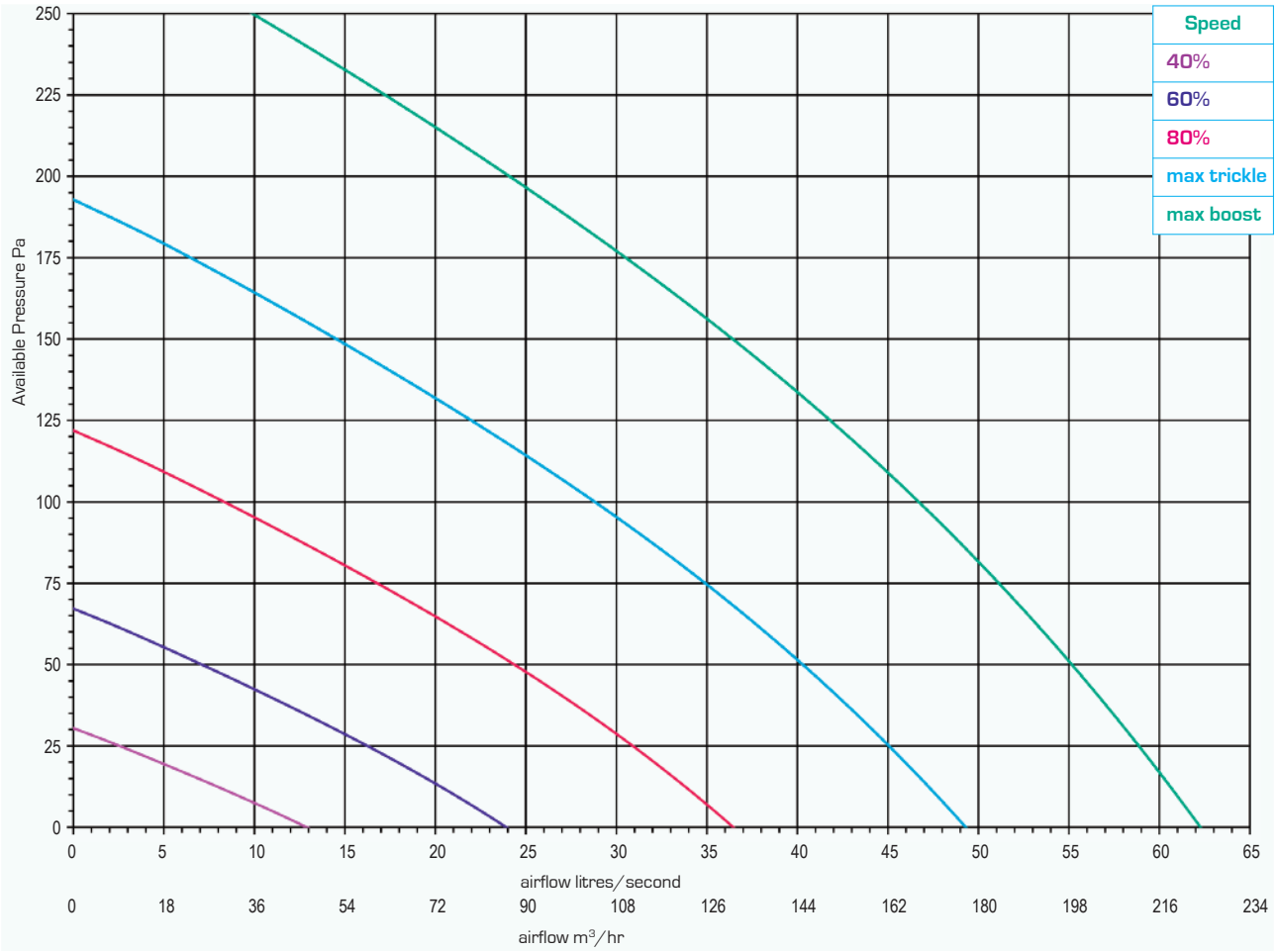
WHHR-Midi Plus		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (62 l/sec)	Extract	62	57	53	51	50	44	39	36	31
	Supply	60	57	65	61	62	58	54	51	
	Breakout	56	51	56	49	45	42	37	33	
Max Trickle (49 l/sec)	Extract	59	53	50	48	47	40	35	31	29
	Supply	58	55	61	60	61	53	50	47	
	Breakout	55	54	53	45	43	39	34	30	
80% (36 l/sec)	Extract	54	48	45	43	42	34	29	26	26
	Supply	54	50	55	54	54	47	45	40	
	Breakout	52	57	48	41	40	33	28	25	
60% (24 l/sec)	Extract	46	47	40	37	35	25	20	22	23
	Supply	45	47	49	48	46	37	30	26	
	Breakout	46	54	45	42	37	25	20	22	
40% (13 l/sec)	Extract	44	46	36	33	32	22	17	21	22
	Supply	42	45	46	45	42	34	30	22	
	Breakout	42	52	43	42	35	21	17	21	

TYPICAL SPECIFICATION

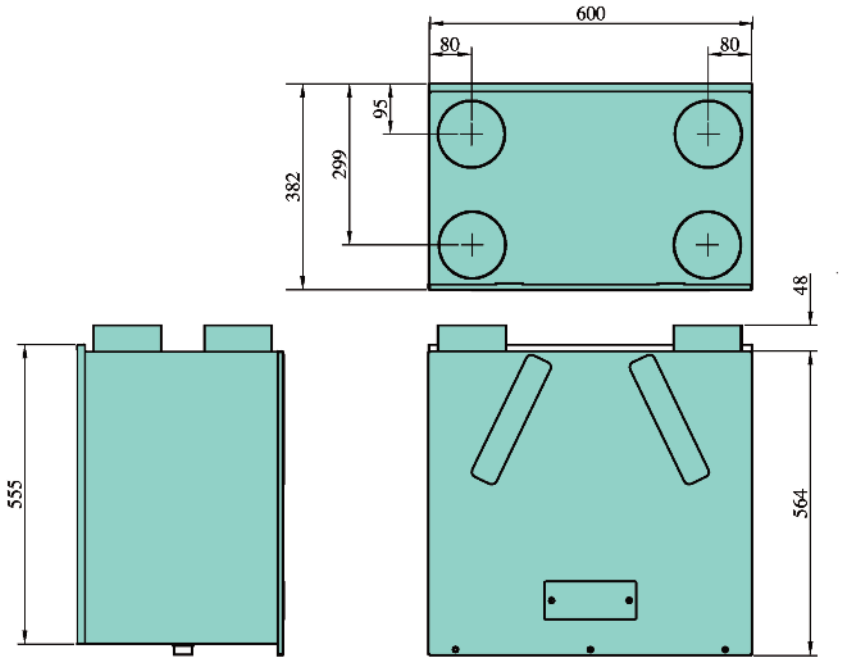
Supply and install a Vectaire WHHR Midi Lite energy efficient MVHR as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and up to three other wet rooms and should be for cupboard, loft or false ceiling installation recovering up to 91% of heat from extracted air separating the airflows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.60 w/l/s. It should have as standard: independent variable speed adjustment for boost and trickle; boost setting with integral overrun timer; optional delay-on timer, integral frost-stat and summer bypass and universal handing. It should also have the facility for: purge boost; BMS connections; integral proportional dynamic humidistat. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80 and be CE marked.

WHHR Midi Lite

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

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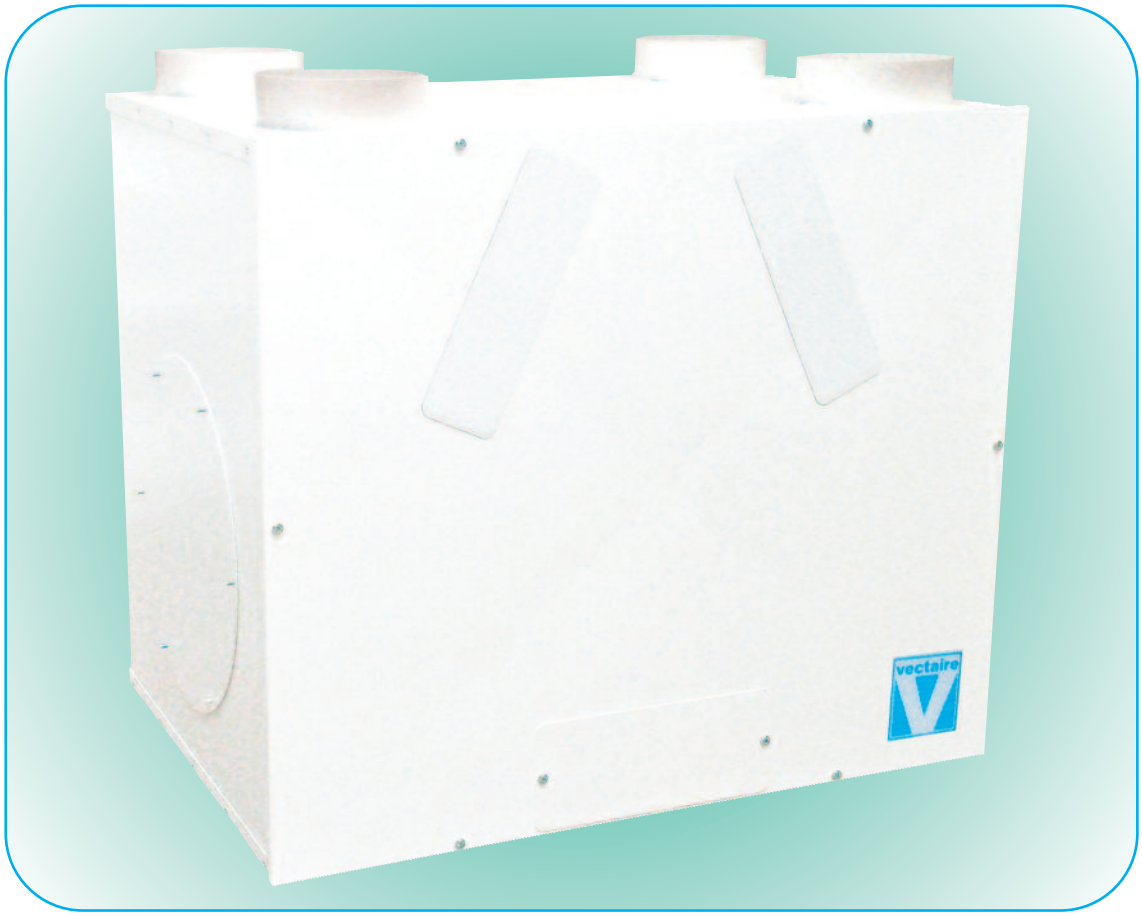
WHHR Maxi



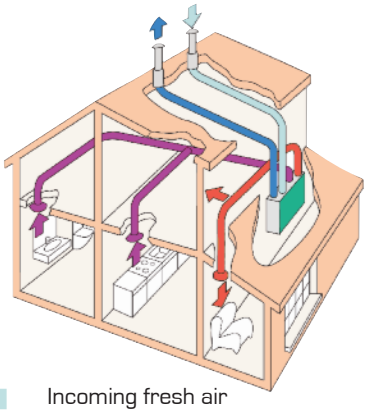
MVHR - WHHR Maxi

- with or without summer bypass
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 7 wet rooms
- up to 92% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for wall, cupboard or loft installation
- universal handing - left or right
- low noise levels and running costs
- complies with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

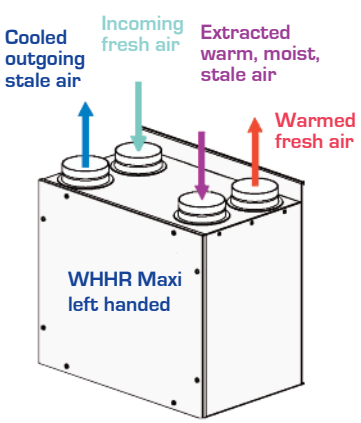
WHHR Maxi

GENERAL FEATURES

- Up to 124 litre/sec at 50Pa - max 130 litre/sec capacity
- for areas up to 230m²
- up to 92% of heat recovered
- easy to install and maintain
- universal handing - left or right
- for fitting vertically into lofts, or cupboards - wall fixing bracket supplied
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

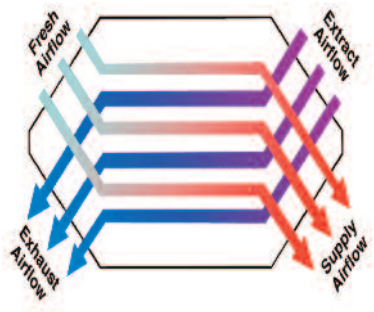


- Incoming fresh air
- Warmed fresh air
- Extracted warm, moist, stale air
- Cooled outgoing stale air
- WHHR Maxi



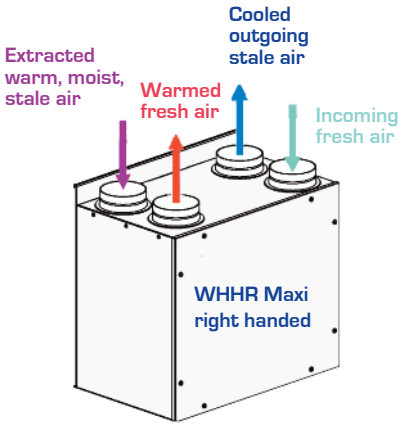
TECHNICAL FEATURES

- casing from steel sheet - epoxy paint finish
- foam construction lining
- EPS internal components provide acoustic and thermal enhancement
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**



CONTROL FEATURES

Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently
> **boost setting** - with integral overrun timer adjustable up to 20 minutes
> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes (adjustable from 0-20 mins)
> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls

Factory Set Options

> **change of ductwork handing on humidi-stat version**
> **purge boost** - for rapid air change
> **BMS connections** - for remote motor shut off
> **integral humidistat** - proportionally increases motor speeds with rising humidity
> **summer bypass** - automatic bypass of heat exchanger

MODELS AVAILABLE:

- WHHR Maxi - standard, universal
- WHHR Maxi BY - bypass, universal
- WHHR Maxi HL - humidistat, left drain
- WHHR Maxi HR - humidistat, right drain
- WHHR Maxi BLH - bypass, left drain, humidistat,
- WHHR Maxi BRH - bypass, right drain humidistat

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

WHHR Maxi

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
WHHR Maxi	130	130	110	80	50	134	132	85	45	20

TECHNICAL DETAILS				
Exhaust Terminal Configuration	l/sec	m^3/hr	SFP (W/l/s)	Heat Exchange Efficiency
Kitchen + **1** additional wet room	15.0	54.0	**0.43**	**92**
Kitchen + **2** additional wet rooms	21.0	75.6	**0.40**	**92**
Kitchen + **3** additional wet rooms	27.0	97.2	**0.42**	**92**
Kitchen + **4** additional wet rooms	33.0	118.8	**0.48**	**91**
Kitchen + **5** additional wet rooms	39.0	140.4	**0.55**	**91**
Kitchen + **6** additional wet rooms	45.0	162.0	**0.63**	**90**
Kitchen + **7** additional wet rooms	51.0	183.6	**0.76**	**90**

WHHR-Maxi		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (130 l/sec)	Extract	62	56	53	51	50	43	38	34	34
	Supply	61	58	64	63	64	56	53	50	
	Breakout	58	57	56	48	46	42	37	33	
Max Trickle (130 l/sec)	Extract	62	56	53	51	50	43	38	34	34
	Supply	61	58	64	63	64	56	53	50	
	Breakout	58	57	56	48	46	42	37	33	
80% (110 l/sec)	Extract	60	54	51	49	48	40	35	32	32
	Supply	60	56	61	60	60	53	51	46	
	Breakout	58	63	54	47	46	39	34	31	
60% (80 l/sec)	Extract	50	51	44	41	39	29	24	26	27
	Supply	49	51	53	52	50	41	34	30	
	Breakout	50	58	49	46	41	29	24	26	
40% (50 l/sec)	Extract	42	44	34	31	30	20	15	19	20
	Supply	40	43	44	43	40	32	28	20	
	Breakout	40	50	41	40	33	19	15	19	

TYPICAL SPECIFICATION

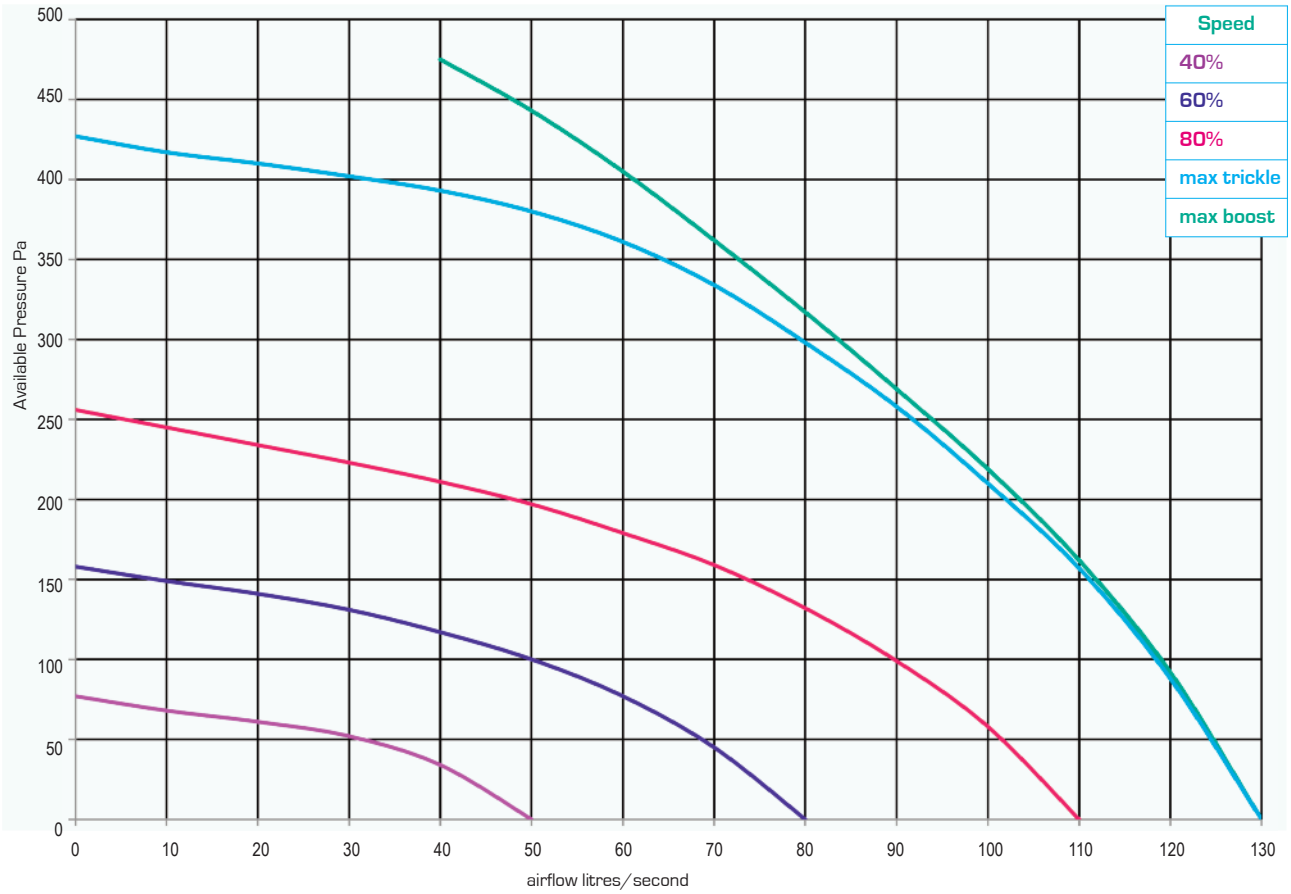
Supply and install a Vectaire WHHR Maxi energy efficient MVHR which has been tested and is SAP Q Eligible as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and up to eight other wet rooms and should be for cupboard, loft or false ceiling installation recovering up to 92% of heat from extracted air separating the airflows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.40 w/l/s. It should have as standard: independent variable speed adjustment for boost and trickle; boost setting with integral overrun timer; optional delay-on timer and integral frost-stat. It should also have the facility for: change of ductwork handing; purge boost; BMS connections; integral proportional dynamic humidistat; and an automatic summer bypass. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked and SAP Q Eligible,

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

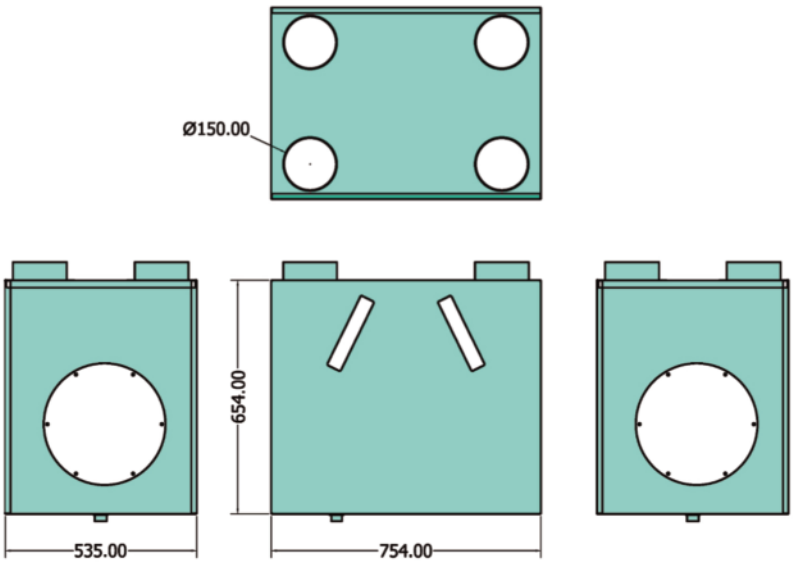
Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

WHHR Maxi

PERFORMANCE (curves are for guidance only)



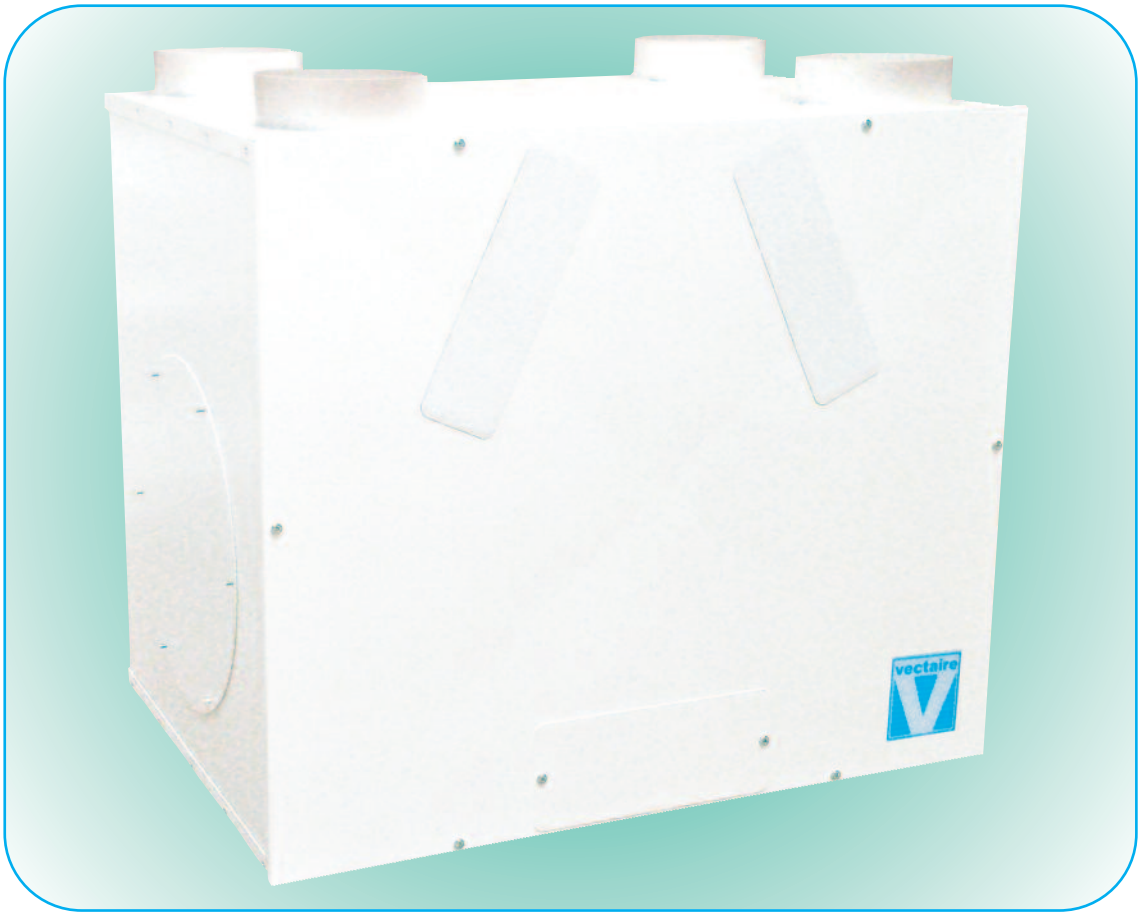
DIMENSIONS - mm



Maxi PLUS

environmentally friendly · economical · energy efficient

NEW



MVHR - Maxi PLUS

- with or without summer bypass
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 7 wet rooms
- up to 92% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for wall, cupboard or loft installation
- universal handing - left or right
- low noise levels and running costs
- complies with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

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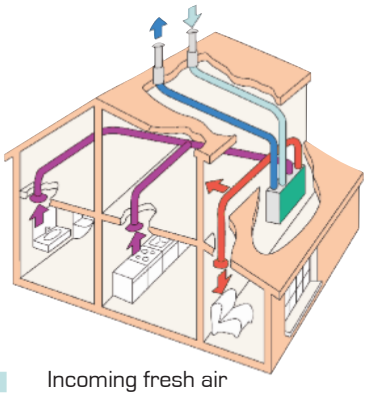
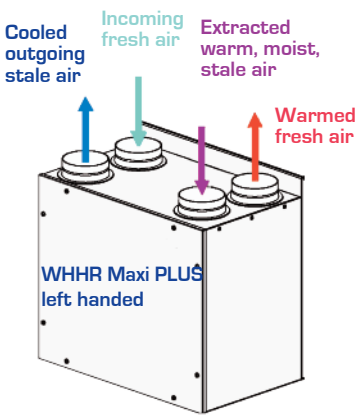
Maxi PLUS

GENERAL FEATURES

- Up to 190 litre/sec at 50Pa - max 200 litre/sec capacity **140 litre/sec recommended maximum duty**
- for areas up to 230m²
- up to 92% of heat recovered
- easy to install and maintain
- universal handing - left or right
- for fitting vertically into lofts, or cupboards - wall fixing bracket supplied
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

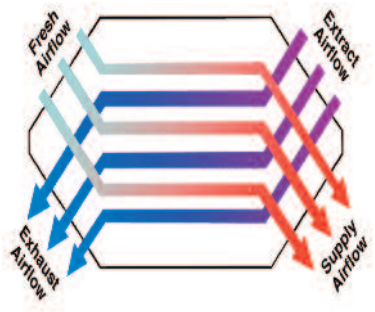


Incoming fresh air
Warmed fresh air
Extracted warm, moist, stale air
Cooled outgoing stale air
Maxi PLUS



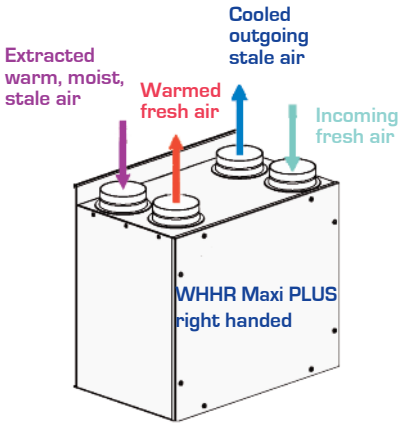
TECHNICAL FEATURES

- casing from steel sheet - epoxy paint finish
- foam construction lining
- EPS internal components provide acoustic and thermal enhancement
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC),



CONTROL FEATURES

Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently
> **boost setting** - with integral overrun timer adjustable up to 20 minutes
> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes (adjustable from 0-20 mins)
> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls

Factory Set Options

> **change of ductwork handing on humidistat version**
> **purge boost** - for rapid air change
> **BMS connections** - for remote motor shut off
> **integral humidistat** - proportionally increases motor speeds with rising humidity
> **summer bypass** - automatic bypass of heat exchanger

MODELS AVAILABLE:

- Maxi PLUS - standard, universal
- Maxi PLUS BY - bypass, universal
- Maxi PLUS HL - humidistat, left drain
- Maxi PLUS HR - humidistat, right drain
- Maxi PLUS BLH - bypass, left drain, humidistat,
- Maxi PLUS B–RH - bypass, right drain, humidistat,

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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Maxi PLUS

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
Maxi PLUS	200	159	128	95	64	328	174	95	49	20

TECHNICAL DETAILS				
Exhaust Terminal Configuration	l/sec	m^3/hr	SFP (W/l/s)	Heat Exchange Efficiency
Kitchen + **1** additional wet room	15	54	**0.43**	**92**
Kitchen + **2** additional wet rooms	21	75.6	**0.48**	**92**
Kitchen + **3** additional wet rooms	27	97.2	**0.51**	**92**
Kitchen + **4** additional wet rooms	33	118.8	**0.62**	**91**
Kitchen + **5** additional wet rooms	39	140.4	**0.74**	**91**
Kitchen + **6** additional wet rooms	45	162	**0.85**	**90**
Kitchen + **7** additional wet rooms	51	183.6	**0.99**	**90**

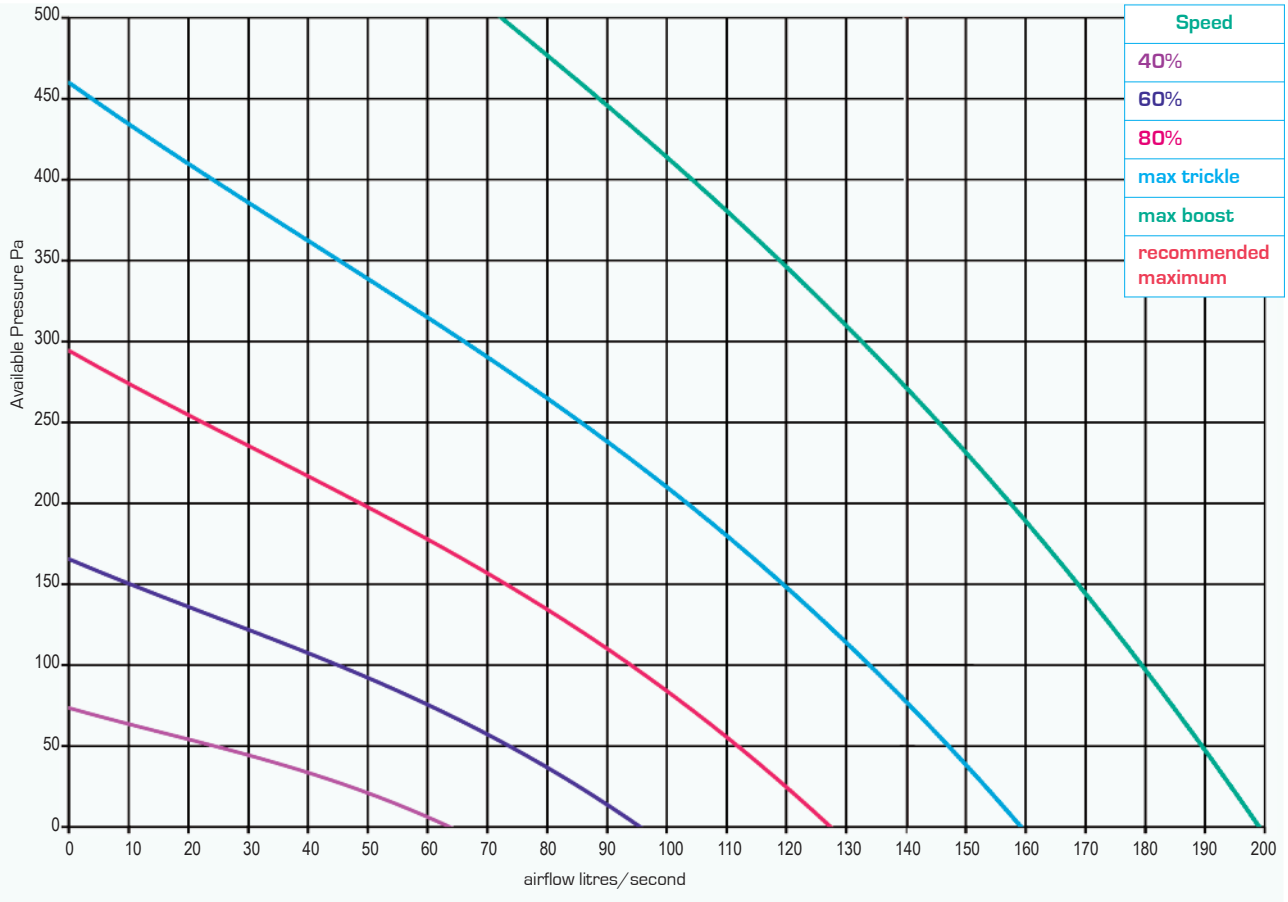
WHHR-Maxi		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (200 l/sec)	Extract	69	63	67	65	64	60	57	52	46
	Supply	72	66	70	68	67	63	60	55	
	Breakout	64	53	51	43	36	26	17	10	
Max Trickle (159 l/sec)	Extract	64	58	62	61	58	55	52	48	42
	Supply	67	61	65	64	61	58	55	51	
	Breakout	59	48	46	39	30	21	12	6	
80% (128 l/sec)	Extract	59	53	57	56	54	50	47	43	37
	Supply	62	56	60	59	57	53	50	46	
	Breakout	54	43	41	34	26	16	7	1	
60% (95 l/sec)	Extract	53	47	51	49	48	45	41	37	30
	Supply	56	50	54	52	51	48	44	40	
	Breakout	48	37	35	27	20	11	1	-5	
40% (64 l/sec)	Extract	44	38	42	41	39	35	32	28	22
	Supply	47	41	45	44	42	38	35	31	
	Breakout	39	28	26	19	11	1	-8	-14	

TYPICAL SPECIFICATION

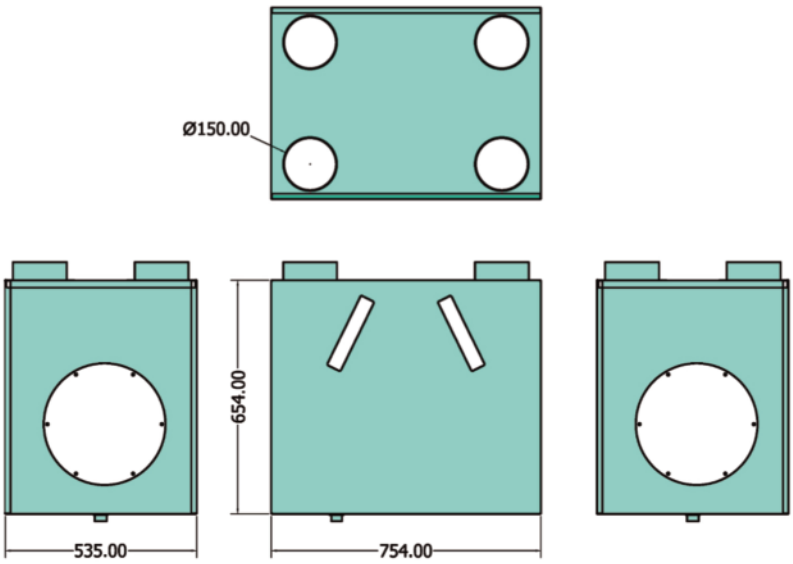
Supply and install a Vectaire Maxi PLUS energy efficient MVHR as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and up to eight other wet rooms and should be for cupboard, loft or false ceiling installation recovering up to 92% of heat from extracted air separating the airflows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.43 w/l/s. It should have as standard: independent variable speed adjustment for boost and trickle; boost setting with integral overrun timer; optional delay-on timer and integral frost-stat. It should also have the facility for: change of ductwork handing; purge boost; BMS connections; integral proportional dynamic humidistat; and an automatic summer bypass. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, and be CE marked.

Maxi PLUS

PERFORMANCE (curves are for guidance only)

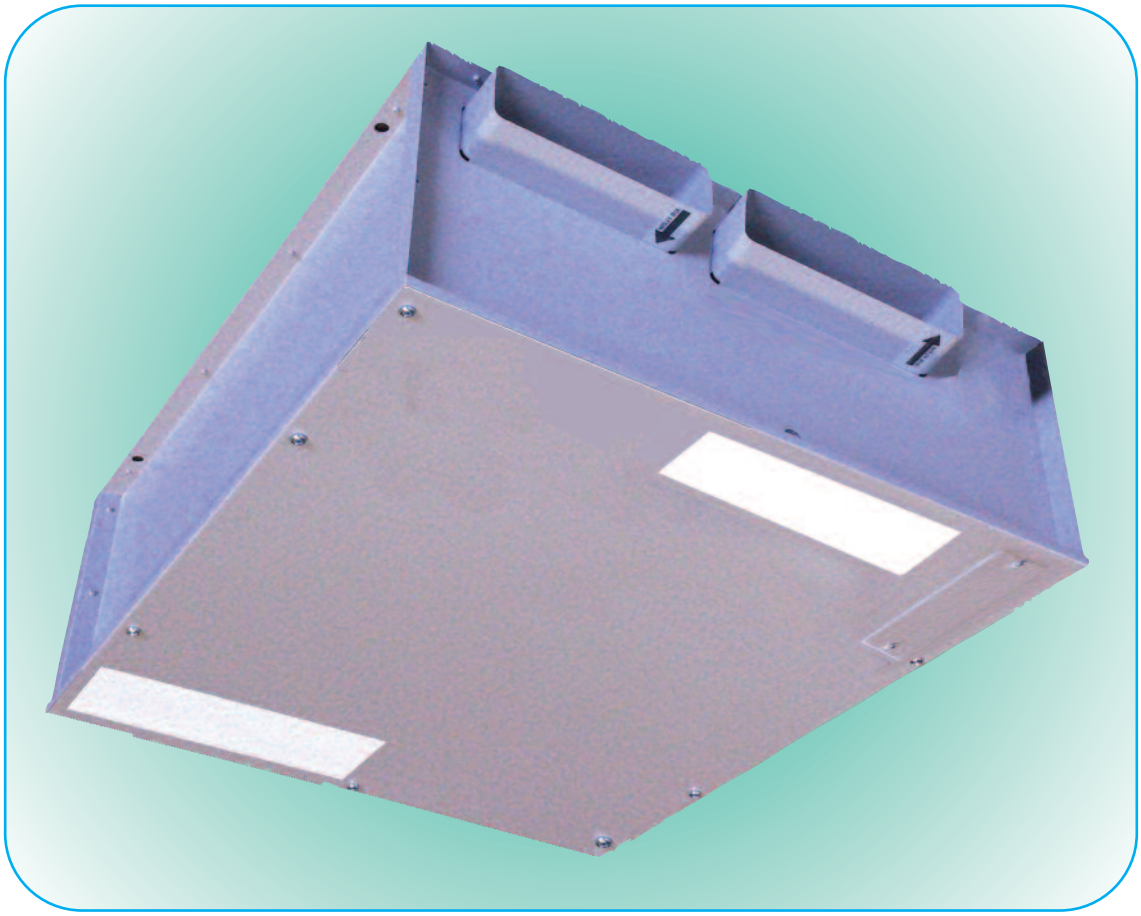


DIMENSIONS - mm



EVO200DC

NEW



EVO200DC

- with summer bypass and frost-stat
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 6 wet rooms
- up to 94% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for ceiling, loft or void installation
- low noise levels and running costs
- complies with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

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Fax: +44(0)1494 522337

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Web: www.vectaire.co.uk

Whole House Mechanical Ventilation with Heat Recovery - MVHR

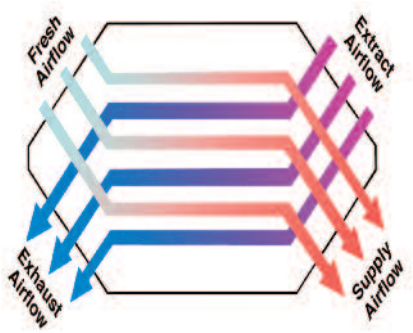
EVO200DC

GENERAL FEATURES

- Up to 74 litre/sec at 50Pa - max 81 litre/sec capacity
- for areas up to 170m²
- up to 92% of heat recovered SFP down to 0.4 w/l/sec
- easy to install and maintain
- for ceiling or void in-line installation
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

TECHNICAL FEATURES

- compact low profile unit - only 200mm deep
- spigot size 204mm x 60mm
- casing from galvanised sheet with epoxy finish
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- pre-wired for easy electrical connection
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



CONTROL FEATURES

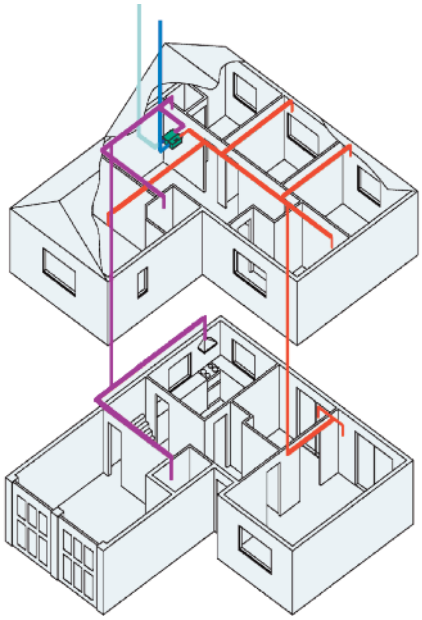
> **variable adjustment** - trickle and boost speeds set at installation
> **boost setting** (via switched live)
> **summer bypass** - automatic bypass of heat exchanger
> **frost protection** - air temperature switches off intake motor when temperatures fall to near freezing

MODELS AVAILABLE:

- EVO200DCBALBY - bottom access, left hand, bypass
- EVO200DCBARBY - bottom access, right hand, bypass
- EVO200DCLBYH - bottom access, left hand, bypass, humidistat
- EVO200DCRBYH - bottom access, right hand, bypass, humidistat

COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked



Incoming fresh air
Warmed fresh air
Extracted warm, moist, stale air
Cooled outgoing stale air
EVO200DC

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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EVO200DC

TECHNICAL CHARACTERISTICS

Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
EVO200DC	81	59	42	26	8	109	66	46	25	17

ENERGY LEVEL PERFORMANCE - using rigid ducting only

Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.64**	**94%**	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.70**	**93%**	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.80**	**93%**	**27.0**	**27.0**
Kitchen + **4** additional wet rooms	**0.95**	**92%**	**33.0**	**33.0**
Kitchen + **5** additional wet rooms	**1.12**	**92%**	**39.0**	**39.0**
Kitchen + **6** additional wet rooms	**1.29**	**91%**	**45.0**	**45.0**

Test results at minimum flow rate conditions

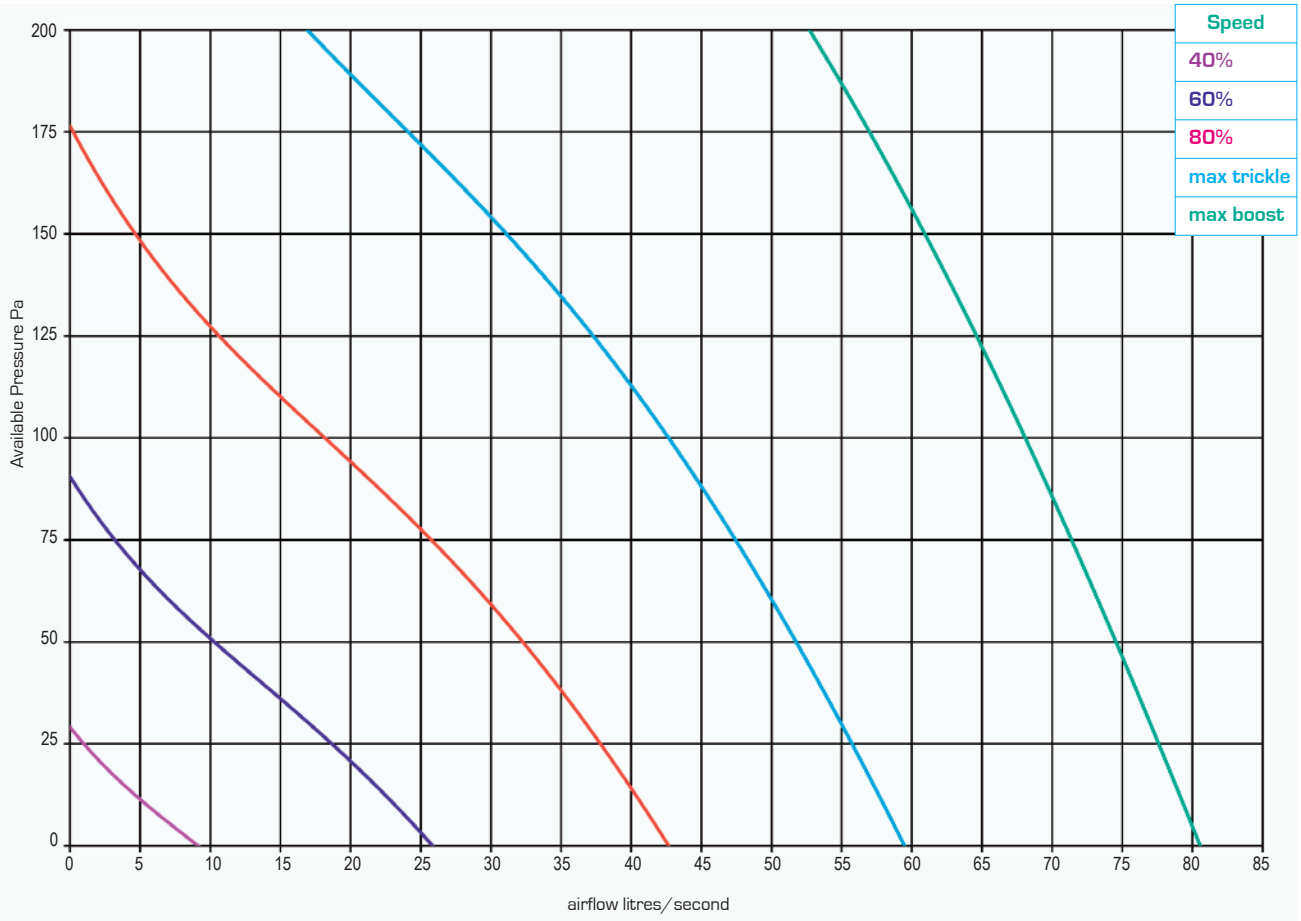
EVO200DC		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (81 l/sec)	Extract	60	62	63	64	62	59	55	49	34
	Supply	63	65	66	67	65	62	58	52	
	Breakout @ 1m	55	52	47	42	34	25	15	7	
Max Trickle (59 l/sec)	Extract	57	60	60	60	58	55	50	44	31
	Supply	60	63	63	63	61	58	53	47	
	Breakout @ 1m	52	50	44	38	30	21	10	2	
80% (42 l/sec)	Extract	54	57	58	57	53	50	45	40	28
	Supply	57	60	61	60	56	53	48	43	
	Breakout @ 1m	49	47	42	35	25	16	5	0	
60% (26 l/sec)	Extract	48	55	56	57	49	45	40	35	27
	Supply	51	58	59	60	52	48	43	38	
	Breakout @ 1m	43	45	40	35	21	11	0	0	
40% (8 l/sec)	Extract	40	47	49	50	40	36	31	27	>20
	Supply	43	50	52	53	43	39	34	30	
	Breakout @ 1m	35	37	33	28	12	2	0	0	

TYPICAL SPECIFICATION

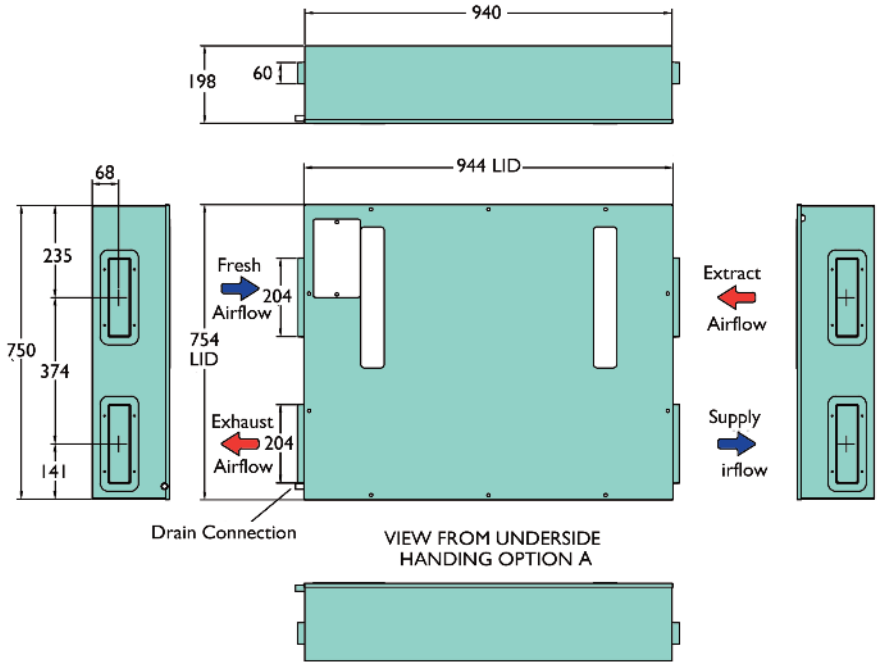
Supply and install a Vectaire EVO200DCLBYH energy efficient MVHR as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and **six** other wet rooms. The unit should be for loft, void, false ceiling or cupboard installation and be no more than 200mm deep. It should recover up to 94% of heat from extracted air, separating the air-flows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.64. It should have as standard: independent variable speed adjustment for boost and trickle; boost setting with integral overrun timer; optional delay-on timer and integral frost-stat and summer bypass; and also be fitted with an integral humidistat. It should also have the facility for: change of ductwork handing; purge boost and BMS connections The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80 and be CE marked.

EVO200DC

PERFORMANCE (curves are for guidance only)

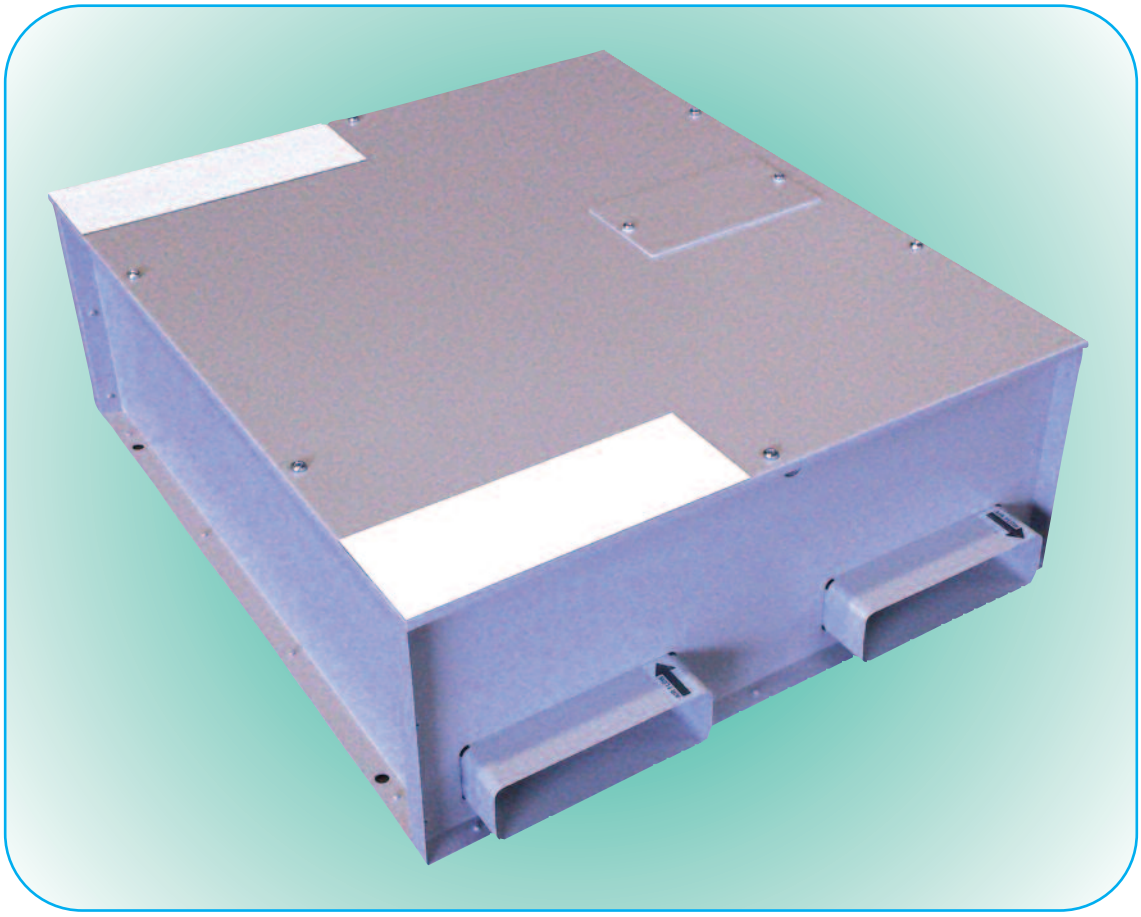


DIMENSIONS - mm



EVO250DC

NEW



EVO250DC

- with summer bypass and frost-stat
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 6 wet rooms
- up to 88% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for ceiling, loft or void installation
- low noise levels and running costs
- complies with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

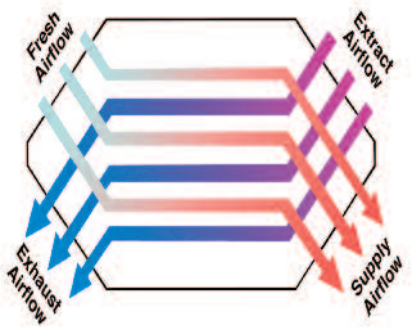
EVO250DC

GENERAL FEATURES

- up to 82 litre/sec at 50 Pa - max 87 litre/sec capacity
- for areas up to 170m²
- up to 88% of heat recovered
- sfp down to 0.70 W/l/s
- easy to install and maintain
- for in-line installation into lofts, voids, false ceilings or cupboards
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

TECHNICAL FEATURES

- compact low profile unit
- casing in galvanised sheet steel
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- pre-wired for easy electrical connection
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



CONTROL FEATURES

Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently
> **boost setting** - with integral overrun timer adjustable up to 20 minutes
> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes
> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls
> **summer bypass** - automatic bypass of heat exchanger

Factory Set Options

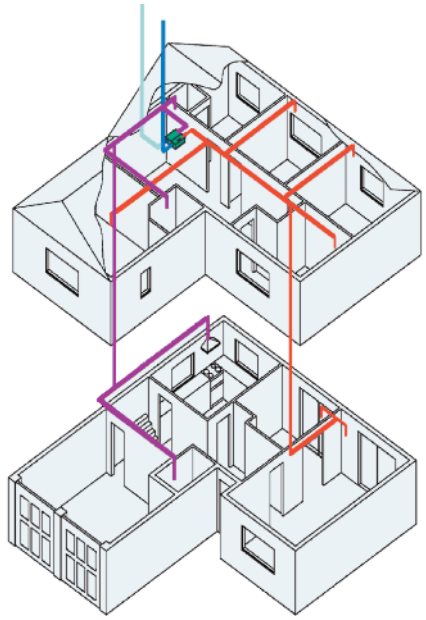
> **change of ductwork handing on humidistat version**
> **purge boost** - for rapid air change
> **BMS connections** - for remote motor shut off
> **integral humidistat** - proportionally increases motor speeds with rising humidity

COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**

MODELS AVAILABLE:

- EVO250DCBABY - bottom access, bypass, universal
- EVO250DC BALBYH - bottom access, left hand, bypass, humidistat
- EVO250DC BARBYH - bottom access, right hand, bypass, humidistat



Incoming fresh air
Warmed fresh air
Extracted warm, moist, stale air
Cooled outgoing stale air
EVO250DC

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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Fax: +44(0)1494 522337

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Web: www.vectaire.co.uk

EVO250DC

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
EVO250DC	87	68	52	36	21	109	66	46	25	17

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only			RESULTS for Approved Document F	
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.70**	**88** %	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.72**	**87** %	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.82**	**87** %	**27.0**	**27.0**
Kitchen + **4** additional wet rooms	**0.99**	**86** %	**33.0**	**33.0**
Kitchen + **5** additional wet rooms	**1.01**	**85%**	**39.0**	**39.0**
Kitchen + **6** additional wet rooms	**1.35**	**84** %	**45.0**	**45.0**
Figures from BRE test results at minimum flow rate conditions				

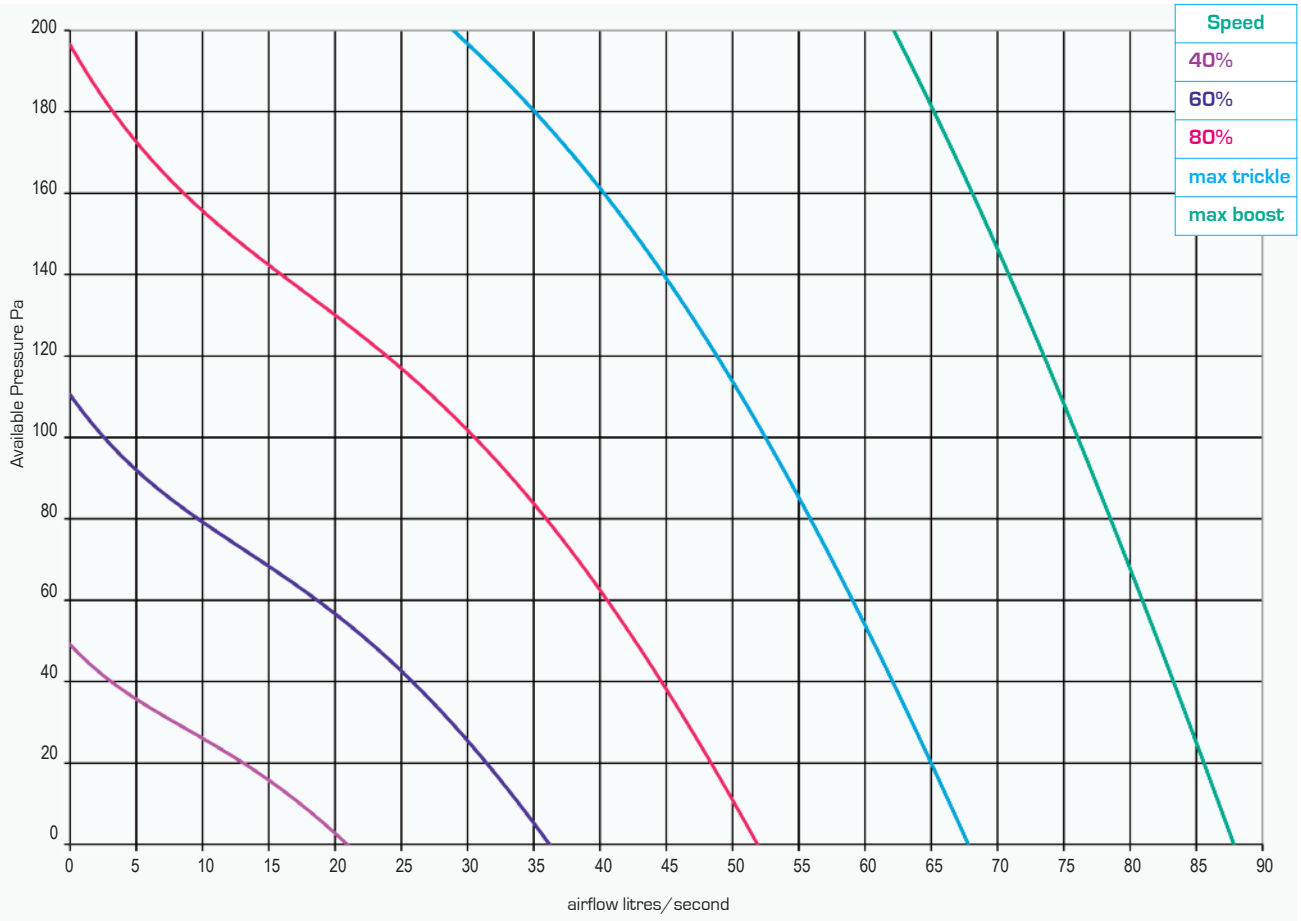
EVO250DC		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (87 l/sec)	Extract	60	58	62	66	63	61	61	56	35
	Supply	63	61	65	69	66	64	64	59	
	Breakout	46	39	37	35	26	17	11	4	
Max Trickle (68 l/sec)	Extract	56	55	59	61	59	56	54	49	30
	Supply	59	58	62	64	62	59	57	52	
	Breakout	41	35	33	30	21	13	4	-2	
80% (52 l/sec)	Extract	50	51	55	56	54	51	49	42	25
	Supply	53	54	58	59	57	54	52	45	
	Breakout	36	31	29	24	16	8	-1	-9	
60% (36 l/sec)	Extract	45	47	48	49	47	44	40	34	<20
	Supply	48	50	51	52	10	47	43	37	
	Breakout	30	27	23	17	6	0	-9	-17	
40% (21 l/sec)	Extract	38	41	41	41	38	35	30	24	,<20
	Supply	41	44	44	44	41	38	33	27	
	Breakout	24	22	15	9	0	-9	-19	-27	

TYPICAL SPECIFICATION

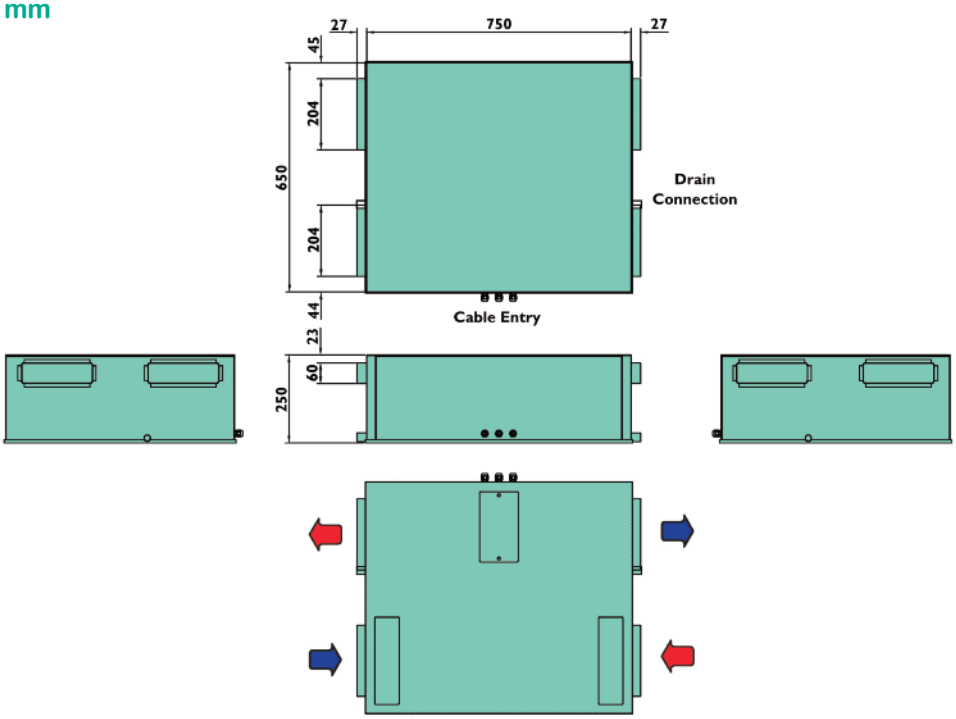
Supply and install a Vectaire EVO250DC BALBYH energy efficient MVHR as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and six other wet rooms. The unit should be for loft, void, false ceiling or cupboard installation and be no more than 250mm deep. It should recover up to 88% of heat from extracted air, separating the air-flows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.70. It should have as standard: independent variable speed adjustment for boost and trickle; boost setting with integral overrun timer; optional delay-on timer and integral frost-stat and summer bypass; and also be fitted with an integral humidistat. It should also have the facility for: change of ductwork handing; purge boost and BMS connections. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked and be SAP Q eligible.

EVO250DC

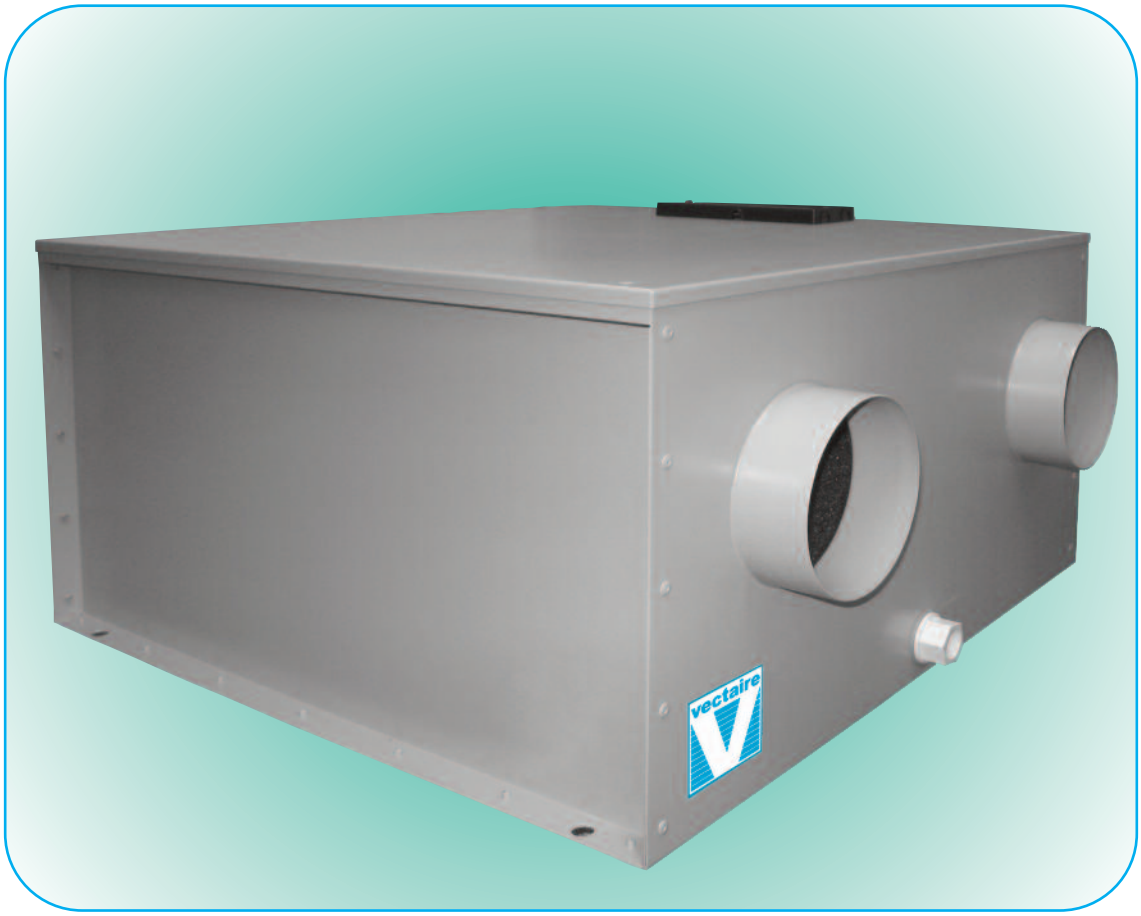
PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



WHHR100/90DC-B Plus



MVHR - WHHR100/90DC-B Plus

- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 4 wet rooms
- up to 92% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for ceiling, loft or void installation
- top or bottom access
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001

WHHR100/90DCB-BY - available with electronic control "Plus" including

- with or without summer bypass

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

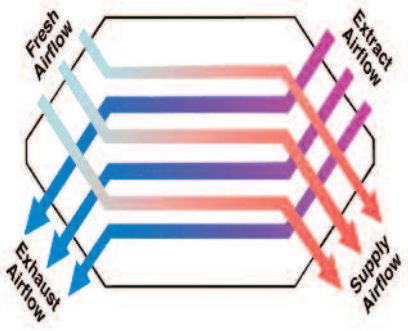
WHHR100/90DC-B Plus

GENERAL FEATURES

- Up to 66 litre/sec at 50Pa - max 83 litre/sec capacity
- for areas up to 170m²
- up to 92% of heat recovered
- easy to install and maintain
- for in-line installation into lofts, voids, false ceilings or cupboards
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

TECHNICAL FEATURES

- compact low profile unit
- casing from galvanised sheet with epoxy finish
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, forward curved impellors
- operates in temperature up to 60ºC
- pre-wired for easy electrical connection
- uses standard, disposable G3 filters
- counter flow heat exchanger
- model available with **summer bypass** - automatic bypass of heat exchanger in hot weather



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**
- **EST Best Practice Performance Compliant**

CONTROL FEATURES - WHHR100/90DC-B Plus

> **variable adjustment** - trickle and boost speeds set at installation
> **boost setting** (via switched live)
> **frost protection** - air temperature switches off intake motor when temperatures fall to near freezing

CONTROL FEATURES PLUS - WHHR100/90DCB-BY (Bypass Models)

Standard

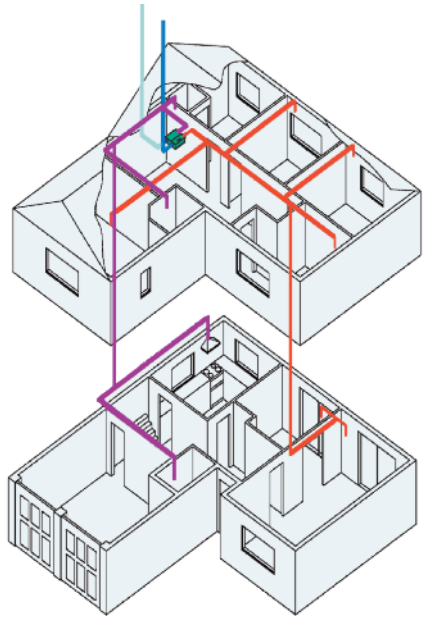
> **variable adjustment** - trickle and boost speeds set at installation for both motors independently
> **boost setting** - with integral overrun timer adjustable up to 20 minutes
> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes (adjustable from 0-20 mins)
> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls

Factory Set Options

> **purge boost** - for rapid air change
> **BMS connections** - for remote motor shut off
> **integral humidistat** - proportionally increases motor speeds with rising humidity
> **summer bypass** - automatic bypass of heat exchanger

MODELS AVAILABLE:

- WHHR100/90DC-B - top access
- WHHR100/90DC-B BA - bottom access
- WHHR90DC-B TABY - top access with bypass
- WHHR90DC-B BABY - bottom access with bypass
- WHHR90DC-B TABYH - top access, with bypass and humidistat
- WHHR90DC-B BABYH - bottom access, with bypass and humidistat



- Incoming fresh air
- Warmed fresh air
- Extracted warm, moist, stale air
- Cooled outgoing stale air
- WHHR100/90DC-B Plus

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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Fax: +44(0)1494 522337

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Web: www.vectaire.co.uk

WHHR100/90DC-B Plus

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
WHHR100/90DC-B Plus	83	68	52	38	24	106	54	33	20	13

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only				RESULTS for Approved Document F	
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	EST Best Practice Performance Compliant	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.63**	**92** %	**Yes**	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.72**	**91** %	**Yes**	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.84**	**91** %	**Yes**	**27.0**	**27.0**
Kitchen + **4** additional wet rooms	**0.94**	**89** %	**Yes**	**33.0**	**33.0**
Figures from BRE test results at minimum flow rate conditions					

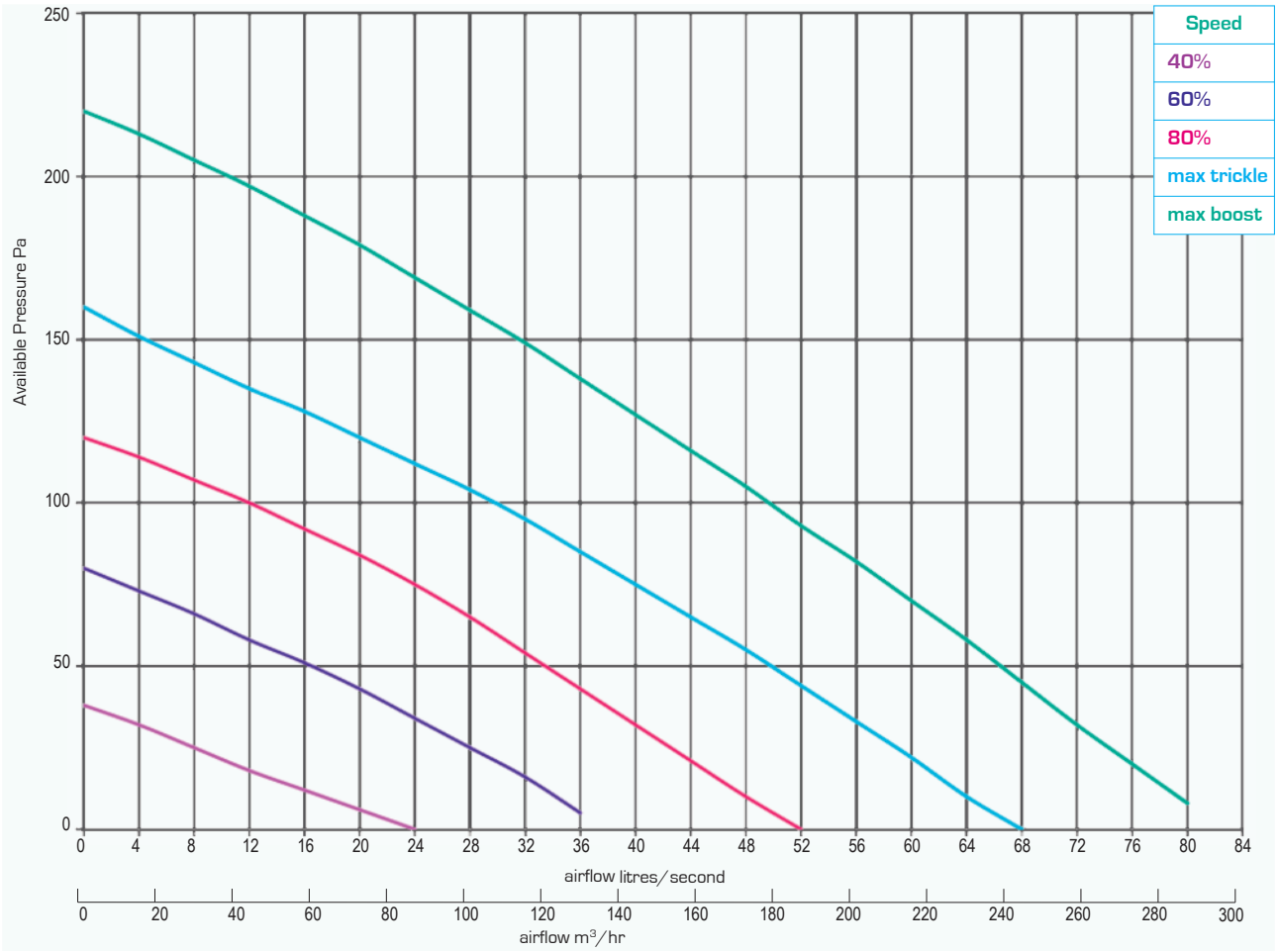
WHHR100/90DC-B Plus		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.							Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (83 l/sec)	Extract	61	60	53	52	47	41	37	31	35
	Supply	60	59	58	63	64	59	54	51	
	Breakout	54	53	61	52	49	42	33	25	
Max Trickle (68 l/sec)	Extract	58	55	47	48	41	34	31	26	34
	Supply	57	56	54	61	61	52	48	44	
	Breakout	49	50	54	52	52	36	28	22	
80% (52 l/sec)	Extract	53	51	41	46	37	28	26	23	32
	Supply	52	52	49	58	57	47	42	37	
	Breakout	45	47	50	51	48	32	24	21	
60% (38 l/sec)	Extract	50	48	39	42	34	24	22	22	29
	Supply	49	48	46	54	52	41	37	30	
	Breakout	42	43	47	48	45	30	21	20	
40% (24 l/sec)	Extract	47	44	35	39	31	19	17	21	25
	Supply	46	46	43	51	47	37	31	23	
	Breakout	39	39	45	44	41	28	17	20	

TYPICAL SPECIFICATION

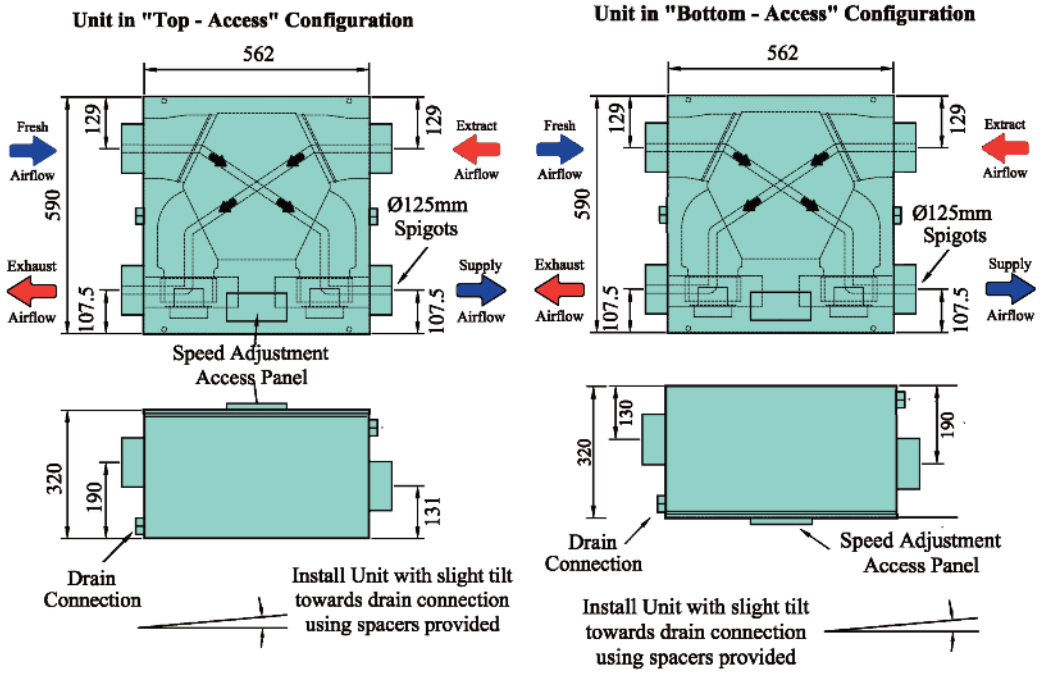
Supply and install a Vectaire WHHR90DC-B-BABY energy efficient MVHR which has been tested and is SAP Q Eligible as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and up four other wet rooms. The unit should be for loft, void, false ceiling or cupboard, bottom access installation and recover up to 92% of heat from extracted air separating the airflows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.63. It should have a variable choice of low (trickle) speed and boost options for optimum setting. It should include a summer bypass function together with an integral humidistat. The unit should be pre-wired for easy electrical connection. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked, be SAP Q eligible and EST Best Practice Performance compliant.

WHHR100/90DC-B Plus

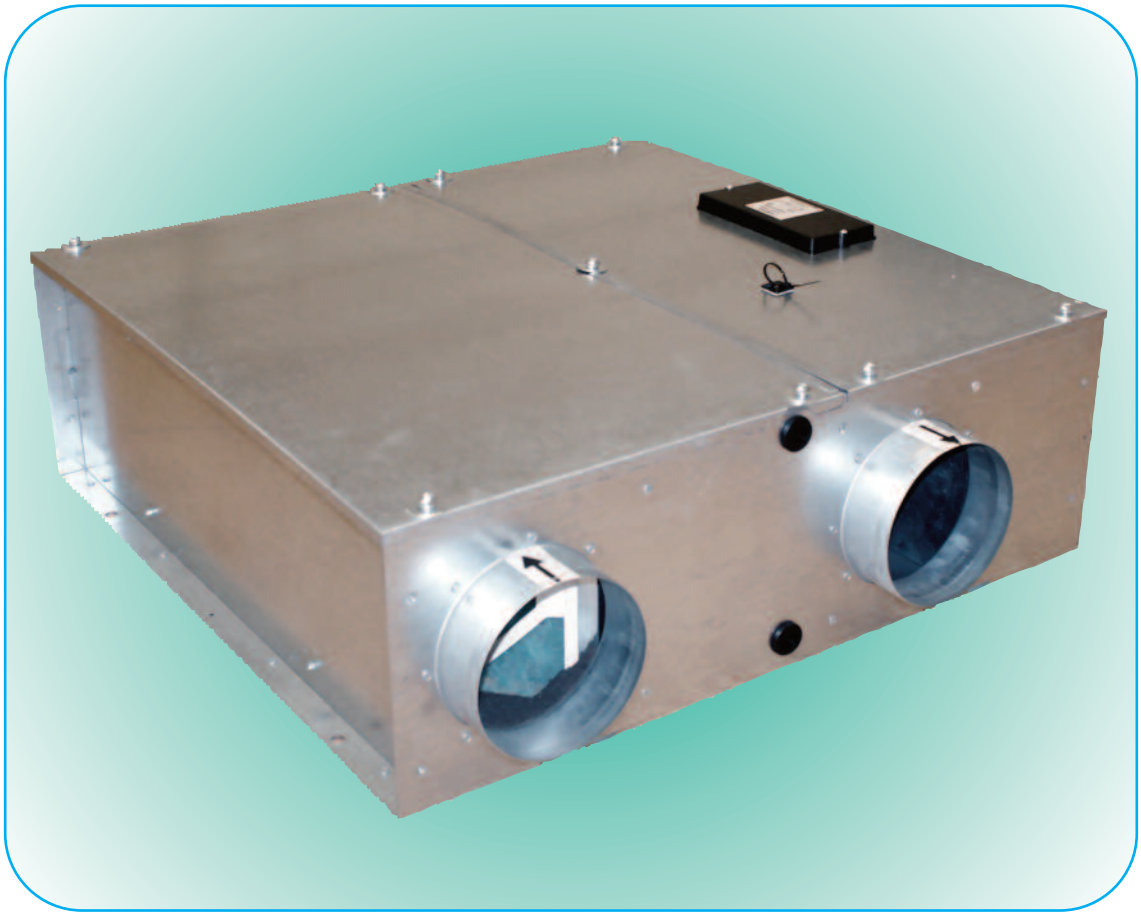
PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm (l/h drain connection only)



WHHR100/90DC



MVHR - WHHR100/90DC

- energy efficient EC motor
- very low profile - only 200mm deep
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 6 wet rooms
- up to 79% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for ceiling, loft or void installation
- top or bottom access
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001

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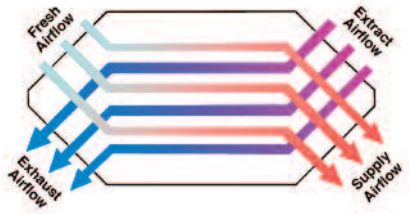
WHHR100/90DC

GENERAL FEATURES

- Up to 74 litre/sec at 50Pa - max 80 litre/sec capacity
- for areas up to 210m²
- up to 79% of heat recovered
- easy to install and maintain
- for fitting into lofts, voids, false ceilings or cupboards
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

TECHNICAL FEATURES

- compact low profile unit - only 200mm deep
- casing in galvanised sheet steel
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- pre-wired for easy electrical connection
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**

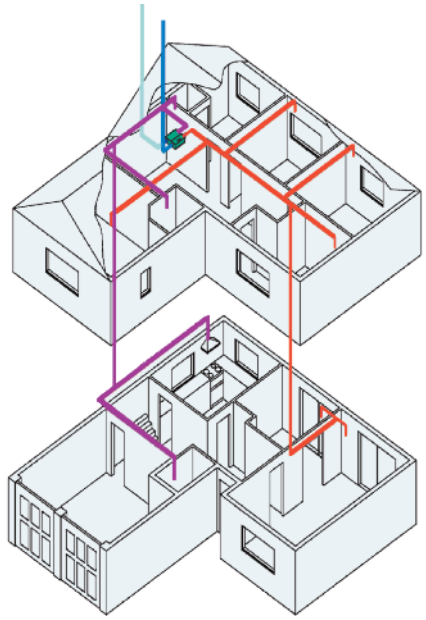
CONTROL FEATURES -

> **variable adjustment** - trickle and boost speeds set at installation
> **boost setting** (via switched live)
> **frost protection** - air temperature switches off intake motor when temperatures fall to near freezing

MODELS AVAILABLE:

- WHHR100/90DC TAL - top access, left drain
- WHHR100/90DC BAL - bottom access, left drain
- WHHR100/90DC TAR - top access, right drain
- WHHR100/90DC BAR - bottom access, right drain

N.B left or right drain MUST be notified at time of ordering



Incoming fresh air
Warmed fresh air
Extracted warm, moist, stale air
Cooled outgoing stale air
WHHR100/90DC

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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WHHR100/90DC

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
WHHR100/90DC	80	63	52	38	28	109	66	46	25	17

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only			RESULTS for Approved Document F	
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.71**	**79** %	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.78**	**79** %	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.91**	**78** %	**27.0**	**27.0**
Kitchen + **4** additional wet rooms	**0.99**	**78** %	**33.0**	**33.0**
Kitchen + **5** additional wet rooms	**1.22**	**78** %	**39.0**	**39.0**
Kitchen + **6** additional wet rooms	**1.39**	**77** %	**45.0**	**45.0**
Figures from BRE test results at minimum flow rate conditions				

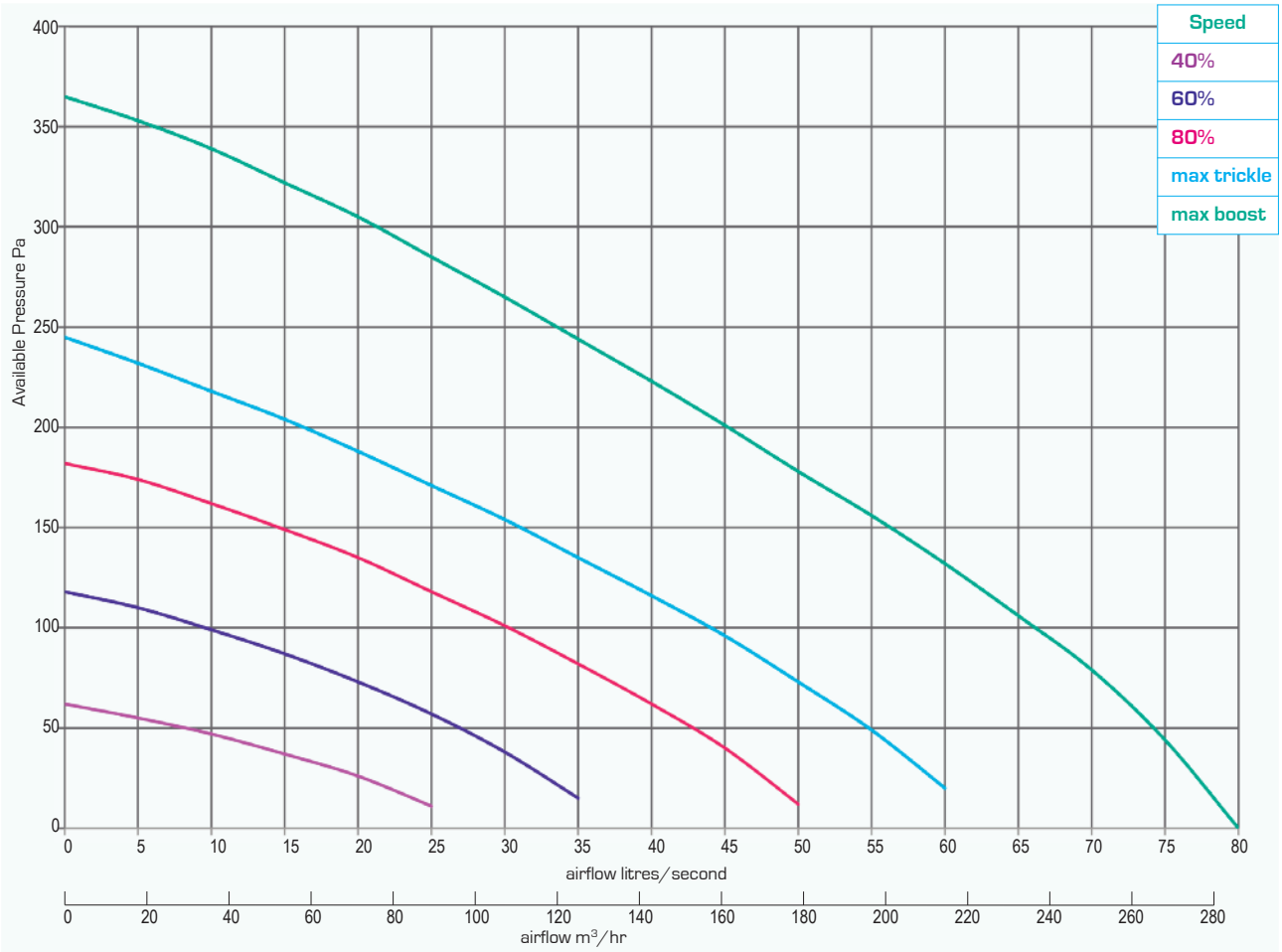
WHHR100/90DC		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (80 l/sec)	Extract	55	55	58	62	49	44	40	29	37
	Supply	62	62	63	75	63	63	63	54	
	Breakout	58	56	59	59	49	44	40	30	
Max Trickle (63 l/sec)	Extract	52	51	55	56	44	38	33	24	32
	Supply	57	59	60	66	58	59	57	46	
	Breakout	67	54	56	51	45	40	33	26	
80% (52 l/sec)	Extract	51	49	53	53	42	35	29	22	29
	Supply	55	57	59	62	55	56	54	43	
	Breakout	72	53	54	48	43	37	30	24	
60% (38 l/sec)	Extract	43	41	46	43	33	24	21	21	23
	Supply	45	50	53	52	45	44	38	29	
	Breakout	49	46	51	39	33	27	21	22	
40% (28 l/sec)	Extract	39	37	43	38	28	19	16	21	21
	Supply	40	47	50	48	40	38	30	22	
	Breakout	39	43	49	34	29	22	17	21	

TYPICAL SPECIFICATION

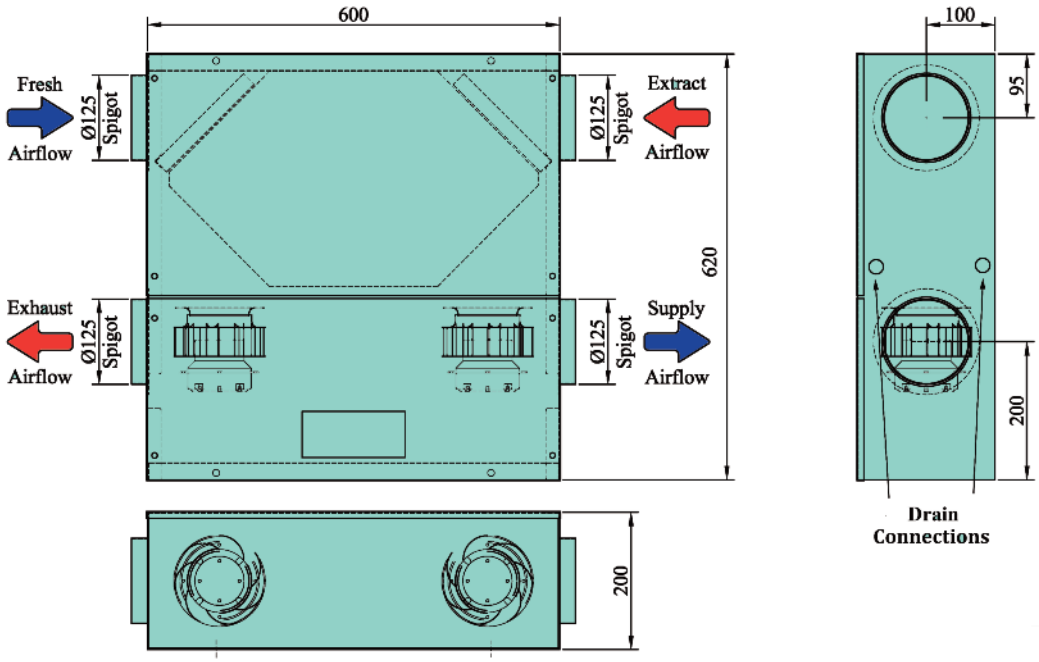
Supply and install a Vectaire WHHR100/90DC energy efficient MVHR which has been tested and is SAP Q Eligible as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and six other wet rooms. The unit should be for loft, void, false ceiling or cupboard installation and be no more than 200mm deep. It should recover up to 79% of heat from extracted air, separating the air-flows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.71. It should have a variable choice of low (trickle) speed and boost options for optimum setting. The unit should be pre-wired for easy electrical connection. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked and be SAP Q eligible.

WHHR100/90DC

PERFORMANCE (curves are for guidance only)

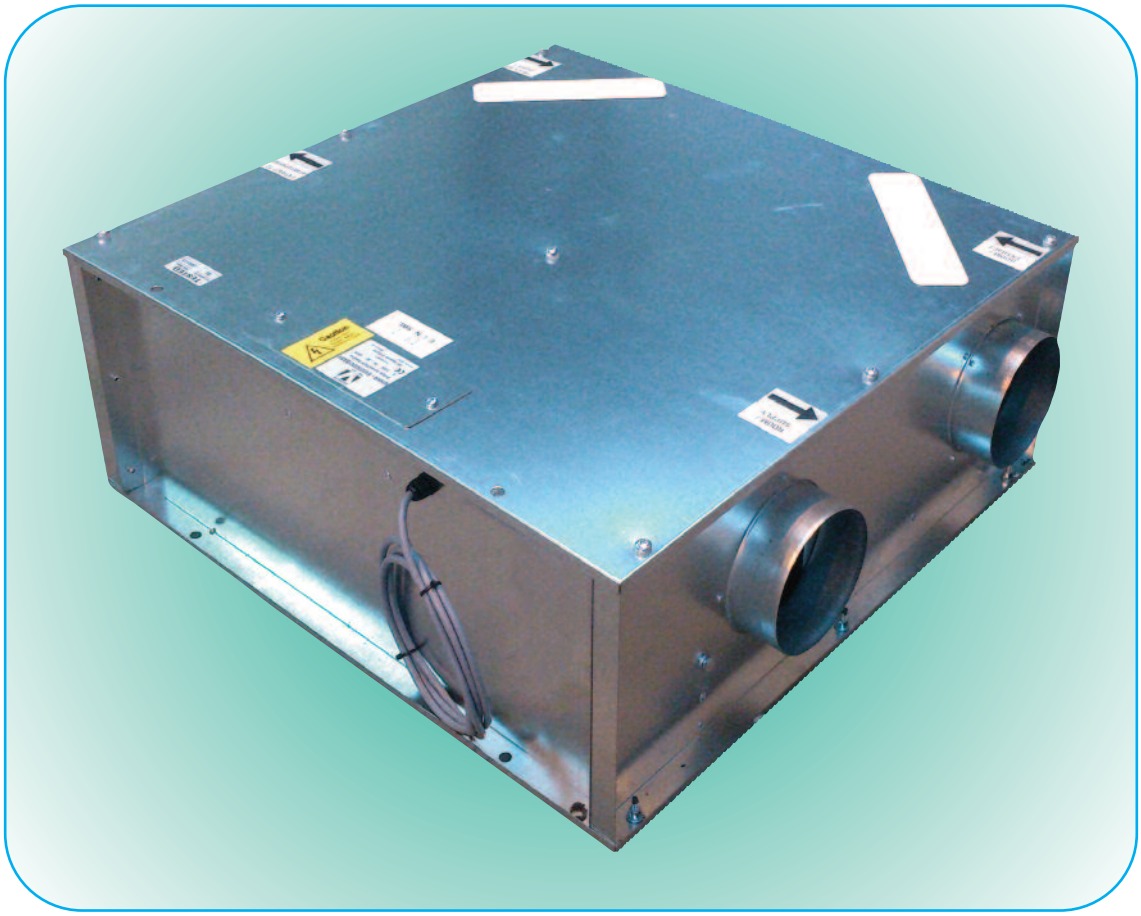


DIMENSIONS - mm (shown top access, l/h drain)



EVO90DC

NEW



MVHR - EVO90DC

- with summer bypass and frost-stat
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 6 wet rooms
- up to 79% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- for ceiling, loft or void installation
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electric control plus

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

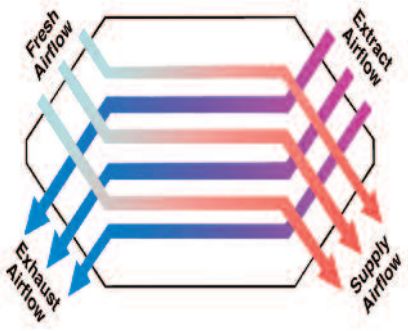
EVO90DC

GENERAL FEATURES

- Up to 74 litre/sec at 50Pa - max 80 litre/sec capacity
- for areas up to 210m²
- up to 79% of heat recovered
- easy to install and maintain
- for fitting into lofts, voids, false ceilings or cupboards
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

TECHNICAL FEATURES

- compact low profile unit
- casing in galvanised sheet steel
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- pre-wired for easy electrical connection
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked

CONTROL FEATURES

Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently
> **boost setting** - with integral overrun timer adjustable up to 20 minutes
> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes
> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls
> **summer bypass** - automatic bypass of heat exchanger

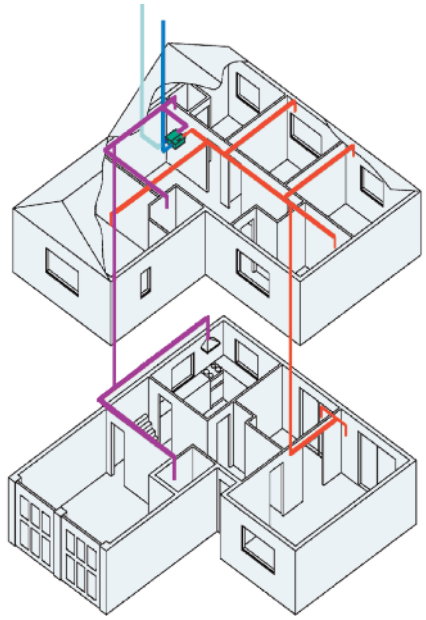
Factory Set Options

> **purge boost** - for rapid air change
> **BMS connections** - for remote motor shut off
> **integral humidistat** - proportionally increases motor speeds with rising humidity

MODELS AVAILABLE:

- EVO90DC/BALBY - bottom access, left drain, bypass
- EVO90DC/BARBY - bottom access, right drain, bypass
- EVO90DC/BALBYH - bottom access, left drain, bypass, humidistat
- EVO90DC/BARBYH - bottom access, right drain, bypass, humidistat

N.B left or right drain MUST be notified at time of ordering



- Incoming fresh air
- Warmed fresh air
- Extracted warm, moist, stale air
- Cooled outgoing stale air
- EVO90DC

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

EVO90DC

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
EVO90DC	80	63	52	38	28	109	66	46	25	17

ENERGY LEVEL PERFORMANCE - using rigid ducting only				
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + **1** additional wet room	**0.71**	**79** %	**15.0**	**15.0**
Kitchen + **2** additional wet rooms	**0.78**	**79** %	**21.0**	**21.0**
Kitchen + **3** additional wet rooms	**0.91**	**78** %	**27.0**	**27.0**
Kitchen + **4** additional wet rooms	**0.99**	**78** %	**33.0**	**33.0**
Kitchen + **5** additional wet rooms	**1.22**	**78** %	**39.0**	**39.0**
Kitchen + **6** additional wet rooms	**1.39**	**77** %	**45.0**	**45.0**
Figures at minimum flow rate conditions				

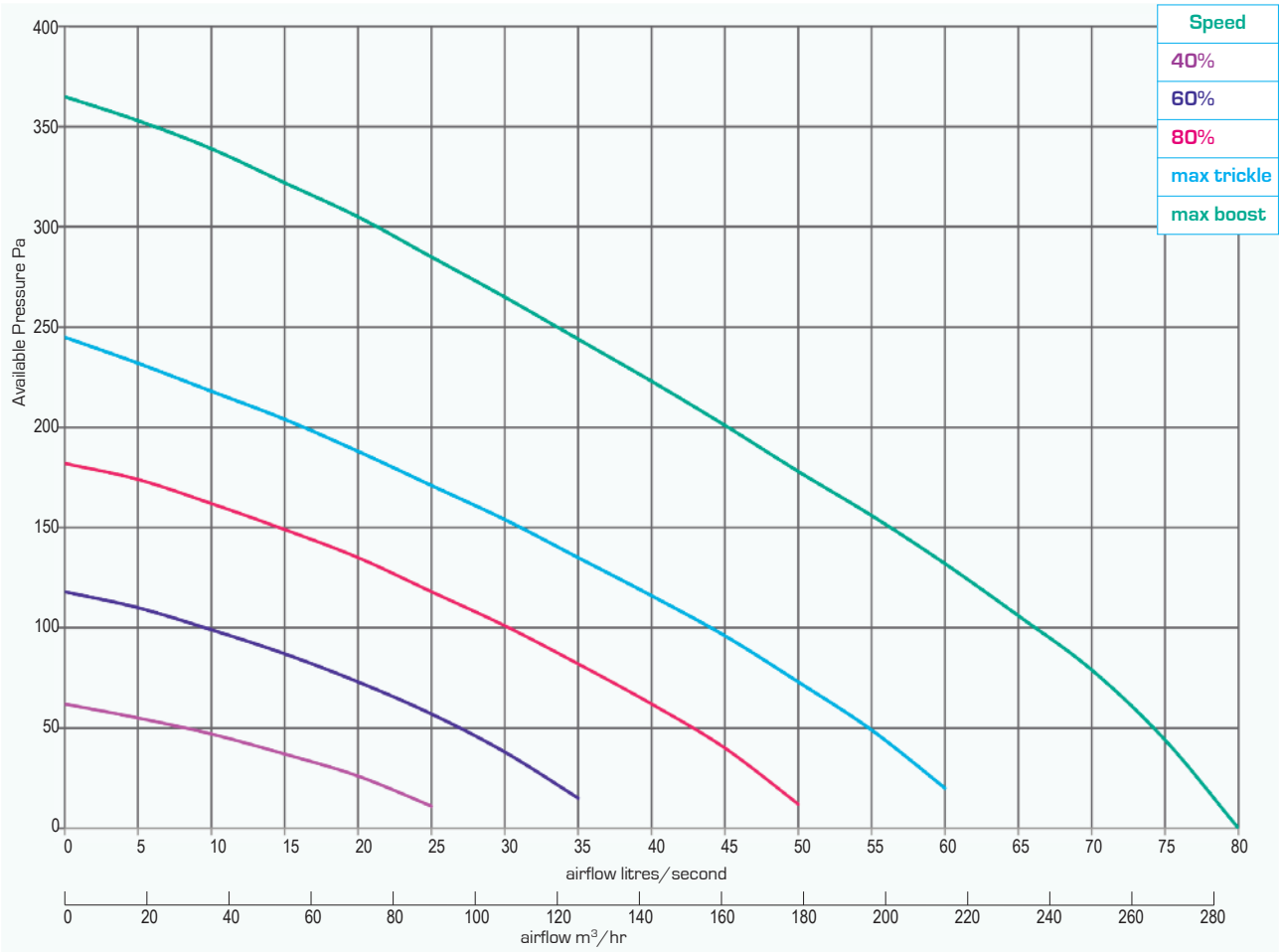
EVO90DC		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (80 l/sec)	Extract	55	55	58	62	49	44	40	29	37
	Supply	62	62	63	75	63	63	63	54	
	Breakout	58	56	59	59	49	44	40	30	
Max Trickle (63 l/sec)	Extract	52	51	55	56	44	38	33	24	32
	Supply	57	59	60	66	58	59	57	46	
	Breakout	67	54	56	51	45	40	33	26	
80% (52 l/sec)	Extract	51	49	53	53	42	35	29	22	29
	Supply	55	57	59	62	55	56	54	43	
	Breakout	72	53	54	48	43	37	30	24	
60% (38 l/sec)	Extract	43	41	46	43	33	24	21	21	23
	Supply	45	50	53	52	45	44	38	29	
	Breakout	49	46	51	39	33	27	21	22	
40% (28 l/sec)	Extract	39	37	43	38	28	19	16	21	21
	Supply	40	47	50	48	40	38	30	22	
	Breakout	39	43	49	34	29	22	17	21	

TYPICAL SPECIFICATION

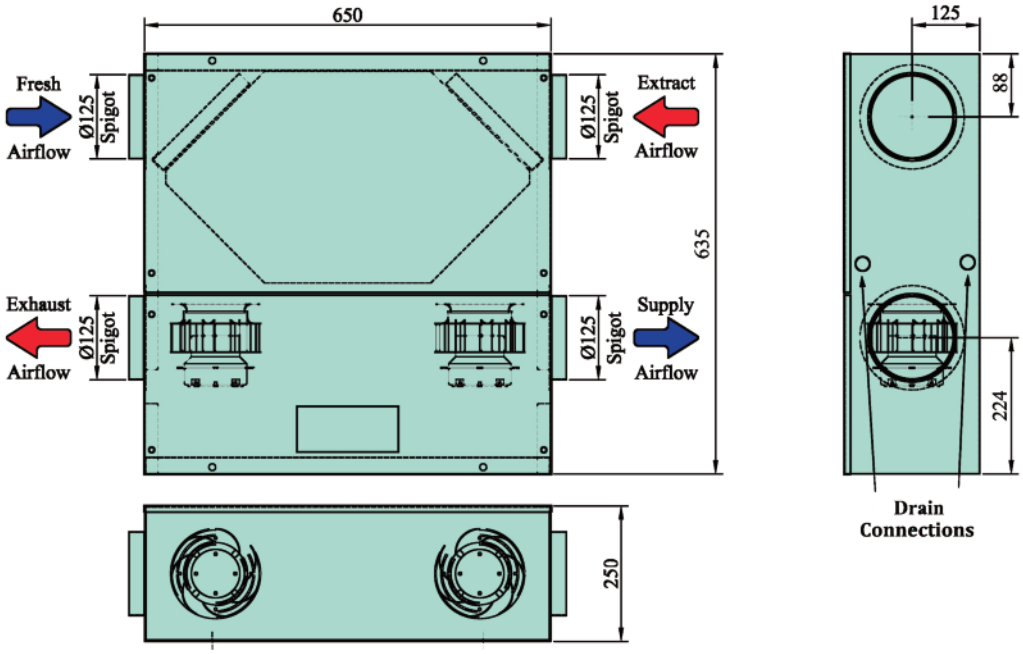
Supply and install a Vectaire EVO90DC energy efficient MVHR as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and six other wet rooms. The unit should be for loft, void, false ceiling or cupboard installation and be no more than 250mm deep. It should recover up to 79% of heat from extracted air, separating the air-flows using a counter flow heat exchanger. The unit should incorporate a low energy EC brushless motor for low noise levels and low energy consumption with an SFP down to 0.71. It should have a variable choice of low (trickle) speed and boost options for optimum setting. The unit should be pre-wired for easy electrical connection. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, and be CE marked..

EVO90DC

PERFORMANCE (curves are for guidance only)

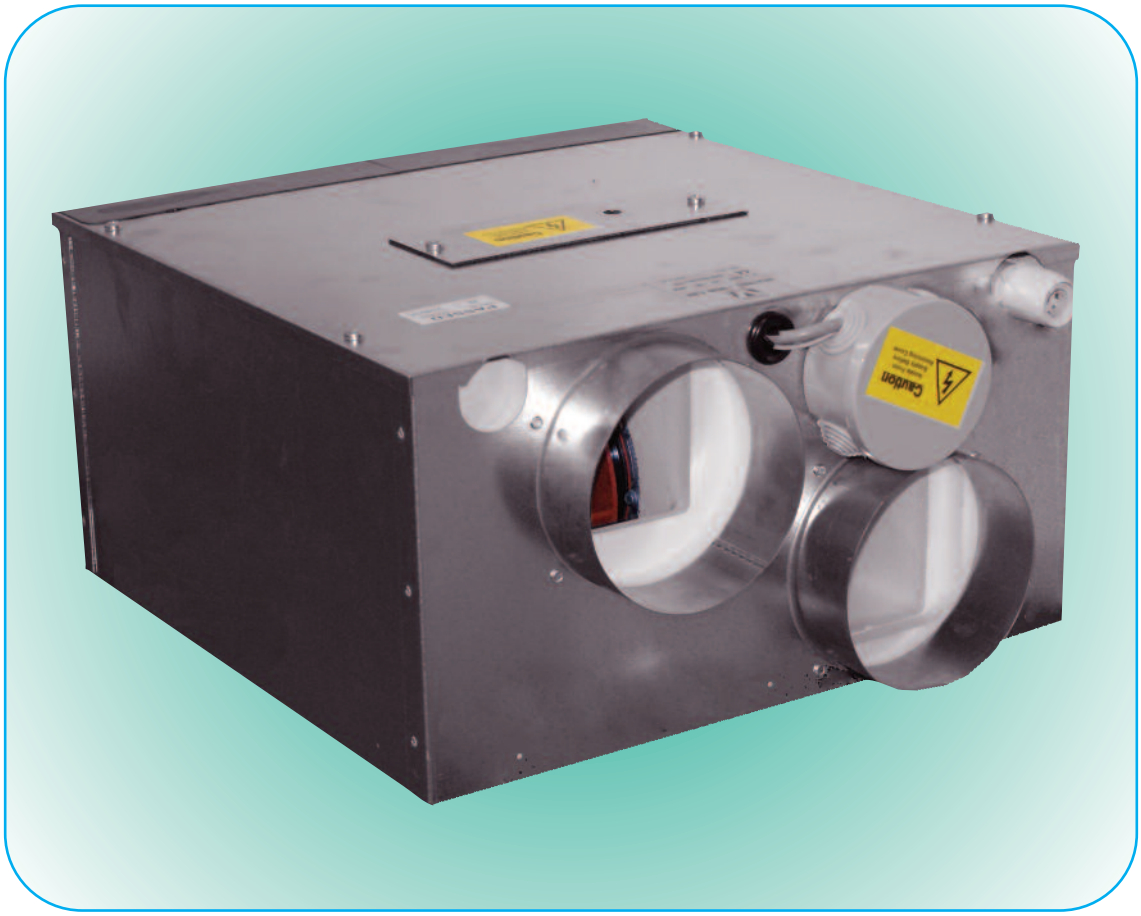


DIMENSIONS - mm



WHHR Mini DC

NEW



MVHR - WHHR Mini DC

- with or without summer bypass
- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and 1 other wet room
- up to 83% heat exchange efficiency
- variable choice of low (trickle) and boost speed at installation
- very compact 230 x 400mm square
- for cupboard, loft or ceiling void
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001
- with electronic control "Plus"

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

WHHR Mini DC

GENERAL FEATURES

- for 1 or 2 bedroom apartments, hotel rooms, student accommodation, extra care facilities etc
- Up to 29.8 litre/sec at 50Pa - max 34 litre/sec capacity
- up to 83% of heat recovered from extracted air
- easy and economical installation and maintenance
- ideal for fitting into voids, false ceilings or cupboards (bottom access only)
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels - below 20dB(A)
- low running costs
- extra security - no need to open windows
- 2 year warranty

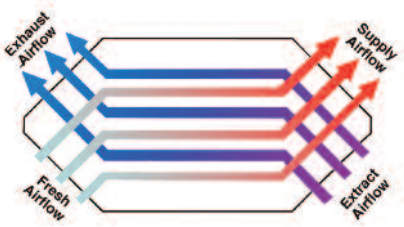
MODELS AVAILABLE:

- WHHR Mini L - left drain
- WHHR Mini R - right drain
- WHHR Mini LH - left drain, humidistat
- WHHR Mini RH - right drain, humidistat,
- WHHR Mini LB - left drain, bypass
- WHHR Mini RB - right drain, bypass
- WHHR Mini LBH - left drain, bypass, humidistat,
- WHHR Mini RBH - right drain, by-pass, humidistat

also available with 100mm spigot

TECHNICAL FEATURES

- compact unit
- casing from steel sheet - epoxy paint finish
- thermo-acoustic lining
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60ºC
- uses standard, disposable G3 filters
- counter flow heat exchanger
- manufactured in UK to ISO 9001



COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**

CONTROL FEATURES

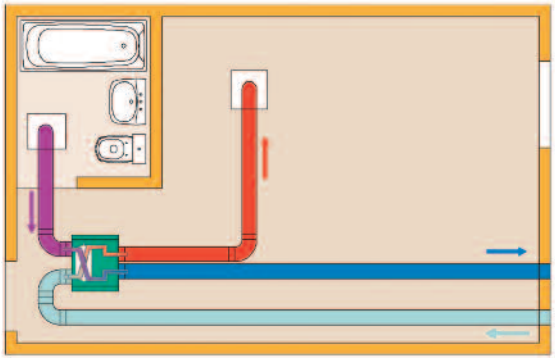
Standard

> **variable adjustment** - trickle and boost speeds set at installation for both motors independently
> **boost setting** - with integral overrun timer adjustable up to 20 minutes
> **optional delay-on-timer** - boost speed does not operate if switched off within 2 minutes (adjustable from 0-20 mins)
> **integral frost-stat** - proportionally reduces intake motor speed as temperature falls
> **water level sensor** - shows if conden-sate exit is blocked and stops unit

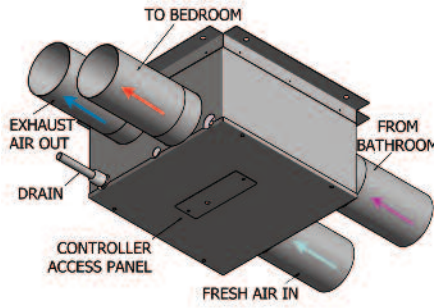
Factory Set Options

> **change of ductwork handing**
> **purge boost** - for rapid air change
> **BMS connections** - for remote motor shut off
> **integral humidistat** - proportionally increases motor speeds with rising humidity
> **summer bypass** - automatic bypass of heat exchanger

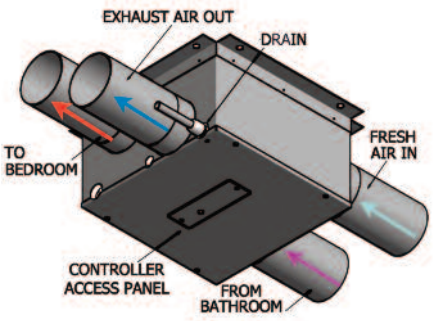
Incoming fresh air
Warmed fresh air
Extracted warm, moist, stale air
Cooled outgoing stale air
WHHR Mini DC



WHHR MINI DC OPTION 2 (LEFT HAND DRAIN)



WHHR MINI DC OPTION 1 (RIGHT HAND DRAIN)



Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

WHHR Mini DC

TECHNICAL CHARACTERISTICS

Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
WHHR Mini DC	34	32	28	18	12	80	68	46	24	15

RESULTS for SAP CALCULATIONS

ENERGY LEVEL PERFORMANCE - using rigid ducting only

Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	Heat Exchange Efficiency	Airflow Rate (l/sec)
Kitchen + **1** additional wet room	**1.11**	**83** %	**15.0**
Kitchen + **2** additional wet rooms	**1.4**	**82** %	**21.0**

Figures from BRE test results at minimum flow rate conditions

WHHR Mini DC		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (34 l/sec)	Extract	65	58	61	63	55	46	36	27	37
	Supply	66	64	70	73	67	64	55	45	
	Breakout	73	59	62	58	49	35	32	24	
Max Trickle (32 l/sec)	Extract	64	56	60	62	54	45	35	26	36
	Supply	65	63	69	72	66	63	54	44	
	Breakout	72	58	61	57	48	34	31	23	
80% (28 l/sec)	Extract	54	54	59	54	45	34	24	22	30
	Supply	55	57	65	62	56	51	42	31	
	Breakout	62	53	57	48	39	31	21	21	
60% (18 l/sec)	Extract	46	50	53	45	37	26	20	21	24
	Supply	50	55	58	48	47	42	33	26	
	Breakout	56	51	50	41	31	23	18	20	
40% (12 l/sec)	Extract	39	46	47	39	29	19	15	21	18
	Supply	45	54	51	47	39	34	23	21	
	Breakout	49	49	44	34	23	16	16	20	

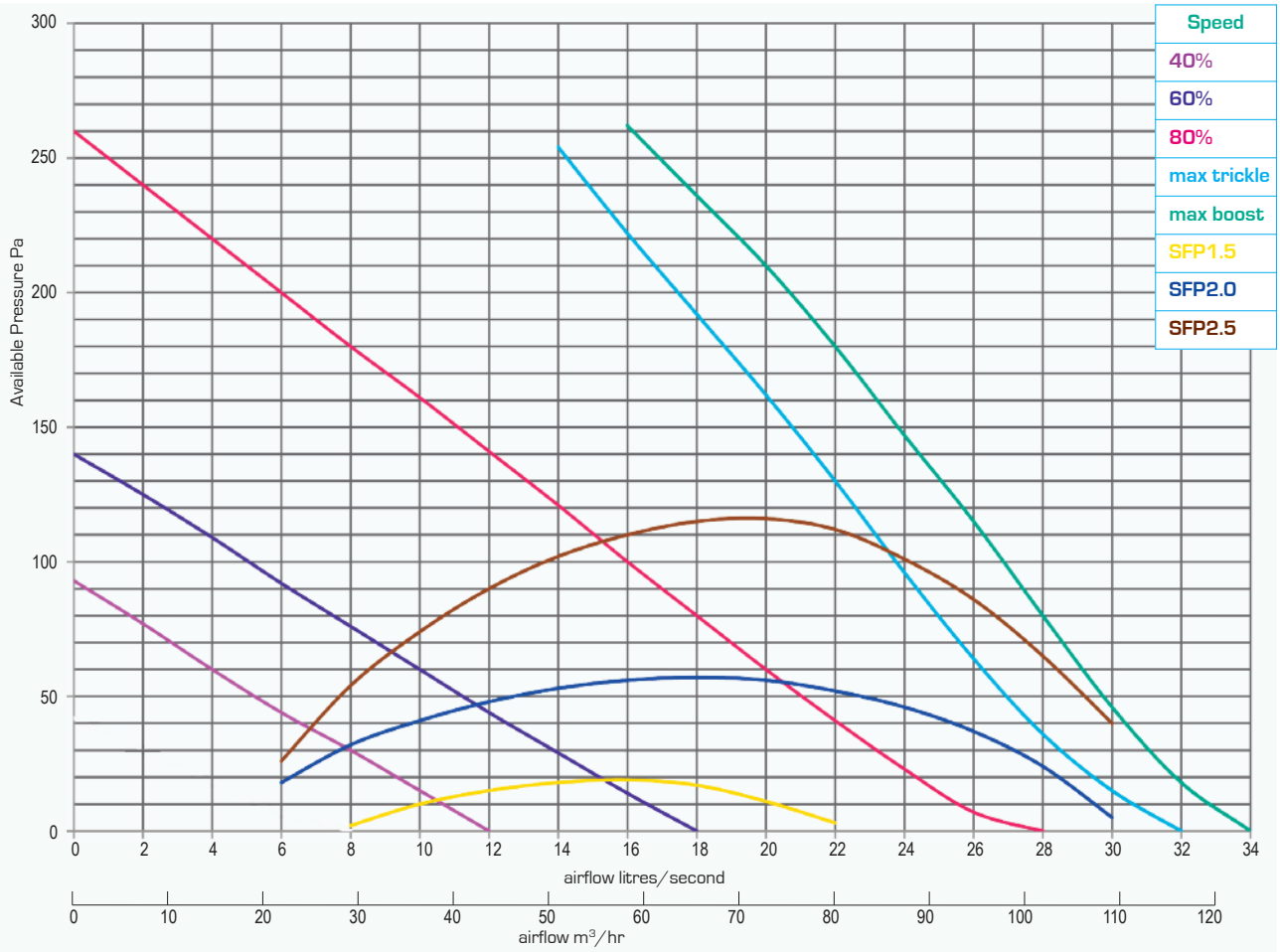
Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

TYPICAL SPECIFICATION

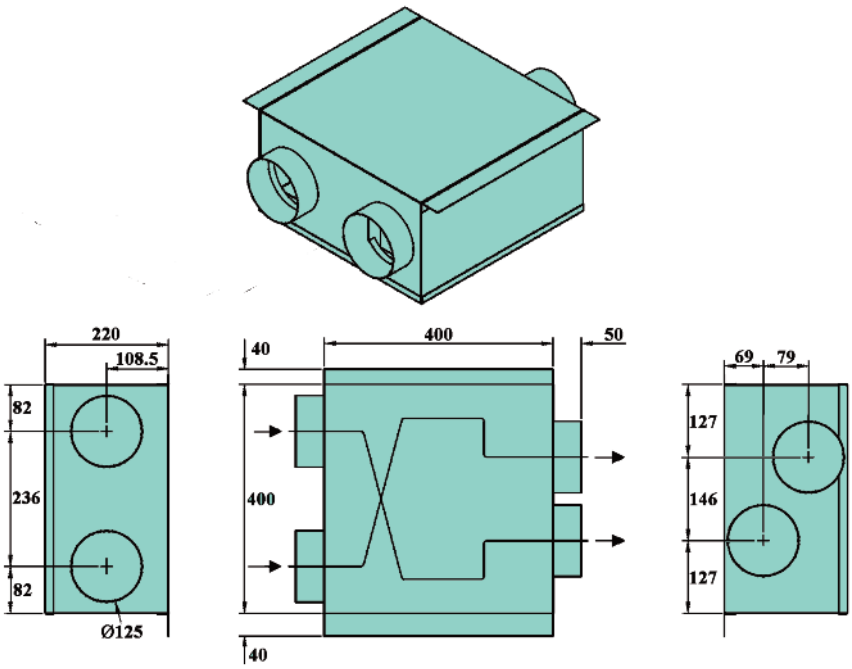
Supply and install a Vectaire WHHR Mini DC energy efficient MVHR as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and one other wet room. The unit should be for loft or void installation and recover up to 83% of heat from extracted air separating the airflows using a counter flow heat exchanger. The unit should incorporate a low energy EC motor with sealed for life bearings for low noise levels and low energy consumption, and have as standard: variable adjustment; boost setting with integral overrun timer; optional delay-on timer; integral frost-stat; and a water level sensor. It should also have the facility for: change of ductwork handing; purge boost; BMS connections; integral proportional dynamic humidistat; and an automatic summer bypass. The unit should be capable of being fitted to 125mm dia ducting without the need for adaptors, have EPS lining for low noise levels and low heat loss. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked and SAP Q Eligible

WHHR Mini DC

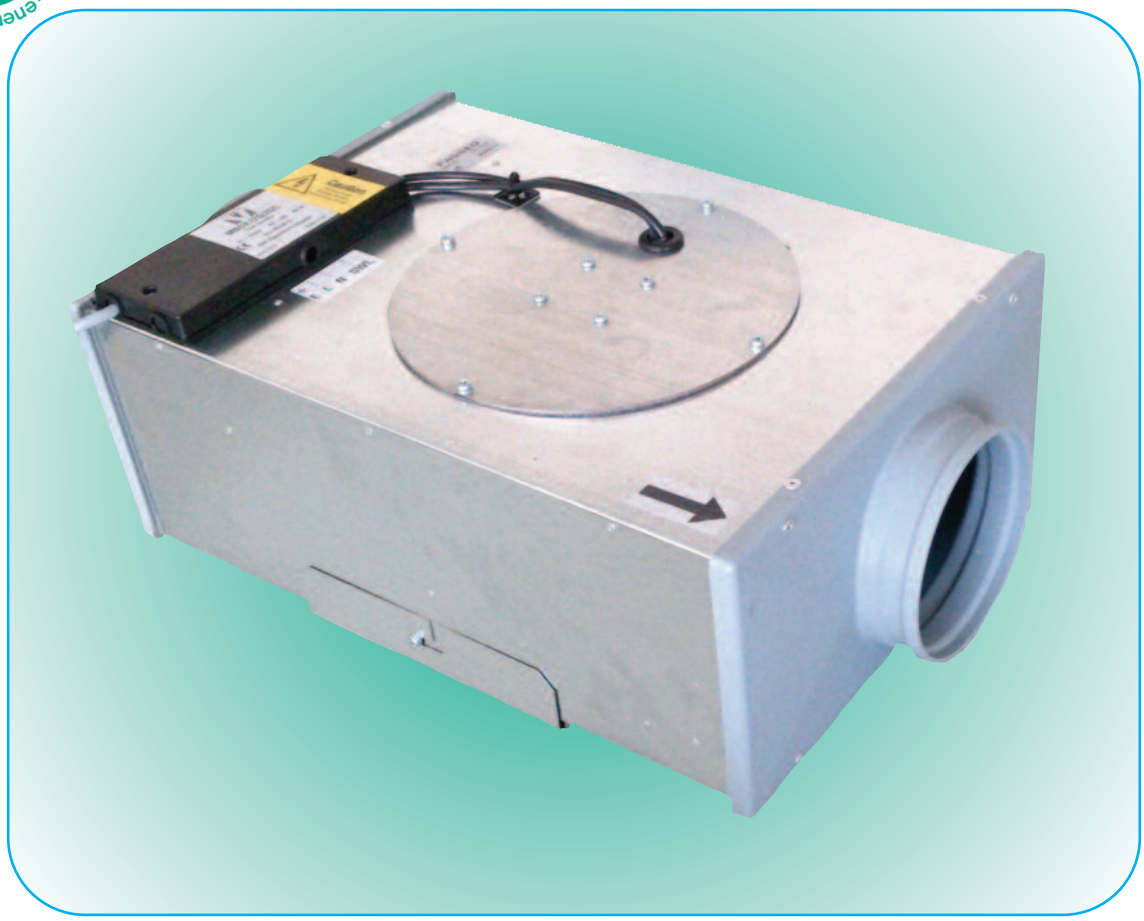
PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm (bottom access only)



Microbox 125/2DC-B



MEV - Microbox 125/2DC-B

- energy efficient EC motor
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation in a kitchen and up to 5 wet rooms
- variable choice of low (trickle) and boost speed at installation
- compact ultra low profile unit
- for loft, void, false ceiling or cupboard
- requires only one discharge grille
- low noise levels and running costs
- available with 204 x 60mm spigot
- available with humidistat
- compliant with Building Regulations Parts L1 2013 and F 2013
- manufactured in UK to ISO 9001

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

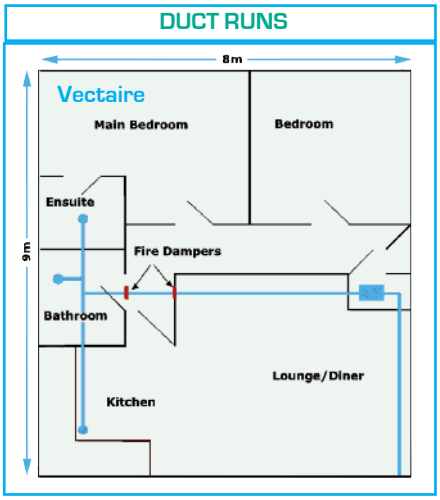
Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

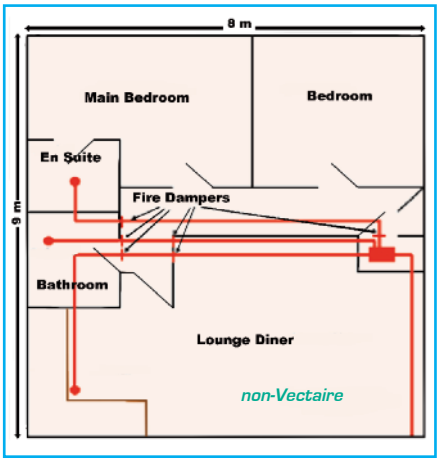
Microbox 125/2DC-B

GENERAL FEATURES

- Up to 97 litre/sec at 50Pa - max 100 litre/sec capacity
- suitable for areas up to 270m²
- easy and economical installation and maintenance
- can be angled horizontally or vertically
- variable low (trickle) and boost options
- boost speed triggered by a switched live connection from:
  - a light switch (if more than one light switch is used, **each one must be a double pole switch)**
  - DRH240 (dynamic remote humidistat)
  - PIRFF (passive infra red)
  - THM (thermostat)
  - a remote switch/pull cord
- low noise levels (below 20dB(A)
- low running costs
- extra security - no need to open windows
- 2 year warranty

DUCT RUNS





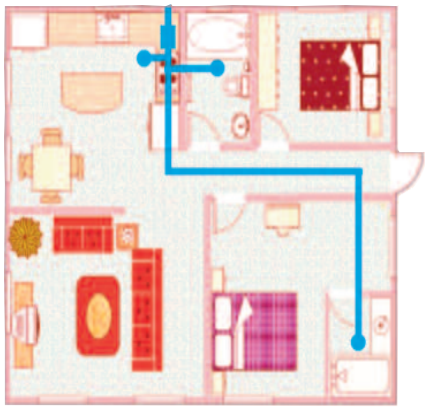
TECHNICAL FEATURES

- compact, ultra low profile unit
- casing from steel, lined with acoustic material
- low energy EC external rotor motor with sealed for life bearings
- backward curved impellors dynamically balanced
- thermal overload protection
- service and maintenance panel easily accessible
- pre-wired for easy electrical connection
- complete with mounting bracket and anti-vibration plate
- operates in temperature up to 60ºC
- manufactured in UK to ISO 9001
- **IPX4 rated**

COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Conforms to requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80
- CE marked
- **SAP Q eligible**
- **Energy Saving Trust Best Practice Compliant**

INSTALLATION EXAMPLE



CONTROL FEATURES

> **variable adjustment** - trickle and boost speeds set at installation

> **boost setting** (via switched live)

OTHER MODELS AVAILABLE:

- MBOX125/2DCH - with integral humidistat
- MBOX125/2DC204 - with rectanglar spigot - 204mm x 60mm
- MBOX125/2DC204H - with rectanglar spigot and integral humidistat

Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

Microbox 125/2DC-B

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
MBOX125/2DC-B	105	104	95	62	34	46	45	26	12	6

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only			RESULTS for Approved Document F		
Exhaust Terminal Configuration	Specific Fan Power (W/l/s)	EST Best Practice Performance Compliant	Total Flow Rate (l/sec)	Total Flow Rate (wind condition) (l/sec)	% reduction of Total Flow Rate
Kitchen + **1** additional wet room	**0.20**	**Yes**	21.0	19.3	8
Kitchen + **2** additional wet rooms	**0.26**	**Yes**	29.0	27.9	4
Kitchen + **3** additional wet rooms	**0.34**	**Yes**	37.0	36.3	2
Kitchen + **4** additional wet rooms	**0.44**	**Yes**	45.0	44.2	2
Kitchen + **5** additional wet rooms	**0.55**	**Yes**	53.0	52.5	1
Figures from BRE test results at minimum flow rate conditions					

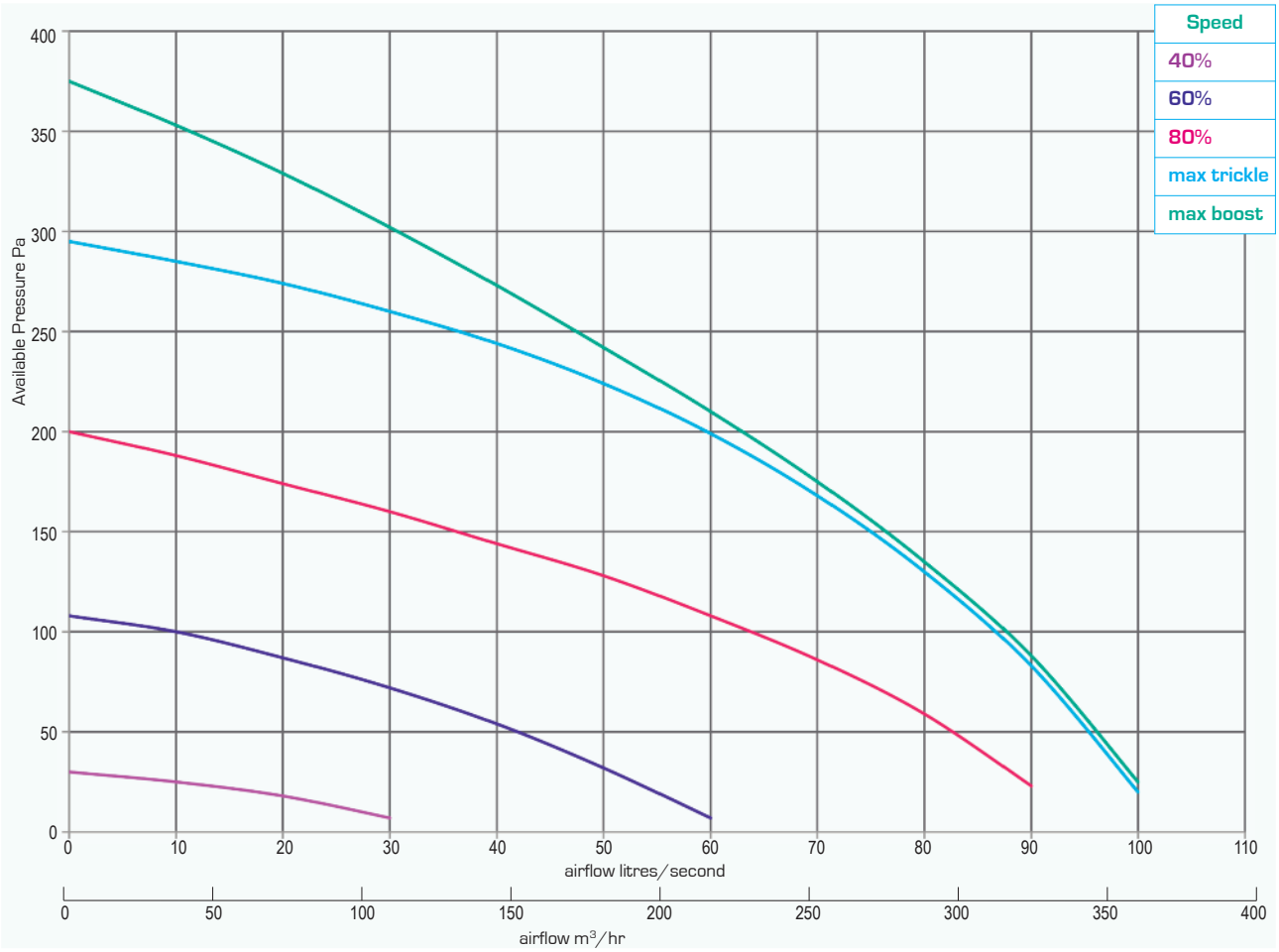
MBOX125/2DC-B		Sound Power Levels, L_w (dB) - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
Max Boost (105 l/sec)	Extract	62	66	68	62	59	60	52	45	39
	Supply	60	68	65	67	65	64	57	49	
	Breakout	60	55	63	59	52	48	40	32	
Max Trickle (104 l/sec)	Extract	62	66	68	62	59	60	52	45	39
	Supply	60	68	65	67	65	64	57	49	
	Breakout	60	55	63	59	52	48	40	32	
80% (95 l/sec)	Extract	59	63	64	56	55	56	47	39	35
	Supply	57	66	62	63	61	60	52	44	
	Breakout	56	54	60	54	47	44	34	25	
60% (62 l/sec)	Extract	48	56	52	46	48	48	38	31	25
	Supply	47	58	47	52	49	47	38	28	
	Breakout	46	44	48	46	38	34	21	21	
40% (34 l/sec)	Extract	38	50	42	37	35	32	20	14	17
	Supply	39	52	38	42	39	35	25	14	
	Breakout	35	36	39	39	31	26	10	18	

TYPICAL SPECIFICATION

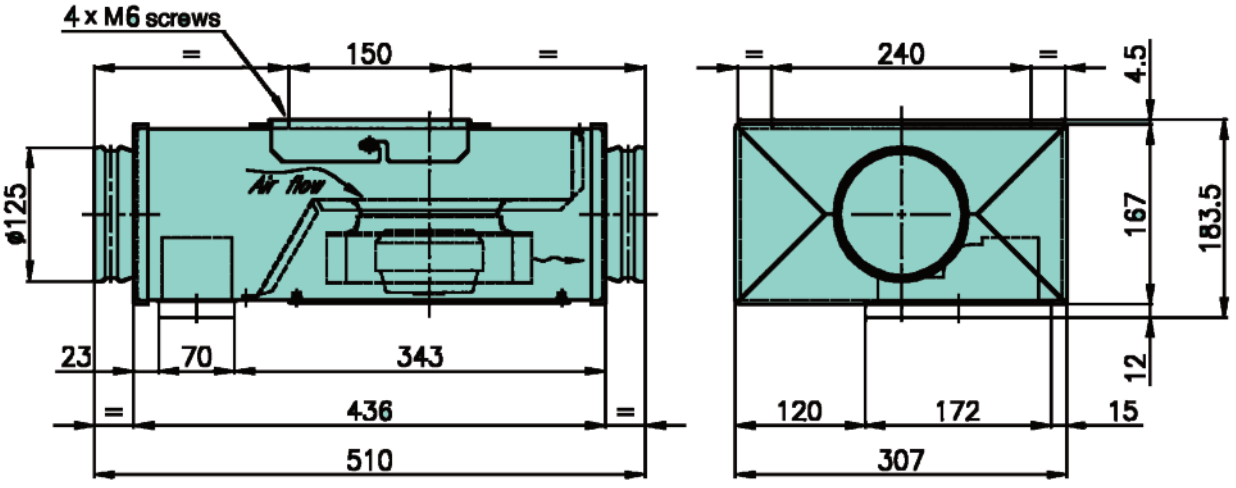
Supply and install a Vectaire MBOX125/2DC energy efficient MEV which has been tested and is SAP Q Eligible as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit is to give low level, continuous ventilation to a kitchen and five other wet rooms. The unit should be for loft, void, false ceiling or cupboard, installation and be no more than 184 mm deep. The unit should incorporate a low energy EC external rotor motor with sealed for life bearings for low noise levels and low energy consumption with an SFP down to 0.20. It should have a variable choice of low (trickle) speed and boost options for optimum setting. The unit should be pre-wired for easy electrical connection. It should comply with Part L1 2013 and Part F 2013 of Building Regulations, be EU RoHS Directive Compliant, conform to the requirements of EC Council directives relating to Electromagnetic Compatibility and Electrical Safety: 2006/95/CE (LVD), 2004/108/CE (EMC), EN 60335-2-80, be CE marked, be SAP Q eligible, EST Best Practice Performance compliant and be IPX4 rated.

Microbox 125/2DC-B

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



Elegance - EL1003

NEW

dMEV - Elegance - EL1003

- energy efficient EC motor - lowest energy consumption in the UK
- provides low level continuous ventilation to control condensation
- 3 speed axial fan
- choice of 2 low speeds at installation
- wall, ceiling or window (with additional window kit)
- for any domestic wet room
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

Elegance - EL1003

GENERAL FEATURES

- exhausts directly to the outside (through wall, or window installation with additional window kit, or with medium length ducting - up to 6m)
- runs continuously at pre-selected choice of two speeds (fixed at installation)
- Speed 1 operates at 9.5 l/s (factory set)
- Speed 2 operates at 13.8 l/s
- anti-vibration gasket
- speed boosted to maximum (28.5 l/s) using integral pull cord or by:
  - remote switch/light switch
  - PIR sensor
  - DRH240 (dynamic remote humidistat)
- patented anti-turbulence deflectors ensure very low noise levels and optimum performance
- energy saving ventilation
- **extremely low running costs**
- low carbon footprint
- 5 year warranty

TECHNICAL FEATURES

- shockproof, high quality technopolymer casing
- designed using latest wind tunnel technology and CFD simulations
- EC induction motor with thermal protection
- 43,000 hour life motors with maintenance free and long life ball bearings
- operates in ambient temperatures up to 40ºC
- double insulated - no earth required
- **IPX4 - Splashproof** rated - can safely be installed in Zones I and II

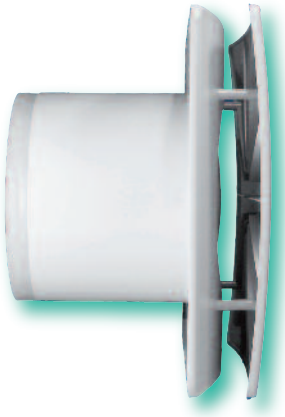
COMPLIES WITH

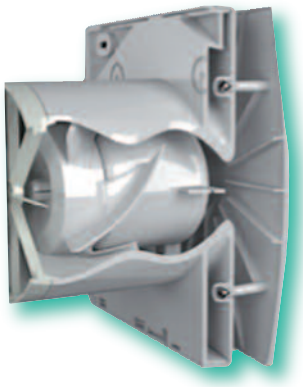
- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- IEC 60335-2-80, BT 2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility
- CE marked
- **SAP Q eligible**
- **Energy Saving Trust Best Practice Compliant**

OTHER MODELS AVAILABLE:

- EL1003DT - 3 speed, continuous running with comfort timer (timer does not activate unless fan has been running for 2 minutes to avoid unnecessary night-time operation) and pull-cord
- EL1003HDT - with comfort timer, humidistat and pull-cord
- EL1003LV - 3 speed, continuous running with pull-cord - LOW VOLT (SELV)
- EL1003DTLV -3 speed, continuous running, with comfort timer, overrun timer and pull-cord LOW VOLT (SELV)
- EL1003HDTLV - 3 speed, continuous running, with comfort timer, humidistat and pull-cord - LOW VOLT (SELV)

N.B timer adjustable from 0-30 mins





Vectaire Ltd can supply all accessories for use with these units, including fire dampers, air valves, ducting, outside grilles, wall cowls and window kits. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

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Elegance

TECHNICAL CHARACTERISTICS									
Model	Airflow l/sec			Power - Watts			dBA (@ 3m in free field)		
	Speed 1	Speed 2	max	Speed 1	Speed 2	max	Speed 1	Speed 2	max
EL1003	9.5	13.8	28.5	1.3	1.6	4.6	15.1	17.3	31.4

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only			
Unit Configuration	Specific Fan Power (W/l/s)	EST Best Practice Performance Compliant	Flow Rate (l/sec)
In room - kitchen	**0.12**	**Yes**	**13.0**
In room - wetroom	**0.11**	**Yes**	**8.0**
Through wall - kitchen	**0.09**	**Yes**	**13.0**
Through wall - wetroom	**0.09**	**Yes**	**8.0**
Figures from BRE test results at minimum flow rate conditions			

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using flexible ducting only			
Unit Configuration	Specific Fan Power (W/l/s)	EST Best Practice Performance Compliant	Flow Rate (l/sec)
In room - kitchen	**0.13**	**Yes**	**13.0**
In room - wetroom	**0.11**	**Yes**	**8.0**
Through wall - kitchen	**0.09**	**Yes**	**13.0**
Through wall - wetroom	**0.09**	**Yes**	**8.0**
Figures from BRE test results at minimum flow rate conditions			

TYPICAL SPECIFICATION

Supply and Install an EL1003 high performance, energy efficient axial fan which has been tested and is SAP Q Eligible and suitable for **ALL** domestic wet rooms as supplied by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH.

The fan is to be suitable for installation either into a wall, ceiling or window (with the appropriate accessories - see pages 51-53) and to have an air intake around the whole perimeter and have a footprint of no larger than 160mm square. The fan is to be continuous running at its low speed (with a choice of two lower speeds) and be capable of being boosted to maximum speed by means of an integral pull cord or (with the cord removed) a remote switch, PIR sensor or humidistat.

The fan should have specific fan power (as tested by BRE with rigid duct) of no higher than 0.12w/l/s in room in a kitchen and 0.11w/l/s in room in a bathroom. The fan must not exceed 15.1 dB(A) noise level and 1.3w power consumption on the lowest speed.

The fan casing should be made of shock-proof, high quality technopolymer, and should have an EC induction motor with maintenance-free, long life ball bearings, and up to a 43,000 hour life. It should be protected with a thermal cut-out. The fan should be double insulated and be IPX4 splashproof protected suitable for installation into Zones I and II.

The fan is to comply with IEC 60335-2-80, LVD2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility, be CE marked and SAP Q Eligible.

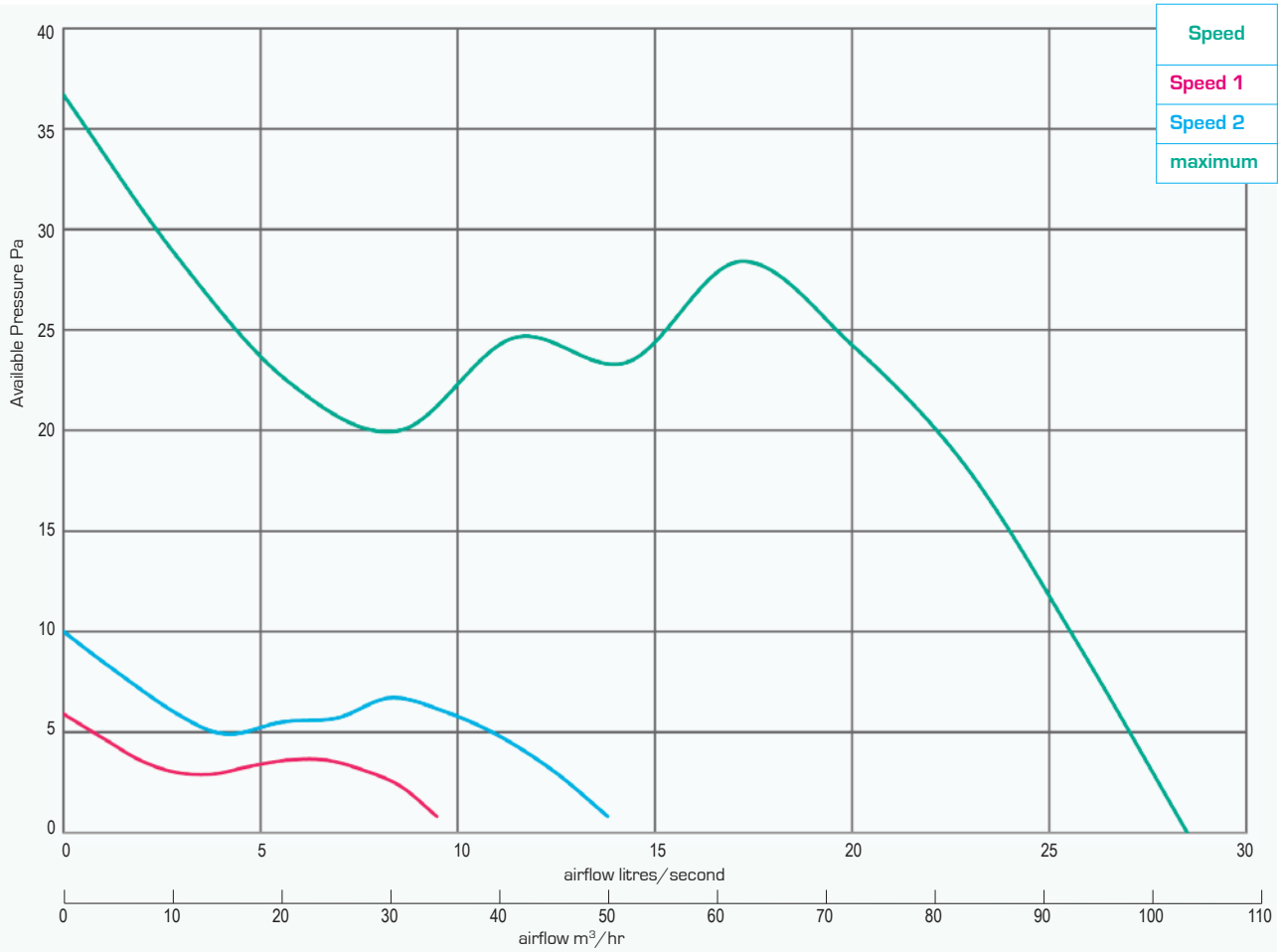
The fan should have 5 year manufacturer's warranty and be supplied with a user guide as required.

Only approved accessories should be used:

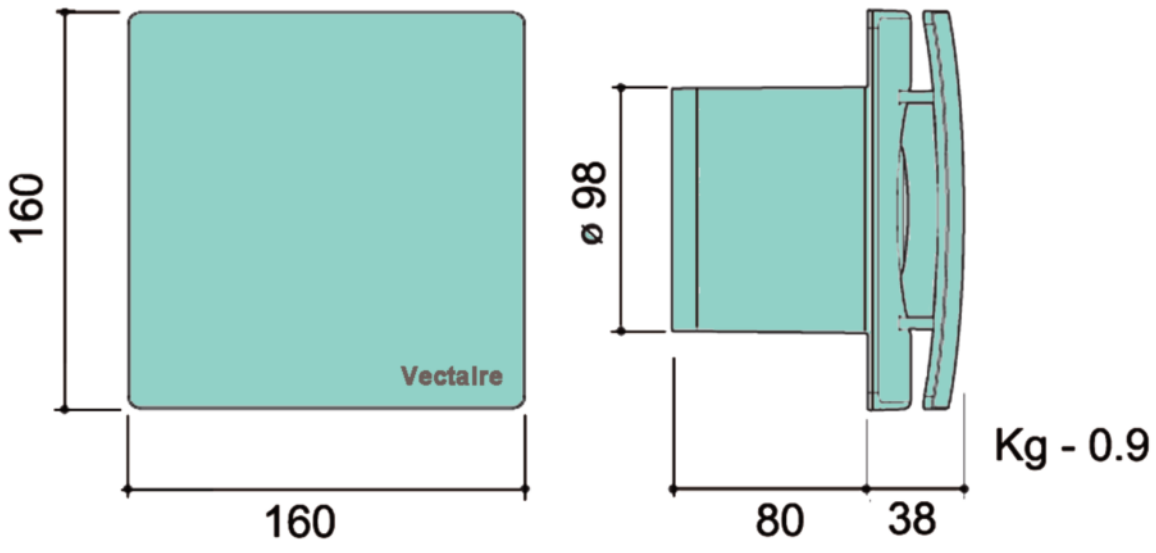
- Wall Plates – as required
- Window kits – as required
- Wall terminations – all wall terminations must use the approved wall cowl or high rise kit

Elegance

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



Elix

NEW

dMEV - Elix - ELX1003

- energy efficient EC motor
- provides low level continuous ventilation to control condensation
- 3 speed centrifugal fan
- choice of 2 low speeds at installation
- for wall or ceiling
- for any domestic wet room
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013

Elix

GENERAL FEATURES

- exhausts directly to the outside or through long lengths of ducting (up to 15m)
- runs continuously at pre-selected choice of two speeds (fixed at installation)
- Speed 1 operates at 8 l/s (factory set)
- Speed 2 operates at 14 l/s
- anti-vibration gasket
- easily removable, washable polypropylene filter
- speed boosted to maximum (28 l/s) using integral pull cord or by:
  - remote switch/light switch
  - PIR sensor
  - DRH240 (dynamic remote humidistat)
- energy saving ventilation
- **extremely low running costs**
- low carbon footprint
- 5 year warranty

TECHNICAL FEATURES

- shockproof, high quality technopolymer casing
- designed using latest wind tunnel technology and CFD simulations
- profile increases the fluid dynamics
- EC induction motor with thermal protection
- 43,000 hour life motors with maintenance free and long life ball bearings
- operates in ambient temperatures up to 40ºC
- double insulated - no earth required
- **IPX4 - Splashproof** rated - can safely be installed in Zones I and II

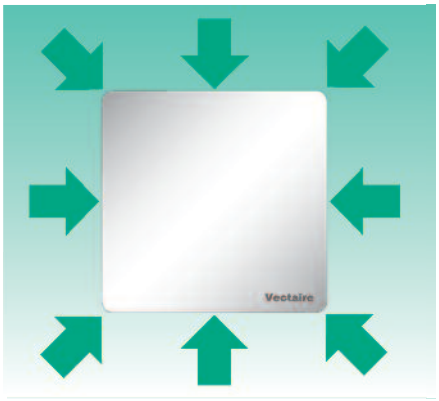
COMPLIES WITH

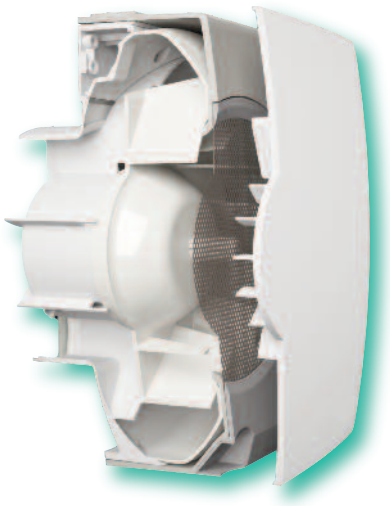
- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- IEC 60335-2-80, BT 2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility
- CE marked
- **SAP Q eligible**
- **Energy Saving Trust Best Practice Compliant**

OTHER MODELS AVAILABLE:

- ELX1003DT - 3 speed, continuous running with comfort timer (timer does not activate unless fan has been running for 2 minutes to avoid unnecessary night-time operation) and pull-cord
- ELX1003HDT - with comfort timer, humidistat and pull-cord
- ELX1003LV - 3 speed, continuous running with pull-cord - LOW VOLT (SELV)
- ELX1003DTLV - 3 speed, continuous running, with comfort timer, overrun timer and pull-cord LOW VOLT (SELV)
- ELX1003HDTLV - 3 speed, continuous running, with comfort timer, humidistat and pull-cord - LOW VOLT (SELV)

N.B timer adjustable from 0-30 mins





Vectaire Ltd can supply all accessories for use with these units, including fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

Elix

TECHNICAL CHARACTERISTICS									
Model	Airflow l/sec			Power - Watts			dBA (@ 3m in free field)		
	Speed 1	Speed 2	max	Speed 1	Speed 2	max	Speed 1	Speed 2	max
ELX1003	8	14	28	1.3	2.9	15	15.5	17.5	35

All Results with Rigid Duct	RESULTS for SAP CALCULATIONS		RESULTS for Approved Document F		
Unit Configuration	Specific Fan Power (W/l/s)	EST Best Practice Performance Compliant	Flow Rate (l/sec)	Flow Rate - wind condition (l/sec)	% reduction of Total Flow Rate
In room - kitchen	**0.22**	**Yes**	**13.0**	**12.9**	**1**
In room - wetroom	**0.16**	**Yes**	**8.0**	**7.8**	**3**
Through wall - kitchen	**0.17**	**Yes**	**13.0**	**12.9**	**1**
Through wall - wetroom	**0.14**	**Yes**	**8.3**	**8.1**	**2**
Figures from BRE test results at minimum flow rate conditions					

TYPICAL SPECIFICATION

Supply and Install an ELX1003 high performance, energy efficient centrifugal fan which has been tested and is SAP Q Eligible and suitable for **ALL** domestic wet rooms as supplied by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH.

The fan is to be suitable for installation either into a wall or ceiling (with the appropriate accessories - see pages 51-53) and to have an air intake around the whole perimeter and have a footprint of no more than 180mm square. The fan is to be continuous running at its low speed (with a choice of two lower speeds) and be capable of being boosted to maximum speed by means of an integral pull cord or (with the cord removed) a remote switch, PIR sensor or humidistat.

The fan should have specific fan power (as tested by BRE) of no higher than 0.22w/l/s in a kitchen and 0.16w/l/s in a bathroom. The fan must not exceed 2.0w power consumption on the lowest speed.

The fan casing should be made of shock-proof, high quality technopolymer, and should have an EC induction motor with maintenance-free, long life ball bearings, and up to a 43,000 hour life. It should be protected with a thermal cut-out. The fan should be double insulated and be IPX4 splashproof protected suitable for installation into Zones I and II.

The fan is to comply with IEC 60335-2-80, LVD2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility, be CE marked.

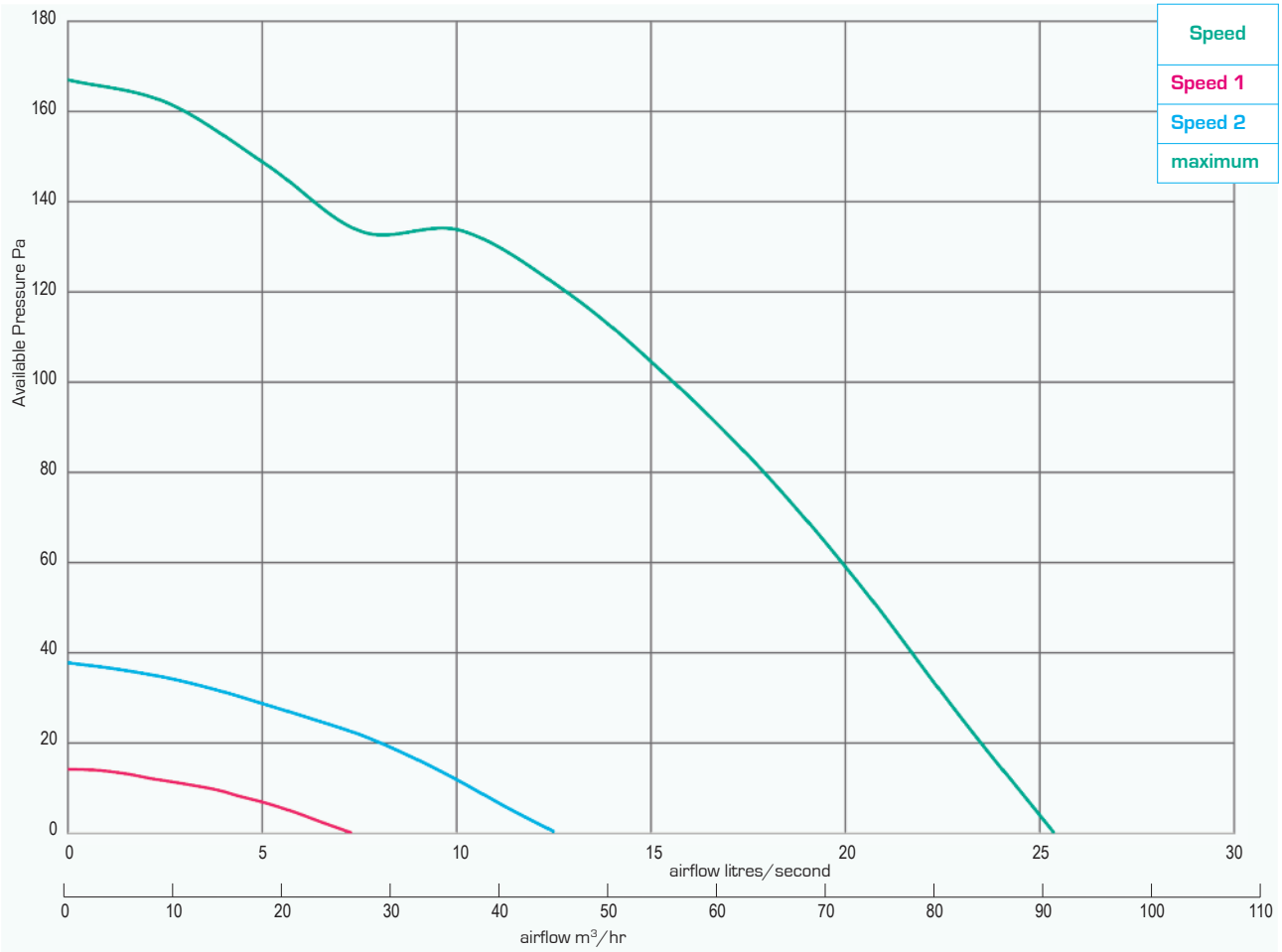
The fan should have 5 year manufacturer's warranty and be supplied with a user guide as required, and SAP Q Eligible.

Only approved accessories should be used:

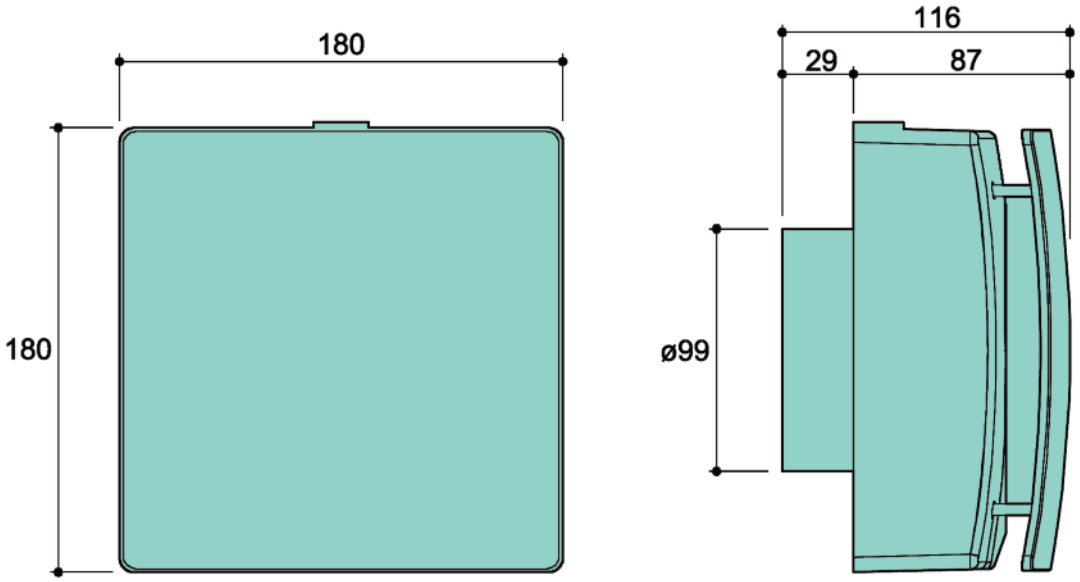
Wall Plates – as required
Wall terminations – all wall terminations must use the approved wall cowl or high rise kit.

Elix

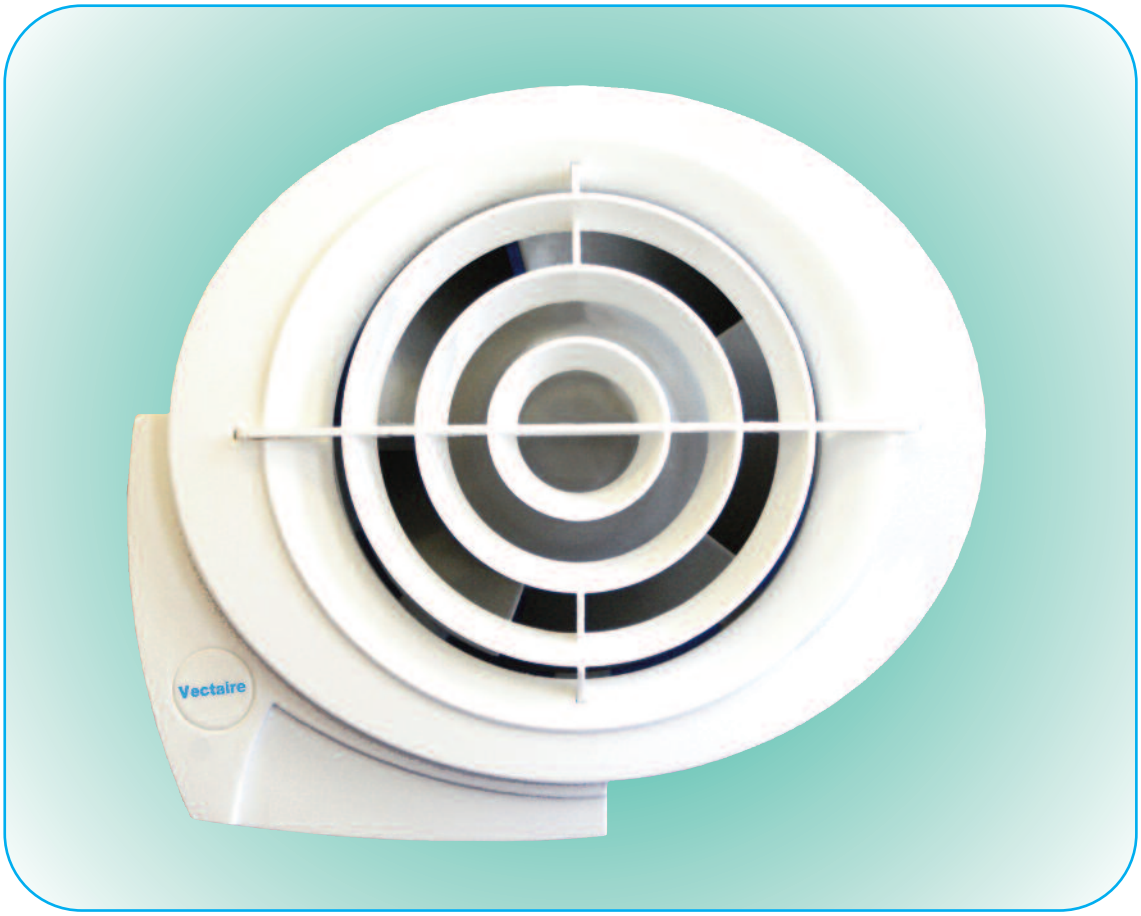
PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



E-Smile



dMEV - E-Smile - ES1003

- provides low level continuous ventilation to control condensation
- 3 speed axial fan
- choice of 2 low speeds at installation
- for wall or ceiling
- for any domestic wet room
- low noise levels and running costs
- compliant with Building Regulations Parts L 2013 and F 2013

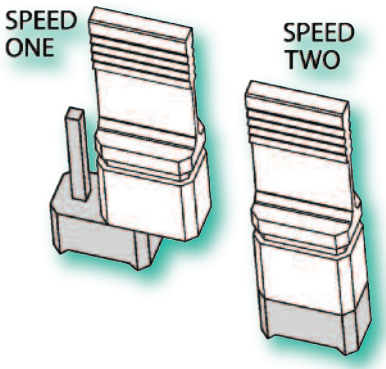
Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

E-Smile

GENERAL FEATURES

- exhausts directly to the outside or through medium length ducting (up to 8m)
- runs continuously at pre-selected choice of two speeds (fixed at installation)
- Speed 1 operates at 11 l/s
- Speed 2 operates at 14 l/s



- speed boosted to maximum (21 l/s) using cord, or cord removed by:
  - remote switch
  - PIR sensor
  - DRH240 (dynamic remote humidistat)
- **ES1003** design allows installation at any angle

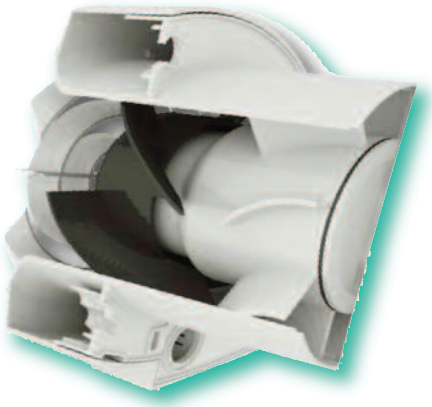
- energy saving efficiency (min 3.8 watts)
- **extremely low running costs**
- low carbon footprint
- very quiet operation (min 16 dBA)
- easy to install in walls or ceilings - only three fixing points
- 3 year warranty

TECHNICAL FEATURES

- constructed using recyclable and/or reusable materials and components for minimum ecological impact
- casing from shockproof, high quality technopolymer
- designed using latest wind tunnel technology and CFD simulations
- advanced profile to increase aerodynamic efficiency
- induction motor with thermal protection
- 40,000 hour life motors with maintenance free and long life ball bearings
- operates in ambient temperatures up to 40ºC
- double insulated - no earth required
- **IPX4 - Splashproof** rated - can safely be installed in Zones I and II

COMPLIES WITH

- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- complies with IEC 60335-2-80, BT 2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electromagnetic compatibility
- CE marked
- **SAP Q eligible**
- **Energy Saving Trust Best Practice Compliant**



OTHER MODELS AVAILABLE:

- ES1003CF - model c/w filter
- ES1003CLV - SELV - 12v model
- ES100H2C - 2 speed, humidity control
- ES100H2CLV - 2 speed, humidity control - SELV - 12v model

Vectaire Ltd can supply all accessories for use with these units, including fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products

E-Smile

TECHNICAL CHARACTERISTICS									
Model	Airflow l/sec			Power - Watts			Sound Pressure dBA (@ 3m in free field)		
	Speed 1	Speed 2	Boost	Speed 1	Speed 2	Boost	Speed 1	Speed 2	Boost
ES1003	11	14	21	3.8	5.3	7.5	16	19	29

Unit Configuration	RESULTS for SAP CALCULATIONS		RESULTS for Approved Document F					EST Best Practice Performance Compliant
	Specific Fan Power (W/l/s) Rigid Duct	Specific Fan Power (W/l/s) Flexi/Mixed Duct	Flow Rate (l/sec) Rigid Duct	Flow Rate - wind condition (l/sec) Rigid Duct	Flow Rate (l/sec) Flexi/Mixed Duct	Flow Rate - wind condition (l/sec) Flexi/Mixed Duct	% reduction of Total Flow Rate	
In room - kitchen	0.55	0.57	14.2	12.8	13.0	11.7	10	Yes
In room - wetroom	0.61	0.61	11.1	10.2	10.3	9.5	8	Yes
Through wall - kitchen	0.37	0.37	15.5	14.0	15.5	14.0	10	Yes
Through wall - wetroom	0.45	0.45	9.7	8.9	9.7	8.9	8	Yes
Figures from BRE test results at minimum flow rate conditions								

TYPICAL SPECIFICATION

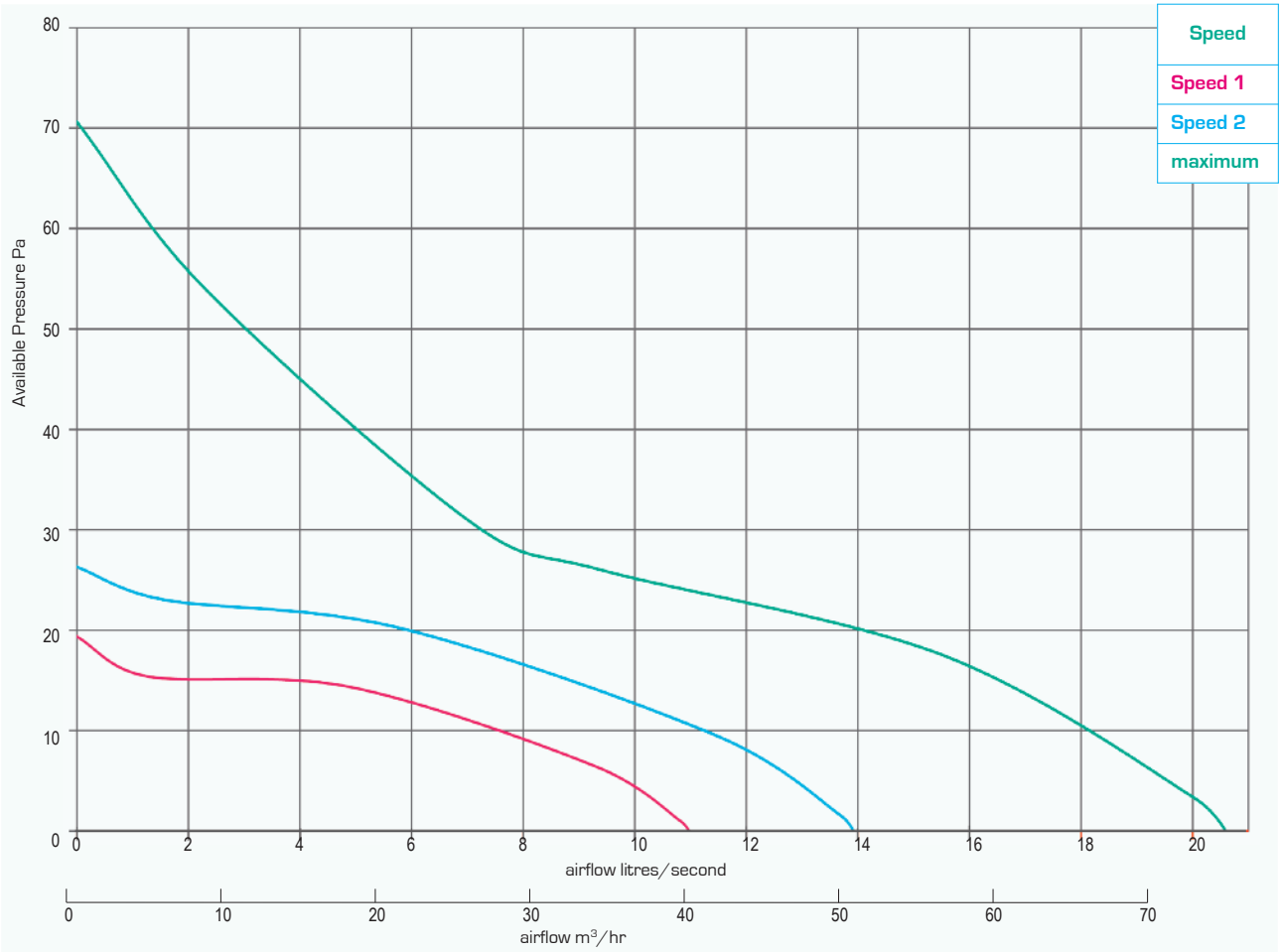
Supply and Install a Vectaire ES1003 high performance axial fan which has been tested and is SAP Q Eligible and suitable for **ALL** domestic wet rooms.

The fan is to be suitable for installation either into a ceiling, wall or panel (with the appropriate accessories - see pages 51-53). The fan is to be continuous running at its low speed (from a choice of two lower speeds) and be capable of being boosted to maximum speed by means of an integral pull cord or (with the cord removed) by a remote switch, PIR sensor or humidistat. The fan casing should be made of shock-proof, high quality technopolymer, contain a high magnetic permeability induction motor with maintenance-free, long life ball bearings, and be protected with a thermal cut-out. The fan should be double insulated and be IPX4 splashproof protected suitable for installation into Zones I and II.

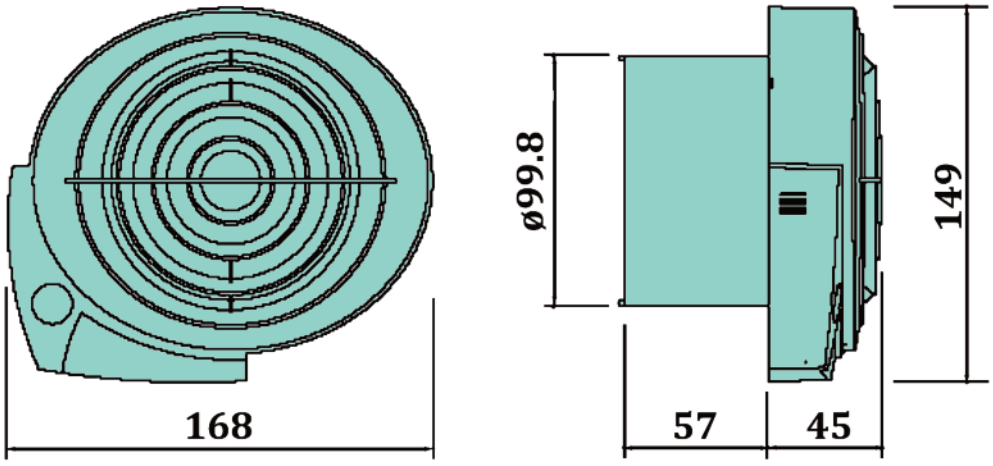
The fan is to comply with IEC 60335-2-80, LVD2006/95/CE and EMC 04/108/CE European Directive against radio interference and electro-magnetic compatibility, and be CE marked

E-Smile

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



Heatrec 1003

NEW

Heatrec 1003

- 3 speed centrifugal fan for any domestic wet room
- energy efficient EC motors
- efficient, low energy solution to controlling condensation and pollution
- provides low level continuous ventilation
- with summer bypass and frost-stat
- up to 75% heat exchange efficiency
- choice of two low (trickle) speeds
- speed can be boosted by user
- low noise levels and running costs
- compliant with Building Regulations Parts L1 2013 and F 2013

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Heatrec 1003

GENERAL FEATURES

- single room heat recovery unit for new build or refurbishment
- for areas up to 40m²
- up to 75% of heat recovered
- easy to install and maintain
- for installation into walls - can be rotated to four positions
- two low (trickle) speeds
  - speed 1: 5 litres/sec
  - speed 2: 8 litres/sec
- boost speed (15 litres/sec) triggered by user with integral pull-cord or a remote switch
- tube heat recovery cell available in 400mm, 500mm or 600mm lengths
- heat recovery tube incorporates condensate drainage and weather louvre

- termination kit enables complete installation from inside (easy to install in high rise buildings)
- low noise levels
- low running costs
- extra security - no need to open windows
- 2 year warranty

TECHNICAL FEATURES

- efficient and economical
- casing from shockproof, high quality technopolymer
- low energy EC motors
- operates in temperature up to 40ºC
- easy to maintain
- filters and heat exchanger removable and washable
- summer bypass - the Heatrec1003 has sensors which monitor the air intake and extract. When the outside temperature is comfortable and the inside ambient temperature is lower than 18ºC, the air extract motor will be automatically switched off, whilst the air intake motor will continue to operate, ensuring a quick and efficient change of air inside the room. When the outside temperature is higher than 26ºC, the air intake motor will be switched off to ensure ventilation without increasing the temperature.
- integral frost-stat - the unit is fitted with an internal thermostat, which automatically stops the air intake if there is a risk of the heat exchanger freezing up (when the outside temperature is too low) and also avoiding the in take of very cold air.

COMPLIES WITH

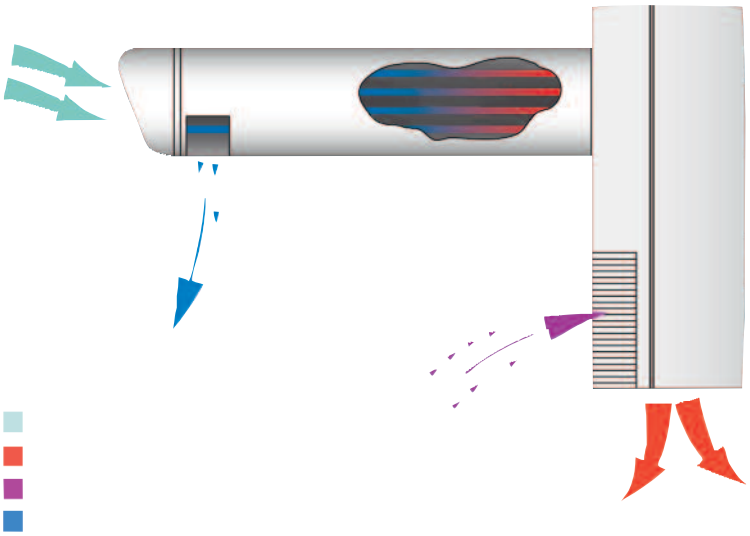
- Part L1 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- IEC 60335-2-80, BT 2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility
- CE marked

MODELS AVAILABLE:

- HREC1003 - 3 speed, continuous running with pull-cord
- HREC1003T - 3 speed, continuous running with timer and pull-cord
- HREC1003HT - 3 speed, continuous running fan with timer, humidistat and pull-cord

- HREC1003LV - 3 speed, continuous running with pull-cord, **SELV**
- HREC1003T - 3 speed, continuous running with timer and pull-cord, **SELV**
- HREC1003HT - 3 speed, continuous running fan with timer, humidistat and pull-cord, **SELV**

N.B timer adjustable from 0-30 mins. Humidistat relative humidity adjustable between 40-90%.



Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation, commissioning and maintenance of these products.

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

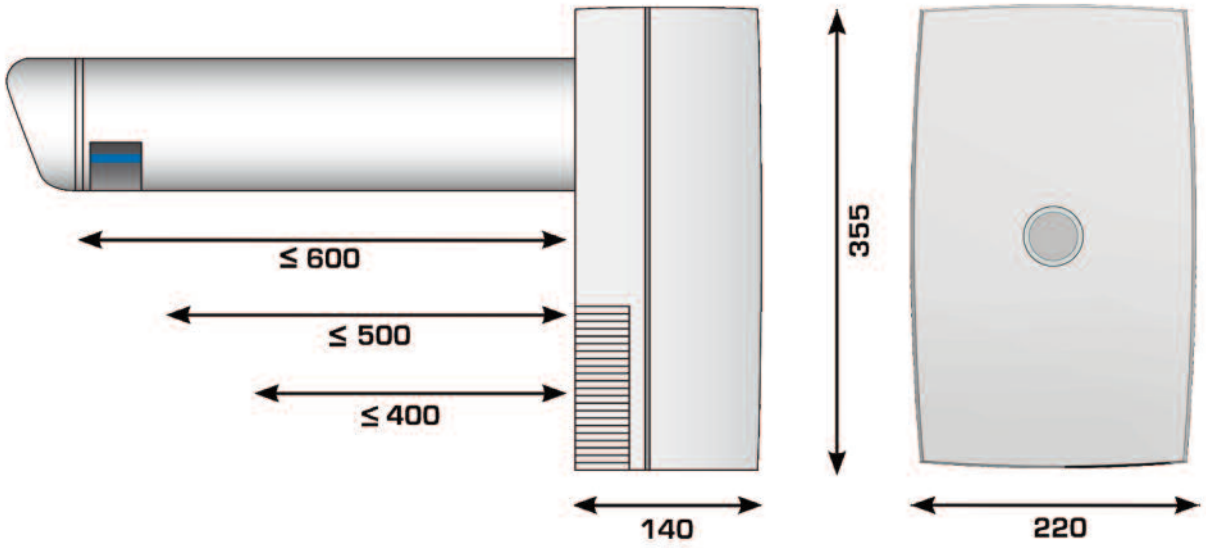
Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

Heatrec 1003

TECHNICAL CHARACTERISTICS									
Model	Airflow l/sec			Power - Watts			dBA (@ 3m in free field)		
	Speed 1	Speed 2	max	Speed 1	Speed 2	max	Speed 1	Speed 2	max
HREC1003	5	7.5	15	3.7	8.3	28.3	18.4	27.7	39.3

DIMENSIONS - mm (shown left hand drain)

3 models with 100mm dia duct for wall thickness up to:



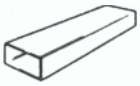
TYPICAL SPECIFICATION

Supply and install a Vectaire HREC1003HT energy efficient single room heat recovery unit as manufactured by Vectaire Ltd, Lincoln Road, Cressex Business Park, High Wycombe, Bucks, HP12 3RH. The unit should be able to give low level, continuous ventilation to a domestic bathroom or kitchen and incorporate a humidistat which will automatically increase the airflow when necessary. The unit should be for wall installation and have a choice of heat recovery tubes to fit 400mm, 500mm or 600mm wall thicknesses. It should recover up to 75% of heat from extracted air, separating the air-flows using a heat exchanger. The unit should incorporate two low energy EC brushless motors for low noise levels and low energy consumption It should have as standard the option of two trickle speeds and the facility to boost the speed either automatically via the integral humidistat or by use of the integral pull cord. It should also incorporate a summer by-pass and integral frost-stat. The unit should comply with Part L1 2013 and Part F 2013 of Building Regulations; IEC 60335-2-80, BT 2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility; and be CE marked.

Plastic Flat Ducting - 3 sizes

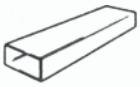
VFPD - 110x54mm: VPFDS - 204x60mm: VPFDM - 220x90mm

FLAT DUCTING - 1.5M LENGTH



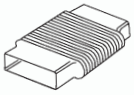
Model	Size	Box Qty
VPFD	1500mm long	20
VPFDS	1500mm long	5
VPFDM	1500mm long	3

FLAT DUCTING - 2M LENGTH



Model	Size	Box Qty
VPFD-2M	2000mm long	10
VPFDS-2M	2000mm long	5
VPFDM-2M	2000mm long	2

UNIVERSAL DUCT

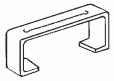


Model	Size	Box Qty
VPFDS-UD	204 x 60	10

CONNECTOR

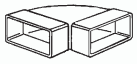
Model	Size	Box Qty
VPC	110 x 54	20
VPCS	204 x 60	10
VPCM	220 x 90	6

MOUNTING BRACKET



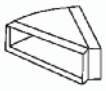
Model	Size	Box Qty
VPMB	110 x 54	10
VPMBS	204 x 60	10
VPMBM	220 x 90	10

90° HORIZONTAL BEND



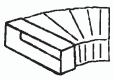
Model	Size	Box Qty
VPHB	110 x 54	20
VPHBS	204 x 60	10
VPHBM	220 x 90	6

45° HORIZONTAL BEND



Model	Size	Box Qty
VPHB45	110 x 54	20
VPHBS45	204 x 60	10
VPHBM45	220 x 90	6

ADJUSTABLE HORIZONTAL BEND

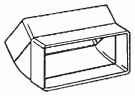


Model	Size	Box Qty
VPAHBS	204 x 60	10

90° VERTICAL BEND

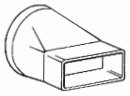
Model	Size	Box Qty
VPVB	110 x 54	20
VPVBS	204 x 60	10
VPVBM	220 x 90	6

45° VERTICAL BEND



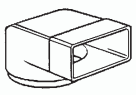
Model	Size	Box Qty
VPVB45	110 x 54	20
VPVBS45	204 x 60	10
VPVBM45	220 x 90	6

ADAPTOR ROUND TO FLAT



Model	Size	Box Qty
VPA	100mm dia spigot	20
VPAS	125mm dia spigot	10
VPAM	150mm dia spigot	6

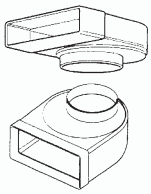
ADAPTOR ROUND TO FLAT - VERTICAL BEND



Model	Size	Box Qty
VPAVB	100mm dia spigot	20
VPAVBS4	100mm dia spigot	10
VPAVBS5	125mm dia spigot	10
VPAVBS6	150mm dia spigot	10

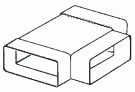
White = W: Brown = B: Beige = COT: Terracotta = TC

ADAPTOR ROUND TO FLAT - VERTICAL BEND - OFFSET SPIGOT



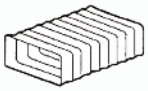
Model	Size	Box Qty
VPAVBSA4	100mm spigot	10
VPAVBSA5	125mm spigot	10
VPAVBSA6	150mm spigot	10
VPAVBM4	100mm spigot	6
VPAVBM5	125mm spigot	6
VPAVBM6	150mm spigot	6

"T" PIECE



Model	Size	Box Qty
VPT	110 x 54	20
VPTS	204 x 60	10
VPTM	220 x 90	6

RECTANGULAR FLEXIBLE DUCTING

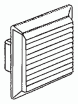


Model	Size	Box Qty
VFD110/.5	110 x 54mm x .5m	1
VFD110/3	110 x 54mm x 3m	1
VFD204/.5	204 x 60mm x .5m	1
VFD204/3M	204 x 60mm x 3m	1
VFD220/.5	220 x 90mm x .5m	1
VFD220/3	220 x 90mm x 3m	1

WALL PLATE - FLAT CHANNEL

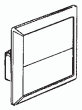
Model	Box Qty
VPAWP	10
VPAWPS	10
VPAWPM	6

FIXED GRILLE WITH RECTANGULAR SPIGOT AND FLYSCREEN



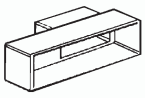
Model		Box Qty
VPFG	W, B, COT or TC	20
(for 110mm x 54mm duct size only)		

GRAVITY GRILLE WITH RECTANGULAR SPIGOT



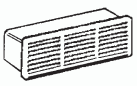
Model		Box Qty
VPGG	W, B, COT or TC	20
(for 110mm x 54mm duct size only)		

AIRBRICK ADAPTOR



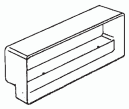
Model		Box Qty
VPAB/AD	(VFPD only)	20

AIRBRICK



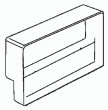
Model		Box Qty
VPAB	W, B, COT or TC	20

ADAPTOR - 204MM X 60MM ('S') TO 220MM X 90MM ('M')



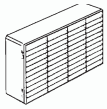
Model		Box Qty
VPAS-M	W, B, COT or TC	10

DOUBLE AIRBRICK ADAPTOR



Model		Box Qty
VPDAB/ADM	Megaduct only	10

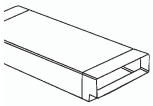
DOUBLE AIRBRICK



Model		Box Qty
VPDAB	W, B, COT or TC	20

Ducting and ancillaries

SILENCER

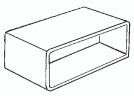


Model	Size/Description	Box Qty
VPFDS-SIL.5	204 x 60mm x .5m	1
VPFDS-SIL1	204 x 60mm x 1m	1
VPFDS-SIL	204 x 60mm x 1.5m	1

TAPE/ADHESIVES

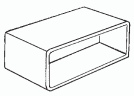
PVCDT	PVC Duct Tape	1
DDSeal	Duct Seal	1
MAS87	Intumescent Mastic	1

FIRE DAMPERS FOR VFPD - INTUMESCENT



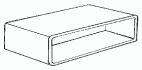
VPFD-FD	110 x 54mm	1
VPFDS-FD	204 x 60mm	1
VPFDM-FD	220 x 90mm	1

INTUMESCENT DUCT SLEEVES FOR VFPD



VPFD-DS	110 x 54mm	1
VPFDS-DS	204 x 60mm	1
VPFDM-DS	220 x 90mm	1

INTUMESCENT FIRE SLEEVE



FS204/100	204 x60 x100mm	1

INTUMESCENT FIRE DAMPER

FD4INT	4"/10cm	1
FD5INT	5"/12cm	1
FD6INT	6"/15cm	1

FIRE DAMPER - FUSIBLE LINK

FD4	4"/10cm	1
FD5	5"/12cm	1
FD6	6"/15cm	1

FIRE DAMPER

VRD4/FD	4"/10cm	1
VRD5/FD	5"/12cm	1
VRD6/FD	6"/15cm	1

DUCT SLEEVE

VRD4-DS	4"/10cm	1
VRD5-DS	5"/12cm	1
VRD6-DS	6"/15cm	1

DUCT JOINING

DW25N	Duct Wrap-1.2mx13m	1
PVCDT	PVC Duct Tape	1
DT75	Aluminium Foil Duct Tape	1
DDSeal	Duct Seal	1

Model	Size	Box Qty

TELESCOPIC DUCT - 8"-14"

VTD10-200	4"/10cm	10
VTD12-200	5"/12cm	10
VTD15-200	6"/15cm	10

RIGID DUCT - 14'/350MM

VRD4-350	4"/10cm	10
VRD5-350	5"/12cm	10
VRD6-350	6"/15cm	10

RIGID DUCT - 1000MM

VRD4-1M	4"/10cm	3
VRD5-1M	5"/12cm	3
VRD6-1M	6"/15cm	3

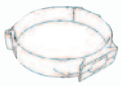
RIGID DUCT - 2000MM

VRD4-2M	4"/10cm	3
VRD5-2M	5"/12cm	3
VRD6-2M	6"/15cm	3

RIGID DUCT CONNECTOR

VRD4/C	4"/10cm	10
VRD5/C	5"/12cm	10
VRD6/C	6"/15cm	10

RIGID DUCT FIXING BRACKET



VRD4/FB	4"/10cm	10
VRD5/FB	5"/12cm	10
VRD6/FB	6"/15cm	10

RIGID DUCT T PIECE

VRD4/T	4"/10cm	10
VRD5/T	5"/12cm	10
VRD6/T	6"/15cm	10

RIGID DUCT Y PIECE

VRD4/Y	4"/10cm	10

RIGID DUCT 90° BEND

VRDB90/4	4"/10cm	10
VRDB90/5	5"/12cm	10
VRDB90/6	6"/15cm	10

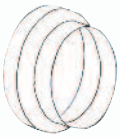
RIGID DUCT 45° BEND

VRDB45/4	4"/10cm	10
VRDB45/5	5"/12cm	10

ROUND GRILLE WITH FLYSCREEN

VRD4-FGWF	4"/10cm	10

CIRCULAR REDUCER



RED4/3P	10cm-7.5cm	10
RED5/4P	12cm-10cm	10
RED6/4P	15cm-10cm	10
RED6/5P	15cm-12cm	10
RED8/6P	20cm-15cm	1

WALL PLATE

VRWP4	4"/10cm	10
VRWP5	5"/12cm	10
VRWP6	6"/15cm	10

Ducting and ancillaries

ADAPTOR PLATES

Model	Size/Description	Box Qty
PLT/EL	Elegance	1
PLT/ELX	Elix	1
PLT/ES1003	E-Smile	1
PLT/ES1003S12	E-Smile	1
PLT/ES1003/SIL	E-Smile	1
PLT/ECO10	ECO	1
PLT/ECO1030X30	ECO	1

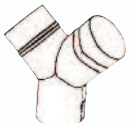
WALL VENT KITS

AWVK10/4	4"/10cm	10
AWVK12/5	5"/12cm	10
AWVK15/6	6"/15cm	10

METAL DUCT JOINING PIECE

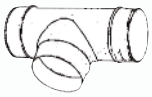
DJP4	4"/10cm	1
DJP5	5"/12cm	1
DJP6	6"/15cm	1
DJP8	8"/20cm	1
DJP10	10"/25cm	1
DJP12	12"/30cm	1

METAL "Y" SECTION



YP4	4"/10cm	1
YP5	5"/12cm	1
YP6	6"/15cm	1
YP8	8"/20cm	1

METAL "T" SECTION



TP4	4"/10cm	1
TP5	5"/12cm	1
TP6	6"/15cm	1
TP8	8"/20cm	1

METAL AIR VALVES WITH FIRE DAMPER

VAV4+FD	4"/10cm	1
VAV5+FD	5"/12cm	1
VAV6+FD	6"/15cm	1

WORM DRIVE CLIPS

WDC4	4"/10cm	1
WDC5	5"/12cm	1
WDC6	6"/15cm	1
WDC8	8"/20cm	1
WDC10	10"/25cm	1
WDC12/16	12"-16"	1

WALL COWLS

Model	Size	Box Qty
VWC	4"-6"	1
VWC4	4"/10cm	1
VWC5	5"/12cm	1
VWC6	6"/15cm	1

PLASTIC FIXED GRILLES

FG4	4"/10cm	1
FG5	5"/12cm	1
FG6	6"/15cm	1

PLASTIC FIXED GRILLES WITH FLYSCREEN

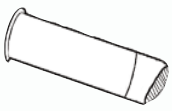
FG4F	4"/10cm	1
FG5F	5"/12cm	1
FG6F	6"/15cm	1

PLASTIC GRAVITY GRILLES

GG4	4"/10cm	1
GG5	5"/12cm	1
GG6	6"/15cm	1

N.B plastic grilles available in: White = W: Brown = B: Beige - COT: Terracotta = TC. Grilles will be supplied in white unless requested otherwise at time of ordering

IN WALL ATTENUATORS



VIWA4	4"/10cm - with grille	1
VIWA4C	4"/10cm - with cowl	1
VIWA4QF	4"/10cm- with quick fit cowl	1
VIWA5	5"/12cm- with grille	1
VIWA5C	5"/12cm - with cowl	1
VIWA5QF	5"/12cm- with quick fit cowl	1

WALL TERMINATION KITS

VWTK4	4"/10cm-high rise-wall 350mm duct-internal installation	1
VWTK-Gas	4"/10cm only for VWTK4	1
VWTK6	6"/15cm - as VWTK4	1
VWTC4	4"/10cm-round wall cowl for internal installation	1
VWTC6	6"/15cm - as VWTC4	1

ROOF TERMINATION KITS

RTK4	4"/10cm - Kit	1
RT4	4"/10cm - Cowl	1

PLASTIC AIR VALVES

VAV4	4"/10cm	1
VAV5	5"/12cm	1
VAV6	6"/15cm	1

CONDENSATION TRAPS

VCT4	4"/10cm	1
VCT4P	4"/10cm- with overflow	1
VCT5P	5"/12cm- with overflow	1
VCT6P	6"/15cm- with overflow	1

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk

Ducting and ancillaries

PVC FLEXIBLE DUCTING

Model	Size dia	Size length	Box Qty
VFD4/3PVC	4"/10cm	3m	45
VFD4/6PVC	4"/10cm	6m	24
VFD4/10PVC	4"/10cm	10m	20
VFD4/15PVC	4"/10cm	15m	1
VFD4/45PVC	4"/10cm	45m	1
VFD5/3PVC	5"/12cm	3m	45
VFD5/6PVC	5"/12cm	6m	20
VFD5/10PVC	5"/12cm	10m	15
VFD5/15PVC	5"/12cm	15m	1
VFD6/3PVC	6"/15cm	3m	27
VFD6/6PVC	6"/15cm	6m	12
VFD6/10PVC	6"/15cm	10m	1
VFD6/15PVC	6"/15cm	15m	1

PLASTIC FLEXIBLE DUCTING

VFD4/3	4"/10cm	3m	12
VFD4/6	4"/10cm	6m	6
VFD4/10	4"/10cm	10m	2
VFD5/3	5"/12cm	3m	6
VFD5/6	5"/12cm	6m	1
VFD6/3	6"/15cm	3m	4
VFD6/6	6"/15cm	6m	1
VFD6/10	6"/15cm	10m	1
VFD8/3	8"/20cm	3m	1
VFD8/6	8"/20cm	6m	1
VFD10/3	10"/25cm	3m	1
VFD10/6	10"/25cm	6m	1
VFD315/3	12"/31.5cm	3m	1
VFD315/6	12"/31.5cm	6m	1
VFD315/10	12"/31.5cm	10m	1

Notes

Vectaire Ltd
Lincoln Road
Cressex Business Park
High Wycombe
Buckinghamshire
HP12 3RH

Tel: +44(0)1494 522333
Fax: +44(0)1494 522337
Email: sales@vectaire.co.uk
Web: www.vectaire.co.uk