MVHR
Advanced
Acoustic
Attenuation

vectaire
ventilation systems

bre tested

the solution to noise in residential new build

"AT" MVHR - FEATURES and BENEFITS

It's common knowledge that poor indoor air quality leads to a myriad of health problems, but it's less well known that noise pollution also affects health and behaviour. Excess noise causes:

★ *high stress levels* ★ *tinnitus* ★ *hypertension* ★ *hearing loss* ★ *sleep disturbance*
★ *a faster decline in cognitive ability* ★ *an adverse effect on child development*

Noise pollution has many sources, both external and internal. Typically, building to high air tightness levels can reduce external noise, but ventilation is necessary to remove pollutants and introduce fresh air. The noise from continuous ventilation systems can be as detrimental as external sources.

Vectaire's range of "AT" acoustic MVHRs are specifically designed to provide a high quality atmosphere at the **lowest noise level on the market**.

★ they allow windows and doors to remain closed to stop, so far as is possible, both noise and air pollution coming into the home

★ they work continually to replace stale air and condensation with fresh, filtered air

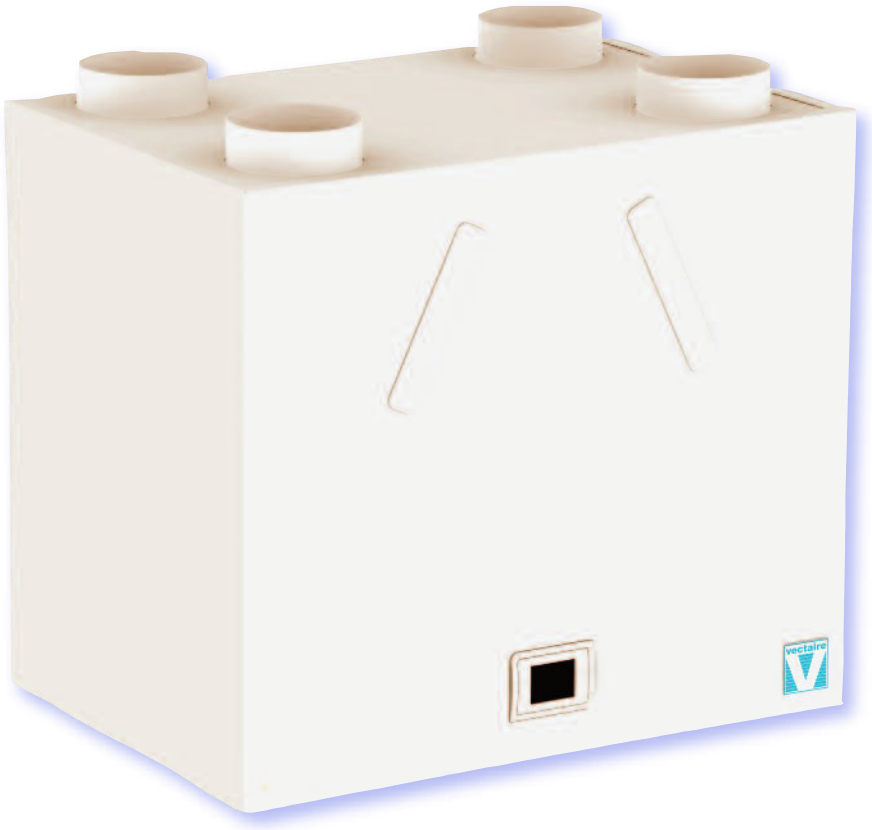
★ they save energy by minimising heat loss

★ and they do all this at noise levels which are the **quietest on the market**

THE QUIETEST, THE SMALLEST AND THE LIGHTEST MVHR

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

"AT" MVHR - FEATURES and BENEFITS



- ★ from **BELOW 5 dbA**
- ★ **acoustically tested by BRE**
- ★ **INTEGRAL** acoustic attenuation - no need for an additional heavy cabinet
- ★ quietest MVHR
- ★ smallest MVHR
- ★ lightest MVHR - from 29 to 42 kgs
- ★ easiest to install - no need for a cabinet - save on installation costs
- ★ easy to maintain - normal access to all functionalities
- ★ easy filter access - no tool required
- ★ complete range from 14 l/sec to 238 l/sec
- ★ low specific fan power (sfp)
- ★ exceptional thermal efficiency
- ★ summer bypass and frost-stat
- ★ easy commissioning via touch screen

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Midi-BY-AT

with integral acoustic attenuation

from below 5 dbA

SAP PCDB Listed

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties
- up to 94% heat exchange efficiency
- variable choice of low (trickle), boost and purge speed at installation
- easy fitting (and maintaining) on wall, in cupboard or loft - no extra cabinet required
  weight - 29 kgs
- universal handing for models without humidistat
- low running costs
- accurate commissioning via integral touch screen LCD
- manufactured in UK to ISO 9001

GENERAL FEATURES

- **from below 5 dbA**
- up to 95 litre/sec at 50Pa - max 101 litre/sec capacity
- sfp down to 0.50 W/l/s
- summer bypass which allows the airflow to bypass the heat exchanger automatic–ally when internal and external temperatures are between adjustable setpoints.
- frost-stat - proportionally reduces intake motor speed as temperature falls - activated when the outside temperature between +8°C and -3°C.
- run-time and power outage counters
- easy to install and maintain
- easy to access G3 filters
- universal handing for models without humidistat - left or right
- for fitting vertically into lofts, or cupboards; - wall fixing bracket supplied
- variable low (trickle), boost and purge options for each motor
- boost speed can be activated by a 230V switched live from:
  - A light switch (if more than one light switch is used, each one must be a double pole switch)
  - Remote humidistat (230V - DRH240)
  - Passive infra red (230V - PIRFF)
  - Thermostat (230V - THM)
  - Remote switch/pull cord - 230V
- low running costs
- 5 year warranty; 1 year parts and labour, 4 years parts only

TECHNICAL FEATURES

- compact unit - casing from steel sheet - epoxy paint finish
- **lined with Class "O" fire resistant acoustic foam**
- low energy EC brushless motor
- single width, single inlet, direct drive, forward curved impellors
- operates in temperature up to 60°C
- easy to access standard, disposable G3 filters
- counter flow heat exchanger

COMPLIES WITH

- Part L1A 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Complies with IEC60335-2-80, LVD2006/95/CE and EMC2014/30/UE (European Directive against radio interfer-ence and electro-magnetic compatability)
- CE marked
- SAP PCDB Listed

MODELS AVAILABLE:

- Midi BY-AT+LCD - bypass, attenuation, universal, integral LCD
- Midi BYAT+LCDLH - bypass, attenuation, left drain, humidistat, integral LCD
- Midi BYAT+LCDRH - bypass, attenuation, right drain, humidistat, integral LCD

CONTROL FEATURES - STANDARD

- independent variable speed adjustment for each motor
- adjustable boost speed over-run timer from 0 to 90 minutes.
- adjustable boost speed delay from 0 to 5 minutes
- remote purge - adjustable over-run timer from 0 to 250 minutes, pre-set to 15 minutes (adjustable at factory).
- adjustable night time boost and purge inhibitor
- integral frost-stat
- automatic summer bypass

CONTROL FEATURES - FACTORY SET

- change of ductwork handing on humidistat version (trip point set at manufacture)
- integral humidistat
- 0-10V connections can be added for:
  - BMS - for remote motor shut-off
  - CO_2 detector
  - home automation system
- relay for external pre-heater
- 3 speed selector switch
- remote purge
- purge speed over-run time
- holiday mode
- run-time and power outage counters downloadable via QR code.

TYPICAL SPECIFICATION AVAILABLE AT
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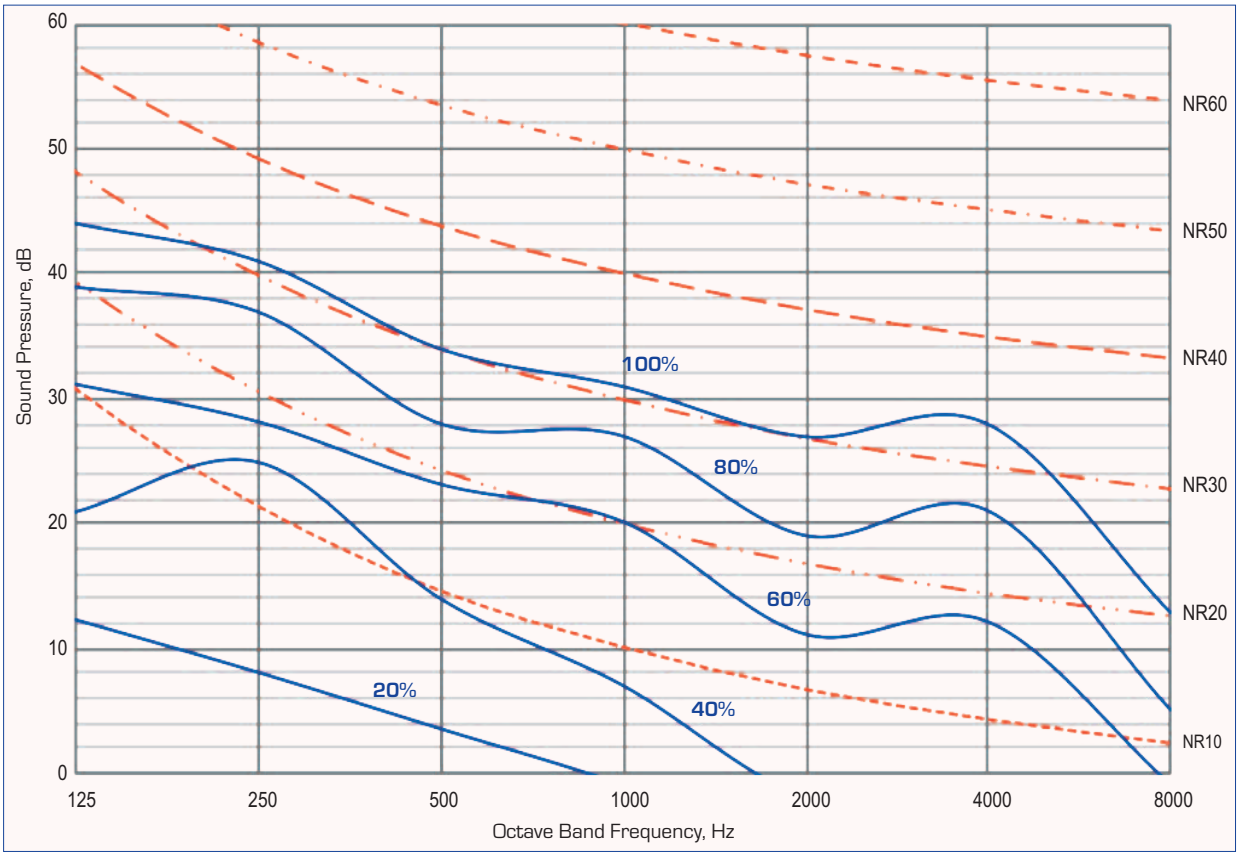
BREAKOUT - NR (SPL curves based on breakout dB values at 1m)



Midi-BY-AT		Sound Power Levels, L_W (dB) - Octave Bands Frequency Hz.							Sound Pressure dBA @ 3m	Noise Rating based on dB @ 1m
Curve Ref		125	250	500	1k	2k	4k	8k		
100% (101 l/sec)	Extract	61	58	48	41	34	26	23		
	Supply	74	69	60	57	50	44	43		
	Breakout	**52**	**49**	**42**	**39**	**35**	**36**	**21**	**28.3**	**34**
80% (79 l/sec)	Extract	56	53	45	37	29	21	16		
	Supply	70	65	55	53	44	39	36		
	Breakout	**47**	**45**	**36**	**35**	**27**	**29**	**13**	**23.4**	**28**
60% (58 l/sec)	Extract	49	45	39	29	19	10	7		
	Supply	62	56	47	45	34	27	21		
	Breakout	**39**	**36**	**31**	**28**	**19**	**20**	**7**	**15.8**	**21**
40% (36 l/sec)	Extract	38	38	32	17	8	3	6		
	Supply	51	47	38	31	22	13	8		
	Breakout	**29**	**33**	**22**	**15**	**6**	**5**	**6**	**9.8**	**15**
20% (14 l/sec)	Extract	31	20	10	4	0	2	6		
	Supply	32	27	13	8	1	2	6		
	Breakout	**20**	**16**	**12**	**7**	**1**	**2**	**6**	**<5.0**	**<10**
The breakout dB(A) sound pressure values are given for hemispherical free field propagation at a distance of 3m from the unit										
All the above data has been independently tested and verified by BRE to BS EN 13141-7:2010 and BS EN ISO 3741:2010										

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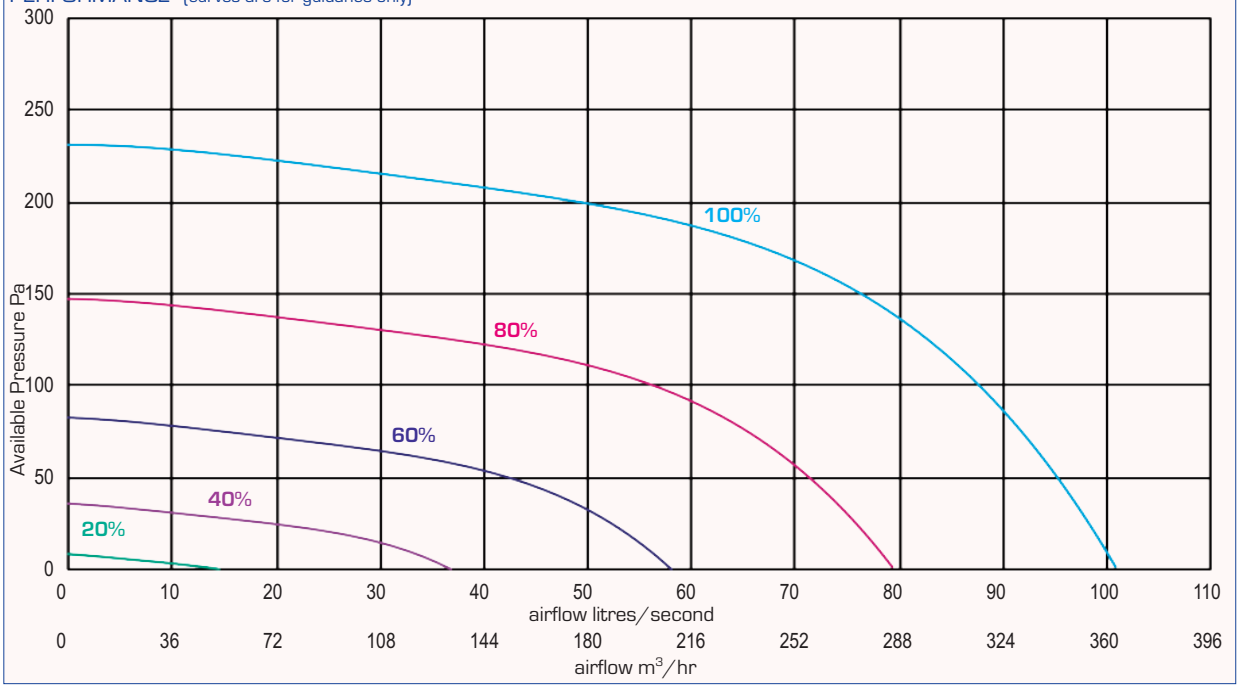
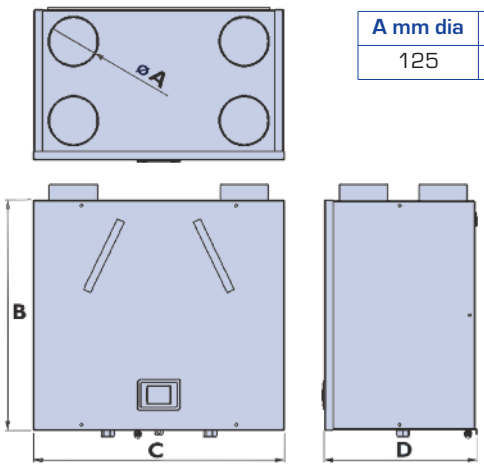
RESULTS for SAP CALCULATIONS - ENERGY LEVEL PERFORMANCE - using rigid ducting only						
	2009 Data			2012 Data		
Exhaust Terminal Configuration	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency
Kitchen + 1 additional wet room	15	0.50	94%	21	0.51	93%
Kitchen + 2 additional wet rooms	21	0.50	93%	29	0.61	91%
Kitchen + 3 additional wet rooms	27	0.55	92%	37	0.75	90%
Kitchen + 4 additional wet rooms	33	0.65	91%	45	0.92	89%
Kitchen + 5 additional wet rooms	39	0.76	89%			
Kitchen + 6 additional wet rooms	45	0.88	89%			
Figures at minimum flow rate conditions						

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Total Power - Watts				
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
Midi-BY-AT	101	79	58	36	14	120	69	31	11	2.2

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



A mm dia	B mm	C mm	D mm	Weight kg
125	595	648	395	29

N.B a clearance of at least 200 mm should be allowed on each side of the cabinet for access to the interior

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from below 5 dbA

SAP PCDB Listed

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties
- up to 92% heat exchange efficiency
- variable choice of low (trickle), boost and purge speed at installation
- easy fitting (and maintaining) on wall, in cupboard or loft - no extra cabinet required
- weight - 42kgs
- universal handing for models without humidistat
- low running costs
- accurate commissioning via integral touch screen LCD
- manufactured in UK to ISO 9001

GENERAL FEATURES

- **from below 5 dbA**
- up to 163 litre/sec at 50Pa - max 177 litre/sec capacity
- sfp down to 0.40 W/l/s
- summer bypass which allows the airflow to bypass the heat exchanger automatically when internal and external temperatures are between adjustable setpoints.
- frost-stat - proportionally reduces intake motor speed as temperature falls - activated when the outside temperature between +8°C and -3°C.
- run-time and power outage counters
- easy to install and maintain
- easy to access G3 filters
- universal handing for models without humidistat - left or right
- for fitting vertically into lofts, or cupboards; - wall fixing bracket supplied
- variable low (trickle), boost and purge options for each motor
- boost speed can be activated by a 230V switched live from:
  - A light switch (if more than one light switch is used, each one must be a double pole switch)
  - Remote humidistat (230V - DRH240)
  - Passive infra red (230V - PIRFF)
  - Thermostat (230V - THM)
  - Remote switch/pull cord - 230V
- low running costs
- 5 year warranty; 1 year parts and labour, 4 years parts only

TECHNICAL FEATURES

- compact unit - casing from steel sheet - epoxy paint finish
- **lined with Class "O" fire resistant acoustic foam**
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60°C
- easy to access standard, disposable G3 filters
- counter flow heat exchanger

COMPLIES WITH

- Part L1A 2013 of Building Regulations for enhanced energy saving capability
- Part F 2013 of Building Regulations for reliable, efficient ventilation
- EU RoHS Directive Compliant.
- Complies with IEC60335-2-80, LVD2006/95/CE and EMC2014/30/UE (European Directive against radio interference and electro-magnetic compatability)
- CE marked
- SAP PCDB Listed

MODELS AVAILABLE:

- Maxi B-AT+-LCD - bypass, attenuation universal, integral LCD
- Maxi BYAT+LCDLH - bypass, attenuation, left drain, humidistat, integral LCD
- Maxi BYAT+LCDRH - bypass, attenuation, right drain, humidistat, integral LCD

CONTROL FEATURES - STANDARD

- independent variable speed adjustment for each motor
- adjustable boost speed over-run timer from 0 to 90 minutes.
- adjustable boost speed delay from 0 to 5 minutes
- remote purge - adjustable over-run timer from 0 to 250 minutes, pre-set to 15 minutes (adjustable at factory).
- adjustable night time boost and purge inhibitor
- integral frost-stat
- automatic summer bypass

CONTROL FEATURES - FACTORY SET

- change of ductwork handing on humidistat version (trip point set at manufacture)
- integral humidistat
- 0-10V connections can be added for:
  - BMS - for remote motor shut-off
  - CO_2 detector
  - home automation system
- relay for external pre-heater
- 3 speed selector switch
- remote purge
- purge speed over-run time
- holiday mode
- run-time and power outage counters downloadable via QR code.

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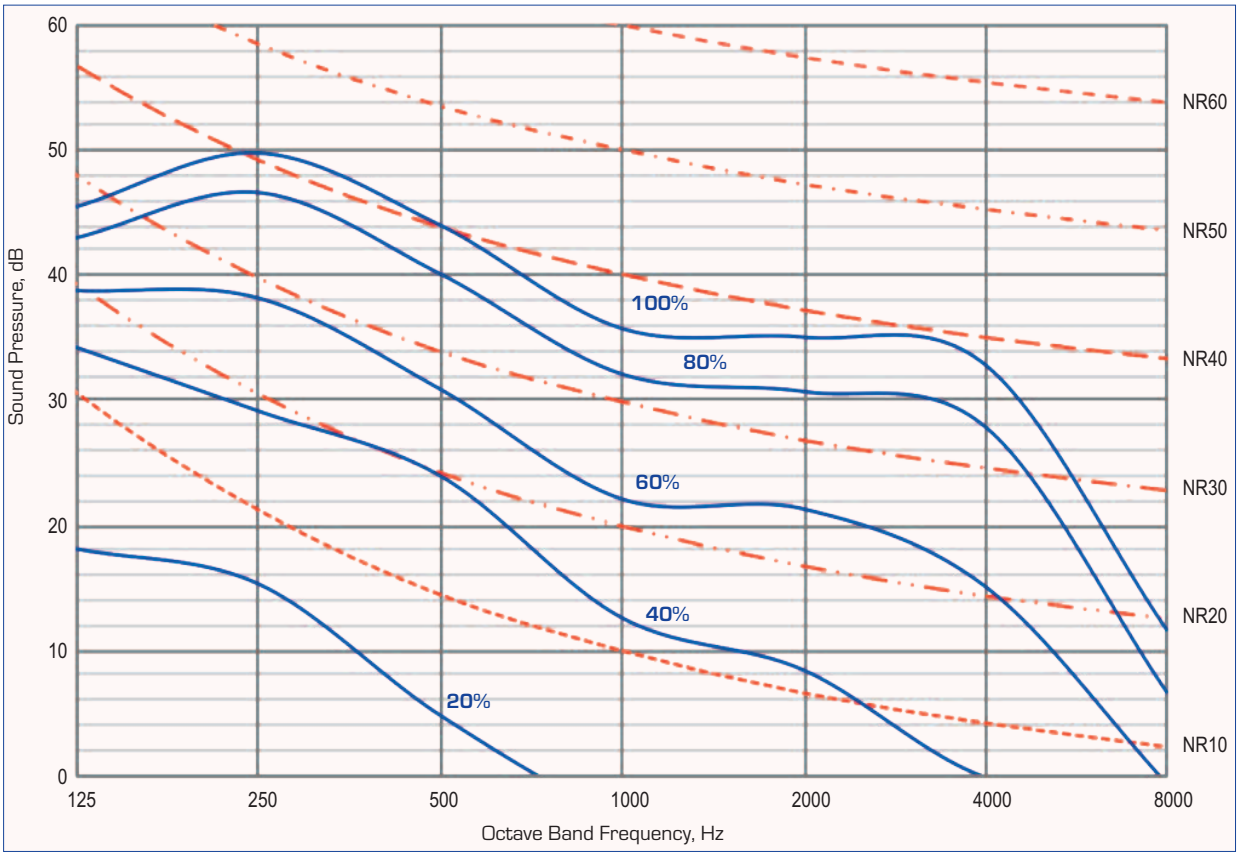
BREAKOUT - NR (SPL curves based on breakout dB values at 1m)



Maxi BY AT		Sound Power Levels, L_W (dB) - Octave Bands Frequency Hz.							Sound Pressure dBA @ 3m	Noise Rating based on dB @ 1m
Curve Ref		125	250	500	1k	2k	4k	8k		
100% (177 l/sec)	Extract	60	64	51	46	38	30	24		
	Supply	70	74	69	59	53	46	42		
	Breakout	**54**	**58**	**52**	**44**	**43**	**41**	**20**	**36.8**	**41**
80% (138 l/sec)	Extract	57	63	51	42	33	24	18		
	Supply	69	70	67	56	50	41	37		
	Breakout	**51**	**55**	**48**	**40**	**39**	**36**	**15**	**32.4**	**38**
60% (99 l/sec)	Extract	52	51	39	30	21	8	6		
	Supply	68	63	54	53	44	38	36		
	Breakout	**47**	**46**	**39**	**30**	**29**	**23**	**7**	**23.4**	**29**
40% (60 l/sec)	Extract	47	45	29	21	9	2	6		
	Supply	58	49	45	34	27	12	7		
	Breakout	**42**	**37**	**32**	**21**	**16**	**8**	**6**	**15.1**	**20**
20% (23 l/sec)	Extract	32	28	13	11	0	2	6		
	Supply	39	31	27	14	5	2	6		
	Breakout	**26**	**23**	**13**	**5**	**1**	**2**	**6**	**<5.0**	**<10**

The breakout dB(A) sound pressure values are given for hemispherical free field propagation at a distance of 3m from the unit

All the above data has been independently tested and verified by BRE to BS EN 13141-7:2010 and BS EN ISO 3741:2010

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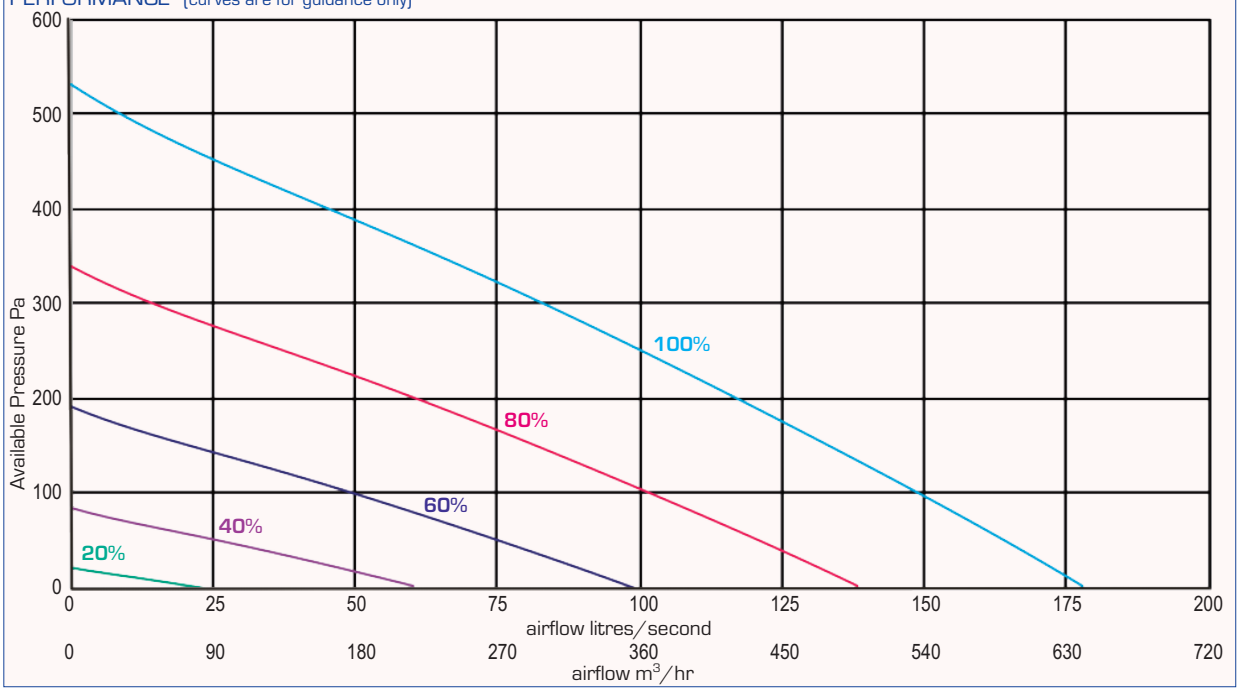
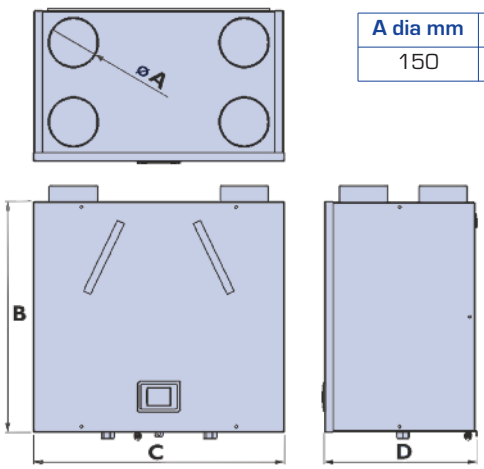
RESULTS for SAP CALCULATIONS - ENERGY LEVEL PERFORMANCE - using rigid ducting only						
	2009 Data			2012 Data		
Exhaust Terminal Configuration	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency
Kitchen + 1 additional wet room	15	0.43	92%	21	0.45	92%
Kitchen + 2 additional wet rooms	21	0.40	92%	29	0.47	92%
Kitchen + 3 additional wet rooms	27	0.42	92%	37	0.54	91%
Kitchen + 4 additional wet rooms	33	0.48	91%	45	0.66	90%
Kitchen + 5 additional wet rooms	39	0.55	91%	53	0.80	90%
Kitchen + 6 additional wet rooms	45	0.63	90%	61	0.99	89%
Kitchen + 7 additional wet rooms	51	0.76	90%	69	1.21	89%
Figures at minimum flow rate conditions						

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Total Power - Watts				
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
Maxi-BY-AT	177	138	99	60	23	176	97	44	17	4

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



A dia mm	B mm	C mm	D mm	Weight kg
150	703	802	560	42

N.B a clearance of at least 200 mm should be allowed on each side of the cabinet for access to the interior

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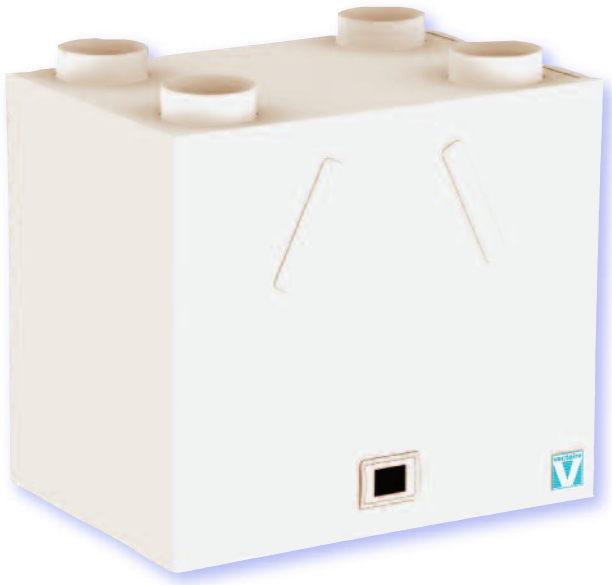
Maxi-Plus-BY-AT

with integral acoustic attenuation



from below 6 dbA

SAP PCDB Listed

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 400m²
- up to 89% heat exchange efficiency
- variable choice of low (trickle), boost and purge speed at installation
- easy fitting (and maintaining) on wall, in cupboard or loft - no extra cabinet required
- weight - 42kgs
- universal handing for models without humidistat
- low running costs
- accurate commissioning via integral touch screen LCD
- manufactured in UK to ISO 9001

GENERAL FEATURES

- **from below 6 dbA**
- up to 230 litre/sec at 50Pa - max 238 litre/sec capacity
- sfp down to 0.46 W/l/s
- summer bypass which allows the airflow to bypass the heat exchanger automatically when internal and external temperatures are between adjustable setpoints.
- frost-stat - proportionally reduces intake motor speed as temperature falls - activated when the outside temperature between +8°C and -3°C.
- run-time and power outage counters
- easy to install and maintain
- easy to access G3 filters
- universal handing for models without humidistat - left or right
- for fitting vertically into lofts, or cupboards;
  - wall fixing bracket supplied
- variable low (trickle), boost and purge options for each motor
- boost speed can be activated by a 230V switched live from:
  - A light switch (if more than one light switch is used, each one must be a double pole switch)
  - Remote humidistat (230V - DRH240)
  - Passive infra red (230V - PIRFF)
  - Thermostat (230V - THM)
  - Remote switch/pull cord - 230V
- low running costs
- 5 year warranty; 1 year parts and labour, 4 years parts only

TECHNICAL FEATURES

- compact unit - casing from steel sheet - epoxy paint finish
- **lined with Class "O" fire resistant acoustic foam**
- low energy EC brushless motor
- single width, single inlet, direct drive, backward curved impellors
- operates in temperature up to 60°C
- easy to access standard, disposable G3 filters
- counter flow heat exchanger

COMPLIES WITH

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- CE marked
- SAP PCDB Listed

MODELS AVAILABLE:

- MaxiPlus/ BYATLCD - bypass, attenuation, universal, integral LCD
- MaxiPlus/ ATLCDLH - bypass, attenuation, left drain, humidistat, integral LCD
- MaxiPlus/ ATLCDRH - bypass, attenuation, right drain, humidistat, integral LCD

CONTROL FEATURES - STANDARD

- independent variable speed adjustment for each motor
- adjustable boost speed over-run timer from 0 to 90 minutes.
- adjustable boost speed delay from 0 to 5 minutes
- remote purge - adjustable over-run timer from 0 to 250 minutes, pre-set to 15 minutes (adjustable at factory).
- adjustable night time boost and purge inhibitor
- integral frost-stat
- automatic summer bypass

CONTROL FEATURES - FACTORY SET

- change of ductwork handing on humidistat version (trip point set at manufacture)
- integral humidistat
- 0-10V connections can be added for:
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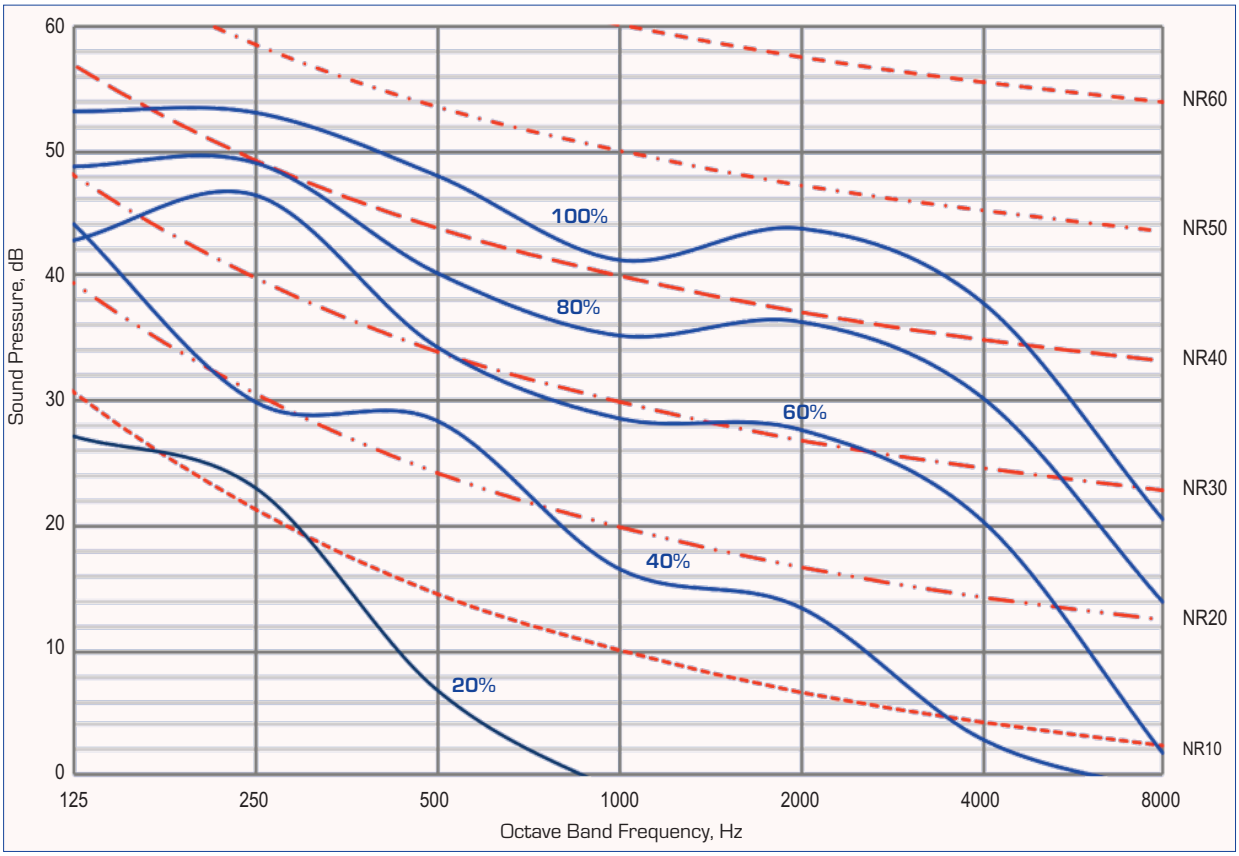

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Curve Ref		125	250	500	1k	2k	4k	8k		
100% (238 l/sec)	Extract	61	63	57	49	43	34	28		
	Supply	75	79	74	66	63	52	52		
	Breakout	**61**	**61**	**56**	**49**	**52**	**46**	**29**	**41.1**	**47**
80% (186 l/sec)	Extract	57	59	51	44	37	28	23		
	Supply	71	71	66	60	58	46	47		
	Breakout	**57**	**57**	**48**	**43**	**44**	**38**	**22**	**34.9**	**40**
60% (135 l/sec)	Extract	51	55	45	36	27	15	8		
	Supply	64	68	60	51	48	34	29		
	Breakout	**51**	**54**	**42**	**37**	**36**	**28**	**10**	**28.9**	**37**
40% (84 l/sec)	Extract	49	44	35	26	17	4	6		
	Supply	59	52	48	41	36	19	12		
	Breakout	**52**	**38**	**36**	**25**	**21**	**11**	**7**	**20.7**	**26**
20% 35 l/sec)	Extract	36	36	28	12	3	2	6		
	Supply	42	41	31	21	12	2	6		
	Breakout	**35**	**31**	**15**	**7**	**1**	**3**	**7**	**5.8**	**12**

The breakout dB(A) sound pressure values are given for hemispherical free field propagation at a distance of 3m from the unit

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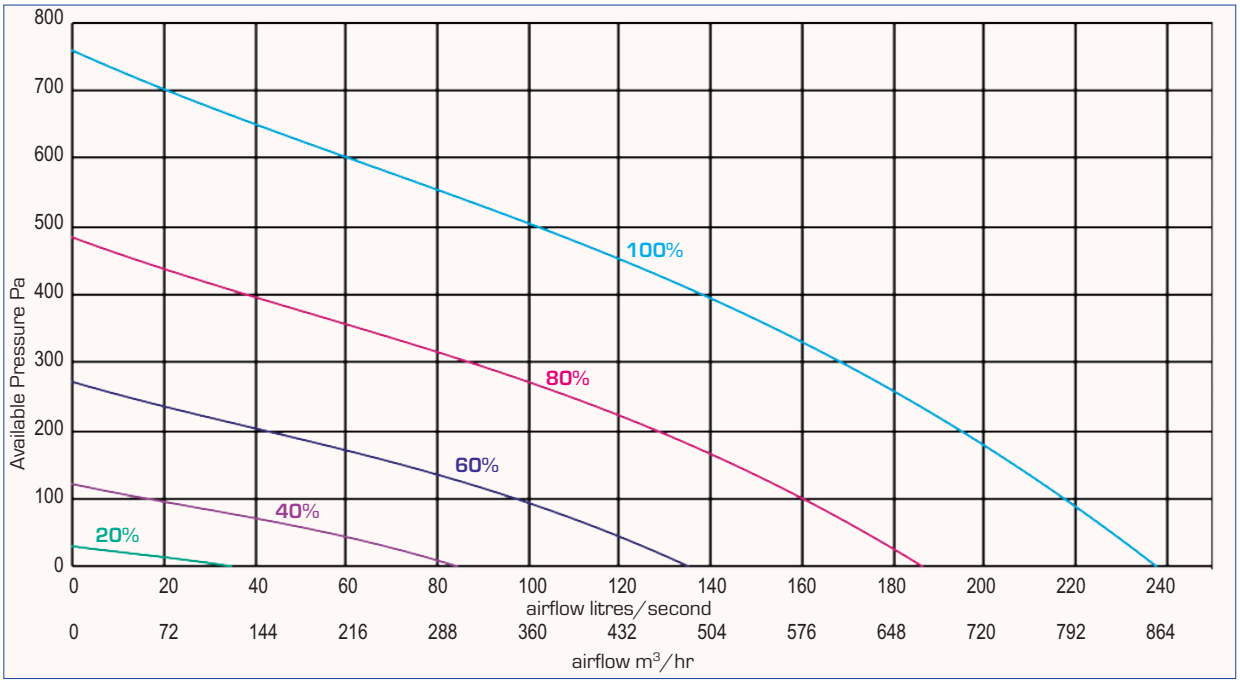
Maxi-Plus-BY-AT

with integral acoustic attenuation

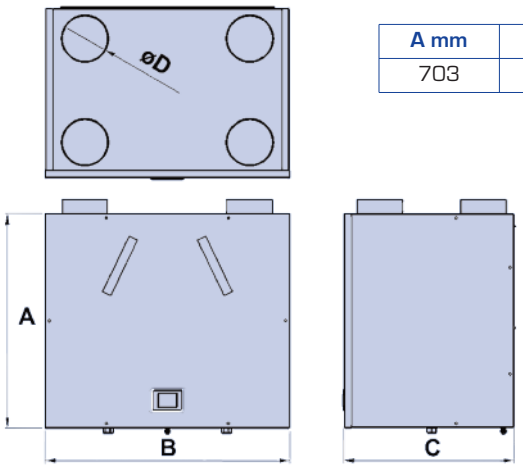
RESULTS for SAP CALCULATIONS - ENERGY LEVEL PERFORMANCE - using rigid ducting only						
	2009 Data			2012 Data		
Exhaust Terminal Configuration	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency
Kitchen + 1 additional wet room	15	0.75	89%	21	0.56	89%
Kitchen + 2 additional wet rooms	21	0.56	89%	29	0.47	89%
Kitchen + 3 additional wet rooms	27	0.46	89%	37	0.50	88%
Kitchen + 4 additional wet rooms	33	0.46	88%	45	0.56	87%
Kitchen + 5 additional wet rooms	39	0.49	88%	53	0.66	86%
Kitchen + 6 additional wet rooms	45	0.55	87%	61	0.78	85%
Kitchen + 7 additional wet rooms	51	0.63	86%	69	0.94	84%
Figures at minimum flow rate conditions						

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Total Power - Watts				
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
Maxi-Plus-BY-AT	238	186	135	84	35	355	184	85	32	8

PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



A mm	B mm	C mm	D dia mm	Weight kg
703	802	560	150	42

N.B a clearance of at least 200 mm should be allowed on each side of the cabinet for access to the interior

THE QUIETEST, THE SMALLEST AND THE LIGHTEST MVHR

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MVHR LCD Controller

- For use with all Vectaire Heat Recovery Units
- Integral LCD screen with upright MVHR "AT" units

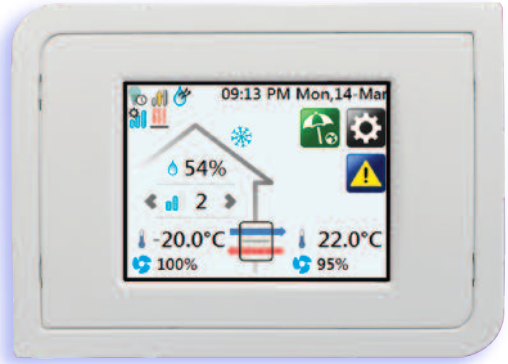
LCD Touch Screen Functions

Display shows:

> motor speeds - for both supply and extract fans. They can be set independently and are variable
> inside and outside temperatures
> status icons - show which functions are currently controlling fan speeds
> date and time
> relative humidity level
> bypass status
> error and service notifications
> filter saturation level - shows when filters need replacing

LCD Touch Screen Functions for USER

> screen allows USER to set and control:
- time
- date
- reset the filter saturation level after filters have been changed
- holiday mode - sets system to minimum running, saving energy whilst maintaining air quality
- operating speed
- language



Commissioning Options - these options are ONLY for use by the installer, and can only be used with a Commissioning Access Code

Setting Time: sets up 12 or 24hr format, DST (daylight saving time) and time zone.	Language Selection
Setting Date: sets date format	Touch Screen Calibration
Holiday Mode: sets system to minimum running when required (factory set to maintain air quality)	Commissioning Screen
Boost Speed Time Delay	Night Time Boost Inhibitor
Boost Speed Over-run Timer	Screen Cleaning: wipe screen safely without deleting settings
Run Time Counter and Filter Saturation	Exit to main screen

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MVHR "BY-AT" Typical Specification

- The unit will:
  - > be manufactured by Vectaire Ltd.
  - > be constructed from steel sheet with an epoxy paint finish and the case lined and insulated with Class "O" fire resistant acoustic foam to ensure extremely low noise levels.
  - > be suitable for installation on walls, in cupboards or in lofts.
  - > have a condensate tray and drain connections for connection by others.
  - > have a high efficiency counterflow heat exchanger with a thermal efficiency of up to :

Midi-BY-AT -	94%
Maxi-BY-AT -	92%
Maxi-Plus-BY-AT -	89%

  - > have two low energy, high efficiency EC fan motor assemblies.
  - > have a specific fan power from:

Miidi-BY-AT -	0.50 W/l/s
Maxi-BY-AT -	0.40 W/l/s
Maxi-Plus-BY-AT -	0.46 W/l/s

  - > have two G3 grade filters to protect the heat exchanger
  - > will operate in temperature up to 60ºC
  - > have an automatic summer bypass
  - > have an integral frost-stat
- Units without humidistats shall be capable of being handed for left or right mounting without any on-site assembly.
- Access to filters shall be from the front by removing two magnetic strips.
- The unit shall incorporate the following control features:

  Standard
  - > independent variable speed adjustment for each motor for trickle, boost and purge speeds.
  - > adjustable boost speed over-run timer from 0 to 90 minutes.
  - > adjustable boost speed delay from 0 to 5 minutes
  - > adjustable purge speed over-run timer from 0 to 250 minutes, preset to 15 minutes (adjustable at factory).
  - > adjustable night time boost and purge inhibitor
  - > integral frost-stat - proportionally reduces intake motor speed as temperature falls
  - > summer bypass - automatic bypass of heat exchanger in hot weather

  Factory Set
  - > change of ductwork handing on humidistat version (trip point can be set at manufacture)
  - > integral humidistat - proportionally increases motor speeds with rising humidity
  - > 0-10V connections can be added for:
    - BMS - for remote motor shut-off
    - CO_2 detector
    - home automation system
  - >- relay for external pre-heater
  - >- 3 speed selector switch
  - > purge speed over-run time
  - > holiday mode for reduced speeds when property is unoccupied (factory set option)
  - > run-time and power outage counters downloadable via QR code.
- LCD touch screen informs user of:
  - > operating speed (user adjustable)
  - > internal and external temperatures
  - > status icons shows which functions currently controlling fan speed
  - > date and time (user adjustable)
  - > relative humidity level
  - > bypass status
  - > error and service notifications
  - > filter saturation level (reset after changing)
  - > user can also set system to holiday mode and set language
- (Loft mounted units can be provided with a remote LCD touch screen).

- The LCD touch screen will allow the commissioning engineer or installer to set the following parameters:
  - > Time and Date
  - > Holiday Mode
  - > Trickle, boost and purge speeds for each motor
  - > Boost speed delay time duration
  - > Boost over-run time duration
  - > Night time boost inhibitor times
  - > Touch screen sensitivity calibration
  - > Pre-heater threshold (if fitted)
  - > Handed installations
  - > Activate CO_2 detector or home automation system (if fitted)

- The unit will:
  - > be CE marked
  - > comply with:
    - Part L1A 2013 of Building Regulations for enhanced energy saving capability
    - Part F 2013 of Building Regulations for reliable, efficient ventilation
    - EU RoHS Directive Compliant
    - IEC60335-2-80, LVD2006/95/CE and
    - EMC2014/30/UE (European Directive against radio interference and electro-magnetic compatibility
  - > have sound levels tested by BRE to BS EN 13141-7:2010 and BS EN ISO 3741:2010
  - > be manufactured in UK to ISO 9001
  - > be SAP PCDB Listed
  - > have a 5 year warranty; 1 year parts and labour and 4 years parts only

- Please contact your Vectaire representative via Head Office on 01494 522333 for any assistance.

- An electronic copy of this specification is available on request.

NOTES

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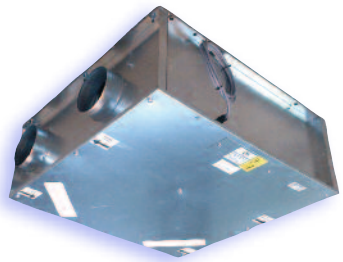
OTHER VECTAIRE MVHRs

EVO250 (MVHR)

- For in-line installation in homes and offices
- Summer bypass and frost-stat
- Up to 88% heat exchange efficiency
- Up to 80 litre/sec at 50Pa - max 85 l/s capacity
- Specific Fan Power from 0.70 W/l/s
- Models with integral humidistat
- Commissioned via remote LCD commissioning unit

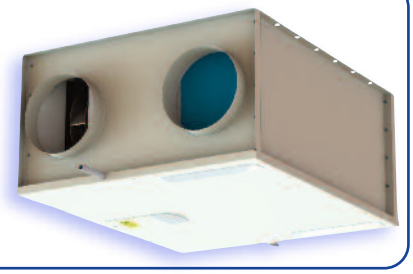
EVO90 (MVHR)

- For in-line installation in homes and offices
- Summer bypass and frost-stat
- Up to 79% heat exchange efficiency - sfp from 0.71 W/l/s
- Up to 74 l/s at 50Pa - max 80 l/s capacity
- Models with integral humidistat
- Commissioned via remote LCD commissioning unit



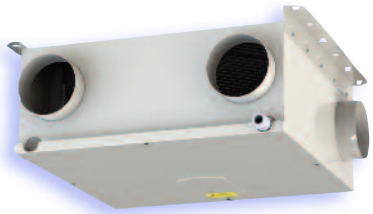
EVO350 (MVHR)

- For in-line installation in homes and offices
- Summer bypass and frost-stat
- Up to 88% heat exchange efficiency - sfp from 0.67 W/l/s
- Up to 107 l/s at 50Pa - max 116 l/s capacity
- Models with integral humidistat
- Commissioned via remote LCD commissioning unit



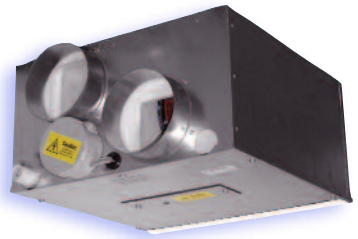
Studio (MVHR)

- For in-line installation in multi-occupancy establishments
- With and without summer bypass and frost-stat
- Up to 80% heat exchange efficiency - sfp from 0.91 W/l/s
- Up to 55 l/s at 50Pa - max 59 l/s capacity
- Models with integral humidistat
- Commissioned via remote LCD commissioning unit



Mini (MVHR)

- For in-line installation in multi-occupancy establishments
- With and without summer bypass and frost-stat
- Up to 83% heat exchange efficiency - sfp from 1.11 W/l/s
- Up to 30 l/s at 50Pa - max 34 l/s capacity
- Commissioned via remote LCD commissioning unit



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Vectaire Ltd reserves the right to alter specifications as part of its policy of continuous development