



## Midi-BY-AT

### with acoustic attenuation



#### Midi-BY-AT

- very low noise levels - lined with Class "O" fire resistant acoustic foam
- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 170m<sup>2</sup>
- up to 94% heat exchange efficiency
- variable choice of low (trickle), boost and purge speed at installation
- for wall, cupboard or loft installation
- universal handing for models without humidistat
- low running costs
- complies with Building Regulations Parts L1A 2013 and F 2013
- manufactured in UK to ISO 9001
- accurate commissioning via integral touch screen LCD



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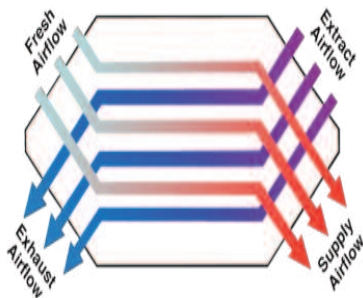
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### GENERAL FEATURES

- extremely low noise levels
- up to 95 litre/sec at 50Pa - max 101 litre/sec capacity
- sfp down to 0.50 W/l/s
- summer bypass activated when inside temperature is above 24°C (and outside temperature between 14°C and 24°C);
- frost-stat - proportionally reduces intake motor speed as temperature falls - activated when the outside temperature between +2°C to -8°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 (see separate diagram on page 6 for handing on humidistat models)
- 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, or a 0-10V connection 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 with single width, single inlet, direct drive, forward curved impellers
- operates in temperature up to 60°C
- easy to access standard, disposable G3 filters
- counter flow heat exchanger



### 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 for trickle, boost and purge speeds.
- adjustable boost speed over-run timer from 0 to 30 minutes.
- adjustable boost speed delay from 0 to 5 minutes
- adjustable purge speed 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 - proportionally reduces intake motor speed as temperature falls
- automatic summer bypass

### CONTROL FEATURES - 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<sub>2</sub> detector
  - home automation system
  - 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.

### 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 compatibility)
- manufactured in UK to ISO 9001
- CE marked
- SAP PCDB Listed

SEE PAGE 97 FOR SPECIFICATION. ALSO AVAILABLE AT <http://www.vectaire.co.uk/downloads>

Vectaire Ltd can supply all accessories for use with these units, including product filters, 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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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

Midi-BY-AT		Sound Power Levels, $L_w$ [dB] - Octave Bands Frequency Hz.								Sound Pressure dBA @ 3m
Curve Ref		63	125	250	500	1k	2k	4k	8k	
100% (101 l/sec)	Extract	65	65	63	63	59	58	57	54	<b>25.3</b>
	Supply	70	70	68	68	64	63	62	59	
	Breakout	<b>53</b>	<b>55</b>	<b>48</b>	<b>35</b>	<b>26</b>	<b>23</b>	<b>17</b>	<b>11</b>	
80% (79 l/sec)	Extract	61	61	58	58	54	53	50	46	<b>23.4</b>
	Supply	66	66	63	63	59	58	55	51	
	Breakout	<b>50</b>	<b>55</b>	<b>44</b>	<b>30</b>	<b>24</b>	<b>20</b>	<b>14</b>	<b>9</b>	
60% (58 l/sec)	Extract	55	55	51	51	47	45	41	36	<b>18.7</b>
	Supply	60	60	56	56	52	50	46	41	
	Breakout	<b>45</b>	<b>51</b>	<b>38</b>	<b>37</b>	<b>21</b>	<b>16</b>	<b>10</b>	<b>8</b>	
40% (36 l/sec)	Extract	47	46	41	41	38	35	29	21	<b>15.8</b>
	Supply	52	51	46	46	43	40	34	26	
	Breakout	<b>38</b>	<b>48</b>	<b>35</b>	<b>27</b>	<b>19</b>	<b>12</b>	<b>8</b>	<b>7</b>	
20% (14 l/sec)	Extract	33	32	24	24	22	18	8	4	<b>14.4</b>
	Supply	38	37	29	29	27	23	14	7	
	Breakout	<b>34</b>	<b>47</b>	<b>30</b>	<b>21</b>	<b>12</b>	<b>7</b>	<b>7</b>	<b>7</b>	

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

RESULTS for SAP CALCULATIONS						
ENERGY LEVEL PERFORMANCE - using rigid ducting only						
Exhaust Terminal Configuration	2009 Data			2012 Data		
	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%			

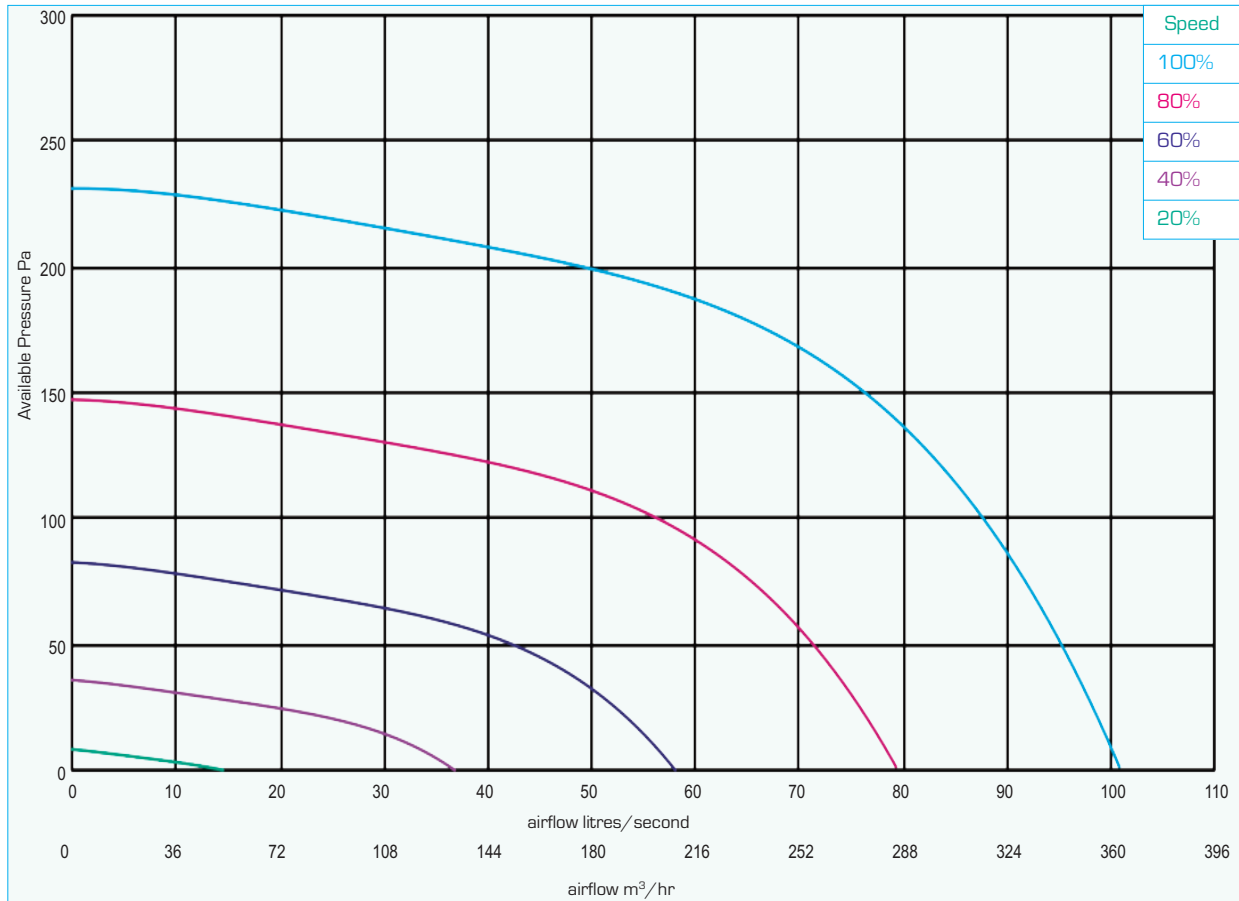
Figures at minimum flow rate conditions



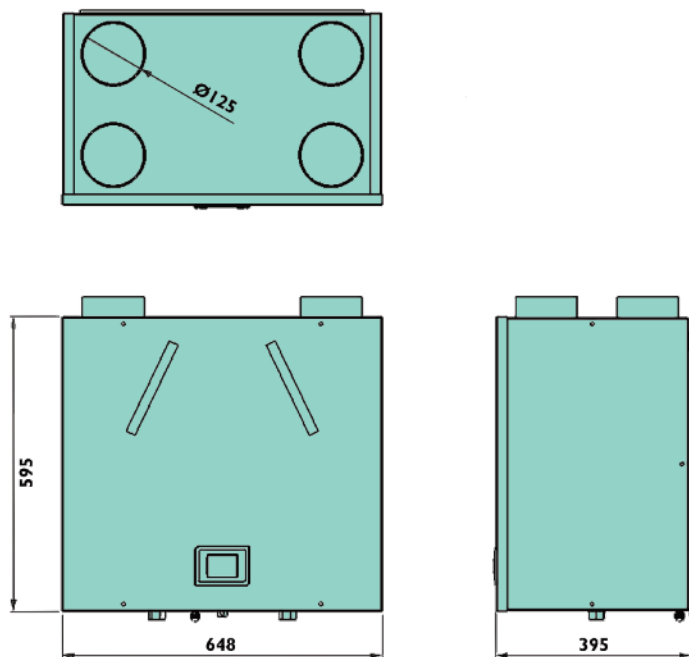
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PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



**N.B** a clearance of at least 150 mm should be allowed on each side of the cabinet for access to the interior