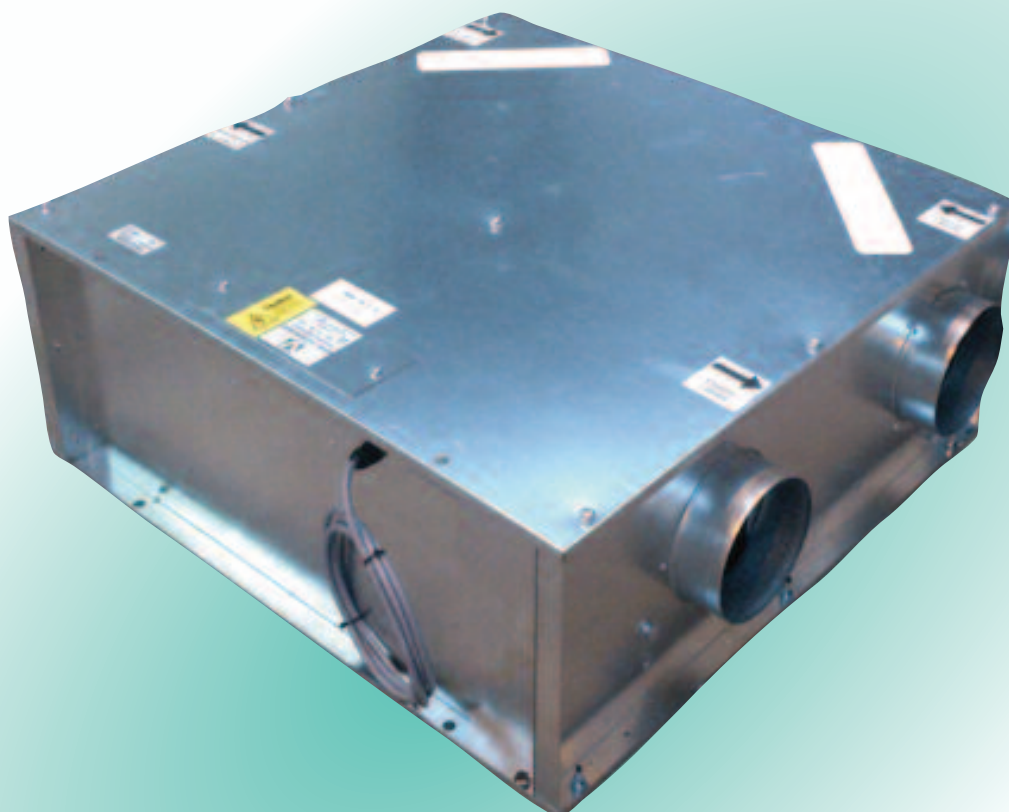




## EVO90



### EVO90DC

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 135m<sup>2</sup>
- up to 79% heat exchange efficiency
- variable choice of low (trickle), boost and purge speed at installation
- for ceiling, loft or void installation
- low noise levels
- low running costs
- complies with Building Regulations Parts L1A 2013 and F 2013
- manufactured in UK to ISO 9001
- accurate commissioning via remote LCD commissioning unit



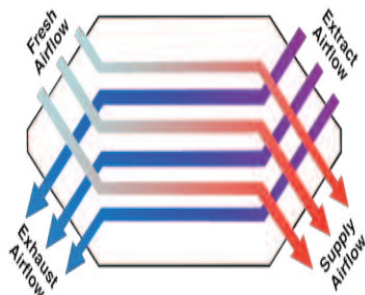
## EVO90

### GENERAL FEATURES

- up to 74 litre/sec at 50Pa - max 80 litre/sec capacity
- sfp down to 0.71 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
- for ceiling, loft or void in-line installation
- 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
- very low noise levels
- low running costs
- 5 year warranty - 1 year parts and labour, 4 years parts only

### TECHNICAL FEATURES

- compact low profile unit
- casing from galvanised sheet with epoxy finish
- thermo-acoustic lining
- pre-wired for easy electrical connection
- low energy EC brushless motor with single width, single inlet, direct drive, backward curved impellers
- operates in temperature up to 60°C
- easy to access standard, disposable G3 filters
- counter flow heat exchanger



### 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, left drain, bypass, humidistat

### 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) - default setting is 50% of trickle speed
- 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

SEE PAGE 104 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



# EVO90

TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Total Power - Watts				
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
EVO90	80	61	43	26	10	109	65	38	17	9

EVO90		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% (80 l/sec)	Extract	64	61	63	64	61	59	60	50	33.9
	Supply	69	66	68	69	66	64	65	55	
	Breakout	67	59	55	50	41	33	28	16	
80% (61 l/sec)	Extract	59	58	58	59	56	54	52	41	29.2
	Supply	64	63	63	64	61	59	57	46	
	Breakout	62	56	50	45	36	28	20	7	
60% (43 l/sec)	Extract	54	53	52	52	49	47	43	32	23.2
	Supply	59	58	57	57	54	52	48	37	
	Breakout	57	51	44	38	29	21	11	< 5	
40% (26 l/sec)	Extract	47	47	45	44	41	37	32	18	16.2
	Supply	52	52	50	49	46	42	37	23	
	Breakout	50	45	37	30	21	11	< 5	< 5	
20% (10 l/sec)	Extract	35	37	32	32	27	22	12	8	< 10.0
	Supply	40	42	37	37	32	27	17	13	
	Breakout	38	35	24	18	7	< 5	< 5	< 5	

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

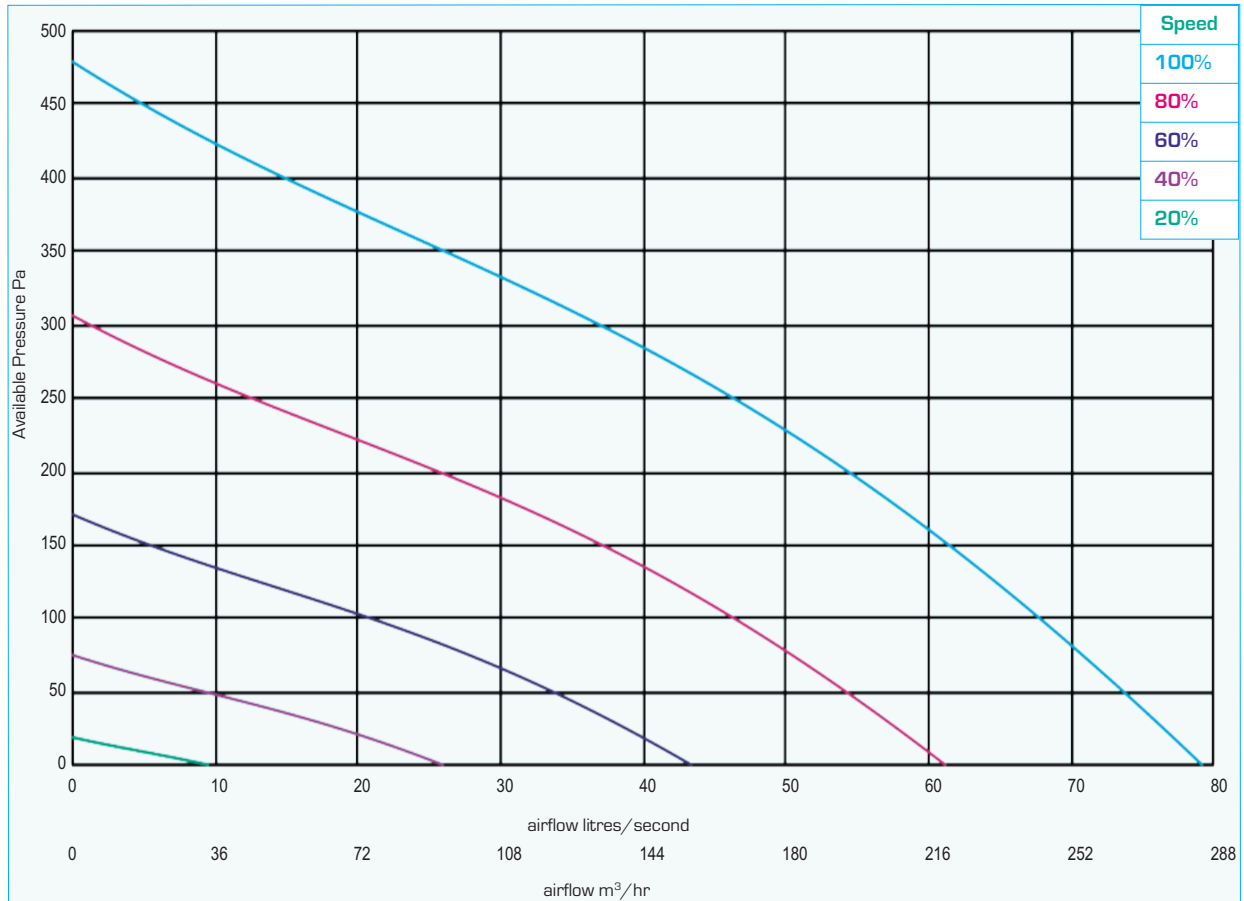
RESULTS for SAP CALCULATIONS			
ENERGY LEVEL PERFORMANCE - using rigid ducting only			
Exhaust Terminal Configuration	2012 Data		
	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency
Kitchen + 1 additional wet room	21	0.71	79 %
Kitchen + 2 additional wet rooms	29	0.78	79 %
Kitchen + 3 additional wet rooms	37	0.91	78 %
Kitchen + 4 additional wet rooms	45	0.99	78 %
Kitchen + 5 additional wet rooms	53	1.22	78 %
Kitchen + 6 additional wet rooms	61	1.39	77 %

Figures at minimum flow rate conditions - tested by our own laboratory

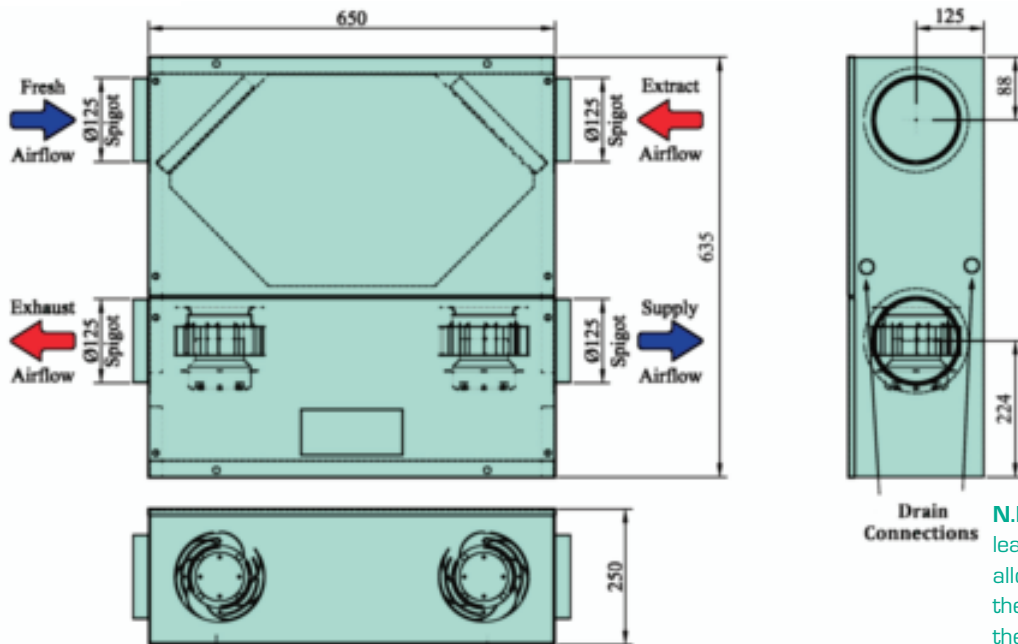


# EV090

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