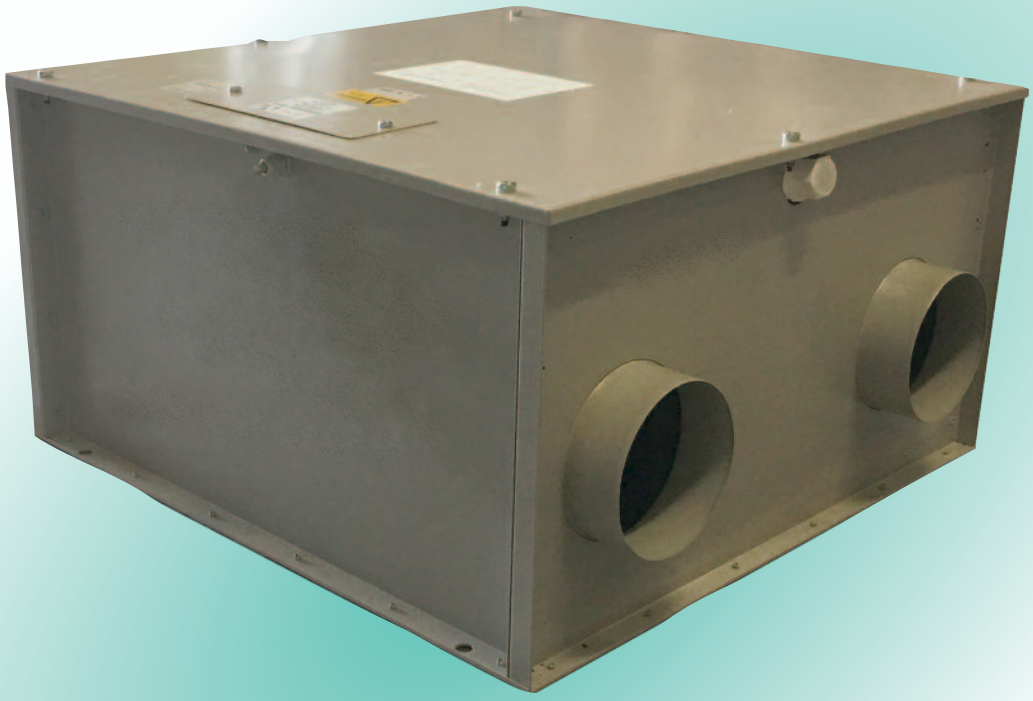
WHHR100/90DC-B-BY



WHHR100/90DC-B-BY

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 150m²
- up to 92% 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

* non-bypass models available

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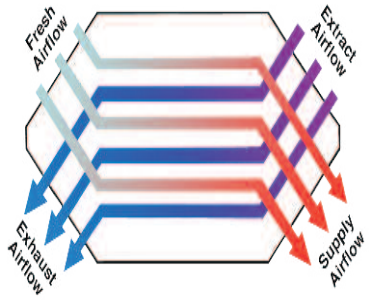
WHHR100/90DC-B-BY

GENERAL FEATURES

- up to 78 litre/sec at 50Pa - max 83 litre/sec capacity
- sfp down to 0.63 W/l/s
- summer bypass activated when inside temperature is above 24ºC (and outside temperature between 14ºC and 24ºC);
- frost-stat - proportionally reduces intake motor speed as temperature falls - activated when the outside temperature between +2ºC to -8ºC.
- 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 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, forward curved impellors
- operates in temperature up to 60ºC
- easy to access standard, disposable G3 filters
- counter flow heat exchanger



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 (except non-bypass models)

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_2 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
- SAP PCDB Listed
- CE marked

See Page 108 for Specification. Also available at

http://www.vectaire.co.uk/downloads

MODELS AVAILABLE:

- WHHR90DCB-TABY - top access with bypass
- WHHR90DCB-BABY - bottom access with bypass
- WHHR90DCB-TABYH - top access, with bypass and humidistat
- WHHR90DCB-BABYH - bottom access, with bypass and humidistat
- WHHR10090/DCB - top access
- WHHR100/90DCBBA - bottom access

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

WHHR100/90DC-B-BY

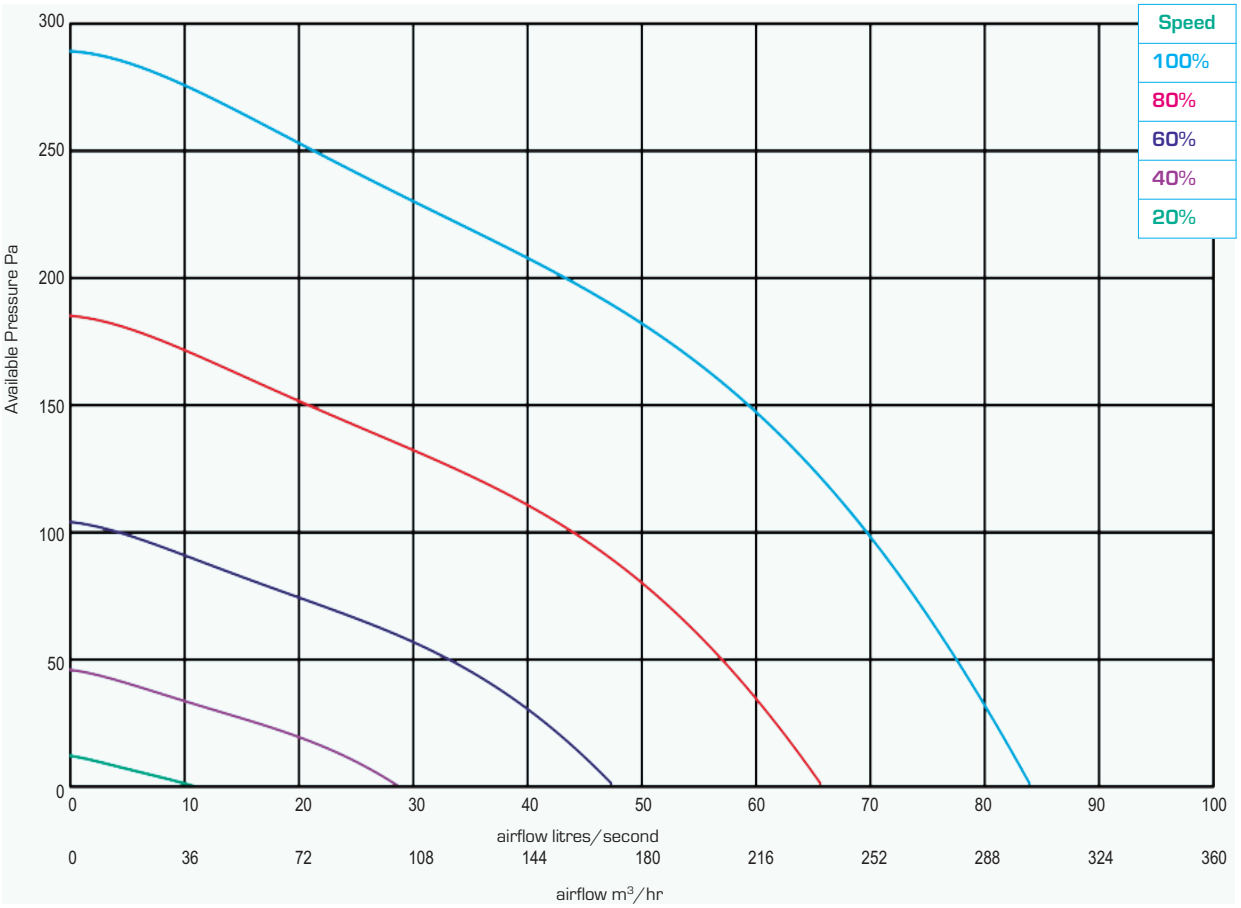
TECHNICAL CHARACTERISTICS										
Model	Airflow l/sec					Total Power - Watts				
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%
WHHR100/90DC-B-BY	83	66	47	29	11	106	54	33	20	12

WHHR100/90DC-B-BY		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% (83 l/sec)	Extract	61	60	53	52	47	41	37	31	
	Supply	60	59	58	63	64	59	54	51	
	Breakout	54	53	61	52	49	42	33	25	35.0
80% (66 l/sec)	Extract	58	55	47	48	41	34	31	26	
	Supply	57	56	54	61	61	52	48	44	
	Breakout	49	50	54	52	52	36	28	22	34.0
60% (47 l/sec)	Extract	53	51	41	46	37	28	26	23	
	Supply	52	52	49	58	57	47	42	37	
	Breakout	45	47	50	51	48	32	24	21	32.0
40% (29 l/sec)	Extract	50	48	39	42	34	24	22	22	
	Supply	49	48	46	54	52	41	37	30	
	Breakout	42	43	47	48	45	30	21	20	29.0
20% (11 l/sec)	Extract	47	44	35	39	31	19	17	21	
	Supply	46	46	43	51	47	37	31	23	
	Breakout	39	39	45	44	41	28	17	20	25.0
The breakout dB(A) sound pressure values are given for hemispherical free field propagation at a distance of 3m from the unit										

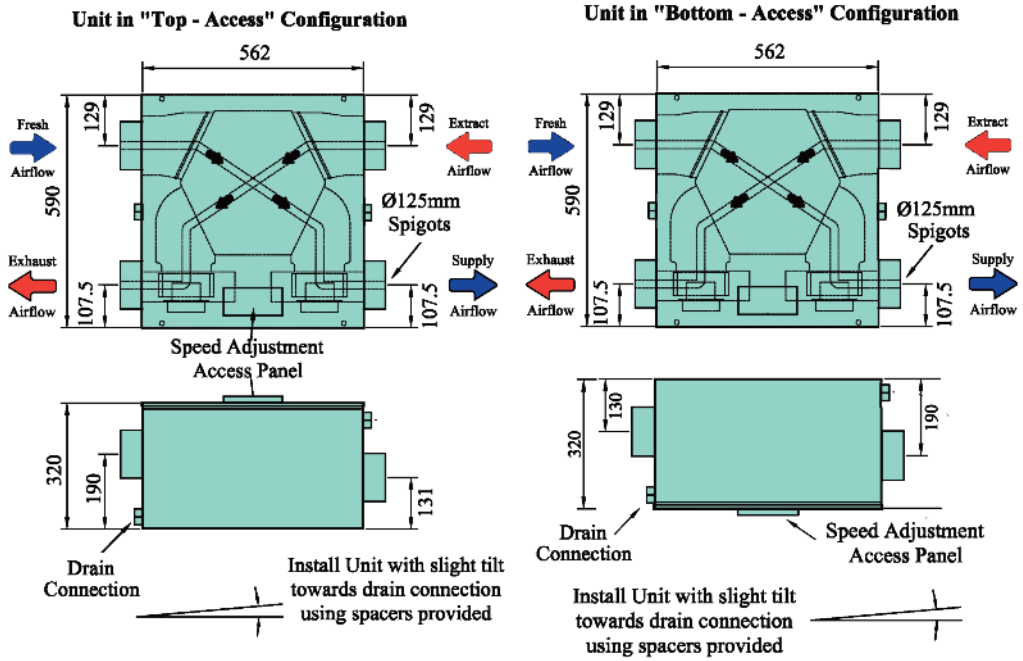
RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only						
	2009 Data			2012 Data		
Exhaust Terminal Configuration	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency	Airflow (l/sec)	Specific Fan Power (W/l/sec)	Heat Exchange Efficiency
Kitchen + 1 additional wet room	15	0.63	92%	21	0.76	91%
Kitchen + 2 additional wet rooms	21	0.72	91%	29	0.90	91%
Kitchen + 3 additional wet rooms	27	0.84	91%	37	1.05	88%
Kitchen + 4 additional wet rooms	33	0.94	89%			
Figures at minimum flow rate conditions						

WHHR100/90DC-B-BY

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