Whole House Mechanical Ventilation with Heat Recovery - MVHR

Mini









Mini

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 70m²
- up to 83% 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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GENERAL FEATURES

- for 1 or 2 bedroom apartments, hotel rooms, student accommodation, extra care facilities, multi-occupancy establishments
- Up to 30 litre/sec at 50Pa max 34 litre/sec capacity
- sfp down to 1.11 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 with sheet steel casing
- thermo-acoustic lining
- pre-wired for easy electrical connection
- low energy EC brushless motor with 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
- all models bottom access only with right or left drain

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
- O-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
- CE marked

WHHR MINI DC OPTION 2

(LEFT HAND DRAIN)

FRESH AIR IN

TO BEDROOM

SAP PCDB listed

SEE PAGE 107 FOR SPECIFICATION. ALSO AVAILABLE AT

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

Incoming fresh air

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

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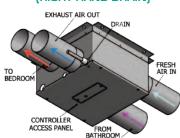
MODELS AVAILABLE:

CONTROLLER ACCESS PANEL

DRATN

- WHHR Mini LB left drain, bvpass
- WHHR Mini RB right drain, bypass
- WHHR Mini LBH left drain, bypass, humidistat,
- WHHR Mini RBH right drain, bypass, humidistat

WHHR MINI DC OPTION 1 (RIGHT HAND DRAIN)



- WHHR Mini L left drain
- WHHR Mini R right drain
- WHHR Mini LH left drain, humidistat
- WHHR Mini RH right drain, humidistat

also available with 100mm spigot

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TECHNICAL CHARACTERISTICS										
Model	Airflow I/sec					Total Power - Watts				
	max boost	max trickle	80%	60%	40%	max boost	max trickle	80%	60%	40%
Mini	34	32	28	18	12	80	68	46	24	15

Mini		S	Sound Power Levels, $L_{\scriptscriptstyle W}$ (dB) - Octave Bands Frequency Hz.								
Curve Ref		63	125	250	500	1k	2k	4k	8k	dBA @ 3m	
Max Boost (34 l/sec)	Extract	65	58	61	63	55	46	36	27		
	Supply	66	64	70	73	67	64	55	45		
	Breakout	73	59	62	58	49	35	32	24	37	
Max Trickle (32 l/sec)	Extract	64	56	60	62	54	45	35	26		
	Supply	65	63	69	72	66	63	54	44		
	Breakout	72	58	61	57	48	34	31	23	36	
80% (28 l/sec)	Extract	54	54	59	54	45	34	24	22		
	Supply	55	57	65	62	56	51	42	31		
	Breakout	62	53	57	48	39	31	21	21	30	
60% (18 l/sec)	Extract	46	50	53	45	37	26	20	21		
	Supply	50	55	58	48	47	42	33	26		
	Breakout	56	51	50	41	31	23	18	20	24	
40% (12 l/sec)	Extract	39	46	47	39	29	19	15	21		
	Supply	45	54	51	47	39	34	23	21		
	Breakout	49	49	44	34	23	16	16	20	18	
The breakout o	 dB(A) sound press	sure values a	are given fo	r hemisphe	erical free fi	eld propag	ation at a d	istance of 3	I 3m from th	ne 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/I/sec)	Heat Exchange Efficiency	Airflow [l/sec]	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency				
Kitchen + 1 additional wet room	15	1.11	83%	21	1.40	82%				
Kitchen + 2 additional wet rooms	21	1.40	82%							
Figures at minimum flow rate conditions										

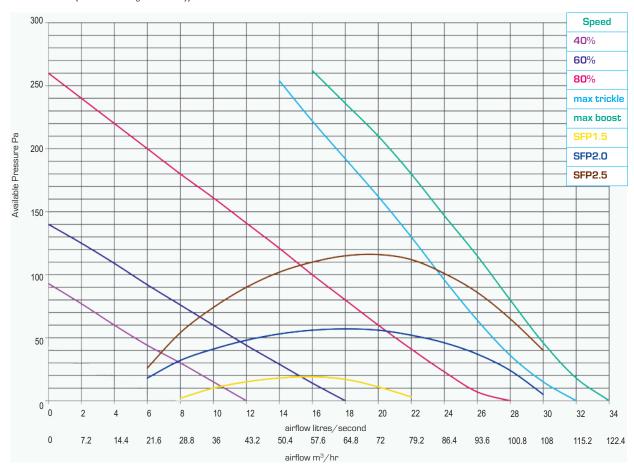
Vectaire Ltd can supply all accessories for use with these units, including product filters, air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls. Additionally, Vectaire offers a design service to ensure that the unit installed is the best possible to provide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

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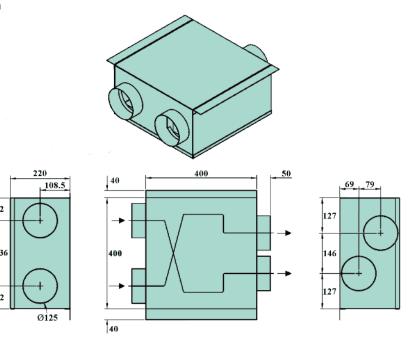
Mini



PERFORMANCE (curves are for guidance only)



DIMENSIONS - mm



N.B a clearance of at least 160 mm should be allowed at the back of the unit for access to the filters, and sufficient allowance is required to remove the lid