Whole House Mechanical Ventilation with Heat Recovery - MVHR

Midi









Midi

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 170m²
- 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
- very quiet
- low running costs
- complies with Building Regulations
 Parts L1A 2013 and F 2013
- manufactured in UK to ISO 9001
- accurate commissioning via optional integral LCD or remote LCD commissioning unit

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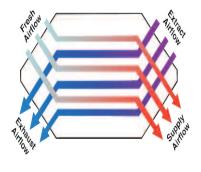


GENERAL FEATURES

- 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 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 (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 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
- ultra quiet
- 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
- thermo-acoustic lining
- low energy EC brushless motor with 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



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
- 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 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
 - CO₂ detector
 - home automation system
- relay for external pre-heater
- 3 speed selector switch
- remote purge
- 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
- SAP PCDB Listed

TYPICAL SPECIFICATION AVAILABLE AT http://www.vectaire.co.uk/downloads

MODELS AVAILABLE:

- WHHR-Midi/BY bypass, universal
- WHHR-Midi/LBYH bypass, left drain, humidistat
- WHHR-Midi/RBYH bypass, right drain, humidistat
- Midi-BY+LCD bypass, universal, integral LCD
- Midi-BY+LCDLH bypass, integral LCD, left drain, humidistat
- Midi-BY+LCDRH bypass, integral LCD, right drain, humidistat

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 I/sec					Total Power - Watts					
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%	
Midi	101	79	58	36	14	120	69	31	11	2.2	

Midi		Sound Power Levels, $L_{\scriptscriptstyle W}$ (dB) - Octave Bands Frequency Hz.								Sound Pressure	
Curve Ref		63	125	250	500	1k	2k	4k	8k	dBA @ 3m	
100% [101 l/sec]	Extract	65	65	63	63	59	58	57	54		
	Supply	70	70	68	68	64	63	62	59		
	Breakout	56	50	55	49	44	42	37	32	33.9	
80% (79 l/sec)	Extract	61	61	58	58	54	53	50	46		
	Supply	66	66	63	63	59	58	55	51		
	Breakout	52	51	50	46	41	34	32	28	29.9	
60% (58 l/sec)	Extract	55	55	51	51	47	45	41	36		
	Supply	60	60	56	56	52	50	46	41		
	Breakout	47	51	46	43	38	27	25	24	26.6	
40% (36 l/sec)	Extract	47	46	41	41	38	35	29	21		
	Supply	52	51	46	46	43	40	34	26		
	Breakout	43	52	43	41	35	23	18	21	24.6	
20% [14 l/sec]	Extract	33	32	24	24	22	18	8	11		
	Supply	38	37	29	29	27	23	13	15		
	Breakout	36	50	37	35	27	12	9	14	19.7	

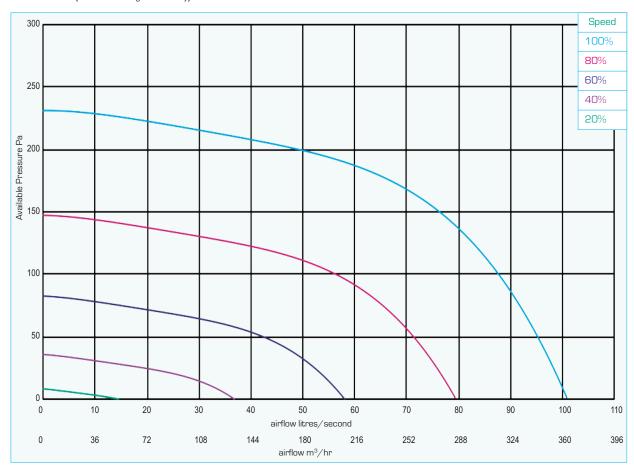
The breakout dB(A) sound pressure values are given for hemispherical free field propagation at a distance of 3m from the unit All the above data has been independently tested to BS EN ISO 3743-1:2010

RESULTS for SAP CALCULATIONS ENERGY LEVEL PERFORMANCE - using rigid ducting only										
		2009 Data		2012 Data						
Exhaust Terminal Configuration	Airflow (I/sec)	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency	Airflow (I/sec)	Specific Fan Power (W/I/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										

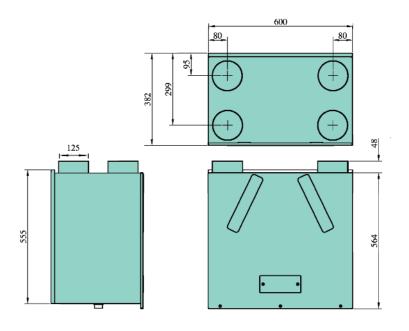




PERFORMANCE (curves are for guidance only)



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