## Whole House Mechanical Ventilation with Heat Recovery - MVHR

# Maxi









### Maxi

- with summer bypass and frost-stat
- efficient, low energy solution to controlling condensation and pollution in residential properties up to 250m²
- up to 92% 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 9001:2015 and 14001:2015
- accurate commissioning via optional integral LCD or remote LCD commissioning unit

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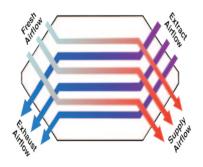


#### **GENERAL FEATURES**

- up to 163 litre/sec at 50Pa max 177 litre/sec capacity
- sfp down to 0.40 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
- low noise levels
- low running costs
- 5 year warranty 1 year parts and labour, 4 years parts only

#### **TECHNICAL FEATURES**

- casing from steel sheet epoxy paint finish
- foam construction lining
- EPS internal components provide acoustic and thermal enhancement
- 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 cable connection on circuit board (for optional purge facility)
- 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 (humidity threshold 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
- relay for external pre-heater
- 3 speed selector switch
- optional remote purge cable factory connected adjustable over-run timer from 0 to 250 minutes, Pre-set to 15 minutes (adjustable at factory)
- 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**

- Building Regulations for enhanced energy saving capability
- 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 9001:2015 and 14001:2015
- CE marked
- SAP PCDB Listed

TYPICAL SPECIFICATION AVAILABLE AT

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

#### MODELS AVAILABLE:

- WHHR Maxi/ BY bypass, universal
- WHHR Maxi/ BLH bypass, left drain humidistat
- WHHR Maxi/ BRH bypass, right drain, humidistat
- Maxi BY+LCD bypass, universal, integral LCD
- Maxi+LHHLCD bypass, left drain, humidistat, integral LCD
- Maxi+RHHLCD bypass, right drain, humidistat, integral LCD

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					Operating
	100%	80%	60%	40%	20%	100%	80%	60%	40%	20%	Current (Amps)
Maxi	177	138	99	60	23	176	97	44	17	4	1.41

Maxi		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% [177 l/sec]	Extract	52	57	61	58	59	58	55	50	
	Supply	57	62	66	63	64	63	60	55	
	Breakout	54	55	60	56	43	39	30	21	38.1
80% [138 l/sec]	Extract	48	53	55	53	54	52	49	42	
	Supply	53	58	60	58	59	57	54	47	
	Breakout	52	55	57	54	42	37	28	22	35.9
60% (99 l/sec)	Extract	42	47	48	46	47	45	40	32	
	Supply	47	52	53	51	52	50	45	37	
	Breakout	51	54	54	51	41	35	26	22	33.2
40% [60 l/sec]	Extract	36	40	40	37	38	36	30	18	
	Supply	41	45	45	42	43	41	35	23	
	Breakout	48	51	46	40	29	25	19	22	24.2
20% 23 l/sec]	Extract	27	29	27	22	22	19	8	10	
	Supply	32	34	32	27	27	24	15	17	
	Breakout	43	50	41	35	20	16	11	15	20.2

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

Extract and Supply values are in-duct sound power levels

All the above data has been independently tested to BS EN ISO 3743-1:2010

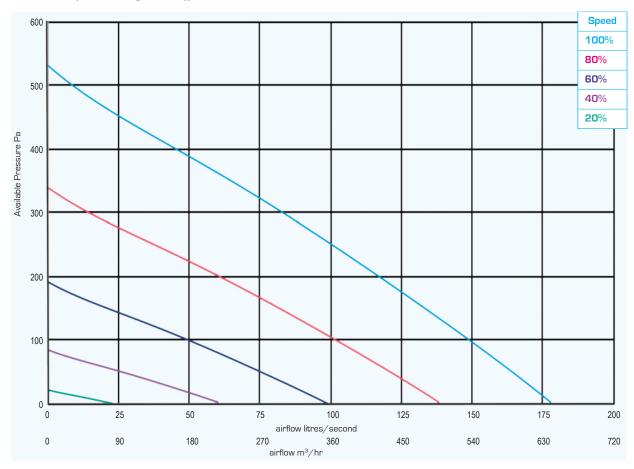
RESULTS for SAP CALCULATIONS	
ENERGY LEVEL PERFORMANCE - using rigid ducting	only

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	2009 Data		2012	Data	SAP 10 Data					
Exhaust Terminal Configuration	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency	Specific Fan Power (W/I/sec)	Heat Exchange Efficiency				
Kitchen + 1 additional wet room	0.43	92%	0.45	92%	0.45	92%				
Kitchen + 2 additional wet rooms	0.40	92.%	0.47	92%	0.47	92%				
Kitchen + 3 additional wet rooms	0.42	92%	0.54	91%	0.54	91%				
Kitchen + 4 additional wet rooms	0.48	91%	0.66	90%	0.66	90%				
Kitchen + 5 additional wet rooms	0.55	91%	0.80	90%	0.80	90%				
Kitchen + 6 additional wet rooms	0.63	90%	0.99	89%	0.99	89%				
Kitchen + 7 additional wet rooms	0.76	90%	1.21	89%	1.21	89%				
Figures at minimum flow rate conditions										





### PERFORMANCE (curves are for guidance only)



### DIMENSIONS - mm

