

# WHHR250DC

SAP Q Eligible

## WHOLE HOUSE HEAT RECOVERY UNIT



### FEATURES

- Highly efficient, low energy solution to condensation and pollutant control
- Continuous ventilation in kitchen plus up to 5 additional wet rooms
- Up to 60% heat exchange efficiency
- Low noise levels
- Building Regulations Part L and Part F compliant

### GENERAL

- SAP Q eligible whole house heat recovery unit for homes and offices
- continuous ventilation in kitchen and up to 5 additional wet rooms
- maximum airflow over 300m<sup>3</sup>/hr
- up to 60% of heat is recovered from air extracted from warm, moist rooms to create a stable, comfortable, healthy environment
- easy to install and maintain
- for wall (can be above an optional cooker hood canopy) or loft installation - can be installed horizontally or vertically (mounting kit necessary for loft installation)
- multiple choice low (trickle) and boost (higher) speed set by installer
- boost speed can be tripped via a humidistat, air quality sensor or PIR sensor
- low noise levels
- low running costs
- gives extra security by removing need to open windows
- guaranteed for 3 years
- Vectaire Ltd can supply all accessories for use with these units, including ducting and metal filters, outside grilles and wall cowls

### SPECIFICATION

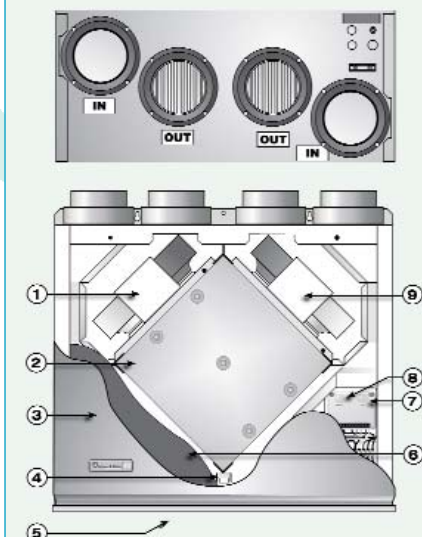
- casing manufactured from aludip steel in white
- low energy DC external motor
- aluminium plate heat exchanger

### COMPLIES WITH

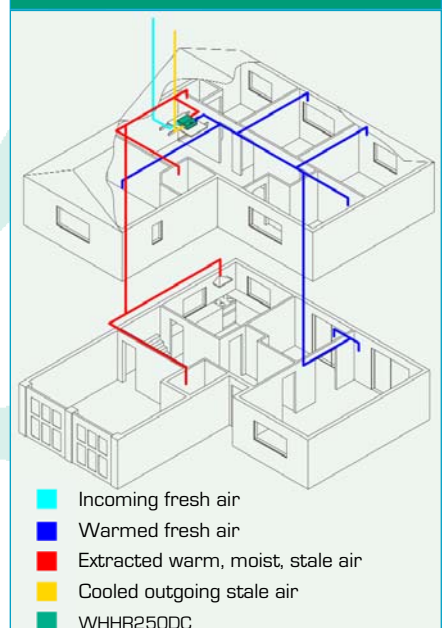
- Part L of Building Regulations for enhanced energy saving capability
- Part F of Building Regulations for reliable, efficient ventilation
- built to BS EN ISO 9001
- complies with IEC 60335-2-80, LVD2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility
- CE marked
- SAP Q eligible

### FEATURES

- |                          |                         |
|--------------------------|-------------------------|
| 1. fan                   | 6. sealing plate        |
| 2. heat exchanger        | 7. min/max control      |
| 3. front decor panel     | 8. normal/boost control |
| 4. locking wedge         | 9. fan                  |
| 5. bottom blanking plate |                         |



### LOFT INSTALLATION



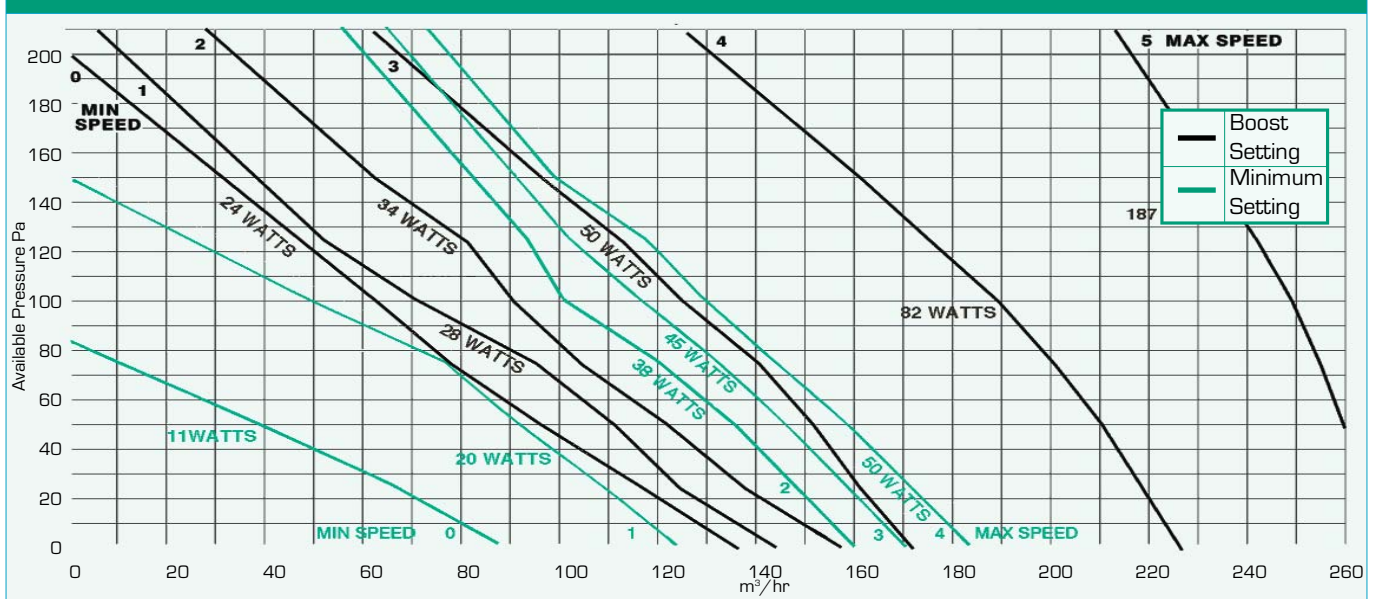
# WHHR250DC - TECHNICAL INFORMATION

## ENERGY LEVEL PERFORMANCE - using rigid ducting

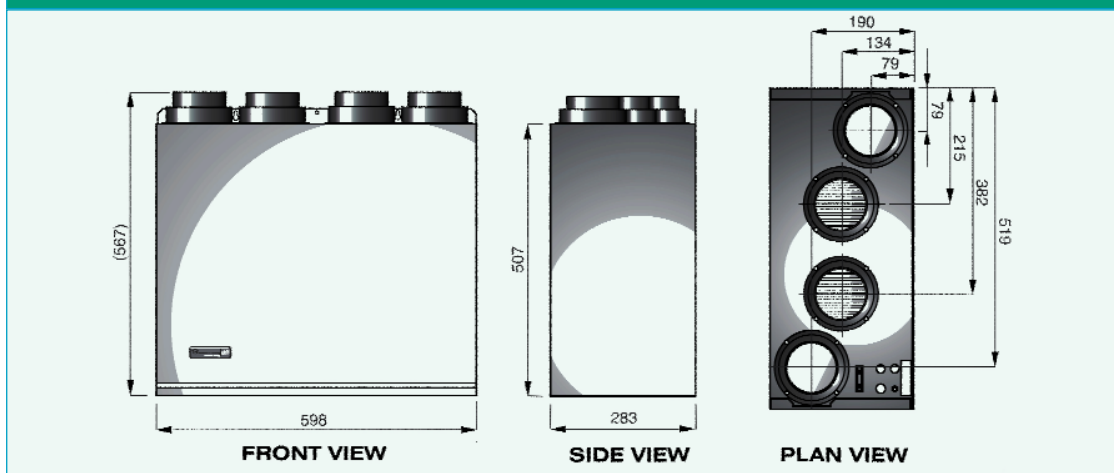
Exhaust Terminal Configuration	Fan Speed Setting	Specific Fan Power (W/l/s)	Heat Exchange Efficiency (%)
Kitchen + 1 additional wet room	100% variable	<b>0.61</b>	<b>60</b>
Kitchen + 2 additional wet rooms	100% variable	<b>0.56</b>	<b>57</b>
Kitchen + 3 additional wet rooms	100% variable	<b>0.73</b>	<b>56</b>
Kitchen + 4 additional wet rooms	100% variable	<b>0.92</b>	<b>55</b>
Kitchen + 5 additional wet rooms	100% variable	<b>1.14</b>	<b>54</b>

Figures from BRE test results

## PERFORMANCE - for 2 extracts - kitchen and bathroom



## DIMENSIONS - mm



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**SAP Appendix Q Testing Results**  
**Central mechanical supply and exhaust ventilation system**  
**packages with heat recovery used in a single dwelling**

<b>Brand Name</b>		Vectaire
<b>Model</b>		WHHR250DC
<b>Model Qualifier (if applicable)</b>		
<b>Current Manufacturer and Contact Details</b>	<b>Name</b>	Vectaire Ltd
	<b>Address</b>	Lincoln Road Cressex Business Park High Wycombe Bucks HP12 3RH
	<b>Telephone</b>	01494 522333
	<b>Website</b>	<a href="http://www.vectaire.co.uk">www.vectaire.co.uk</a>
<b>Original Manufacturer (if different)</b>		
<b>First Year of Manufacture</b>		2008
<b>Last Year of Manufacture</b>		
<b>Testing Body</b>		BRE
<b>Date of test</b>		13/01/2009
<b>Serial Number of Product Tested</b>		081030011
<b>MVHR to outside grille duct types and size</b>		125 & 150mm diameter rigid plastic & 200mm rectangular rigid plastic
<b>Duct types and sizes used for supply and exhaust</b>		125 & 150mm diameter rigid plastic & 200mm rectangular rigid plastic

**Results of leakage tests**

**Table Q1**

<b>Internal</b>	<b>Pass</b>
<b>External</b>	<b>Pass</b>

## Results for SAP calculations

This product has only been tested with rigid ductwork and the data are not applicable for SAP calculations if installed with flexible ductwork.

**Table Q2 – Systems with rigid ductwork only**

Exhaust terminal configuration	Fan speed setting	Specific fan power (W/l/s)	Heat exchange efficiency (%)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	100% variable	<b>0.61</b>	<b>60</b>	No
Kitchen + 2 additional wet rooms	100% variable	<b>0.56</b>	<b>57</b>	No
Kitchen + 3 additional wet rooms	100% variable	<b>0.73</b>	<b>56</b>	No
Kitchen + 4 additional wet rooms	100% variable	<b>0.92</b>	<b>55</b>	No
Kitchen + 5 additional wet rooms	100% variable	<b>1.14</b>	<b>54</b>	No

These figures are entered into either:

- In the case of SAP software amended to SAP 2005 version 9.81 allowing direct entry of MVHR data, the SAP software, or
- In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of MVHR data, the SAP Q MVHR Calculation Spreadsheet v9.81 and the results from the spreadsheet into the Special Features part of the SAP 9.81 software, or
- In the case of SAP software to SAP 2005 version 9.80, the SAP Q MVHR Calculation Spreadsheet v9.80 and the results from the spreadsheet into the Special Features part of the SAP 9.80 software. They must **NOT** be entered directly into SAP 2005 version 9.80 software

**Table Q3 – Systems with flexible ductwork only**

Exhaust terminal configuration	Fan speed setting	Specific fan power (W/l/s)	Heat exchange efficiency (%)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	N/A	<b>N/A</b>	<b>N/A</b>	N/A

## Results for Approved Document F

**Table Q4**

Exhaust terminal configuration	Fan speed setting	Total exhaust flow rate (l/s)	Total supply flow rate (l/s)
Kitchen + 1 additional wet room	100% variable	15.0	15.0
Kitchen + 2 additional wet rooms	100% variable	21.0	21.0
Kitchen + 3 additional wet rooms	100% variable	27.0	27.0
Kitchen + 4 additional wet rooms	100% variable	33.0	33.0
Kitchen + 5 additional wet room	100% variable	39.0	39.0

### Comments

Only figures from Table Q2 or Table Q3, not both, should be used with the SAP Q Calculation Spreadsheet for this technology type.

Table Q4 results are only applicable for Approved Document F requirements.