# MBOX125/2DC

**SAP Q Eligible** 

WHOLE HOUSE MECHANICAL EXTRACT VENTILATION



#### GENERAL

- SAP Q eligible whole house mechanical extract ventilation for homes or offices
- continuous ventilation in kitchen and up to 4 additional wet rooms
- maximum airflow 404m³/hr
- suitable for areas up to 200m<sup>2</sup>
- has integral, overrun timer
- easy to install, commission and maintain
- for fitting into lofts, voids, false ceilings or cupboards (can be angled horizontally or vertically)
- a choice of 4 low (trickle) speeds (set at installation) with boost override
- boost speed obtainable by user via remote switch/pull cord (ie a volt free contact switch - not supplied) or by a humidistat, thermostat, or PIR sensor using an intermediate, external relay (available separately)
- very 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 air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowls





#### SPECIFICATION

- compact, ultra low profile unit
- casing manufactured from steel lined with acoustic material
- low energy DC external rotor motor has sealed for life bearings
- backward curved blades dynamically balanced on external rotor motor
- thermal overload protection
- service and maintenance panel easily accessible
- easy plug-in connection cable trickle speed selection switch on casing exterior
- complete with mounting bracket and anti-vibration plate
- IPX4 rated

#### DUCT RUN





# **F**EATURES

- Highly efficient, low energy solution to condensation and pollutant control
- Continuous ventilation in kitchen plus up to
- 4 additional wet rooms
- Low noise levels
- EST Best Practice Compliant
- Building Regulations Part L and Part F compliant

#### COMPLIES WITH

- Part L of Building Regulations for enhanced energy saving capability
- Part F of Building Regulations for reliable, efficient ventilation
- 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
- Energy Saving Trust Best Practice
  Compliant

#### INSTALLATION EXAMPLE



# MBOX125/2DC - TECHNICAL INFORMATION

	SAP CALCULATION RESULTS - using rigid ducting			Approved Document F Results (at maximum flow rate)		
Exhaust Terminal Configuration	Fan Speed Setting	Specific Fan Power (W/I/s)	Energy Saving Trust Best Practice Performance Compliant	Total Flow Rate (l/s)	Total Flow Rate (wind condition) (l/s)	% reduction of total flow rate
Kitchen + <b>1</b> additional wet room	25%	0.38	yes	21.0	19.3	8
Kitchen + <b>2</b> additional wet rooms	25%	0.41	yes	29.0	26.8	8
Kitchen + <b>3</b> additional wet rooms	50%	0.49	yes	37.1	35.3	5
Kitchen + <b>4</b> additional wet rooms	50%	0.55	no	45.0	44.3	2
Figures from BRE test results						









#### Vectaire Ltd Lincoln Road Cressex Business Park High Wycombe Buckinghamshire HP12 3RH Tel: +44(0)1494 522333 Fax: +44(0)1494 522337

Email: sales@vectaire.co.uk Web: www.vectaire.co.uk vectaire

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Vectaire Ltd reserves the right to alter specifications as part of its policy of continuous development

# SAP Appendix Q Testing Results Central exhaust ventilation system packages used in a single dwelling

Brand Name	Vectaire		
Model	MBOX125/2DC		
Model Qualifier (if applicable)			
	Name	Vectaire Ltd	
Current Manufacturer and Contact Details	Address	Lincoln Road Cressex Business Park High Wycombe Bucks HP12 3RH	
	Telephone	01494 522333	
	Website	www.vectaire.co.uk	
Original Manufacturer (if differe	nt)		
First Year of Manufacture	2007		
Last Year of Manufacture			
Testing Body	BRE		
Date of test	20/9/07		
Serial Number of Product Teste	GB230607		
MEV to outside duct type and s	150 & 125mm diameter rigid plastic & 200mm rectangular rigid plastic		
Kitchen to MEV duct type and s	150 & 125mm diameter rigid plastic & 200mm rectangular rigid plastic		
Wet room to MEV duct type and	150 & 125mm diameter rigid plastic & 200mm rectangular rigid plastic		

# Results for SAP calculations (at minimum flow rate condition)

This product has only been tested with rigid ductwork and it is not applicable for SAP Appendix Q if installed with flexible ductwork.

Table Q1 –	Systems	with r	rigid	ductwork	only
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Exhaust terminal configuration	Fan speed setting	Specific fan power (W/l/s)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	25%	0.38	Yes
Kitchen + 2 additional wet rooms	25%	0.41	Yes
Kitchen + 3 additional wet rooms	50%	0.49	Yes

Kitchen + 4 additional wet	50%	0.65	No
rooms			

### These figures are entered into either:

- (a) In the case of SAP software amended to SAP 2005 version 9.81 allowing direct entry of centralised MEV data, the SAP software, or
- (b) In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of MEV data, the SAP Q MEV Calculation Spreadsheet v9.81 and the results from the spreadsheet into the Special Features part of the SAP 9.81 software, or
- (c) In the case of SAP software to SAP 2005 version 9.80, the SAP Q MEV 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 Q2 – Systems with flexible ductwork only

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

# **Results for Approved Document F (at maximum flow rate condition)**

# Table Q3

Exhaust terminal configuration	Fan speed setting	Total flow rate (l/s)	Total flow rate – wind condition (l/s)	% reduction of total flow rate
Kitchen + 1 additional wet room	25%	21.0	19.3	8
Kitchen + 2 additional wet rooms	25%	29.0	26.8	8
Kitchen + 3 additional wet room	50%	37.1	35.3	5
Kitchen + 4 additional wet rooms	50%	45.0	44.3	2

# Comments

Only figures from Table Q1 or Table Q2, not both, should be used with the SAP Q Calculation Spreadsheet for this technology type.

Table Q3 results are only applicable for Approved Document F requirements.