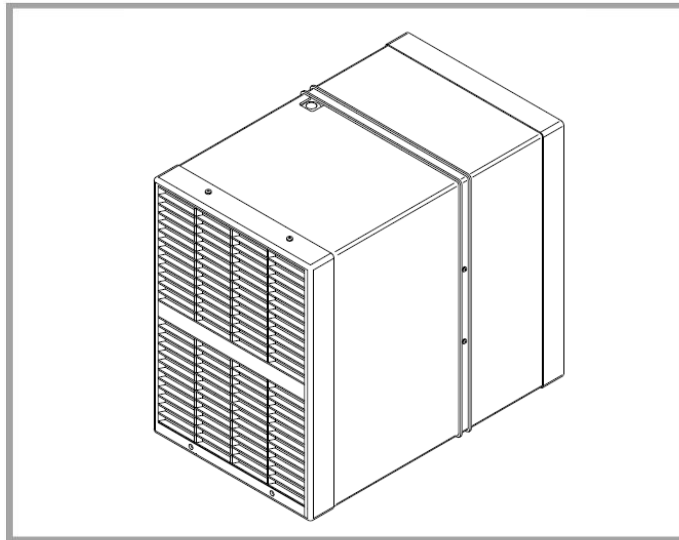


HR300

Through the wall Heat Recovery Ventilator

Installation and Maintenance Instructions



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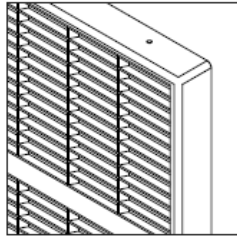
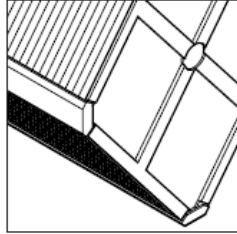
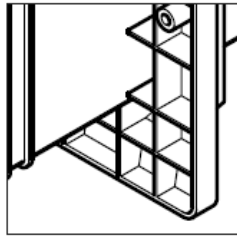
HR300

370394

Vent-Axia[®]

PLEASE READ INSTRUCTIONS IN CONJUNCTION WITH
ILLUSTRATIONS. PLEASE SAVE THESE INSTRUCTIONS





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1.0 Introduction

1.1 Description (Fig. 1)

1. The HR300 unit is a through the wall heat recovery ventilator which is ideal for light commercial applications including function rooms, swimming pools, offices, classrooms etc.

2. The HR300 comes complete with an integral shutter device, two internal rotor motors and twin centrifugal impellers.

3. The maximum power consumption for the unit is 108w.

4. The twin impeller and heat exchanger arrangement simultaneously supplies and extracts air while transferring heat from the stale exhaust airflow to the fresh intake airflow. This provides up to 70% heat recovery from the stale extracted air.

1.2 Ancillary Equipment

1. The HR300 unit can be used in conjunction with a range of ancillary equipment.

Controller: A range of controllers - see section 3.1 Controllers.

HR300RF2 (370402): Replacement Filter Pack.

EXT300 (370422): Extension Sleeve. The extension kit is for use with walls up to 650mm thick.

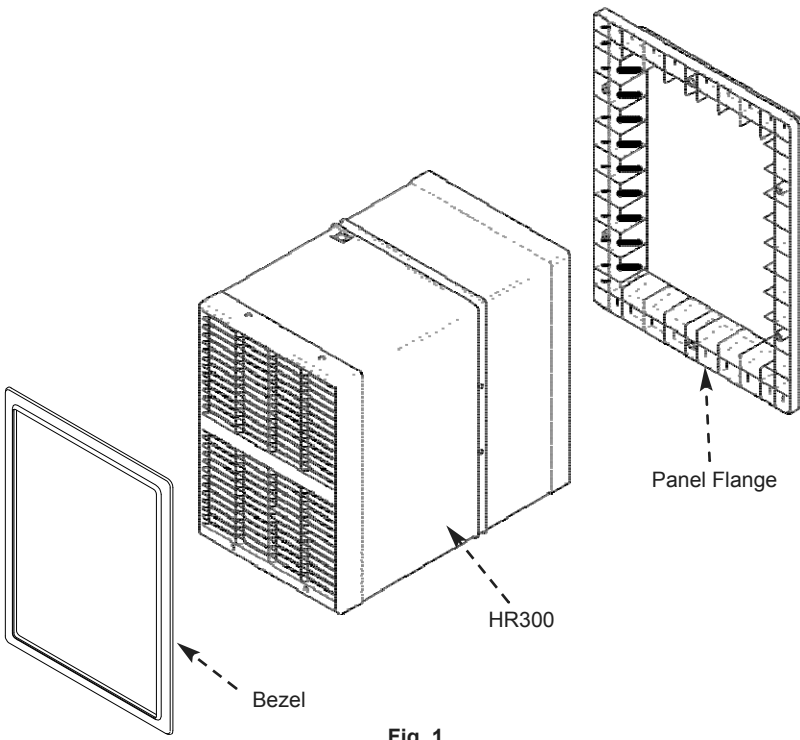


Fig. 1

2.0 Site Requirement

2.1 Information

1. The unit is designed for installation in external walls with a thickness of between 150mm to 315mm. For wall thicknesses upto 650mm an extension kit is available (ref: 370422).
2. If the unit is to be fitted in a replacement window panel, a mounting kit must be used.
3. The unit must be sited and connected by a suitably competent person and be in accordance with current UK Building Regulations and I.E.E. Wiring Regulations (BS 7671).
4. The unit is intended for permanent connection to the mains electrical supply.
5. The unit is intended for fixed wiring installation.
6. Wiring to the unit in the UK must be via a switched fused spur. The switched fused spur must have a 3mm minimum contact gap in all poles.
7. Ensure that the mains electrical supply is compatible with the rating label attached to the product.
8. The unit must be sited such that the ambient temperature will not exceed 40° C.
9. Do not site the appliance in the vicinity of excessive levels of airborne oil or grease.
10. If the unit is installed in a room containing a fuel burning appliance, the installer must ensure that air replacement is adequate for both appliances.
11. The unit must not be installed at a level below 500mm from the floor.
12. The internal grille surround must be sited at least 125mm away from any wall or projecting surface (Fig. 2).
13. The external grille of the unit must be sited at least 500mm away from any flue of gas or solid fuel appliances. This is to avoid back flow of gases entering the room.
14. All safety regulations and requirements must be strictly followed to prevent hazards to life and property both during and after installation and during subsequent maintenance or servicing.
15. Ensure the mains electrical supply is switched off before commencing installation or maintenance.

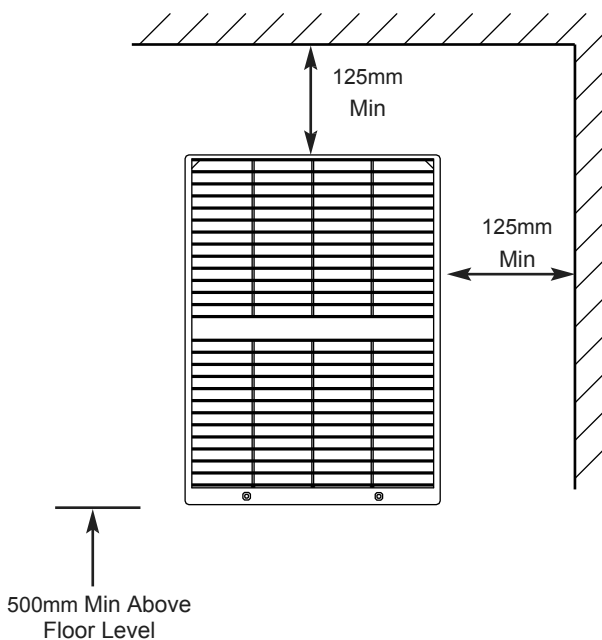


Fig. 2

3.0 Installation

3.1 Controllers

1. The HR300 unit can be installed in conjunction with a number of controllers.

VCON6(370356): The VCON6 controller can be used to provide Off/Low/Normal/Boost/Sensor control. (The HS6 humidistat or TIM2 over-run timer can be used in conjunction with the VCON6 controller to provide automatic control.

150VA (563538): The 150VA transformer, when used with a trickle/boost switch (455213), allows for a trickle and boost speed to be selected. Only terminals providing 140V or higher should be used as the unit will not operate reliably below 140V.

Ecotronic 1.5A controller (W300310): Provides variable speed control and on off and auto (sensor) modes.

TIM2(370346): The TIM2 is an overrun timer which can also be used to control the HR200 unit via a remote sensor e.g. Humidity Sensor.

3.2 Initial Preparation

1. Select an approved electrical control arrangement for the HR300 unit (above).
2. After considering the site requirements (Section 2.0), select a suitable site for the unit and controllers and work out the cable runs.

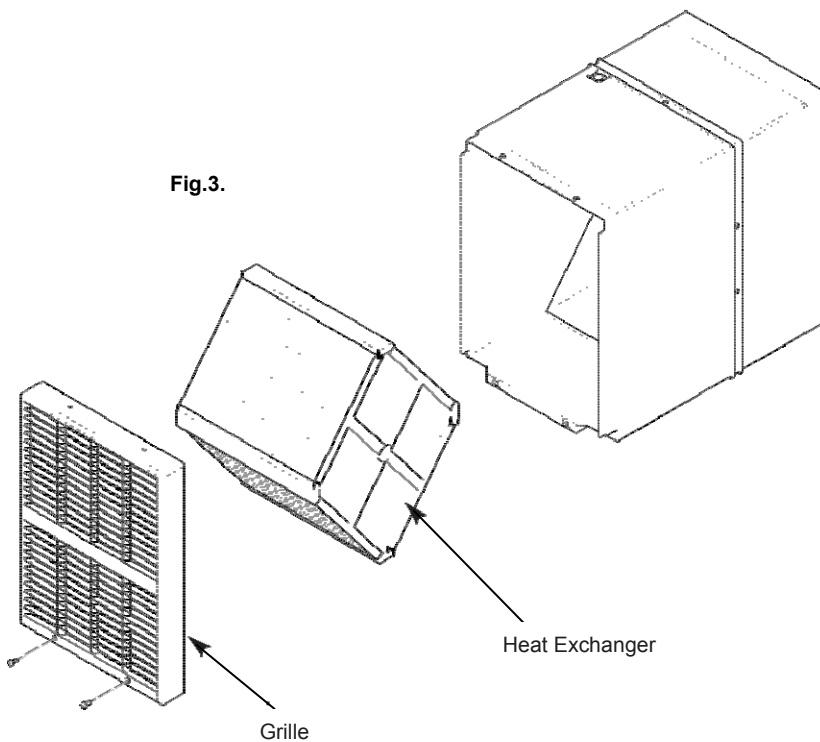
WARNING: Before deciding on the final position for the unit, check there are no buried cables, pipes or obstructions on the outside wall.

Cable requirements: Suitably (Basec or Har) approved four core cable of appropriate current carrying capacity.

3. Install the cable runs and appropriate controllers in conjunction with a fused connection unit. Contact gap must not be less than 3mm.
4. Working from the inside, mark out the position of the mounting hole - 280mm wide x 380mm high (see Fixing Template).
5. Carefully cut the holes in the inner and outer brick courses to form a suitable aperture to receive the unit. Ensure that this is level.

NOTE: Bricks will cut more easily and accurately if a series of holes are drilled close together along the marked lines.

6. Remove the grille, heat exchanger, from the unit (Fig. 3).



3.0 Installation

3.3 Installing the Appliance

From Inside

1. Slide the unit into the mounting hole and ensure that the minimum overhang requirements are achieved inside and out (Fig. 4).

2. The HR300 requires an overhang internal and external (Fig. 5):

Internal	50mm
External	55mm

3. Ensure that the unit is square and true with the outside wall face. If firmer fixings are required, secure the unit in place with the two fixing screws provided.

NOTE: Ensure the fixings DO NOT inhibit removal or replacement of the heat exchanger.

4. Make good around the case.

5. Fit the bezel on the inside to cover the making good by pressing the bezel over the case (Fig. 6).

CAUTION: Ensure the case does not distort during fixing and making good.

From Outside

1. Slide the panel flange (flange first) on to the unit and press the flange firm against the outer wall (Fig. 6).

2. Secure the panel flange to the wall using the fixing screws provided. If necessary the panel flange can be secured to the case by self-tapping screw 25mm long maximum.

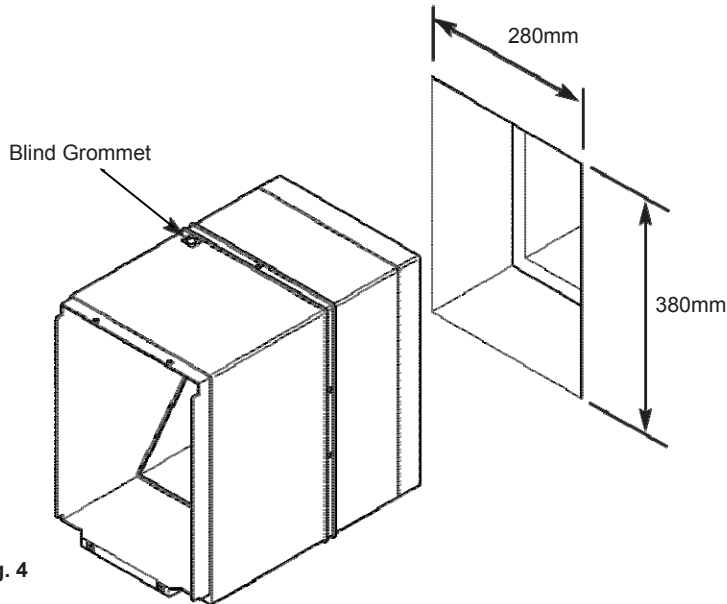


Fig. 4

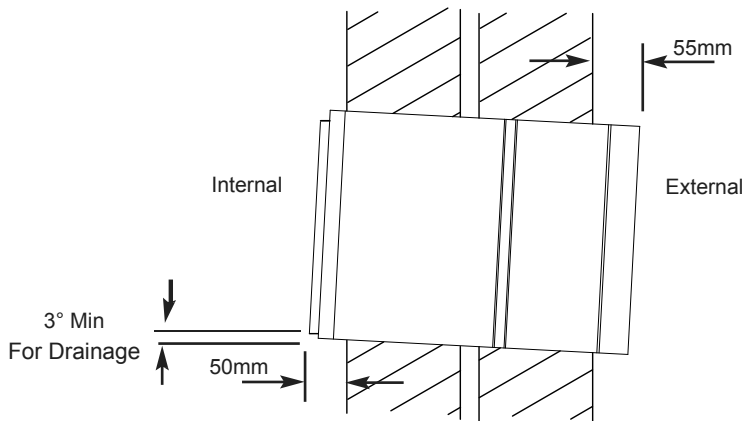


Fig. 5

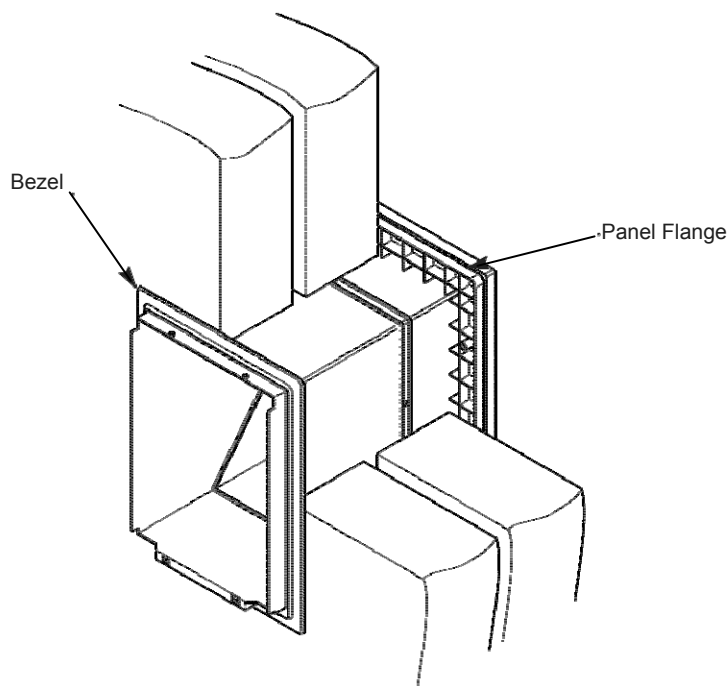


Fig. 6

4.0 Electrical

4.1 Electrical Connections

230V 50Hz 108W max

1. The HR300 is supplied with an integral shutter device.

2. Wiring must be via a 3A fused switched spur with a 3mm contact separation in each pole. The wiring should be suitably (Basec or Har) approved cable of appropriate current carrying capacity.

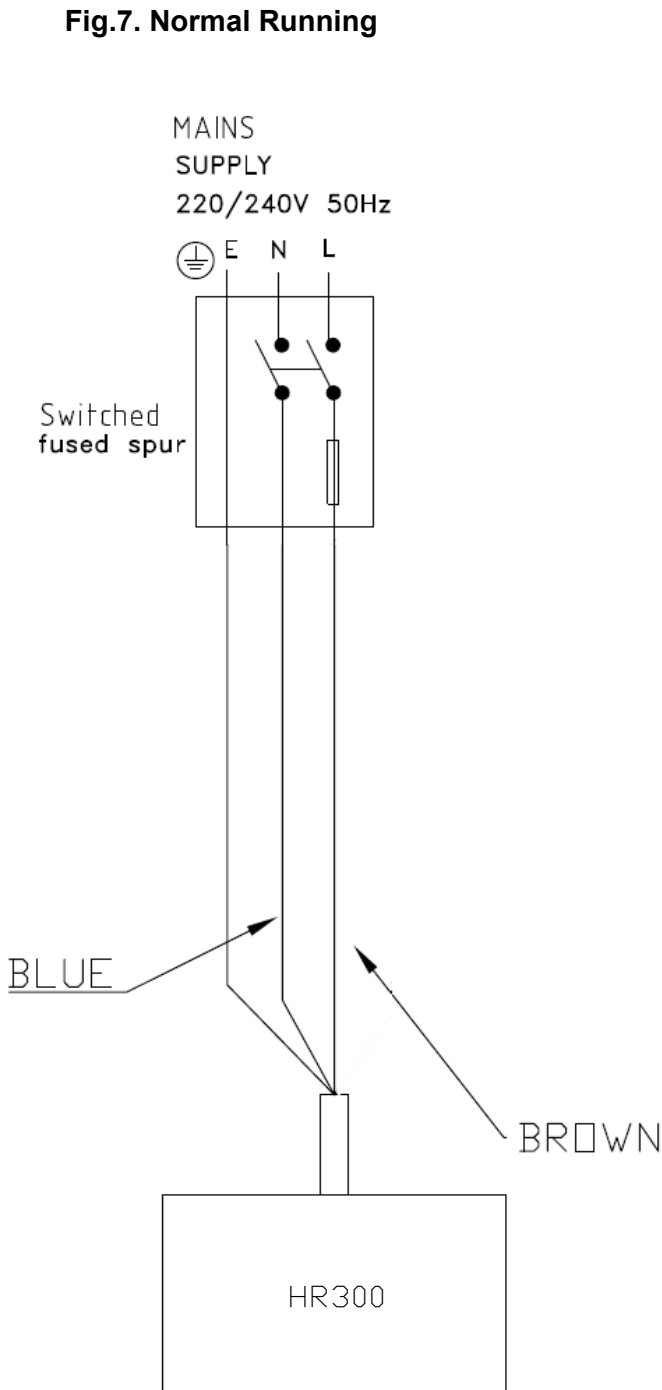
3. Ensure that the mains power supply is isolated prior to installation.

4. The HR300 is supplied with a length of cable attached from the factory. This can be extended with the use of 4 core cable as required.

5. Connect the wires as shown in Fig.7 to a Switched fused spur or a control unit. If a controller is used follow the fitting and wiring instructions supplied with the controller ensuring that the black and brown wires are connected to the same terminal on the controller.

6. Switch on the mains electrical supply and check the operation of the unit.

NOTE: On operation there is a delay of 30 seconds prior to the shutter opening.



5.0 Maintenance

5.1 Cleaning the Unit

1. In addition to removing odours, providing fresh air and recovering heat, this unit extracts airborne impurities such as dust, dirt and grease. These gradually build up and detract from the efficiency and appearance of the unit.

2. To ensure optimum performance, the unit should be cleaned every 3 to 6 months or at periods determined by the level of contamination experienced and according to the following procedure.

3. Isolate the mains power supply.

4. Undo the two grille securing screws and remove the grille (Fig. 8).

5. Remove the filter from rear of grille.

6. Slide out the heat exchanger (Fig 8).

7. Wash the grille, filter and heat exchanger in warm water using a mild detergent and dry thoroughly.

CAUTION: Keep water away from all electrical components and wiring within the unit.

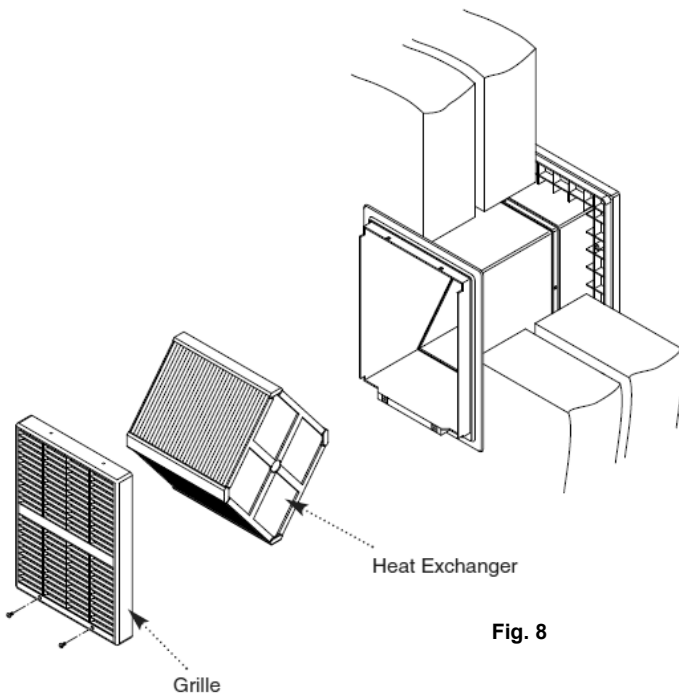
8. If the filter cannot be cleaned, a replacement is necessary (ref: 370402).

9. Reassemble in reverse order ensuring the filter and heat exchanger are seated correctly.

10. Switch power supply on and check the operation of the unit

5.2 Summer Operation

During summer the heat exchanger can be replaced with the provided divider board. The unit will then provide positive cooling to the room. Remove the heat exchanger as described in section 5.1. Slide the divider board in its place and replace grille securing it with the two screws.



The unit is supplied with four, 6-month Timestrip indicators. A Timestrip is a single use self-adhesive label that once activated will turn red over 6 months. It should be used to keep track of when the filter and cell need cleaning/replacement. Using the self-adhesive backing the strip can stuck near the units controls, or in a easily visible place.

A normal cleaning schedule for a unit would be as follows:

After installation	Activate the 1st Timestrip
After 6 months	Clean cell, clean filter, activate 2nd Timestrip
After 12 months	Clean cell, clean filter, activate 3rd Timestrip
After 18 months	Clean cell, clean filter, activate 4th Timestrip
After 24 months	Clean cell, replace filters , the new filters will be supplied with 4 additional Timestrip indicators

Note: The above is the minimum requirement; more frequent cleaning intervals may be needed depending on the environment the unit is installed in.

Activating the Timestrip.



1. Activation: Fully squeeze the activation button between thumb and finger. A red line will appear within 1-2 minutes to show that the Timestrip has been activated.

2. Peel off the backing liner and stick the Timestrip to the Unit or near the controls of the unit. The location should make it obvious to the person responsible for maintenance that the unit needs attention.

3. Once activated, the red dye will indicate elapsed time by moving through the white window and past each time marker. The progress of the red dye is irreversible and each Timestrip can only be used once.

PRODUCT FICHE

For Residential Ventilation Units (Complying Commission Delegated Regulation (EU No 1254/2014))

Name:	Vent-Axia	Vent-Axia
Model ID (Stock Ref.) :	HR300 – 370394 CDC	HR300 – 370394 LDC
SEC Class	B	A
SEC Value ('Average')	-33.67	-38.24
SEC Value ('Warm')	-12.17	-15.59
SEC Value ('Cold')	-71.99	-78.57
Label Required? (Yes/No=Out of scope)	Yes	Yes
Declared as: RVU or NRUV/UVU or BVU	RVU/BVU	RVU/BVU
Speed Drive	Variable Speed	Variable Speed
Type HRS (Recuperative, Regenerative, None)	Recuperative	Recuperative
Thermal Eff: [(%), NA(if none)]	70.00	70.00
Max. Flow Rate (m3/h)	298.80	298.80
Max. Power Input (W): (@Max.Flow Rate)	108.00	108.00
LWA: Sound Power Level (dB)	57.52	57.52
Ref. Flow Rate (m3/s)	0.06	0.06
Ref. Pressure Diff. (Pa)	75.00	75.00
SPI [W/(m3/h)]	0.24	0.24
Control Factor & Control Typology: (CTRL/Typology)		
Control Factor; CTRL	0.85	0.65
Control Typology	Central Demand Control	Local Demand Control
Declared: -Max Internal & External Leakage Rates(%) for BVUs or carry over (for regenerative heat exchangers only), -&Ext. Leakage Rates (%) for Ducted UVUs;	<5% Internal, <5% External	<5% Internal, <5% External
Mixing Rate of Non-Ducted BVUs not intended to be equipped with one duct connection on either supply or extract air side;	TBC	TBC
Position and description of visual filter warning for RVUs intended for use with filters, including text pointing out the importance of regular filter changes for performance and energy efficiency of the unit	N/A	N/A
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	N/A	N/A
Internet Address (for Disassembly Instructions)	www.vent-axia.com	www.vent-axia.com
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted VUs)	TBC	TBC
Air Tightness-ID/OD-(m3/h) (for Non-Ducted VUs)	TBC	TBC
Annual Electricity Consumption: AEC (kWh/a)	2.83	1.84
Annual Heating Saved: AHS (kWh/a)		
AHS: Average	42.17	42.17
AHS: Warm	19.07	19.07
AHS: Cold	82.50	82.50

Notes:-

The **Vent-Axia** Guarantee

Applicable only to products installed and used in the United Kingdom. For details of guarantee outside the United Kingdom contact your local supplier.

Vent-Axia guarantees its products for two years from date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the Company's option replaced, without charge, provided that the product:-

- Has been installed and used in accordance with the instructions given with each unit.
- Has not been connected to an unsuitable electricity supply. (The correct electricity supply voltage is shown on the product rating label attached to the unit).
- Has not been subjected to misuse, neglect or damage.
- Has not been modified or repaired by any person not authorised by the company.

IF CLAIMING UNDER TERMS OF GUARANTEE

Please return the complete product, carriage paid to your original supplier or nearest Vent-Axia Centre, by post or personal visit. Please ensure that it is adequately packed and accompanied by a letter clearly marked "Guarantee Claim" stating the nature of the fault and providing evidence of date and source of purchase.

The guarantee is offered to you as an extra benefit, and does not effect your legal rights

Vent-Axia

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UK NATIONAL CALL CENTRE, **Newton Road, Crawley, West Sussex, RH10 9JA**

SALES ENQUIRIES: Tel: 0344 8560590 Fax: 01293 565169

TECHNICAL SUPPORT: Tel: 0344 8560594 Fax: 01293 532814