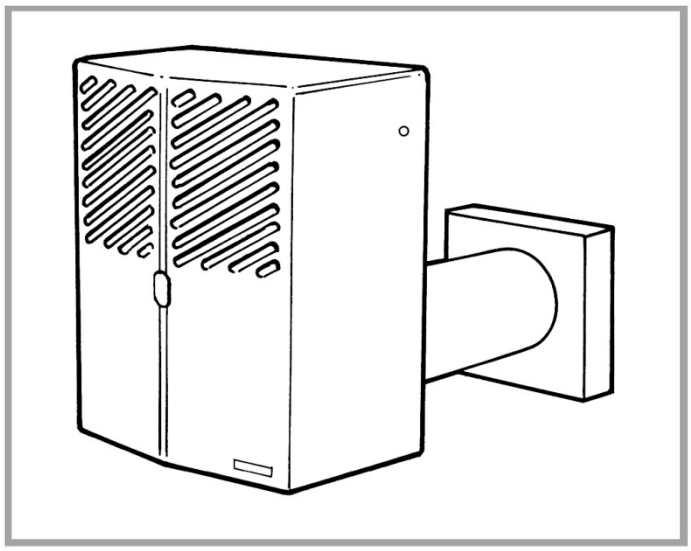
HR100S

Heat Recovery Ventilation Unit

Surface mounting two speed heat recovery extract and intake unit for bathrooms and toilets.

Installation and Maintenance Instructions



Stock Ref No:-

HR100S	**141 10 010**

Vent-Axia®

IMPORTANT SAFETY INFORMATION

PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE COMMENCING INSTALLATION.

1. Do not install this product in areas where the following may be present or occur:

- Excessive oil or a grease laden atmosphere.
- Corrosive or flammable gases, liquids or vapours.
- Subject to direct water spray from hoses.
- Ambient temperatures higher than 40°C and lower than -20°C.
- Possible obstructions that may hinder access to or removal of the unit.

2. All wiring must be in accordance with the current IEE wiring regulations BS7671, or appropriate standards of your country. Installation should be inspected and tested by a suitably qualified person after completion.

3. Ensure the mains supply (voltage, frequency and phase) complies with the rating label.

4. The unit should be provided with a local double pole fused spur fitted with a 3A fuse having a contact separation of at least 3mm.

5. These units must be earthed.

6. Precautions must be taken to avoid the back-flow of gases into the building from the open flue of gas or other fuel-burning appliances.

7. This appliance is not suitable for installation in a shower cubicle or enclosure and must be sited away from any sorce of water spray.

8. This appliance must be sited out of reach of a person using a fixed bath or shower.

9. Do not connect a lamp across the supply to the appliance. Faulty operation of the lamp will occur and the appliance will fail.

10. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

11. Young children should be supervised to ensure that they do not play with the appliance.

12. CAUTION: In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

13. For 2 speed operation, Terminals L1 and L2 of the appliance must only be connected to the electrical supply through a changeover switch arrangement similar to that shown in wiring diagrams 5.3 or 5.4. Simultaneous connection of these terminals to the supply will energise both motor windings and cause the motor to overheat and cutout.

INSTALLATION GUIDANCE

1. The installer is responsible for the installation and electrical connection of the system on site. It is the responsibility of the installer to ensure that the equipment is safely and securely installed and left only when mechanically and electrically safe.

2. All regulations and requirements must be strictly followed to prevent hazards to life and property, both during and after installation, and during any subsequent servicing and maintenance.

3. Certain applications may require the installation of sound attenuation to achieve the sound levels required.

4. The unit must not be connected directly to a tumble drier.

5. The supply air must be drawn from the exterior of the property.

6. The exhaust grille should be located at least 600mm away from any flue outlet. The inlet grille should be located 2000mm away from any flue outlet.

Disposal

This product should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice

PRODUCT DESCRIPTION

The HR100S is a surface mounting heat recovery ventilation unit for use in bathrooms and toilets. It is designed for mounting on an external wall having a thickness from 100 to 400mm.

The units twin impeller and heat recovery arrangement simultaneously supplies and extracts air while transferring heat from the stale exhaust airflow to the fresh intake airflow. This providesup to 60% heat recovery from the stale air.

Separation of the exhaust airflow and the intake airflow is maintained through the unit and the special duct supplied with it.

The unit incorporates electrical connections for operating at two speeds, thereby providing trickle and/or boost ventilation options (see Fig.5).

The overall electrical power consumption of the unit is 35 watts at high speed and 15 watts at low speed. The units motor is fitted with standard thermal overload protection protection, which in the event of a fault causing the motor to overheat will cut of the electrical supply to the motor.

The fan unit may be connected through a vent-axia ecotronic humidistat (Stock Ref. 563532) or Ambient Response Humidistat (Stock Ref.563550), which automatically switch the fan unit from trickle to boost ventilation when the relative humidity in the room exceeds a pre-set adjustable level.

CABLE RUNS

Decide where to site the ventilation unit and work out the cable runs. When using surface wiring which is not contained in conduit, the wiring must be securely anchored to the mounting surface.

Install the cable runs in conjunction with a fused and switched connection unit located in the vicinity of where the ventilation unit will be sited. Ensure that the cables for the ventilation unit extend at least 400mm from the mounting surface.

FITTING INSTRUCTIONS (SEE FIG.4)

1. Remove the duct, grille assembly and heat recovery ventilation unit from the packaging.

2. After noting the positions of the duct spigot and optional cable entry grommets on the top and rear of the housing (see Fig. 1). cut a 114mm diameter hole through the wall.

3. Cut the duct to a length which will provide for a flush finish with the internal and external wall faces. DO NOT CUT THE END OF THE DUCT WHICH IS SLOTTED TO ACCEPT THE EXTERNAL GRILLE SPIGOT.

4. With the web in the duct vertical, the slotted end of the duct to the outside and the duct sloping slightly downwards to the outside for drainage of condensation, fix the duct in the wall by applying suitable gap filler between the duct and hole. The filler must create a flush finish at the outer wall face to allow the external grille to be fixed satisfactorily. At the inner wall face the filler must be recessed at least 20mm to allow the duct spigot, on the back of the housing, to locate over the duct (see Fig.2).

5. Remove the cover from the unit after removing the two retaining screws in the side and slackening the two retaining screws in the bottom of the cover.

6. Withdraw the heat exchanger from the housing by grasping and gently but firmly pulling on its central vertical member.

7. Offer the housing to the inner mounting surface and, with the duct spigot located over the duct, mark the two fixing hole positions on the mounting surface.

8. Prise the grille out of the grille assembly and remove the insect screen.

9. Offer the grille base to the external mounting surface and,with the duct spigot located inside the duct, mark two of the four fixing hole positions on the mounting surface.

10.Suitably drill and plug the fixing holes in both mounting surfaces.

11.Pass the supply cable through the grommet in the rear face or top face of the housing and fix the housing to the inner mounting surface using suitable round head woodscrews.

12.Fix the grille base to the external wall surface also using suitable round head woodscrews.

13.Replace the insect screen and grille in the grille base. The grille blades must slope downwards away from the external mounting surface to shed rainwater.

WIRING INSTRUCTIONS (SEE FIG.5)

1. Ensure the mains electrical supply is switched off.

2. Remove the terminal block cover after unscrewing the retaining screw.

3. Remove the minimum amount of sheath and insulation from the supply cable and leads. Slacken the cable clamps and feed the cable through the clamps. Connect the conductors,coloured red-live(L),black-neutral(N) and green/yellow-earth(E/⏚), to the appropriate terminals, marked L1, L2, N and E/⏚ of the terminal block in accordance with the wiring arrangements shown in Fig. 5.

4. Position the cable in the cable clamps such that the cable sheath will be clamped and tighten the cable clamp nuts to secure the cable in position.

5. Replace the terminal block cover and tighten the retaining screw.

6. Replace the heat exchanger.

7. For top cable entry make a cutout in the top of the cover to clear the cable.

8. Refit the cover and tighten the four retaining screws.

9. Switch on the mains electrical supply and check the fan operation.

CLEANING

Apart from removing odours, providing fresh air and recovering heat this appliance extracts airborne impurities such as dust, dirt and grease. These gradually bulid up and detract from the efficiency and appearance of the appliance. Therefore, to ensure peak performance, the appliance should be cleaned regularly at periods determined by the level of contamination experienced and according to the following procedure:

1. Switch off the mains electrical supply.

2. Remove the cover from the unit after removing the two retaining screws in the side and slackening the two retaining screws in the bottom of the cover.

3. Remove the filter from inside the cover.

4. Withdraw the heat exchanger from the housing by grasping and, gently but firmly pulling on its central vertical member.

5. Wash the cover, filter and heat exchanger in warm water using a mild detergent and subsequently dry them thoroughly. Keep water away from all electrical components and wiring within the appliance.

6. Replace the heat exchanger.

7. Replace the filter in the cover.

8. Refit the cover and tighten the four retaining screws.

9. Switch on the mains electrical supply.

10. Check the operation of the fan.

FIG. 1. DIMENSIONS

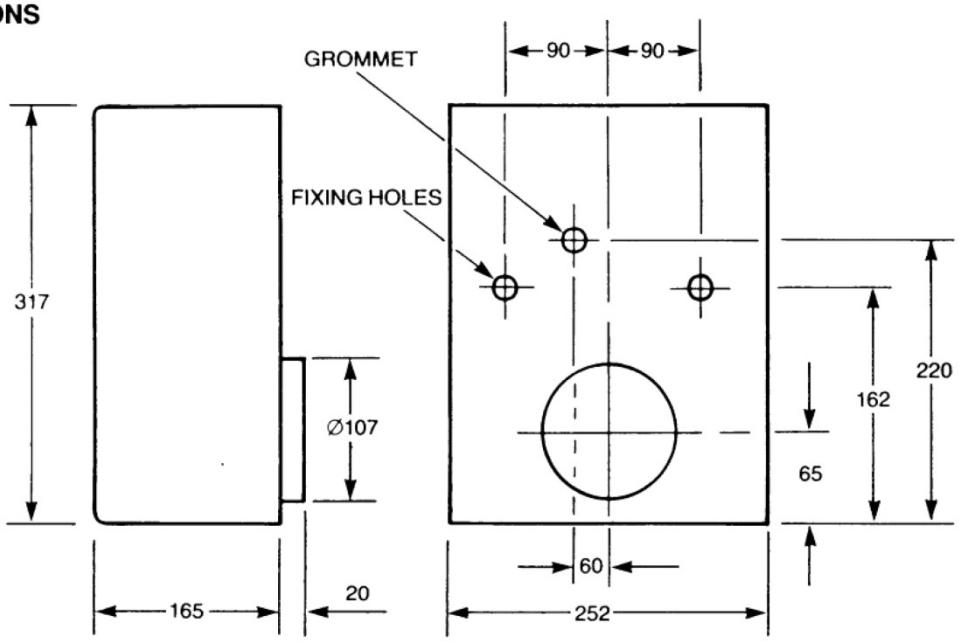


FIG. 2. WALL SECTION

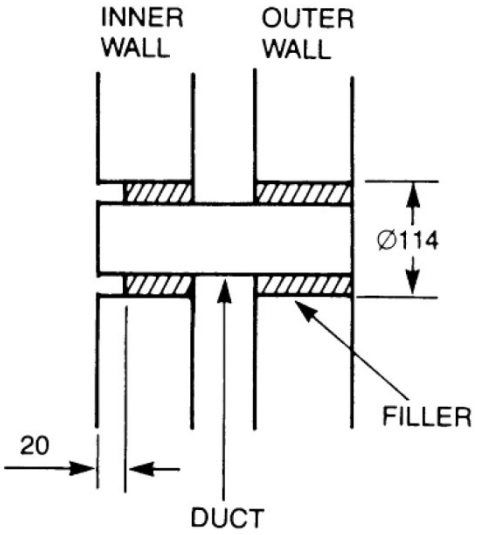


FIG.3. AIRFLOW

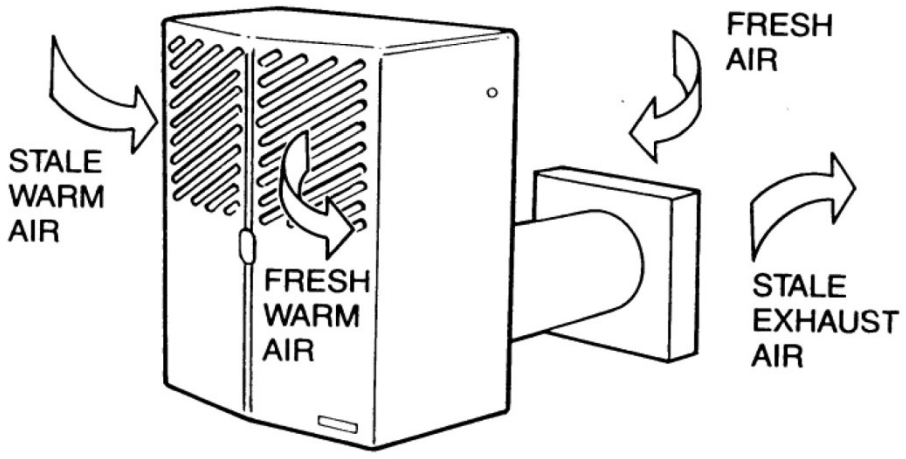


FIG. 4. INSTALLATION DETAILS

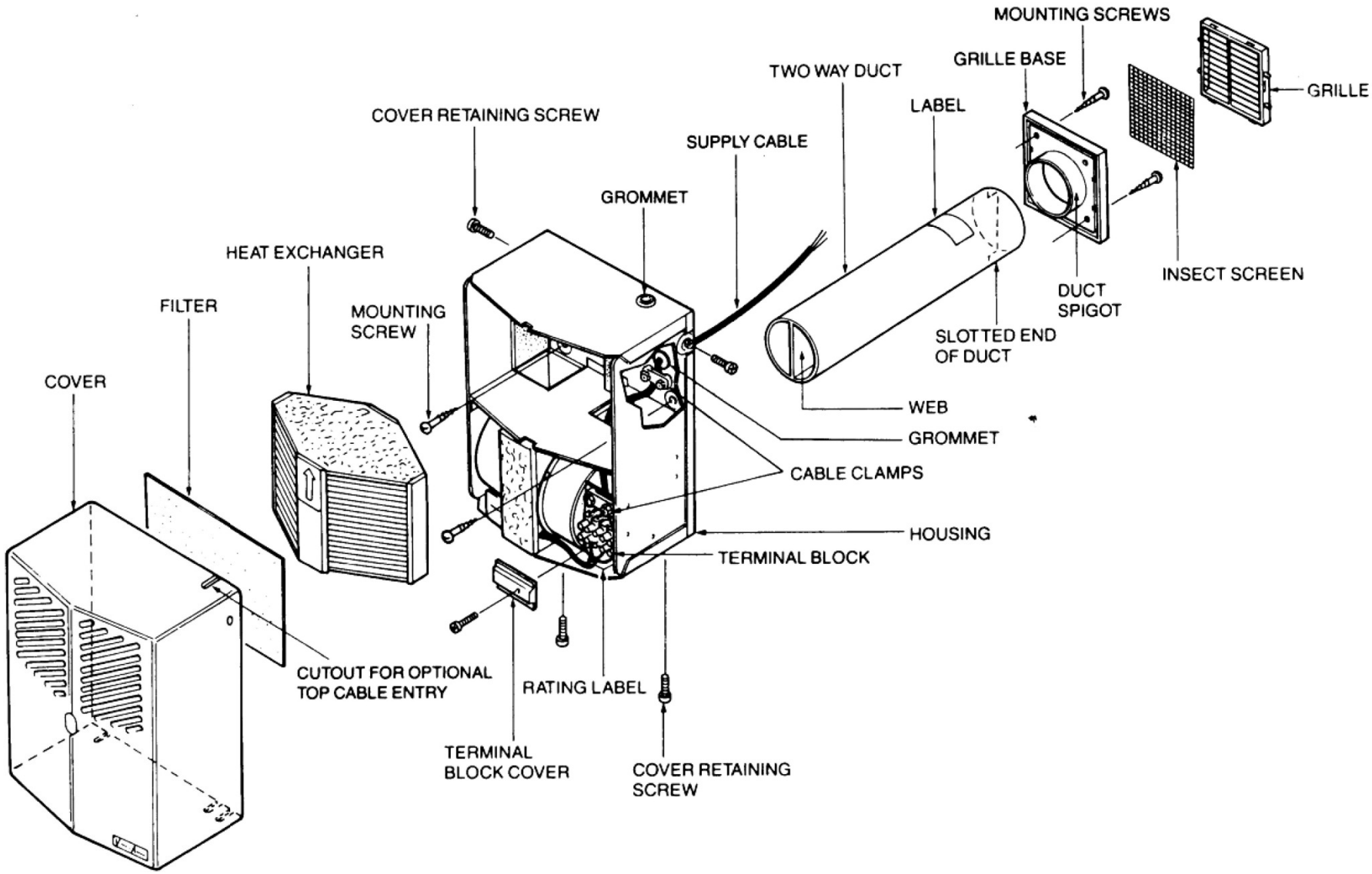
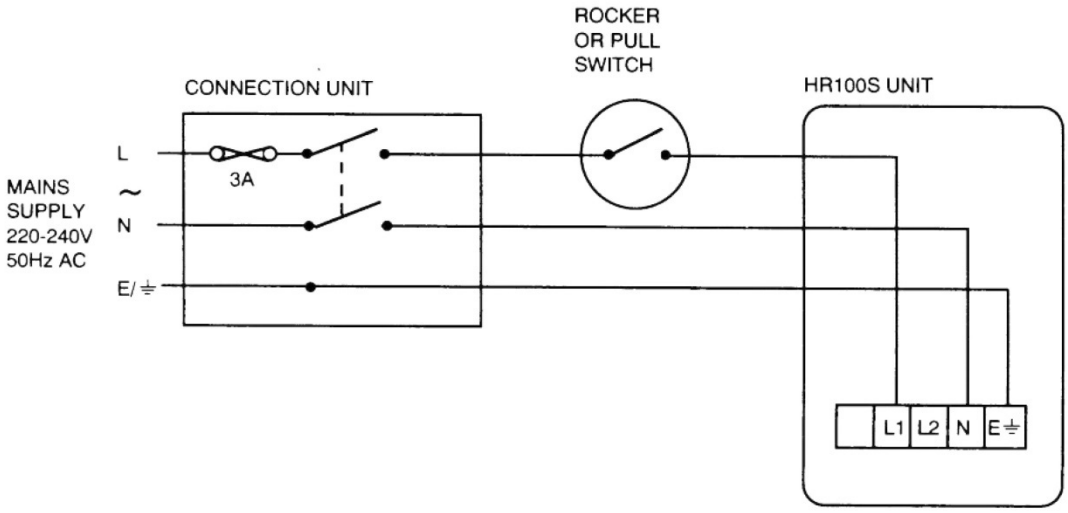
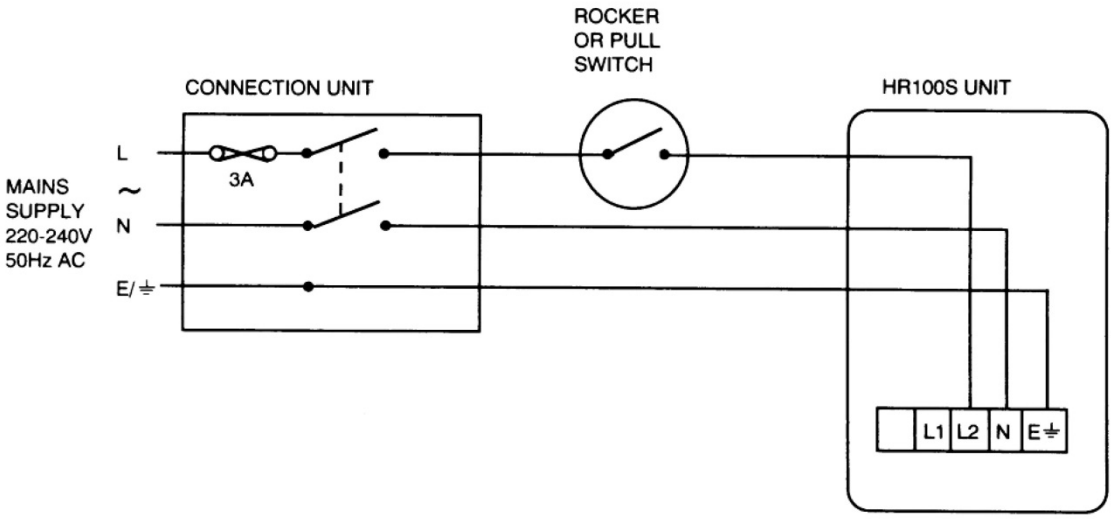


FIG. 5. WIRING DIAGRAMS

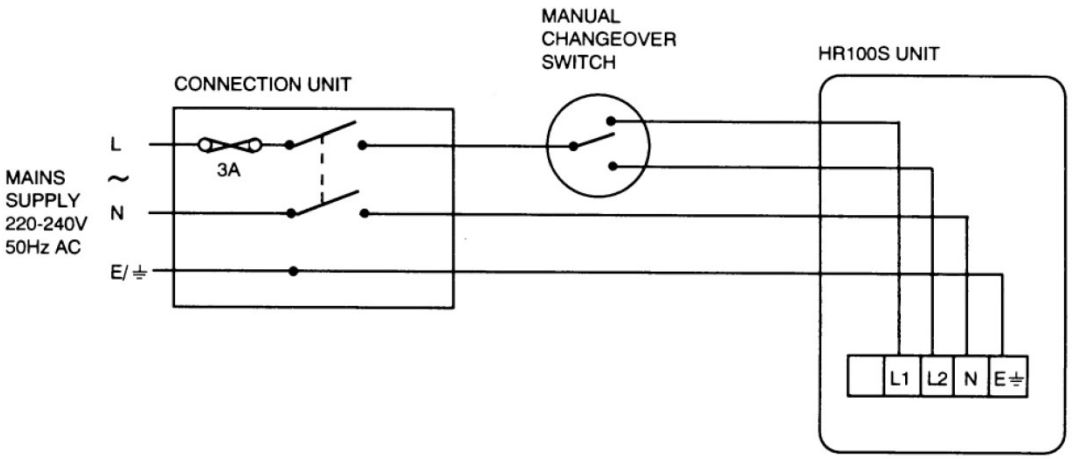
5.1. MANUALLY CONTROLLED TRICKLE VENTILATION



5.2. MANUALLY CONTROLLED BOOST VENTILATION

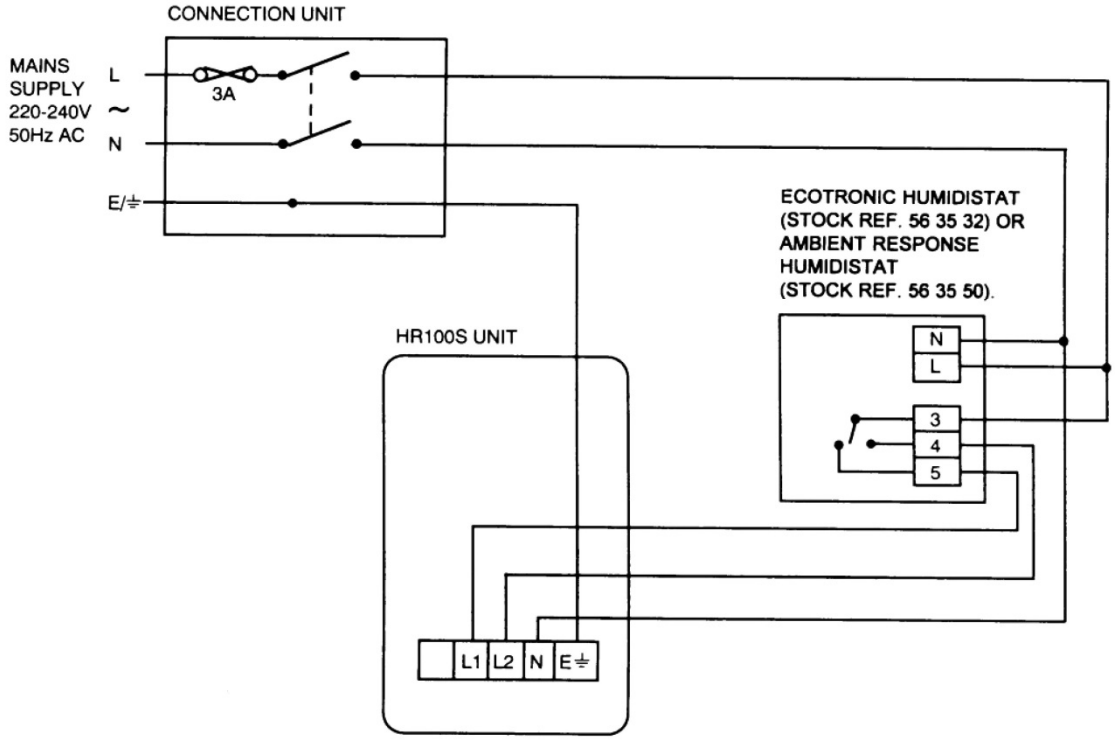


5.3 MANUALLY CONTROLLED CONTINUOUS TRICKLE OR BOOST VENTILATION



5.4 AUTOMATIC HUMIDITY CONTROLLED VENTILATION

Continuous trickle ventilation switched to boost ventilation when the room relative humidity (RH) exceeds a preset adjustable level.



PRODUCT FICHE

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

Name:	Vent-Axia
Model ID (Stock Ref.) :	HR100S - 14110010
SEC Class	E
SEC Value ('Average')	-15.40
SEC Value ('Warm')	3.32
SEC Value ('Cold')	-48.86
Label Required? (Yes/No=Out of scope)	Yes
Declared as: RVU or NRVU/UVU or BVU	BVU
Speed Drive	Multi-Speed
Type HRS (Recuperative, Regenerative, None)	Recuperative
Thermal Eff: [(%), NA(if none)]	60.00
Max. Flow Rate (m3/h)	10.00
Max. Power Input (W): (@Max.Flow Rate)	35.00
LWA: Sound Power Level (dB)	47.52
Ref. Flow Rate (m3/s)	25.20
Ref. Pressure Diff. (Pa)	TBC
SPI [W/(m3/h)]	0.56
Control Factor & Control Typology: (CTRL/ Typology)	
Control Factor; CTRL	1.00
Control Typology	Manual Control
Declared: -Max Internal & External Leakage Rates(%) for BVUs or carry over (for regenerative heat exchangers only), -&Ext. Leakage Rates (%) for Ducted UVUs;	TBC
Mixing Rate of Non-Ducted BVUs not intended to be equipped with one duct connection on either supply or extract air side;	TBC
Filter Warning (RVU)	No
For UVUs (Instructions Install Regulated Supply/Extract Grilles Façade)	N/A
Internet Address (for Disassembly Instructions)	www.vent-axia.com
Sensitivity p. Variation@+20/-20 Pa: (for Non-Ducted VUs)	TBC
Air Tightness-ID/OD-(m3/h) (for Non-Ducted VUs)	TBC
Annual Electricity Consumption: AEC (kWh/a)	19.59
Annual Heating Saved: AHS (kWh/a)	
AHS: Average	34.99
AHS: Warm	15.82
AHS: Cold	68.45

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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TECHNICAL SUPPORT: Tel: 0344 8560594 Fax: 01293 532814

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