

NALPRO251125.1.pdf Addendum

Planning Reference: PL/22/0780

Site: 640 Oxford Road, Reading, RG30 1EH

Condition: 12

Noise Report: Noise Impact Assessment (Issue 3)

Purpose of the Addendum

This addendum has been prepared to accompany the Noise Impact Assessment prepared by Noise Assessments dated 08/04/26, submitted in support of the discharge of Condition 12.

This note should be read alongside the Noise Impact Assessment. It does not seek to replace the acoustic assessment, noise survey data, or internal noise level calculations contained within that report.

Instead, it clarifies the final design approach now proposed for ventilation and confirms that trickle vents are **not proposed** as part of the submitted mitigation strategy.

Proposed Ventilation Strategy

The recommendations section of the original Noise Impact Assessment refers to trickle vents as a possible means of ventilation. For the avoidance of doubt, trickle vents are **not** proposed for this development.

The proposed strategy has been revised so that the residential units will be served by a mechanical ventilation system with summer bypass, in accordance with the wording of condition 12.

Each residential unit will be served by an individual mechanical ventilation with heat recovery system. The proposed system is a Vent-Axia BH MVHR unit, as identified within the MVHR estimate and specification sheet prepared for the development by The Air Shop (see Appendix). The strategy is based on a system for four flats, with each flat served by its own MVHR unit and associated supply and extract valves.

The proposed Vent-Axia BH unit includes summer bypass functionality, an integral humidity sensor, and a heat recovery efficiency of up to 90%.

The development will therefore be designed so that the dwellings can achieve the relevant internal ambient noise levels referred to in BS 8233:2014, while also providing an alternative ventilation strategy where opening windows would increase internal noise levels above the recommended criteria.

The submitted information is therefore considered sufficient to allow Condition 12 to be discharged.

APPENDIX



Your MVHR System Estimate



Welcome to Your MVHR Estimate Pack

Thank you for choosing us and for the opportunity to support you with the ventilation system for your project. Our aim is to make the process as clear and straightforward as possible, providing you with the right solution for your build and guidance as you move towards first fix.

This estimate pack has been prepared to give you an initial overview of the recommended MVHR system for your property, for the next steps in the design process.

What's included in this pack:

MVHR estimate

Your estimate includes our recommended system specification based on the information provided so far.

MVHR design services – next steps

A well performing MVHR system depends on careful design, particularly around duct routes, unit location, and airflow calculations. To support this, we offer a range of MVHR design service packages, which can be selected as the next step once you're ready to proceed.

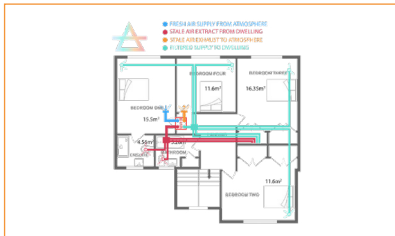
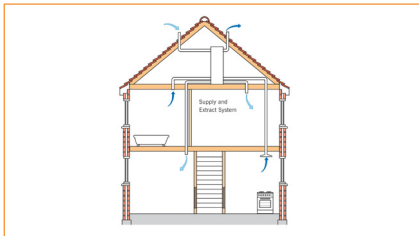
Design considerations

We've highlighted key items to think about before we progress to design stages and ensure your system is fully optimised including the location of the MVHR unit and duct risers, external terminations and attenuation and coordination with your builder or installer ahead of first fix.

Accessory options

We've included optional accessories to help tailor the system to your preferences, such as MVHR control options (wired or wireless controllers, boost switches, sensors) and in-room air valves and finish options.

Helpful links & further information



If you have any questions at all, or would like to discuss the next steps towards a full design, our team is here to help.

We look forward to supporting you in delivering a high-quality MVHR system for your home.

MVHR Estimate Reference

Date	28 April 2026
Customer Name	Steve James
Site Address	640 Oxford Rd
Estimate Completed By	R Welsh
Other Information	4 Flats

Estimate Disclaimer

This document outlines an estimate based on the information provided to date. Please note that the pricing included herein is an estimate and, while tailored to your project, may be subject to change. A full and accurate quotation requires the completion of a detailed design process, including a comprehensive CAD layout. This estimate serves as a preliminary guide and is intended to provide a general overview of potential costs and considerations.

Your MVHR Estimate

Customer Name	Steve James	No of Extract Valves	2
Site Reference	640 Oxford Rd	No of Supply Valves	2
Project Type	New build	Proposed Unit Location	TBC
Total Floor Area	37-41m ²	Proposed Terminations	TBC
Total Airflow Rate (Building Regs)	19L/s @ Trickle ~ 21L/s @ Boost		

Recommended Unit: Vent Axia BH

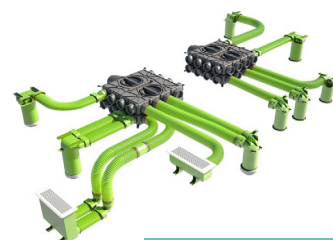
Key Product Information	
Heat Recovery Efficiency	Up to 90%
Airflow Rate	55 l/s @ 150Pa (speed 4)
Specific Fan Power (w/l/s)	0.59 (K+2)
Noise Levels	16-39dB at 3m
Dimensions (mm)	550 x 550 x 285
Duct Size Connection	125mm
Weight (kg)	15
Summer By Pass	Yes
Humidity Sensor (integral)	Yes
Filter Options	Included G3 (Basic Barrier) Options: Dust Destroyer (G4) & Summer Sneezer (M5)
User Controls	LCD Display on Unit, Universal Wired Boost Switch, Vent Axia Wired Switch, Vent Axia Wireless Switch, Universal Wireless Switch
PassivHaus Certified	No
Warranty	5 Years
Annual Running Costs (Pa)	£30-35


[Product Brochure](#)
[Full Product Info](#)

125mm ~ Rigid Branched

Semi-rigid ducting is a modern, high-performance ducting system for MVHR that offers a smooth internal surface for efficient airflow, improved hygiene, and a simpler installation compared with traditional rigid ductwork. It also provides greater flexibility when routing ducts through ceiling voids and for duct risers during first fix.

The ducting allowance within this estimate covers the main components required for a typical installation, including distribution manifolds, semi-rigid duct runs, and associated connection fittings. Final quantities and routing will be confirmed as part of the detailed MVHR design stage.


[Full Product Info](#)

Estimate Notes

Total estimate based on 4 x 4Valves+1Unit. This includes summer bypass. Plastic PVC rigid ducting is more cost effective for studio apartments. Depending on design discussions and more information regarding joists and construction.

MVHR Estimate Price:

Supply Estimate (inc VAT)

We don't do standard bundles. Every system is tailored to your home. Our personalised approach guarantees a high-quality, efficient, and long-lasting MVHR system designed specifically for your project.

Next Steps:

This estimate is based on the drawings provided. A detailed MVHR design is the next step to finalise duct routing, unit location, and the best overall approach for your project.

Estimate inclusions:

- MVHR unit/s
- Ducting system
- Standard metal air valves
- On-unit control
- Required insulation (duct wrap)
- Proposed terminations (wall)

MVHR

Key Considerations

At The Air Shop, we take a detailed and thoughtful approach to ensure your MVHR system is designed to deliver exceptional performance. During the project discovery and design stages, we address the following five critical considerations:

1. Noise Control

We design systems that deliver optimal airflow performance without creating intrusive noise in your home.

- Assessing suitable MVHR units and silencers to minimise operational noise
- Strategically locating the unit and ducting to reduce sound transfer to living spaces
- Sizing the MVHR Unit appropriately so that the trickle and boost airflow rates can be achieved without running the unit at a high rate

2. Ductwork and Ceiling Void

Proper ductwork design is essential for airflow, efficiency, and installation feasibility.

- Planning duct routes that make the best use of available ceiling voids or wall spaces
- Specifying compact, efficient duct types that minimise resistance and maximise airflow
- Ensuring duct sizes and installation fit seamlessly with the building design (where possible)

3. Compliance with Building Regulations

We ensure your system meets or exceeds current Building Regulation requirements for ventilation.

- Designing to meet Part F (Ventilation) or other relevant approved documents
- Conducting detailed airflow calculations to verify the system delivers adequate ventilation for every room
- Ensuring proper documentation to allow a simple set up and commissioning of the system

4. Terminations

Proper placement and design of terminals ensure the system performs effectively and unobtrusively

- Offering a range of grilles, diffusers, and external louvres that blend with the building design
- Positioning supply and extract valves for efficient airflow and occupant comfort

5. Accessibility for Maintenance

A MVHR system should be easy to maintain for optimal performance and longevity.

- Positioning the MVHR unit and components in accessible locations for filter changes and servicing
- Providing clear maintenance guidelines to ensure the system remains in excellent condition

Our Commitment

At The Air Shop, we collaborate with you every step of the way to create an MVHR system that's efficient, quiet, and easy to live with. From initial discovery to final design, we'll ensure every detail is optimised for your project's success.

Supply & Installation

How will we manage this for you?

At The Air Shop, we specialise in system design, product specification and supply.

For installation, we work in partnership with HRV Group, an experienced ventilation installation specialist who manages all on-site works.

1. System design & materials

- Airflow Calculations
- Product specification for building regulations
- Full CAD Design - 2/3D Models
- Technical guidance
- Invoiced separately for design and materials



2. Installation & commissioning

- Carry out a detailed site survey
- Provide a fixed installation quotation
- Manage all on-site works
- Liaise directly with you regarding scheduling and access
- Invoice separately for installation services



Your estimate

We have provided an estimate for the installation of your project based on the plans provided.

Before confirming installation costs, **a site survey is required (£450.00 + VAT - deducted from final installation quotation)**. The survey is chargeable and its purpose is to confirm scope, access, routing, electrical requirements, and installation complexity. We recommend this is completed once the CAD design has been completed to allow for revisions to be aligned accordingly.

Working with HRV Group

HRV are a leading ventilation contractor, with extensive experience in the installation of ventilation systems in homes and commercial buildings. HRV will manage all aspects of the installation of your project and liaise with The Air Shop in regards to organising materials to site.

www.hrv-group.com

Installation payment schedule

Once the installation quotation is approved and a date agreed, payments are structured as follows: This staged structure ensures clarity and transparency throughout the project.

	Site survey on booking date	Confirm scope, access and routing to confirm final installation costs
25%	Upon agreement of installation date	Secures your installation slot and programme scheduling.
50%	Following first fix	Payable after initial installation works are completed (ducting, core components positioned).
25%	Upon completion	Payable once installation is complete and the system is commissioned.

Lo-Carbon Sentinel Kinetic BH

- Recognised in SAP PCDB
- Lightweight for easier installation
- Horizontal duct option for space-saving installations
- Fits within a 290mm deep kitchen cupboard
- Integrated digital controller for simple and accurate commissioning
- Plug and play controls; Humidistat, Wireless Remote
- BMS connectivity
- LS inputs (Light Switch)
- Horizontal duct options
- Acoustic Enclosure option for reduced breakout noise
- Acoustic Top Box option for reduced in-duct noise



Easy Installation

The Sentinel Kinetic models can be mounted vertically in a roof space, hallway cupboard or kitchen or within a kitchen cupboard. When mounted in an unheated area ducting and MVHR unit should be insulated. Ducting can be attached to the unit horizontally, vertically or both. Minimum internal depth of kitchen cupboard: V, B & BH models 290mm.

For scenarios where noise is a critical issue, an Acoustic Enclosure is available to reduce breakout noise and the Acoustic Top Box will reduce in-duct noise at key frequencies.

Left (L) or right (R) hand installation. The unit is supplied with duct spigots to outside on the right hand side. These can be reversed on site by simply removing the control panel, rotating the unit 180 degrees and re-attaching the control panel.

Spigot Options

The combination of spigot options allows installation in confined locations. If vertical and horizontal connection is required on the same outlet/inlet, additional spigots can be supplied.

The condensate drain can be taken out through the back, side or bottom of the unit. Using the fittings supplied, the final condensate connection is made outside the unit and can be completed after installation.

Integral Humidity Sensor (BH Models)

The integral humidity sensor increases speed in proportion to relative humidity levels, saving energy and reducing noise. The sensor also reacts to small but rapid increases in humidity, even if the normal trigger threshold is not reached. This unique feature ensures adequate ventilation, even for the smallest wet room. The night time relative humidity setback feature suppresses nuisance tripping as humidity gradually increases with falling temperature.

Models

Model	Stock Ref
Kinetic V Right	438342
Kinetic BH Right	443319
Kinetic BH Right with Acoustic Enclosure & Top Box	479526
Kinetic BH Right with Acoustic Top Box	479525
Kinetic BH Right with Acoustic Enclosure	479524
Kinetic BH Left	443319L
Kinetic BH Left with Acoustic Enclosure & Top Box	479529
Kinetic BH Left with Acoustic Top Box	479528
Kinetic BH Left with Acoustic Enclosure	479527
(BH with summer bypass & humidity sensor)	

Accessories

Model	Stock Ref
Wired Remote Controller	443283
Wireless Enable Kit	441865
Wireless Transmitter Controller	437827
LED alarm with 15m cable	448356
Acoustic Purge Fan	477988
Acoustic Purge Fan XL	479829
ISO 45% Coarse (G3) 2 pk	442356
ISO ePM10 50% (M5)	444199
Anti Vibration Mounts	68MP033G

SAP PCDB Test Results (Kinetic V)

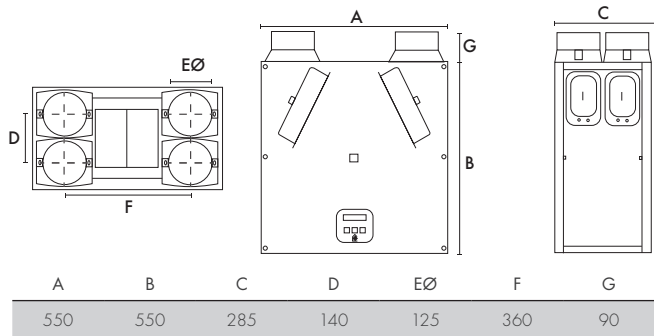
	SAP 2009		SAP 2012	
	Thermal Efficiency %	SFP (W/l/s)	Thermal Efficiency %	SFP (W/l/s)
K+1	90	0.60	90	0.61
K+2	90	0.59	90	0.74
K+3	90	0.68	90	0.95
K+4	89	0.79	90	1.19
K+5	90	0.97		

SEC Class

Model	SEC Class
Kinetic V & BH	A

Dimensions (mm)

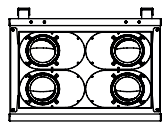
Unit



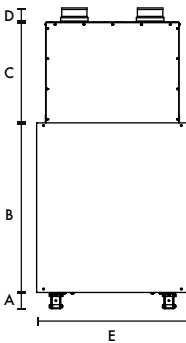
Weight: 15kg

Acoustic Solution

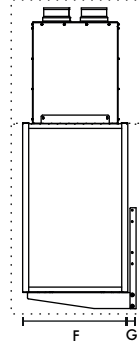
Top



Front



Side



Acoustic
Top Box
Acoustic
Enclosure

Acoustic Acoustic
Top Box Enclosure

A	B	C	D	E	F	G	kg	kg	Spigot
80	633	501	75	626	447	45	11	19	125

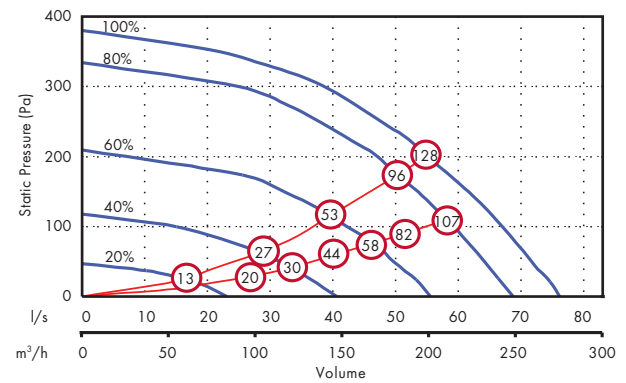
Sound Data (Kinetic BH & V)

		Octave band, Hz, dB SWL								SPL dB(A)	
Speed	Test mode	63	125	250	500	1k	2k	4k	8k	LwA	@ 3m
20%	Supply	52.9	52.9	46.5	41.7	39.3	29.3	19.3	22.8	44.4	26.9
	Extract	50.7	41.9	37.4	34.5	29.8	17.7	17.4	22.7	35.7	18.2
	Breakout	36	34.5	33.6	34.3	33.8	27.2	22.2	25.3	37.2	16.7
40%	Supply	57.1	64.1	56.8	50.6	49.7	41.1	32.8	26.4	54.7	37.2
	Extract	55.2	50.3	44.9	43	38.3	27.7	19.8	22.9	43.8	26.3
	Breakout	43.5	41.7	40.4	41.3	41.7	36.1	27.8	26.2	44.7	24.2
60%	Supply	71.3	72.5	68.5	57.6	56.4	51.1	42.7	38.1	63.6	46.1
	Extract	60.2	56.3	52	48.8	44.8	35.5	26.9	24.4	50.2	32.7
	Breakout	50.7	47.8	47.7	47.7	48.3	44.9	36.7	30	51.8	31.3
80%	Supply	66.3	74.8	71.2	62.8	61	56.3	49.8	46.7	67.3	49.8
	Extract	63.8	59.4	57.6	53.8	49.2	41.2	33.5	29	55.0	37.5
	Breakout	54.4	52.7	54	52.7	53.5	50.3	43.6	37.7	57.2	36.7
100%	Supply	70.3	75.7	73.9	66.3	63.5	59.7	53.2	50.6	70.0	52.5
	Extract	66.6	63.9	60.9	56.5	51.2	44.2	36.8	32.6	57.9	40.4
	Breakout	59.1	55.2	56.8	55.6	56.1	53.5	47.1	41.6	60.1	39.6

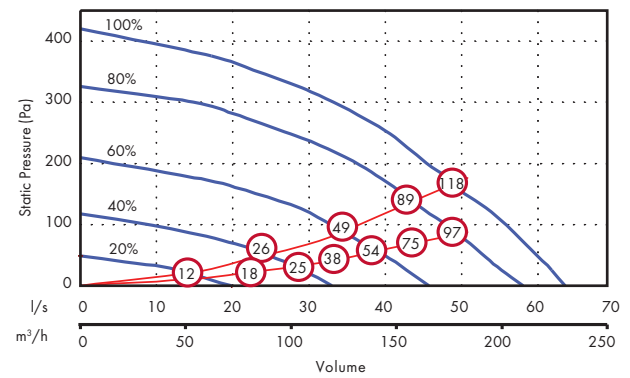
Performance

Fan speeds are fully adjustable within the performance range.

Vertical Spigots



Horizontal Spigots



(x) figure relates to Wattage (both motors)

Sound Data (Kinetic BH & V with Acoustic Solution)

		Octave band, Hz, dB SWL								SPL dB(A)	
Speed	Test mode	63	125	250	500	1k	2k	4k	8k	LwA	@ 3m
20%	Supply	57.1	44.6	36.4	27.9	20.6	14.8	18.1	23.8	35.2	17.7
	Extract	54.4	40.1	29.6	22.2	17.5	14.5	17.8	23.5	31.1	13.6
	Breakout	37.5	33.8	29.1	22.9	17.0	14.0	17.8	23.6	27.7	7.2
40%	Supply	64.9	56.3	46.4	36.1	28.2	15.4	18.1	23.8	44.6	27.1
	Extract	60.2	46.8	35.7	28.2	21.9	14.8	18.1	23.7	36.6	19.1
	Breakout	46.0	43.6	36.3	30.4	23.9	15.9	18.1	23.6	33.5	13.0
60%	Supply	72.3	63.0	55.6	43.1	34.1	19.5	18.6	24.0	51.9	34.4
	Extract	61.4	53.3	43.4	34.7	27.2	15.5	18.1	23.8	41.4	23.9
	Breakout	52.2	50.5	44.4	38.2	33.5	23.8	19.3	23.8	41.0	20.5
80%	Supply	73.8	67.9	61.6	50.0	38.6	23.4	20.2	25.2	56.8	39.3
	Extract	68.6	58.2	50.5	40.5	31.1	17.2	18.2	23.9	47.5	30.0
	Breakout	65.6	55.5	50.5	43.8	39.7	32.7	24.9	24.0	47.4	26.9
100%	Supply	77.3	70.8	64.9	53.8	41.4	26.3	21.9	26.8	60.1	42.6
	Extract	71.5	60.6	53.5	43.9	33.4	19.1	18.5	24.0	50.5	33.0
	Breakout	69.0	58.4	53.4	47.1	43.0	37.5	29.9	24.9	51.1	30.6

Tested according to BS EN 13141-7:2010. Breakout quoted spherical. Supply and Extract quoted hemispherical. For in-duct data, end reflections are added based on the spigot size of the unit.

Consultant's Specification (BH Models)

Operation

The supply and extract ventilation unit shall be a Sentinel Kinetic as manufactured by Vent-Axia and shall be sized as indicated on the drawings and shall be in accordance with the particular specification.

Supply air to the room shall be pre-heated by the extract air via the integrated composite plastic counterflow heat recovery cell. The Sentinel Kinetic shall automatically vary the ventilation rate via EC/DC motors, as it receives signals from one of the optional interconnected sensors. When a signal is received, the fans shall either vary their speed proportionally or on a trickle and boost principle.

The unit shall have the facility to commission the supply and extract fans individually via in-built minimum and maximum speed adjustment, or alternative wired remote control unit. The fans themselves shall have independent, infinitely variable speed control.

Unit Specification

The unit shall be manufactured with an ABS outer case construction, and incorporate a reversible core to allow for left or right hand mounting.

The unit shall have a high efficiency composite plastic counterflow heat exchanger, supply and extract filters, automatic summer bypass, (B/BH) integral minimum and maximum infinitely variable speed controls with fascia mounted failure indication. The unit shall have low energy, high efficiency EC/DC fan/motor assemblies with sealed for life bearings. The impellers shall be high efficiency forward curved centrifugal type.

The unit shall have a heat exchanger cell with a thermal efficiency of up to 92% when tested to EN 308. This shall be protected by ISO 45° Coarse (G3) grade synthetic filters on supply and extract. Complete with a condensate drip tray and drain connection.

The unit shall be constructed with a removable Core allowing full maintenance access. The removable Core shall provide access to the following:

- ✓ Supply and extract filter
- ✓ Heat exchanger
- ✓ Access to the electrical connections

To reduce breakout noise, the MVHR unit shall be provided with an Acoustic Enclosure of steel construction lined with class 'O' acoustic foam. To reduce in-duct noise, the top of the MVHR shall be fitted with an Acoustic Top Box to provide attenuation to the 4 ducts of the unit. This Acoustic Top Box shall be of steel construction lined with acoustic class 'O' foam with the MVHR spigots linked to the Top Box via 4 separate attenuated ducts. The acoustic enclosure and top box shall each be independently tested for noise to BS EN 13141-7.

Access shall be provided for wiring termination and setup/commissioning. The backlit LCD user interface therein shall be removable for remote mounting if required.

Units shall be as manufactured by Vent-Axia Ltd.

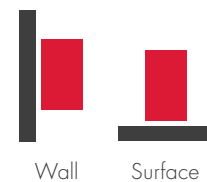
Standard Controls

All Sentinel Kinetic units shall incorporate the following functions integrally mounted, pre-wired and factory fitted by the manufacturer:

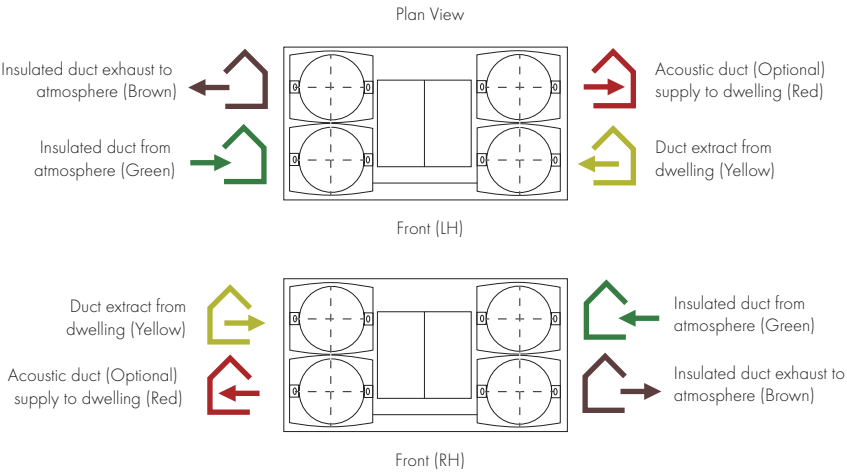
- ✓ Integral infinitely variable fan speed control on supply and extract
- ✓ Integral min/max ventilation control/set point
- ✓ Integral BMS interfaces – control and status indication
- ✓ Heating interlocks
- ✓ 0-10V proportional speed adjustment
- ✓ Volt free contacts

- ✓ 24V sensor supply
- ✓ Integral on/off or trickle boost function from remote switch e.g. PIR occupancy detector
- ✓ The unit shall be controlled by the 'Sentinel' control devices (enablers and sensors) as detailed in the schedule or on the drawings
- ✓ Fully automatic summer bypass
- ✓ Switched Live input with adjustable 'delay-on' feature
- ✓ Fan failure or component failure indicated via individual fault code display
- ✓ Running time counter
- ✓ Control panel PIN number lock
- ✓ Automatic frost protection effective to -20°C
- ✓ Tool free filter access
- ✓ The unit shall incorporate ('H' models) an integral humidity sensor with the following features:
 - Ambient Response; Raises the humidity trigger point as dwelling temperature reduces
 - Rapid Response; Monitors the rate of change in humidity and triggers increased airflow even if the humidity trigger threshold is not reached
 - Proportional Response; Incrementally increases the fan speed to reduce noise and reduce energy consumption

Mounting Option

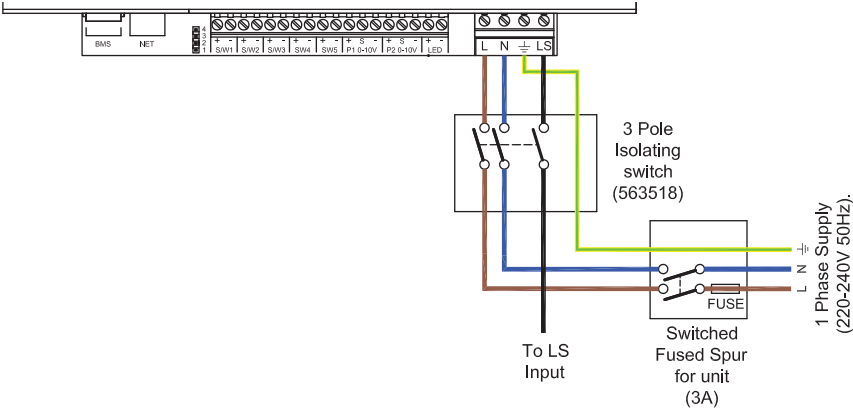


Airflow Direction



Electrical Connection (BH Models)

Please note: Electrical connection should be carried out by an appropriately qualified person and in accordance with current wiring regulations.



Trickle to Boost by Trickle/Boost Switch

