Vent-Axia.

The UK's Leading Ventilation Company

Product Selector

13th Edition

www.vent-axia.com

Why choose Vent-Axia

Vent-Axia has been active for over 80 years in supplying ventilation solutions to countries around the world, whose building regulations demand the most effective, sustainable and energy efficient ventilation solutions.

We are with you all the way

- Unparalleled customer service
- Industry leading design support
- Providing support and solutions on-site

Availability

- With the widest distribution network of any manufacturer in the UK we pride ourselves on having products available when and where you need them

Product solutions

- Whatever the product category, we have the most energy efficient systems available
- Unique solutions designed to fit into all your buildings
- With absolute focus on the end user we work hard to produce the quietest, most comfortable products for occupiers to live with

Vent-Axia®

Employing over 800 people across 4 manufacturing sites, we continue to invest in UK manufacturing.

Being in control of manufacture of the component parts including motors and mouldings all within the UK, we reduce our lead times as well as our carbon footprint.

Vent-Axia Group Ltd

Crawley - Unitary plastic fan manufacture

- Our largest total manufacturing and office space with over 230,000 sq. ft. housing the Vent-Axia Head Office as well as the Group Head Office
- Manufacturing and warehouse space totals 108,000 sq. ft.
- Manufacture of plastic ventilation ranges
- Design and test facilities for rigorous product testing including safety, airflow and climate chambers – BEAB approved
- Head Office functions including Sales Office, Customer Services, Technical Support and Marketing

Reading - Plastic Moulding and extrusion manufacture

- 50,000 sq ft injection and extrusion factory running 24 hours a day
- Over 30 injection moulding machines
- 5 extrusion lines for rigid and flexible duct

Dudley - Systems and Industrial manufacture

- Our largest site with 120,000 sq footage of manufacturing and warehousing space
- Manufacturing base for our metal products including Sentinel Demand Ventilation and Sentinel Totus
- Also the home of our heat recovery (MVHR) and Multivent (MEV) products

Dudley
Reading
Crawley

A British company supporting British manufacturing
Vent-Axia Group Ltd Products you can trust

Technical Advice

Free technical, installation and sales advice is available from the Vent-Axia Technical Support Centre.

Distribution

Vent-Axia products are available from all leading industrial fan stockists. For further information, or in case of difficulty, please contact the Vent-Axia Sales Centre in Crawley.

Sound Levels

Vent-Axia has a state of the art sound testing facility at Crawley (UK) providing sound power levels for comparison purposes tested in accordance with ISO 13347-1:2004 and ISO 13347-2:2004. This is an international standard that describes methods for determining sound power levels of fans in one-third octave bandwidths to allow comparisons to be made between different products from different manufacturers in a fair and consistent manner.

The data is not intended to equal the sound power levels experienced in any specific installation but enable the customer to compare different products and make an informed decision on their requirements.

Each installation will use different building materials that can have an effect on how sound is absorbed and/or reflected. It is therefore very difficult to predict the exact sound power levels exhibited in any given installation.

Performance

Tested in Vent-Axia test laboratories, performance testing is carried out in a balanced chamber test duct to BS 848: Part 1. This has a booster fan to overcome the system resistance.

The volume flow is measured by a pressure drop across a calibrated orifice plate at the entry to the system.

An adjustable damper provides a variable resistance to the test fan enabling its performance characteristics to be measured. The rated figures given are at free air performance.

BSEN ISO 9001/14001

Vent-Axia limited is certified by the British Standards Institution to BS EN ISO 9001 Cert. No. FM1792 QAS No. 3284/37, and BSEN ISO 14001 Cert. No. EMS600403.

Intellectual Property

Products shown in this catalogue include aspects which are protected under patent, copyright, design copyright, registered design and trademark laws. Vent-Axia will take all necessary legal action in any part of the world against any party found to be manufacturing, distributing, selling or otherwise dealing with any article which infringes the Company's rights in its products.

Guarantee

Applicable to units installed and used in the United Kingdom.

For details of guarantee outside he United Kingdom, contact your local supplier.

Please visit our website www.vent-axia.com/help/guarantees for details of guarantee periods.

In the event of any part being found to be defective, the appliance will be repaired, or at the Company's option, replaced, without charge, provided that:

1. The product has been installed and used in accordance with the instructions given with each unit;

2. The product has not been connected to an unsuitable electrical supply (the correct electricity supply voltage is shown on the appliance rating label attached to the unit);

3. The product has not been subjected to misuse, neglect or damage;

4. The product has not been modified or repaired by any person not authorised by the Company;

5. The application is within the specification of the unit;

6. The product is connected to Vent-Axia switch gear;

7. Thermal overload protection has been correctly connected;

8. The product has been subject to regular maintenance appropriate to the installation;

9. When returning the product under guarantee, evidence of purchase is provided.

Conditions of sale

All sales by Vent-Axia are made only upon the terms of the Company's Conditions of Sale (www.vent-axia.com/help/conditions-sale), a copy of which may be obtained upon request.

Online Heating & Ventilation Tools

Each tool has been designed with you in mind, making it simple to use & effective to apply, visit www.vent-axia.com/tools-services.

Online Product Selector
Our fully comprehensive online product selector tool. Choose from our complete specification range to best suit your project.

Online CPD
Vent-Axia offers a selection of CPD material online. With the addition of a questionnaire, you can independently complete your chosen module at your own convenience.

Online Trade Counter
Distributors with accounts can log in or register to check our live stock system for prices & stock availability & also review your previous trade orders.

Online Heating Calculators
By using the Vent-Axia Online Sizing Guides, you will be able to determine which product is suitable for you, helping you to achieve thermal comfort all year round.

Online Axial Fan Calculator
An interactive tool to help you calculate the installed performance of an axial fan when its being tested with a vane anemometer.

Energy Related Products Directive (ErP)

As part of the ongoing drive for energy efficiency within Europe, as of January 2016 ventilation devices over 30 Watts now come under the scope of the Energy Related Products Directive. The legislation sets minimum performance criteria across a range of fans and ventilation devices under two sets of legislation; 'residential' ventilation and 'non-residential' ventilation.

As a result of the legislation we have reviewed our products and where required made updates to ensure they comply. The primary changes have meant that a number of products have had alternative motors specified or have been updated to enable speed control. However, we have ensured that the installation methods remain unaffected. Through the review we have also taken the opportunity to rationalise our range where needed. All relevant products in this literature have been updated as required by the ErP legislation. Please note that where a product changes due to ErP, there will be a transitional period as we move from the old to the new model, and any stock you currently hold will not be affected by this regulation and can be sold as normal.

Residential Products

Residential Products has a secondary directive which requires some products to carry an energy label as described below:

Residential Ranges – Small fans

The majority of small residential fans are unaffected by the legislation as any device below 30 Watts is currently out of scope. The information on them is recorded however and can be found at **www.vent-axia.com/erp**

The Duet and Gemini fans have been delisted, but are still available as spares so please contact **sales@vent-axia** for more information.

MVHR and MEV products

These products do come into the scope of the legislation and will carry an energy label. There are some minimum energy efficiency requirements as well as the requirement for a summer bypass on heat recovery models. A small number of our products have been updated to ensure they meet these requirements. The following product has been discontinued:

• Kinetic E

Energy Efficiency Class

Products within the scope of ErP now need to carry a rating that shows their Energy Efficiency Class. This information is called a 'SEC Class' and is provided in all product literature and on the energy label.

A product's SEC class is affected by how the product is controlled. This is referred to as Local Demand Control (LDC) and indicates how many 'sensors' a fan should have. The regulations require that single room fans, such as a bathroom fan, should have at least 1 sensor. Units that are ducted, such as an MEV unit, need to have more than one sensor. Examples of these are a pull cord/light switch or humidistat.

In our literature, where appropriate we have shown the rating if an additional LDC was added to a product. In those cases, you will see a table similar to the one below which has a heading (incl LDC). This is so you can choose the most efficient option for your needs.

SEC Rating Example

Model	SEC Class*	SEC Class (inc. LDC)
HR200	C	B
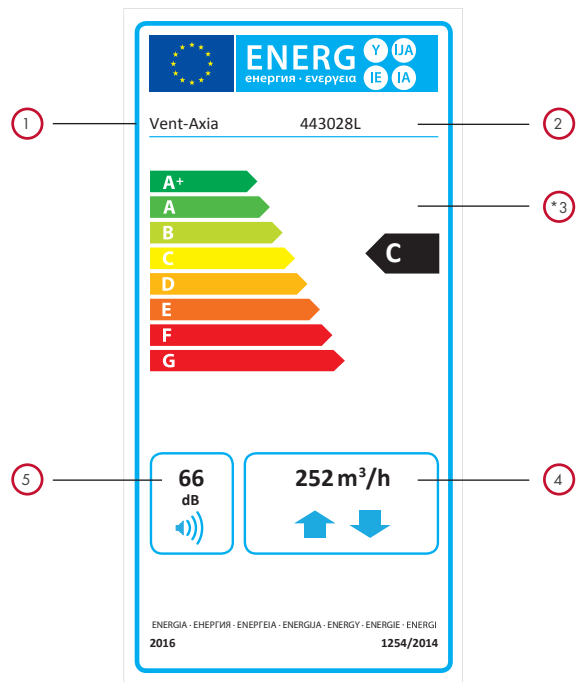
1 Manufacturers name 2 Model name
3 Energy Efficiency Class 4 Max flow rate 5 Sound Level

Non-Residential Ranges

Non-Residential products have had minimum performance and efficiency levels established, but there is no requirement to introduce energy labels. Some products have been updated with new motors and enabled for speed control.

Non-Residential ranges are split into a number of different categories dependent on their application and function. These can be described as follows:

1. Fans
2. Uni-directional Ventilation Units
3. Bi-directional Ventilation Units

1.Fans

These are products where there is a simple single case that directs air on and off the impellor. Examples include axial plate and case fans. These examples are out of scope of this legislation.

Changes to the way we sell products

The ErP regulations gave us the opportunity to review our product ranges and in some cases has enabled us to improve the way we stock and sell them. Examples of this include T-Series and Standard Range fans. You can now buy these as either the entire product or in modular format. The entire product can be purchased using the existing part number that you have always used. Alternatively, you can purchase just the motor core or just the fitting kit as required.

2. Unidirectional ventilation units

This includes products that are one direction only, and where there is a secondary housing around a fan.

This is the product category which required the most changes. The impact of the efficiency legislation meant that it became virtually impossible to comply using a forward curved AC centrifugal fan. We therefore moved to backward curved centrifugal fans in all of our AC box fan ranges. This meant changes to the box sizes and adjustment to performances, the following ranges are particularly affected.

ACQ/ATQ   QP/QPTW

We had a number of product ranges that were reaching the end of their life cycle and we have taken the opportunity to rationalise these. See our latest Specification Brochure for specific details on our current ranges.

3. Bi-directional ventilation units

These are product ranges that both supply and extract such as heat recovery units.

There are now minimum energy requirements set for heat recovery efficiency. Any product with an efficiency of 67% or lower does not comply. Both the Totus[2] and ERV-HIBOX ranges are unaffected by these changes, however the low efficiency heat recovery ERV-BOX products have been discontinued. See our Specification Brochure for more details.

< 67%

Heat recovery minimum efficiency

Contents

Lo-Carbon Residential Fans

Continuing our commitment to energy efficiency in this section you will find Lo-Carbon solutions for intermittent and continuous fan applications.

In axial or centrifugal, wall, ceiling or window applications in bathrooms or kitchens we have a Lo-Carbon fan offering up to 90% energy saving over the equivalent traditional fan.

Lo-Carbon Revive
We are proud to be market leaders and continually strive to bring you the best products available. Our newest addition to the range is no different - the award winning NEW Lo-Carbon Revive features a raft of innovations developed specifically for the needs of the Social Housing Market. The unique Multi-Vortex™ airflow technology ensures excellent pressure development yet efficient and quiet operation. Revive's Sense Smart™ intelligent technology makes the fan easy to install and provides a range of data via its easy to use interface.

Vent-Axia

Lo-Carbon Svara

- The UK's first App controlled unitary fan!
- Set up and control through the App via Bluetooth
- Continuous or intermittent
- 1 model for all applications
- Silent hours scheduling and purge mode functions
- Intelligent light sensor with overrun timer - allows replacement of a basic model fan
- 3 Speed, IP44 Rated, DC motor with 5 year guarantee
- Suitable for ceiling, panel or wall mounting
- Only 17 dBA

The UKs first App controlled unitary fan
The launch of Svara marks the next generation of unitary fans.

For electricians, installation is made simple through Svara's Bluetooth-enabled App allowing you to choose whether to opt for intermittent or continuous ventilation; whether you would like the humidistat to trigger operation or not; and whether the overrun timer is required. No more fiddly switches and jumpers!

For consumers Svara offers improved comfort in their homes since it has been developed to allow households to take control of their indoor air quality via the App.
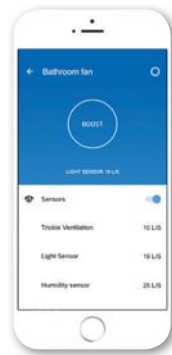
Aesthetics and silence
The name Svara takes its influence from the fan's Swedish heritage – a country well known for iconic and well thought out designs. Consumers will be attracted to Svara's good looks with its sleek modern design, plus with noise a key issue for consumers, households will also be impressed by Svara's quiet running, operating at just 17 dBA on low trickle. It is also easy to clean as the central module disconnects the motor from the rest of the fan allowing it to be simply wiped with a soft cloth, and at only 4W the energy efficient Svara also boasts low power consumption.

One model fits all
Vent-Axia Svara is programmed to cope with the vast majority of installations.

The fan is set as default to work continuously at a trickle flow of 10l/s.

When the fan senses a somebody in the room it increases the flow to 19l/s. If the humidity rises rapidly, for example when the shower is on, the fan goes up to maximum flow at 30l/s.

When the fan senses the humidity level has returned to normal it reverts to the trickle flow of 10l/s.

If other settings or functions are desired, they can be selected through the Vent-Axia Connect App which can be downloaded from the App Store and Google Play.

Functions
Light sensor
When the light sensor is enabled Svara senses when someone is in the room and then activates. Its sophisticated light sensor is triggered by light movement and shadows. It is possible to set a delay-on so the fan is not triggered by the light during quick night time bathroom visits. The light sensor can also distinguish between headlight flashes from cars and room occupancy, so it is not triggered by passing cars, avoiding nuisance running. The sensitivity of the light sensor can be adjusted via the App.

Overrun Timer
The light sensor provides an overrun timer but only requires a live and neutral. In houses where there is only a basic fan installed, the home owner can upgrade to a timer fan without having to rewire.

Humidistat
Svara features a humidistat which reacts to sharp changes in humidity, for instance when someone is taking a shower. When set to continuous running, once the humidity sensor is activated the fan runs at 30l/s until humidity returns to normal levels then the fan powers down to 10l/s. Ambient humidity changes will not trigger the humidistat. It is possible to change the sensitivity of the humidity sensor via the App.

Silent scheduling and Automatic cycles
The silent hours scheduling function allows you to deactivate the boost function on the Svara via the App, for example, this would prevent nuisance noise over night. Additionally during a vacation you can set Svara to an airing mode which operates a purge function every 12 hours for either 30, 60 or 90 minutes depending on selection. However, Svara's sophisticated controls, will not purge if the light sensor detects that there is someone in the house.

Models

Svara kitchen and bathroom fan

100 mm Axial fan. Factory set at continuous running with Humidistat and Light Sensor/overrun timer On.

Model	Stock Ref
Lo-Carbon Svara	409802

Accessories

Model	Stock Ref
Wall Kit	254102

Model	Stock Ref
Back draught shutter	406605

Cover plate

For duct dimensions between Ø140-160mm

Model	Stock Ref
Cover plate	409820

Dimensions (mm)
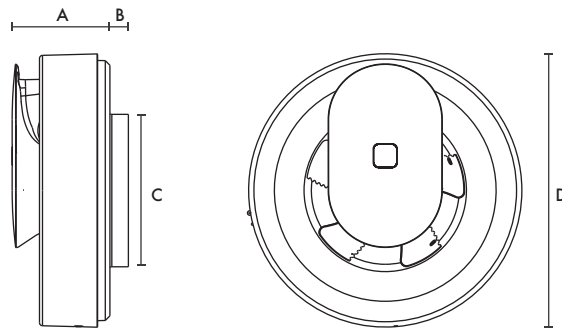
A	B	CØ	DØ
60	21	99	177

Performance Guide

Extract Performance - FID (l/s)				Sound dB(A)	SFP (W/l/s)
Low Trickle	High Trickle	Boost	Max Watts	@ 3m	@ 0Pa
10	16	30	4	17-20	0.13

Lo-Carbon iQ

- Minimal retro design to match bathroom décor
- Extremely quiet- only 21 dB(A)
- Truly surface mountable with removable spigots
- Intelligent controls and control panel for easy and flexible set up and commissioning
- Low power consumption – only 5 W
- Easy cleaning and maintenance
- 5 year Lo-carbon motor guarantee
- Intelligent humidistat control as standard
- Innovative airing function to ensure good air quality
- IP44 rated

Market Leading Design

With the launch of the Lo-Carbon iQ fan, we not only spent time perfecting the operation and user's experience of the fan but also worked hard on the design. The result is a stylish fan with a surface depth that appeals to the eye and that matches modern fittings found in today's bathrooms. The visible blades give a retro-feel and helps to give the fan a very quiet noise level.

Silent Operation

The open impellor and the unique method of operating the motor enables a greater array of operating options including silent continuous ventilation along with adaptable speed control and flexible timer functions.

Humidity Control

The iQ features an intelligent, fully automatic humidity sensor for moisture control. This means the fan learns to run only when it can make a difference to the indoor air quality. The fan continually monitors and records the moisture content to allow it to map the humidity profile throughout the year. This process enables the fan to ensure that it runs only when the fan can lower the moisture content in the air. This reduces nuisance running. The fan also has two modes for moisture control, silent or boost mode which can be selected via the touch pad control.

Control Panel

Our aim has been for the end user to be able to control and understand the basic fan functions, without the need of reading the manual. When the fan is connected to the power supply, it also performs a self-test where all the status lamps on the control panel are tested, as well as the function of the motor. Ideal for those installing to ensure that everything works. The simple controls, along with the LED feedback make the commissioning and any readjustment, quick and easy to complete.

LED Feedback

With many fans it is difficult to understand the exact mode that they are running in. We have now simplified this to provide a visual indicator to see what the fan is doing and which mode is currently active. The fan uses three different colours on the visible status lamp to communicate exactly what it is doing. A blue light signifies that the fan is working to evacuate moisture via the humidity sensor. A yellow light signifies that the timer is running. And a purple light signifies that the fully automatic airing function is active.

You Choose How The Fan Works

The intelligent overrun timer can be operated in several different ways, either via the light switch, integral pull-cord or a separate switch either as a standard On/Off or as a momentary switch stopping automatically after the overrun on time. You use the control panel to easily set the required post-running time at 15 or 30 minutes, depending on your choice.

Full Surface Mounted Installation

With the impellor and motor assembly designed to be low profile and accessible for maintenance, spigots on the fan are completely removable. This design enables the fan to be mounted onto a wall without any spigot so that it can be truly surface mounted. This is an ideal function if you have a duct with a smaller dimension than 100 mm or a duct that bends directly off of the back of the fan not providing any depth in the wall for the spigot.

Cleaning and Maintenance

For a fan to ventilate effectively, it is vital that it is kept clean and that the ductwork and grilles are free from dust that can reduce the air flowing through them. This is the first fan to be introduced with the ability to simply remove the impellor and open the centre of the fan to gain free access to the duct. Using the 'swing-out' function you can easily clean and clear the fan e.g. a clogged grille on the outside of the façade. Click the button to remove the impellor, then press the snap in catch and swing out the motor - that's it!

Automatic Airing Function

The airing function means when the fan has been inactive for 26 hours, it runs an airing programme for 60 minutes to exchange the air in the bathroom. No more worries about stuffy, musty odours in the bathroom when returning from holiday.

Lo-Carbon 5 Year Guarantee

As there is an integrated power adapter in the fan we have been able to use a low voltage motor that has a life span of approximately 60,000 hours. This is about 3-5 times longer than a standard fan. The motor features extremely quiet bearings. By using a low voltage motor we can significantly limit power consumption. The fan only consumes 5 Watts, about a third of a conventional AC bathroom fan.

Models

Lo-Carbon iQ

Multi control fan with option to run on intermittent or continuous setting. Adjustable timer and humidity options with integral pullcord included.

Model	Stock Ref
Lo-Carbon iQ	405155

Accessories

Backdraught Shutters
Designed to reduce any incoming draughts when the fan is off.

Model	Stock Ref
Backdraught Shutters	406605

Wall Mounting Back Plate
Designed to cover up marks where a previous fan has a different foot print. 242mm x 190mm.

Model	Stock Ref
Wall Mounting Back Plate	406762

Dimensions (mm)
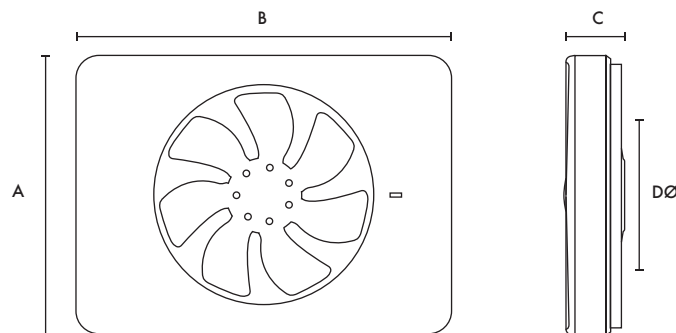
A	B	C	DØ
152	202	31	99/125

Product is supplied with a removable spigot 30mm deep in 99mmØ and 125mm Ø

Performance

Duct Ø	Trickle/Boost	Extract Performance - FID m³/h	l/s	Sound dB(A) @ 3m
100mm	Max	108	30	28
100mm	Silent	72	20	21
100mm	Trickle	43.2	12	12
125mm	Max	133.2	37	29
125mm	Silent	86.4	24	21
125mm	Trickle	54	15	13

Lo-Carbon VA100/SELV

- Meets current Building Regulations Approved Document F & L
- Suitable for wall, ceiling, panel and window mounting
- Fitted with a motorised shutter
- Protected against low energy lighting circuits
- IPX4 rated - IPX7 rated (SELV)
- Efficient long life DC motor with 5 year guarantee
- Uses up to 87% less energy
- Low sound levels
- 1 of 2 speeds selectable at installation
- Low specific fan power
- Day logger as standard on all models

Long Life Ventilation VA100
The Vent-Axia Lo-Carbon VA100 range features Lo-Carbon long life DC motors that are more efficient than conventional motors delivering up to 87% energy savings.

Shutters
The Vent-Axia Lo-Carbon VA100 range is fitted with a motorised shutter mechanism that uses no extra power in operation or off.

Installation
Fitted with integral protection against low energy lighting circuits, the Lo-Carbon VA100 is a 100mm axial fan suitable for use in the bathroom or toilet. VA100 is quick and simple to fit with easy-wire in one line terminals. Suitable for installation in windows, walls or panels/ceilings using kits available. The 100mm telescopic wall kit fits walls 225 to 360mm thick. The range meets the requirements of the current Building Regulations for the ventilation of toilets 6l/s and bathrooms 15l/s with a 15 minute overrun timer for internal rooms on the LT, XT and HTP models.

Safety Extra Low Voltage (SELV) Fan
Safety Extra Low Voltage (SELV) is designed for areas where a fan has to be fitted within zone 1 in a room containing a fixed bath or shower according to IEE wiring regulations. The VA100 SELV can be safely installed within the spray area. The fan is rated IPX7, control is by the supplied mains safety isolating transformer with 12V DC SELV output, which is sited away from any source of spray and out of reach of a person using a fixed bath or shower.

Models
Lo-Carbon VA100 LP/SELV LP (Pullcord)
Ultra long life DC motor. Pullcord On/Off override switch with indication light. 2 speed options.

Model	Stock Ref
LP	443159
SELV LP	441614

Lo-Carbon VA100 XP/SELV XP
(Shutter/Pullcord)
Ultra long life DC motor. Pullcord and On/Off override switch with indication light. 2 speed options.

Model	Stock Ref
XP	443160
SELV XP	459049

Lo-Carbon VA100 LT/SELV LT
(Timer)
Electronic adjustable overrun timer (5-30 minutes). Indication light. 2 speed options.

Model	Stock Ref
LT	443161
SELV LT	441615

Lo-Carbon VA100 XT/SELV XT
(Shutter/Timer)
Integral electronic adjustable overrun timer (5-30 minutes). Indication light. 2 speed options.

Model	Stock Ref
XT	443162
SELV XT	459050

Lo-Carbon VA100 LHTP/SELV LHTP
(Integral Humidity Sensor/Pullcord/Timer)
Complete with integral humidity control with pullcord override. Indication light which operates on the manual override only. 2 speed options.

Model	Stock Ref
LHTP	443163
SELV LHTP	441616

Lo-Carbon VA100 XHTP/SELV XHTP
(Shutter/Integral Humidity Sensor/Pullcord/Timer)
Complete with integral humidity control with pullcord override. Indication light which operates on the manual override only. IPX4 rated. 2 speed options.

Model	Stock Ref
XHTP	443164
SELV XHTP	436064

Accessories

Wall Kit
Fixing hole diameter 117mmØ

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100

Window Kit
Fixing hole diameter 105mmØ

Model	Stock Ref
Window Kit	254101
Anti-tamper Window Kit	443234

Dimensions (mm)

Panel   Wall   Window

	A	B	C	DØ	E	F	G	H
Bathroom/Toilet	146	47	53	98	31	31	74	200

SELV Transformer (W x H x D) 87 x 87 x 33

Weight 1kg

Performance

Area	Models	Extract Performance - FID		Watts	Sound dB(A)	SFP (W/l/s)
		m³/h	l/s		@ 3m	@ 0Pa
Toilet	Lo-Carbon VA100/SELV LP/XP/LHTP/XHTP/LT/XT	60	17	3.4	32	0.20
Bathrooms	Lo-Carbon VA100/SELV LP/XP/LHTP/XHTP/LT/XT	74	21	7.0	36	0.33

Lo-Carbon Silhouette 100/SELV

- Models Basic/Timer/Humidity & Timer
- Low power consumption - Lower running costs
- Fully opening and closing non-transparent shutters - Improved insulation and privacy
- Meets current Building Regulations Approved Document F & L
- 1 of 2 speeds selectable at installation
- Blue power indication light (except B model) - Modern aesthetics
- Ball bearing motors for vertical or horizontal application
- Unique humidity sensor track - Improved response
- 5 Year Motor Guarantee
- IPX4 rated - IPX7 rated (SELV)
- Suitable for wall, ceiling, panel and window mounting
- Improved humidistat functions

Slimline Bathroom Ventilation

With a slim profile of only 17mm, Lo-Carbon Silhouette blends in with the wall surface to provide an unobtrusive installation. Lo-Carbon Silhouette has an FID performance of up to 30l/s. It can be ceiling/panel mounted and connected to an appropriate duct run to the outside.

Safety Extra Low Voltage (SELV) Fan

Safety Extra Low Voltage (SELV) is designed for areas where a fan has to be fitted within zone 1 in a room containing a fixed bath or shower according to IEE wiring regulations. The Silhouette SELV can be safely installed within the spray area. The fan is rated IPX7, control is by the supplied mains safety isolating transformer with 12V DC SELV output, which is sited away from any source of spray and out of reach of a person using a fixed bath or shower. SELV transformer to BS EN 60742.

Models

Lo-Carbon Silhouette 100B/SELV 100SVB
100mm bathroom/toilet fan with back draught shutter.

Model	Stock Ref
100B	441624
SELV 100SVB	441511

Lo-Carbon Silhouette 100T/ SELV 100SVT (Timer)
100mm bathroom/toilet fan with integral adjustable electronic overrun timer (5-30 minutes), indicator light which operates on manual override only, and back draught shutter.

Model	Stock Ref
100T	441625
SELV 100SVT	441512

Lo-Carbon Silhouette 100HT (Humidistat/Timer)
100mm bathroom/toilet fan with adjustable auto humidity sensor from 60-90% RH and overrun timer, indicator light which operates on manual override only, and back draught shutter. Datalogger as standard on all Lo-Carbon humidity controlled Silhouette fans.

Model	Stock Ref
100HT	441626

Lo-Carbon Silhouette 100H SELV (Humidistat)
100mm bathroom/toilet fan with ambient response humidity sensor from 60-90% RH, indicator light which operates on manual override only, and back draught shutter.

Safety Extra Low Voltage version.

Model	Stock Ref
SELV 100SVH	441513

Accessories

Wall Kit
Fixing hole diameter 117mmØ

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100

Window Kit
Fixing hole diameter 117mmØ

Model	Stock Ref
Window Kit	442947

17mm actual profile

Dimensions (mm)

Panel
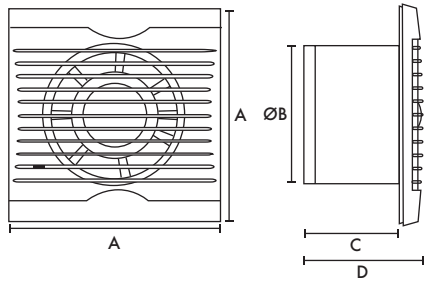
Wall Kit
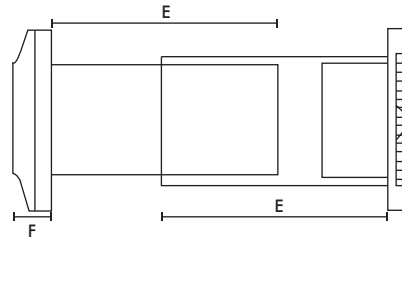
A	BØ	C	D	E	F
160	99	115	132	200	32

SELV Transformer (W X H X D) 87 X 87 X 33

Weight 0.6kg

Performance Guide

Pressure Pa vs Air Volume l/s
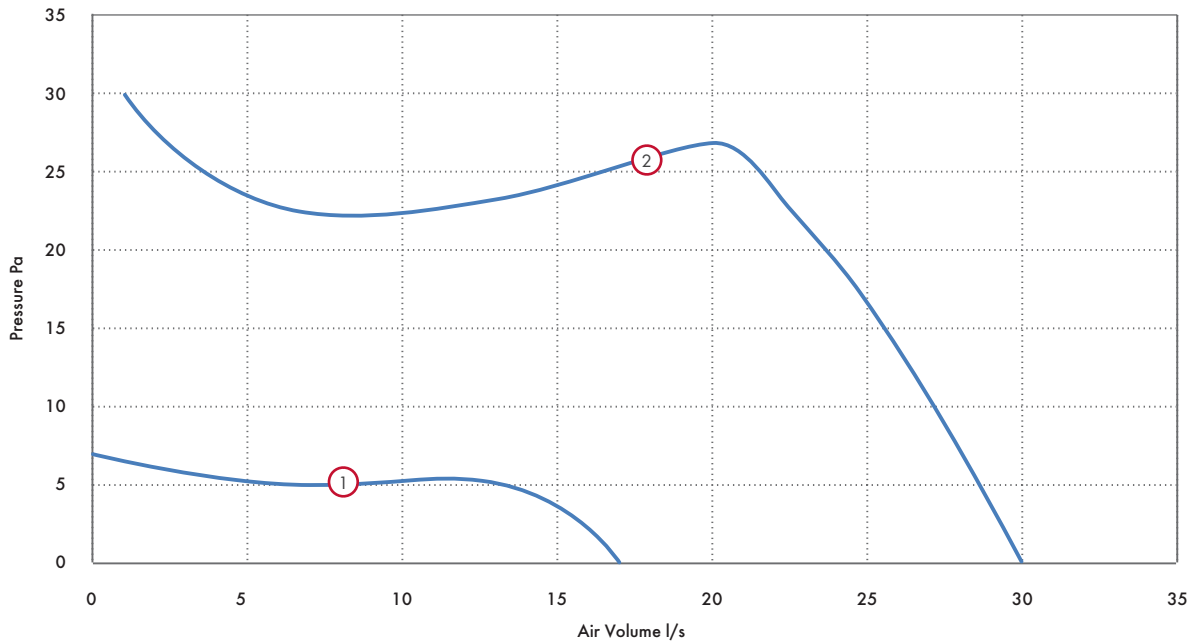
Area	Model	Curve Ref	Extract Performance - FID		Watts	Sound dB(A)	SFP (W/l/s)
			m³/h	l/s		@ 3m	@ 0Pa
Toilet	Lo-Carbon Silhouette 100 B/T/HT/SVB/SVT/SVH	1	60	17	3.4	34	0.20
Bathrooms		2	108	30	8.7	38	0.30

For window mounting: shutter cannot be used and must be removed

Lo-Carbon Centra/SELV

- Building Regulations Approved Documents F and L compliant, System 3 Continuous mechanical extract
- Recognised in SAP PCDB - Low SFP
- Discreet, tasteful styling
- IPX4 rated - IPX7 rated (SELV)
- dMEV Pressure detection device
- 5 Year Motor Guarantee
- Suitable for wall, ceiling, panel and window mounting
- SELV models supplied with remote transformer and suitable for 'Zone 1'

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Winners of the Energy Efficiency Initiative 2011 Award
with our Lo-Carbon Continuous Ventilation Product Range

What is de-centralised MEV (dMEV)?

Building Regulations Approved Document F gives examples of four main methods of ventilation. System 3, Continuous mechanical extract ventilation, can be achieved using a single centralised extract unit such as the Sentinel Multivent ducted to 'wet' rooms (kitchen, bathroom, en-suite and WC) or by decentralised individual fans, such as the Lo-Carbon Centra in the 'wet' rooms. The fans run continuously at near silent levels providing a simple and effective form of ventilation.

SELV (Safety Extra Low Voltage) is designed for areas where a fan can be installed within Zone 1 in a room where there is a fixed bath or shower. Ingress Protected (IP) to IPX7 Lo-Carbon Centra SELV can be fitted safely within the spray area. The separate transformer can be mounted away from the spray zone and out of reach from the bath or shower.

The Lo-Carbon Centra meets the latest requirements of the Building Regulations Approved Document F for wholehouse system ventilation and all models come with a 5 year motor guarantee.

Selection of the two trickle flow rates (6l/s or 9l/s) is via a simple 'jumper' on the control board. Different methods are available for operating the 15 l/s boost speed from a simple switched live to integral humidistat. See individual models for further details.

The attractive and discreet styling of the Vent-Axia Lo-Carbon Centra will complement the décor of any new home while virtually silent operation ensures optimum ventilation is achieved without intrusive noise.

Specific Fan Power

dMEV version recognised in SAP PCDB. Lo-Carbon Centra has a specific fan power of only 0.18 W/l/s in through-the-wall kitchen applications.

Models

Lo-Carbon Centra dMEV

Auto speed selection at installation and suitable for bathrooms or kitchens. The integral air pressure sensor checks the airflow when first installed and also helps the fan to compensate for external wind pressure.
Stock Ref
441782

Lo-Carbon Centra T/SELV T (Timer)

Ideal for bathroom and toilet applications, this unit runs continuously on trickle setting and may be boosted by the switched live input which activates the timer (fixed 15 min on T models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
T	442954
SELV T	443175

Lo-Carbon Centra TP/SELV TP (Timer/Pullcord)

For bathroom/toilet applications, the continuous running TP model is boosted by the pullcord which activates the timer (fixed 15 min on TP models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
TP	447127
SELV TP	447128

Lo-Carbon Centra HT/SELV HT (Humidistat/Timer)

For bathroom/toilet applications, the continuous running HT model is automatically boosted by the built-in humidistat or by a switched live input which activates the timer (fixed 15 min on HP models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
HT	442955
SELV HT	443176

Lo-Carbon Centra HTP/SELV HTP (Humidistat/Timer/Pullcord)

For bathroom/toilet applications, the continuous running HTP model is automatically boosted by the built-in humidistat or by the pullcord which activates the timer (fixed 15 min on HTP models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
HTP	443045
SELV HTP	443177

Accessories

Model	Stock Ref
150mm Conversion Kit	443334
Wall Kit White	254102
Wall Kit Brown	254100
Window Kit	442947
Ceiling Kit	443800

Dimensions (mm)

Model	A	B	C	DØ
Lo-Carbon Centra dMEV/All SELV	160	35	115	99
Lo-Carbon Centra T/TP/HT/HTP	160	35	80	99

Transformer 87 x 87 x 33mm (W x H x D) (SELV models only)

Performance Guide

Model	Extract Performance (l/s)			Power Consumption (Watts)			Sound dB(A)@ 3m		
	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost
Lo-Carbon Centra dMEV/All SELV	6	9	15	1.4	1.6	2.4	10.8	15.5	25.2
Lo-Carbon Centra T/TP/HT/HTP	6	9	15	3.2	3.5	4.2	10.8	15.5	25.2

SAP PCDB Performance (dMEV model)

Systems With Rigid Ductwork Installation Only

Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	SFP (W/l/s)
In Room (Ducted)	Kitchen	High	13.2	0.32
In Room (Ducted)	Wet Room	9 l/s	8.4	0.28
Through Wall	Kitchen	High	13.5	0.18
Through Wall	Wet Room	9 l/s	8.6	0.20

Systems With Flexible Or Mixed Ductwork Installation Only

Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	SFP (W/l/s)
In Room (Ducted)	Kitchen	High	13.2	0.37
In Room (Ducted)	Wet Room	9 l/s	8.6	0.31
Through Wall	Kitchen	High	13.5	0.18
Through Wall	Wet Room	9 l/s	8.6	0.20

Lo-Carbon Revive/SELV

- Designed specifically with Social Housing in mind
- Continuous running bathroom and kitchen fan
- Extracts up to 60l/s
- Easy to read LED display for commissioning and data gathering
- Intelligent Smart Sense™ technology tells you days run, boost hours run, energy used
- Innovative Multi-Vortex technology ensure high performance but low sound and energy levels
- 5 or 7 year warranty options
- Small footprint with optional decoration frame

Designed for Social Housing

The award winning, intelligent Lo-Carbon Revive is a new filter-less unitary fan designed to meet the specific needs of social housing. Boasting powerful, quiet, efficient ventilation, Revive provides good indoor air quality and comfort for residents while being quick and easy to install, low maintenance and reliable.

Smart Sense™ technology

Featuring Smart Sense™ intelligent technology Revive is quick and easy to install due to its simple alpha numeric LED display which is clear, easy to read and has a three-button menu for commissioning and data gathering. Smart Sense™ technology even tells the LED display which orientation to use depending on whether it is wall or ceiling mounted. All of which saves time on site and reduces installation complications.

The display also shows real-time data so landlords can reassure residents of the low-running costs. This includes data such as days run, hours on trickle or boost, and even more specifically, hours run on boost triggered by the humidity sensor. Revive can also tell you how much energy the fan has used.

Multi-Vortex™ technology

Revive is low maintenance since its market-leading Multi-Vortex™ technology does not require a filter, while the highly sculpted interior actively repels dust, avoiding clogging, thus helping to avoid call backs. In addition the Multi-Vortex TM technology has a high-pressure hybrid impellor that is powerful and efficient, yet quiet – everything you need for the Social Housing resident.

Multiple configuration options

Revive can extract up to 60l/s from a kitchen, but upon installation you have the choice to change the setting to allow for installation in a bathroom. The installer can also select a ducted mode or a through the wall mode. All selected via the intuitive LED display.

Models

Lo-Carbon Revive 7/SELV 7

HTP continuous running fan with kitchen or bathroom setting, with a combination of trickle and boost speeds selectable from 9, 15, 30 and 60l/s. Day logger and power run meter as standard. 7 year warranty. Adjustable dynamic ambient response humidity sensor. Timer adjustable between 1 and 30 minutes. In built boost activated by pullcord, humidity sensor, switched live or remote button. Tile front for discreet installation.

Model	Stock Ref
Lo-Carbon Revive 7	473848
Lo-Carbon Revive SELV 7	473849

Lo-Carbon Revive 5/SELV 5

HTP continuous running fan with kitchen or bathroom setting, with a combination of trickle and boost speeds selectable from 9, 15, 30 and 60l/s. Day logger and power run meter as standard. 5 year warranty. Adjustable dynamic ambient response humidity sensor. Timer adjustable between 1 and 30 minutes. In built boost activated by pullcord, humidity sensor, switched live or remote button. Open front grille.

Model	Stock Ref
Lo-Carbon Revive 5	473850
Lo-Carbon Revive SELV 5	473851

Lo-Carbon Revive/SELV

HTP continuous running fan with kitchen or bathroom setting, with a combination of trickle and boost speeds selectable from 9, 15, 30 and 60l/s. 5 year warranty. Adjustable dynamic ambient response humidity sensor. Timer adjustable between 1 and 30 minutes. In built boost activated

by pullcord, humidity sensor, switched live or remote button. Open front grille.

Model	Stock Ref
Lo-Carbon Revive	473852
Lo-Carbon Revive SELV	473853

Accessories

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100
Conversion kit	408680
Ceiling kit	407928
Window kit	407927
Decoration Frame	474041
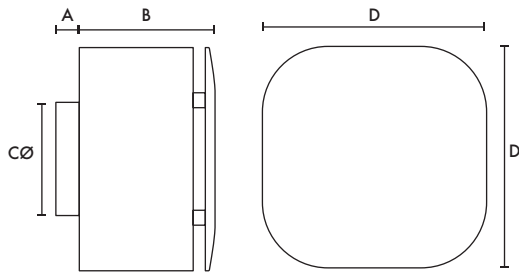
Dimensions (mm)

A	B*	CØ	D
30	132/102	99	193

*Closed/Open Grille

Decoration Frame Dimensions (mm)
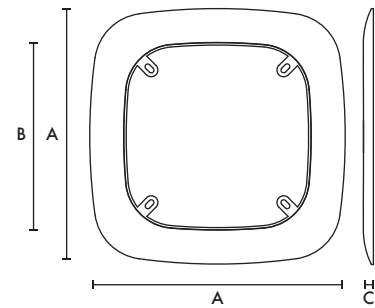
A	B	C
259	191	10

Performance Guide

1. Low Trickle
2. Bathroom Boost
3. Low Kitchen Boost
4. High Kitchen Boost

| Model | Trickle Low | Extract Performance (l/s) | | | Trickle Low | Power Consumption (Watts) | | | Trickle Low | Sound Data (dBA) | | |
		Bathroom Boost	Low Kitchen Boost	High Kitchen Boost		Bathroom Boost	Low Kitchen Boost	High Kitchen Boost		Bathroom Boost	Low Kitchen Boost	High Kitchen Boost
Revive	9	15	30	60	1.4	2	6	26	15	21	33	47

Lo-Carbon Solo Plus/SELV

- Up to 70% energy saving
- Filterless as standard - innovative impeller design means no need for a filter
- 5 Year Lo-Carbon motor guarantee
- Meets current Building Regulations Approved Documents F & L
- IPX4 rated - IPX7 rated (SELV)
- Flush or surface mountable with adjustable rear or side exit spigot
- SELV models suitable for installation over or within reach of a shower or bath
- Extremely low sound levels
- Suitable for wall, ceiling and panel mounting
- SELV Models - Supplied with a remote transformer

Long Life Ventilation

The Lo-Carbon Solo Plus range from Vent-Axia has been specially designed for through the wall and ducted applications, suitable for internal bathrooms, toilets and other small rooms. Finished in white, the Lo-Carbon Solo Plus can be flush or surface mounted, with a 2 position 100mm circular spigot for rear entry or connecting to a vertical ducting system. The powerful centrifugal impeller allows installations using 100mm ducting in straight runs, whilst still achieving 15l/s as required by Building Regulations Approved Document F.

Continuous running products, such as the Lo-Carbon Solo Plus, installed in all wet areas of a dwelling are classed as a wholehouse ventilation system and therefore only need to move the amount of air as outlined in table 5.1a and 5.1b of Building Regulations Approved Document F.

The Lo-Carbon Solo Plus has an adjustable boost speed which is set at installation variable between a wall or duct setting for boost/override operation to meet Building Regulations thus ensuring minimum energy usage and low sound levels. All models have an optional speed for constant trickle ventilation (12l/s), selectable at installation. Depending on the model, the fan will switch from trickle (if selected) to boost via the pullcord/light switch/humidity sensor/PIR.

All models can be wall, panel or ceiling mounted and can be connected to either circular, rectangular or Vent-Axia's flat ducting. Enclosure of the electrical components is manufactured from flame retardant grade material.

Safety Extra Low Voltage Fan (SELV)

Designed for areas where a fan has to be fitted over or within Zone 1 in a room containing a fixed bath or shower according to IEE wiring regulations (BS 7671), the Lo-Carbon Solo Plus SELV fan can be safely installed within the spray area. The fan is rated IPX7. Control is by the supplied mains safety isolating transformer unit with 12V DC SELV output, which is sited away from any source of spray and out of reach of a person using a fixed bath or shower. Controller Supply voltage 220-240V/1/50Hz. Output to fan SELV 12V DC.

Models

Lo-Carbon Solo Plus P/SELV P (Pullcord)
Flush or surface mountable. Control by Pullcord. 2 Speed. Constant trickle option. Adjustable boost. In-built Lo-Carbon controller.

Model	Stock Ref
P	427481
SELV P	427485

Lo-Carbon Solo Plus T/SELV T (Timer)
Flush or surface mountable. Control by room light or switch. 2 Speed. Constant trickle option. Adjustable boost. Adjustable timer overrun. Delay on timer. In-built Lo-Carbon controller.

Model	Stock Ref
T	427482
SELV T	427486

Lo-Carbon Solo Plus HT/SELV HT (Humidistat/Timer)
Flush or surface mountable. Humidity controlled fan with override pullcord. Constant trickle option. Adjustable boost. Adjustable timer overrun. Delay on timer. Adjustable humidity sensor. In-built Lo-Carbon controller. Datalogger as standard on all Lo-Carbon humidity controlled Solo Plus fans.

Model	Stock Ref
HT	427483
SELV HT	427487

Lo-Carbon Solo Plus TM/SELV TM (Timer/PIR)
Flush or surface mountable. Control by integral PIR detector. 2 Speed. Constant trickle option. Adjustable boost. In-built Lo-Carbon controller.

Model	Stock Ref
TM	427484
SELV TM	427488

Accessories

Lo-Carbon Solo Plus Bezel
Used when flush mounting - reduces the need to make good.

Model	Stock Ref
Bezel	404106

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100

Filter pack (1 per pack)
The design of the Lo-Carbon Solo Plus means that it does not need a filter. However, if you are going to install the product in a heavily greasy environment, you may want to protect the product by fitting a filter.

Model	Stock Ref
Filter pack	449265
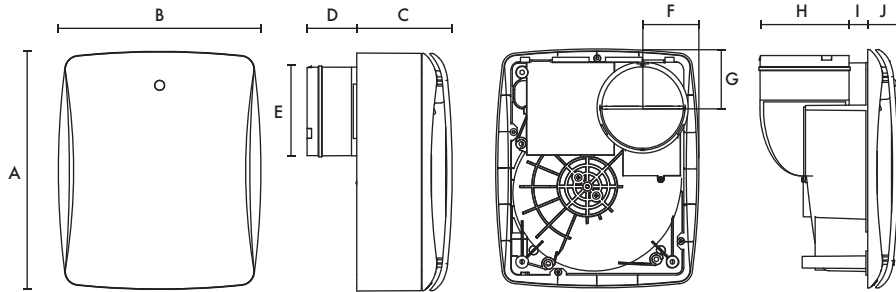
Dimensions (mm)

A	B	C	D	EØ	F	G	H	I	J
263	224	106	55	98	62	65	98	21	34

Weight 2.2kg, SELV Weight 2.7kg. Dimensions: (W x H x D) 87x87x33mm.

Performance Guide (Duct Mode)

1 Low Trickle
2 High Trickle
3 Boost
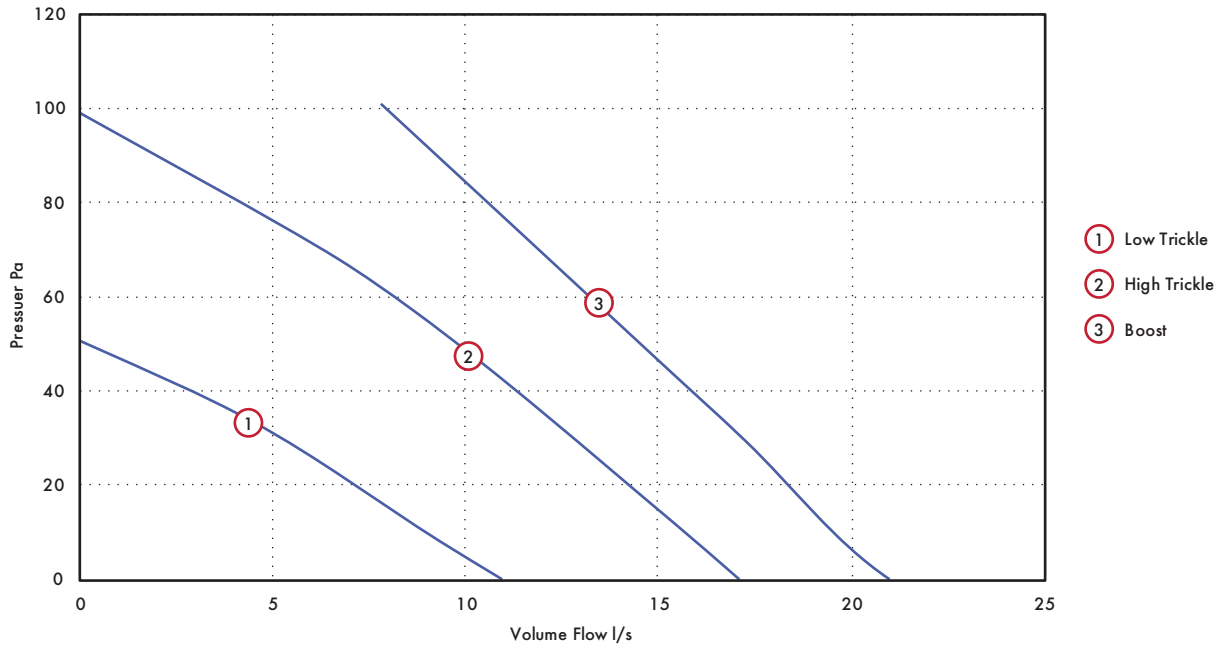
Model		Extract Performance l/s (m³/h)			Power consumption - Watts			dB(A) @ 3m			SFP (W/l/s)
		Boost	High trickle	Low Trickle	Boost	High trickle	Low Trickle	Boost	High trickle	Low Trickle	@ 0Pa
Lo-Carbon Solo Plus/SELV P/T/HT/TM	Wall mode	18 (64.8)	12 (43.2)	8 (28.8)	6	2.9	2.3	33.5	27	23.5	0.28
	Duct mode	21 (75.6)	17 (61.2)	11 (39.6)	8.4	5.3	3.2	35.5	33	26	0.29

Tested at 240VAC @ 50Hz

Lo-Carbon Minivent

- Complete kit supplied
- Meets Building Regulations Approved Document F & L requirements for toilets and bathrooms at max 1.5m of ducting and 1x 90° bend
- Adjustable timer version available
- 5 Year Motor Guarantee
- 1 of 2 speeds selectable at installation

Powerful Lo-Carbon In-Line Fan Kit

The Vent-Axia Lo-Carbon Minivent ducted bath/shower kit includes all the components necessary to install a ducted 100mm system. This simplifies fitting of an efficient ventilation system to small rooms including bathrooms, shower rooms and toilets. It is especially suitable for en-suite bathrooms.

Lo-Carbon Minivent Shower Kit installed
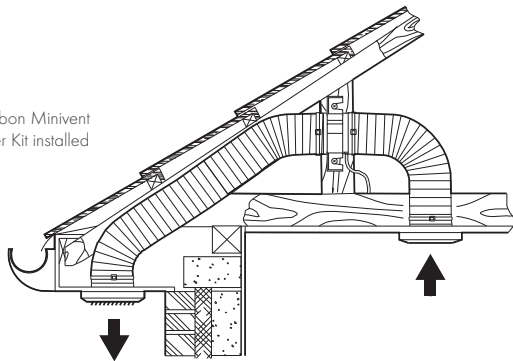
When installed, the fan kit has ample performance to meet the Building Regulations requirements for toilets and bathrooms. The timer version should be used for internal rooms.

The kit consists of a Lo-Carbon Minivent In-Line fan, a white ceiling grille and spigot, 3 metres of flexible duct and an external louvre for soffit or wall mounting. The duct should be cut to the required length and the bend radius kept to a maximum to provide optimum fan performance.

Enclosed terminal compartment, Class 2 appliance. Supply voltage 220-240/1/50Hz.

Models

Lo-Carbon Minivent Shower Fan (Basic)
Comprises - high output tube fan, 3 metres of flexible duct, ceiling inlet grille and spigot, soffit/wall outlet grille.

Model	Stock Ref
Basic	441421

Lo-Carbon Minivent Shower Fan (Timer)
Comprises - high output tube fan, 3 metres of flexible duct, ceiling inlet grille and spigot, soffit/wall outlet grille.

Model	Stock Ref
Timer	441422

Dimensions (mm)

Rear View   Side View
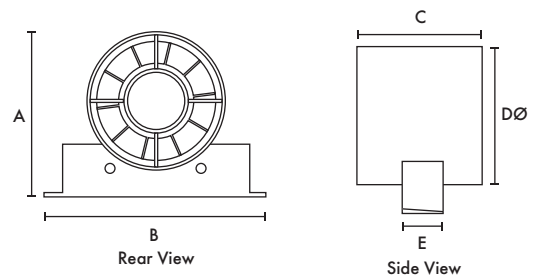
A	B	C	DØ	E
130	155	90	98	27

Internal/External Grille Dimensions 140x140mm
Transformer (W x H x D) 87 x 87 x 33

Performance Guide

Model	Extract performance - FID			Sound dB(A) @ 3m	SFP (W/l/s) @ 0Pa
	m³/h	l/s	Watts		
Lo-Carbon Minivent B/T	110	31	6.5	23	0.21

Lo-Carbon LED Vent-A-Light

- Suitable for shower enclosure and wet areas
- Now with a 3W LED Lamp
- Provides simultaneous fan and light operation
- Meets current Building Regulations Approved Documents F & L
- 1 of 2 speeds selectable at installation
- Double insulated fan
- Light assembly Class III
- 5 Year Motor Guarantee
- Supplied with white and chrome bezels

100mm Lo-Carbon axial in-line shower fan and light kit. Provides simultaneous fan and light operation. Suitable for shower enclosures and wet areas. Available with both a white and chrome bezel on light assembly. The light assembly can be held in place using fixing clips or screws.

Typical Specification
CE marked in accordance with all the relevant EEC Harmonised Directives.

Fan double insulated and the motor is fitted with Thermal Protection. Light assembly class III.

Electrical
12 volt DC 3W GU5.3 sealed lamp. Powered by an LED Driver.

LED lamp lumens output 180lm – 200lm

Input, AC. Output - 12 volt DC. 1A.

Models
Lo-Carbon Vent-A-Light Fan and LED Light Kit (Basic)
100mm axial in-line shower fan and light kit. Includes fan, 3m flexible ducting, white grille, LED lamp light transformer and light assembly with white and chrome bezels.

Model	Stock Ref
Basic	441423

Lo-Carbon Vent-A-Light Fan and LED Light Kit (Timer)
100mm axial in-line shower fan and light kit. Fan has electronic overrun timer adjustable from 5 to 30 minutes. The factory setting is 15 minutes. Includes fan, 3m flexible ducting, white grille, LED lamp light transformer and light assembly with white and chrome bezels.

Model	Stock Ref
Timer	441424

Dimensions (mm)

Rear View   Side View
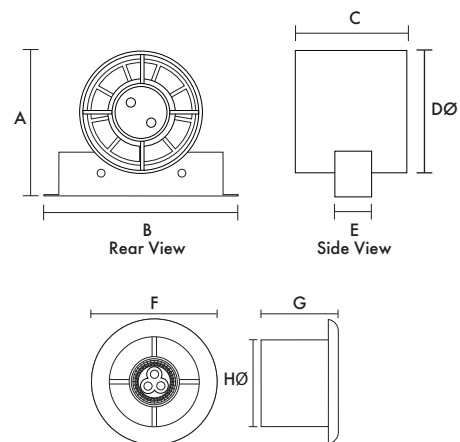
A	B	C	DØ	E	FØ	G	HØ
130	155	90	98	27	140	74	98

Internal/External Grille Dimensions 140x140mm
Fan Transformer (W x H x D) 87 x 87 x 33

Performance Guide

Model	Extract performance - FID		Fan	Light	Sound dB(A)	SFP (W/l/s)
	m³/h	l/s	Watts	Watts	@ 3m	@ 0Pa
Lo-Carbon Vent-A-Light B/T	110	31	6.5	3	23	0.21

Tested at 240V 50Hz

Lo-Carbon Quadra/SELV

- Meets current Building Regulations Approved Document F & L for intermittent or continuous use
- Recognised in SAP PCDB - Low SFP on PCDB 0.38 W/l/s
- 100mm circular spigot for easy installation and replacement of any existing fan - flush or surface mount
- Filterless technology and maintenance free
- Lo-Carbon motors offering 90% energy savings and long life
- Motor cassette cartridge for simple replacement
- Integral daylogger (option on SELV models)
- 5 Year Motor Guarantee
- IPX4 rated - IPX7 rated (SELV)
- Suitable for wall, ceiling and panel mounting

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Winners of the Energy Efficiency Initiative 2011 Award with our Lo-Carbon Continuous Ventilation Product Range.

Ventilation for any room

The Lo-Carbon Quadra offers a single fan suitable for surface or flush mounting. Low speed selectable between 6, 9 and 12l/s and high between 15, 30 and 60l/s all with through the wall or two ducted selections to ensure installed performance is met.

Lo-Carbon Quadra SELV

The Lo-Carbon Quadra SELV has been designed to meet building requirements where there is a need to fit in Zone 1 containing a fixed bath or shower according to IEE wiring regulations. The Lo-Carbon Quadra SELV can be safely installed within the spray area with the 24VDC Safety Isolating Power Supply situated away from the spray zone and out of reach of the person using the facility.

Discrete

With discrete aesthetics and low noise levels due to an accurately balanced impeller, it is also one of the most unobtrusive centrifugal kitchen fans available. The front cover design also provides no area for dirt to build up so it stays looking better for longer.

Models

Lo-Carbon Quadra TP/SVTP (Timer/Pullcord)

Dual speed: continuous running or intermittent to high speed. High speed via pullcord (On/Off) or switch live (with overrun timer).

Model	Stock Ref
TP	439251
SVTP	442865
SVTP Datalogger	446269

Lo-Carbon Quadra HTP/SVHTP (Humidistat/Timer/Pullcord)

Dual speed: continuous running or intermittent to high speed. High speed via integral pullcord (On/Off), integral adjustable humidity sensor or switch live (with overrun timer). When humidity sensor is triggered the flow rate increases proportionally with %RH to 50% of the set Boost speed.

Model	Stock Ref
HTP	439181
SVHTP	442866
SVHTP Datalogger	446270

Lo-Carbon Quadra TM/SVTM (Timer/PIR)

Dual speed: continuous running or intermittent to high speed. High speed via integral PIR sensor or switch live (both with overrun timer).

Model	Stock Ref
TM	439253
SVTM	442867

Accessories

Model	Stock Ref
Flush Mounting Kit	439256
Filter (optional)	439927
Decoration Frame	442551
Wall Kit White	254102
Wall Kit Brown	254100

Dimensions (mm)

	Front View	Side View	Rear View			
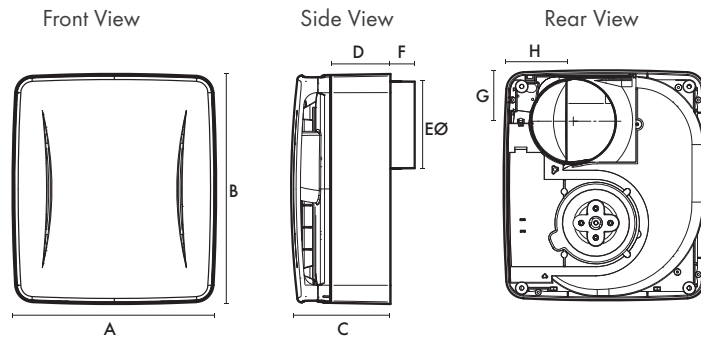
A	B	C	D	EØ	F	G	H
230	260	112	67	98	27	58	79

Performance Guide*

Continuous Trickle Speed

Boost Speed

1	6 l/s
2	9 l/s
3	12 l/s
4	15 l/s
5	30 l/s
6	63 l/s
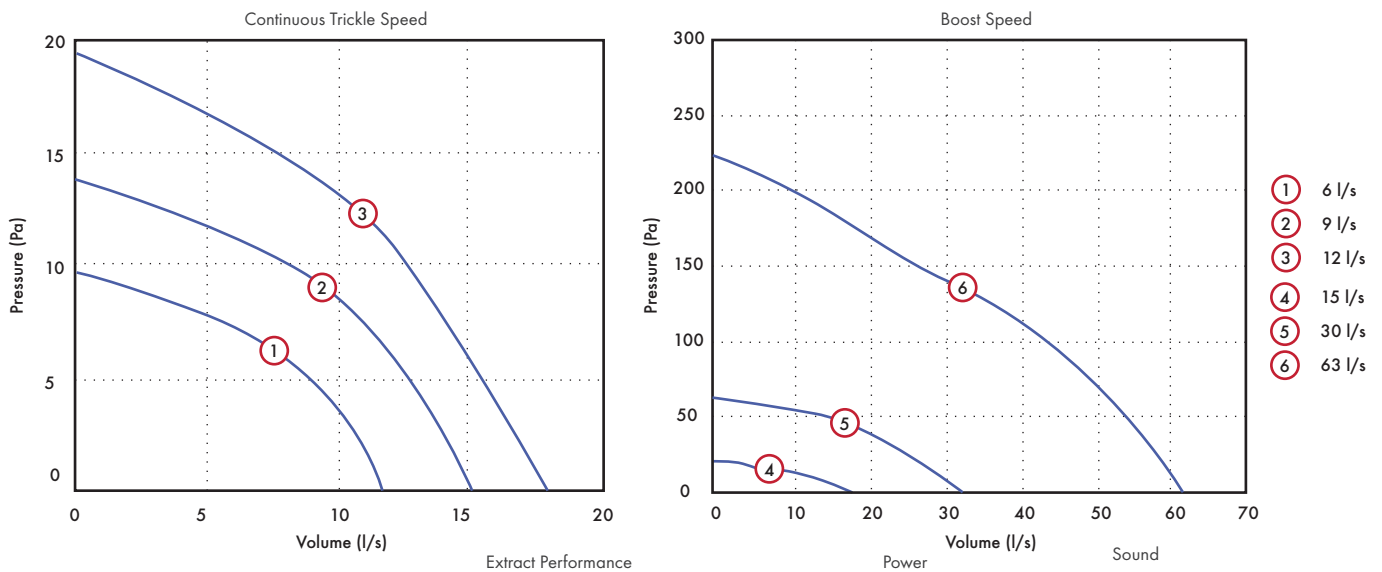
	Extract Performance				Power		Sound		
	High		Low		High	Low	dB(A) @ 3m		SEC
Model	m³/h	l/s	m³/h	l/s	Watts	Watts	High	Low	Class
Lo-Carbon Quadra/SELV TP/ HTP/ TM	227	63	22	6	38	3.8	50	20	D

*FID Performance. Tested in through the wall installation

SAP PCDB Performance

Systems With Rigid Ductwork Installation Only

Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	SFP (W/l/s)
In Room	Kitchen	15 l/s	15.8	0.41
In Room	Wet Room	9 l/s	14.6	0.61
Through Wall	Kitchen	15 l/s	21.4	0.38
Through Wall	Wet Room	9 l/s	19.5	0.50

Systems With Flexible Or Mixed Ductwork Installation Only

Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	SFP (W/l/s)
In Room	Kitchen	15 l/s	13.7	0.41
In Room	Wet Room	9 l/s	12.9	0.63
Through Wall	Kitchen	15 l/s	21.4	0.38
Through Wall	Wet Room	9 l/s	19.5	0.50

Lo-Carbon Silhouette 125

- Models Basic/Timer/Humidity & Timer
- Low power consumption - Lower running costs
- Quiet running
- Fully opening and closing non transparent shutters - Improved insulation and privacy
- 1 of 2 speeds selectable at installation
- IPX4 rated
- Ball bearing motors for vertical or horizontal application
- Unique humidity sensor track - Improved response
- 5 Year Motor Guarantee
- Suitable for wall, ceiling and panel mounting

Slimline Bathroom Ventilation

With a slim profile of only 18mm, Lo-Carbon Silhouette blends in with the wall surface to provide an unobtrusive installation. Lo-Carbon Silhouette has a FID performance up to 160m³/h. It can be ceiling/panel mounted and connected to an appropriate duct run to the outside.

Models

Lo-Carbon Silhouette 125B
125mm bathroom/toilet fan with indicator light and back draught shutter.

Model	Stock Ref
125B	446483

Lo-Carbon Silhouette 125T (Timer)
125mm bathroom/toilet fan with integral adjustable electronic overrun timer (5-30 minutes), indicator light which operates on manual override only, and back draught shutter.

Model	Stock Ref
125T	446484

Lo-Carbon Silhouette 125HT (Humidistat/Timer)
125mm bathroom/toilet fan with integral adjustable auto humidity sensor from 60-90% RH and overrun timer, indicator light which operates on manual override only, and back draught shutter. Datalogger as standard on all Lo-Carbon humidity controlled Silhouette fans.

Model	Stock Ref
125HT	446485

Accessories

Model	Stock Ref
Wall Kit	455226

Dimensions (mm)

Panel
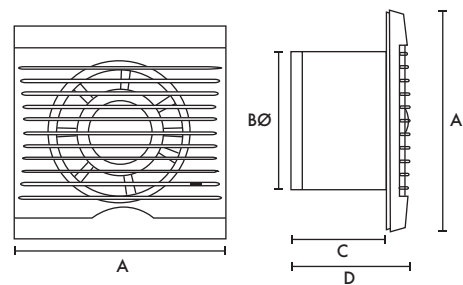
A	BØ	C	D
187	125	131	149
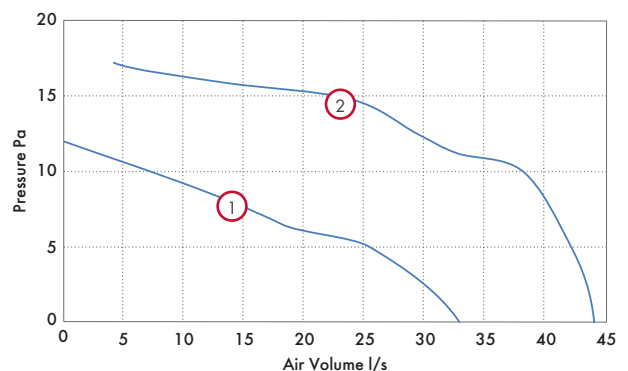
Performance Guide

Model	Curve Ref	Extract Performance m³/h	l/s	Watts	Sound dB(A) @ 3m	SFP (W/l/s) @ 0Pa
Lo-Carbon Silhouette 125B/T/HT	Low (1)	120	33	4.5	33	0.14
	High (2)	160	44	8	37	0.18

Lo-Carbon VA150

- Reduces the home's carbon footprint
- Long life Lo-Carbon motor lasts up to 5 times longer than conventional motors
- Up to 60% energy saving
- Meets current Building Regulations Approved Document F & L when installed
- IP44 rated
- Low sound levels
- 5 Year Motor Guarantee
- Suitable for wall, ceiling, window and panel mounting
- Fitted with a motorised shutter
- 1 of 2 speeds selectable at installation

Long Life Ventilation

Vent-Axia Lo-Carbon VA150 fans feature Lo-Carbon long life DC energy saving motors that last up to 5 times longer than conventional motors, whilst delivering up to 60% energy savings. The extended life of Lo-Carbon fans is due to the use of a new generation of high quality electronically controlled ball-bearing motors especially developed for this range. The motors are perfectly designed for the wet conditions of utility rooms and kitchens, extracting stale, moisture-laden air quietly and efficiently.

Shutters

The Vent-Axia Lo-Carbon VA150 range is fitted with a motorised shutter mechanism that uses no extra power in operation or off.

Installation

The Lo-Carbon VA150 range is suitable for installation in panels, walls or windows using the kits available. Lo-Carbon fans are quick and simple to fit using reversible grommets and easy-wire terminals, and are suitable for wall or ceiling mounting at any angle.

150mm telescopic wall kits are available with a white or brown outside grille. The kit is supplied with a telescopic wall sleeve to fit walls 225–360mm thick. Hole diameter 152mm.

Window fitting kits are available for use with all Lo-Carbon 150mm models through single or double glazed windows up to 40mm thick. Hole diameter 152mm.

Models

Lo-Carbon VA150P (Shutter/Pullcord)

Ultra long life DC energy saving motor. Fitted with a motorised shutter. Controlled via pullcord On/Off switch.

Model	Stock Ref
VA150P	459123

Lo-Carbon VA150T (Shutter/Timer)

Ultra long life DC energy saving motor. Fitted with a motorised shutter.

Controlled via integral power supply with electronic adjustable overrun timer (5-30 minutes).

Model	Stock Ref
VA150T	459124

Lo-Carbon VA150HP (Shutter/Humidistat)

Ultra long life DC energy saving motor. Fitted with a motorised shutter. Controlled via integral power supply with pullcord override switch and adjustable humidity sensor (60-95% RH).

Model	Stock Ref
VA150HP	459125

Accessories

Model	Stock Ref
Wall Kit White	140902
Wall Kit Brown	140903
Window Kit	140901

Dimensions (mm)

Panel   Wall   Window

A	B	C	DØ	E	F	G	H	I
216	224	80	146	60	220	37	55	104
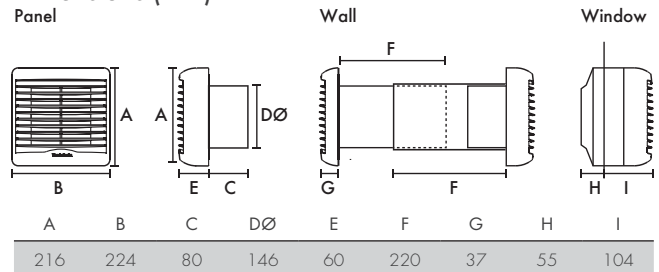
Weight 1.2kg

Performance Guide

Model	Setting	Extract Performance m³/h	l/s	Sound dB(A) @ 3m	Watts	SFP (W/l/s) @ 0Pa
Lo-Carbon VA150P/T/HP	Utility	160	46	33	7.5	0.16
	Kitchen	230	64	36	11.5	0.18

Lo-Carbon Silhouette 150

- Stylish ultra low profile grille
- Downstream airflow guide vanes for improved pressure development
- Ball bearing motors for vertical or horizontal application
- Wall kit design meets Building Regulations Approved Document F requirements
- 5 Year Motor Guarantee
- 1 of 2 speeds selectable at installation
- IPX4 rated
- Low Specific Fan Power
- Suitable for wall, ceiling and panel mounting

Slimline Lo-Carbon Kitchen Ventilation

The Lo-Carbon Silhouette 150 range is designed for modern living. With a profile of only 19mm on the kitchen models, Lo-Carbon Silhouette blends in with the wall surface to provide an unobtrusive installation.

Mounted in the centre of the fan, beneath the ultra slim profile grille, are the electronics, incorporating a humidistat (HT model) for detecting a change in internal humidity or an overrun timer option that is adjustable between 5 and 30 minutes.

FID performance of 65l/s, double insulated. Power consumption only 9 Watts.

Models

Lo-Carbon Silhouette 150B
150mm kitchen fan with indicator light and back draught shutter.

Model	Stock Ref
150B	441628

Lo-Carbon Silhouette 150T (Timer)
150mm kitchen fan with integral adjustable electronic overrun timer (5-30 minutes), indicator light which operates on manual override only and spring back draught shutter.

Model	Stock Ref
150T	441629

Lo-Carbon Silhouette 150HT (Humidistat/Timer)
150mm with integral adjustable auto humidity sensor from 60-90% RH and overrun timer, indicator light which operates on manual override only and back draught shutter. Datalogger as standard on all Lo-Carbon humidity controlled Silhouette fans.

Model	Stock Ref
150HT	441630

Accessories

Model	Stock Ref
Wall Kit White	140902
Wall Kit Brown	140903

Dimensions (mm)
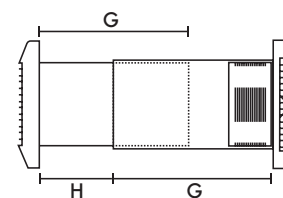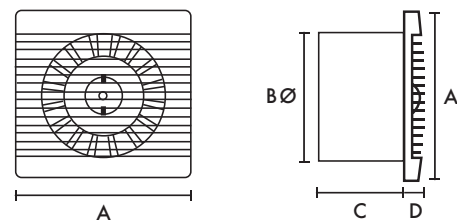
A	BØ	C	D	G	H
223	147	130	19	220	37

Weight 1.75kg
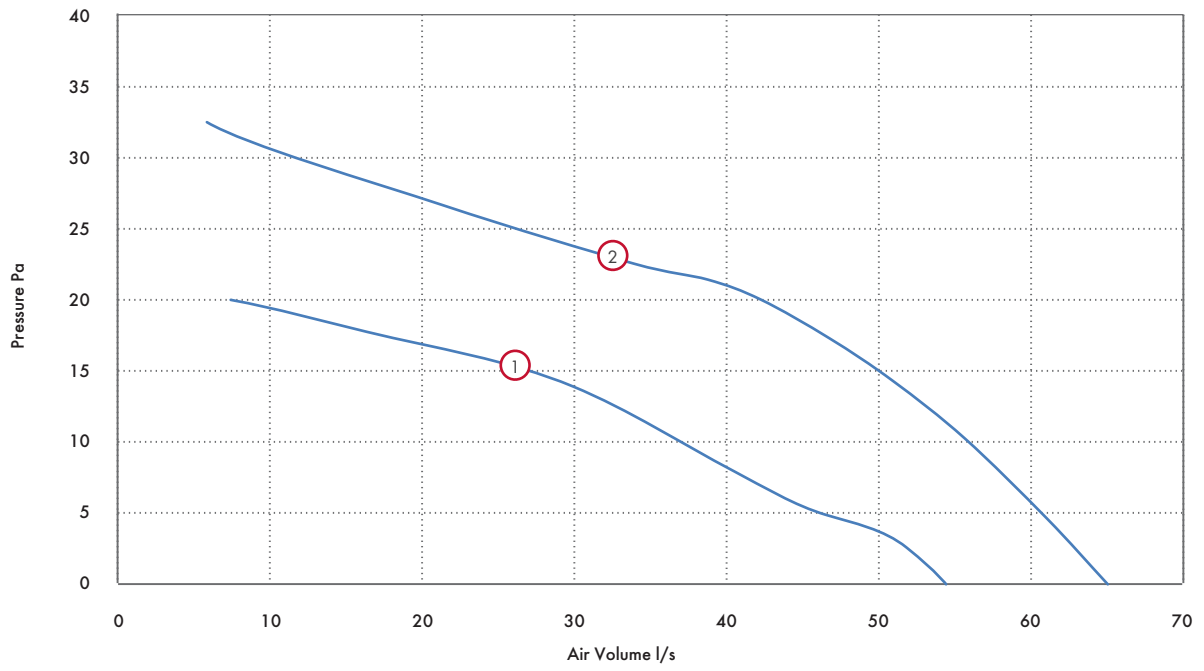
Performance Guide

Model	Setting	Curve Ref	Extract Performance m³/h	Extract Performance l/s	Watts	Sound dB(A) @ 3m	SFP (W/l/s) @ 0Pa
Lo-Carbon Silhouette 150B/T/HT	Utility Setting	1	200	55	6	35	0.11
	Kitchen Setting	2	234	65	9	43	0.14

Fixing hole diameter 152mmØ (when wall kit used)

Residential Fans

The UK's most comprehensive range of traditional fans for toilets, bathrooms, utility rooms and kitchens.

The quieter Silent Fan
Now even more discrete than before at only 14dBA! The Vent-Axia Silent Fan, the quietest bathroom extract fan on the market.

The stylish design and silent performance means it is the ultimate in discrete bathroom ventilation. This means your bathroom can now be the relaxing environment you always wanted. At only 14 dB(A) our Silent Fan provides stylish and silent ventilation without compromising on performance. Need to hear it to believe it? Email demo@vent-axia.com to arrange a demonstration and hear for yourself just how quiet it is!

Meets current Building Regulations Approved Documents F & L.

Vent-Axia

VA100/SELV

- Indication light
- Panel, ceiling, window or wall mounting
- Available with electric shutter
- Sensors and auto mode controllers save energy by switching the ventilation units on only when needed and when the room is occupied
- Adjustable overrun timer option available (5-30 minutes)
- Meets current Building Regulations Approved Document F
- IPX4 rated - IPX7 rated (SELV)
- SELV Transformer to BS EN 60 742

Bathroom and Toilet Ventilation

The VA100 range from Vent-Axia is designed for domestic bathrooms and toilets. Available as window, wall or panel mounted and with options of shutter, timer or humidity controlled versions.

Designed in a clean white finish and suitable for ambient temperatures up to +40°C the unit is fitted with Standard Thermal Overload Protection (S.T.O.P.).

Safety Extra Low Voltage Fans (SELV)

Designed for areas where a fan has to be fitted over or within Zone 1 in a room containing a fixed bath or shower according to IEE wiring regulations (BS 7671), SELV models can be safely installed within the spray area. SELV models are rated IPX7. Control is by mains safety isolating transformer unit with SELV output, which is sited away from any source of spray and out of reach of a person using a fixed bath or shower.

Models

VA100LP (Pullcord)
Bathroom extract fan pullcord and indication light.

Model	Stock Ref
LP	251110

VA100 SELV
IPX7 rated fan with indication light, complete with remote wall mounted transformer.

Model	Stock Ref
SVL 12 (SELV)	258110

VA100LT (Timer)
Bathroom and toilet fan with adjustable electronic overrun timer and indication light which operates on the override only.

Model	Stock Ref
LT	251210

VA100 SELV (Shutter)
IPX7 rated fan with thermo-electric shutter and indication light, complete with remote wall mounted transformer.

Model	Stock Ref
SVX 12 (SELV)	258310

VA100XP/SELV XP (Shutter/Pullcord)
Bathroom fan with thermo-electric shutter, pullcord and indication light. SELV model IPX7 rated and complete with wall mounted transformer.

Model	Stock Ref
XP	251310
SVXP 12 (SELV)	258310BD025

VA100XT/SELV XT (Timer/Shutter)
Bathroom fan with integral adjustable overrun timer, thermo-electric shutter and indication light which operates on override only. SELV model IPX7 rated and complete with wall mounted transformer.

Model	Stock Ref
XT	251410
SVXT 12 (SELV)	258410

VA100LHP/SELV LHP (Humidity)
Bathroom fan with integral humidity sensor, pullcord override, and indication light which operates on manual override only. SELV model IPX7 rated and complete with wall mounted transformer.

Model	Stock Ref
LHP	251610
SVLHP 12 (SELV)	258112

VA100XHP/SELV XHP (Shutter/Humidity)
Bathroom fan with integral humidity sensor, thermo-electric shutter, pullcord override, and indication light which operates on manual override only. SELV model IPX7 rated and complete with wall mounted transformer.

Model	Stock Ref
XHP	251710
SVXHP 12 (SELV)	258312

VA100XHT/SELV XHT (Shutter/Humidity/Timer)
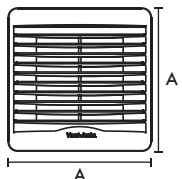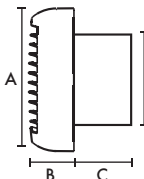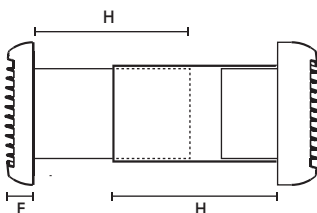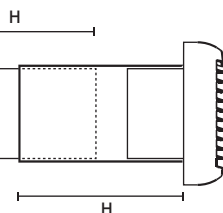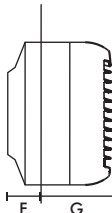
Bathroom fan with integral humidity sensor and adjustable overrun timer, thermo-electric shutter and indication light which operates on manual override only. SELV model IPX7 rated and complete with wall mounted transformer.

Model	Stock Ref
XHT	251510
SVXHT	258512

Accessories

Model	Stock Ref
Window Kit	254101
Wall Kit White	254102
Wall Kit Brown	254100
Anti-Tamper Window Kit	443234

Dimensions (mm)

Panel   Wall   Window

A	B	C	DØ	E	F	G	H
146	47	53	98	31	31	74	200

Weight 0.55kg

Fixing hole diameter 105mmØ (Panel & Window), 117mmØ (Wall). Transformer (WxHxD) 147x86x65.

Performance Guide - Panel Models

Model	Extract performance m³/h	l/s	Watts	Sound dB(A) @ 3m
VA100LP	107	30	13	36
VA100LT	107	30	15	36
VA100XP	107	30	15	36
VA100XT	107	30	18	36
VA100LHP	107	30	16	36
VA100XHP	107	30	18	36
VA100XHT	107	30	18	36
VA100SVL	83	23	16	36
VA100SVX	83	23	18	36
VA100SVXT/XHP/XHT/XP	83	23	20	36
VA100SVLHP	83	23	18	36

Silhouette 100/SELV

- 17mm stylish ultra low profile grille
- Downstream airflow guide vanes for improved pressure development
- Designed for vertical or horizontal application
- Indication light (except B model)
- Fan IPX4 rated - IPX7 rated (SELV)
- Suitable for wall, ceiling, panel and window mounting
- Meets current Building Regulations Approved Document F
- SELV transformer to BSEN 60742
- Improved humidistat function

Slimline Bathroom Ventilation

With a slim profile of only 17mm, Silhouette blends in with the wall surface to provide an unobtrusive installation. Silhouette has a FID performance of 21 l/s. Silhouette can be ceiling/panel mounted and connected to an appropriate duct run to the outside.

Safety Extra Low Voltage (SELV) Fans

Safety Extra Low Voltage (SELV) is designed for areas where a fan has to be fitted within zone 1 in a room containing a fixed bath or shower according to IEE wiring regulations. The Silhouette SELV model can be safely installed within the spray area. SELV models are rated IPX7, control is by a mains safety isolating transformer with 12V DC SELV output, which is sited away from any source of spray and out of reach of a person using a fixed bath or shower.

Models

Silhouette 100B/SELV B

Single speed 100mm bathroom/toilet fan with back draught shutter. Indication light on SELV model only.

Model	Stock Ref
B	454055
SVB (SELV)	439974

Silhouette 100T/SELV T (Timer)

Single speed 100mm bathroom/toilet fan with integral adjustable electronic overrun timer (5-30 minutes), indication light and back draught shutter.

Model	Stock Ref
T	454056
ST (SELV)	439975

Silhouette 100HT (Humidity/Timer)

Single speed 100mm bathroom/toilet fan with integral adjustable auto humidity sensor from 60-90% RH, fixed 15 minute overrun timer option via jump switch, indication light and back draught shutter.

Model	Stock Ref
HT	454057

Silhouette 100 SELV SVH (Humidity)

Single speed 100mm bathroom/toilet fan with integral adjustable auto humidity sensor from 60-90% RH, indication light and back draught shutter.

Model	Stock Ref
SVH (SELV)	439976

Silhouette 100TM (PIR/Timer)

Single speed 100mm bathroom/toilet fan. Integral PIR operated model, (presence detector) with adjustable electronic overrun timer (5-30 minutes) indication light and back draught shutter.

Model	Stock Ref
TM	454058

Accessories

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100
Window kit	442947

Dimensions (mm)
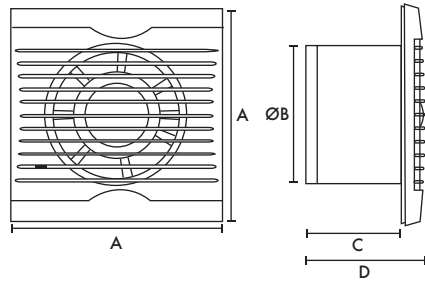
Panel   Wall Kit
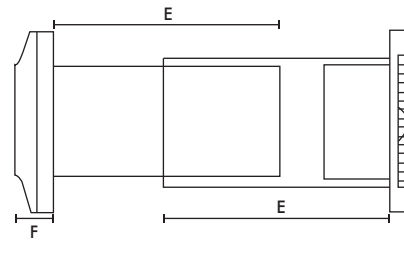
A	BØ	C	D	E	F
160	99	80	97	200	32

Transformer (W X H X D) 147 X 86 X 65

Weight 0.6kg

Fixing hole diameter 105mmØ (Panel & Window), 117mmØ (Wall)

Performance Guide

| Model | Extract Performance - FID | | | Sound dB(A) |
	m³/h	l/s	Watts	@ 3m
Silhouette 100B/T/H/TM	75	21	14	30
Silhouette 100SVB/SVT/SVH	75	21	15	30

Silent Fan

- Only 14dB(A)
- Silent intermittent bathroom fan with two speeds selectable at installation
- Stylish discrete design
- Back draught shutters included (remove when ceiling mounting)
- High efficiency motor
- 2 year guarantee
- IP24 rated
- Standard thermal overload protection on motor
- Suitable for wall, ceiling, window and panel mounting
- Meets current Building Regulations Approved Document F and L

Silent Fan Axial Bathroom/Toilet Fan

The quietest bathroom fan on the market. The VASF100 provides stylish and silent ventilation without compromising on performance.

dB level	Comparison
75dBA	Vacuum Cleaner
70dBA	Dishwasher
60dBA	Conversation Speech
50dBA	Coffee Machine
40dBA	**Standard Fan** / Boiling Kettle
30dBA	Quiet Bedroom
20dBA	Rustling Leaves
10dBA	**Silent Fan** / A Pin Dropping

Models

VASF100B

1 of 2 speeds selectable at installation. 100mm bathroom / toilet fan with back draught shutter.

Model	Stock Ref
VASF100 B	446658

VASF100T (Timer)

1 of 2 speeds selectable at installation. 100mm bathroom / toilet fan with back draught shutter. Overrun timer adjustable between 5 and 30 minutes.

Model	Stock Ref
VASF100 T	446659

Accessories

Model	Stock Ref
Window Kit	442947
Wall Kit White	254102
Wall Kit Brown	254100

Dimensions (mm)

A	B	C	D	EØ
159	117	37	80	99

Weight 0.7kg

Performance Guide

Model	l/s	Watts	Sound dB(A) @ 3m
VASF100 - low speed	15	3.2	14
VASF100 - high speed	21	5.0	28

Silhouette 125

- 18mm stylish ultra low profile grille
- Downstream airflow guide vanes for improved pressure development
- Designed for vertical or horizontal application
- Modern aesthetic with indication light
- Fan IPX4 rated
- Suitable for wall, ceiling and panel mounting

Slimline Bathroom Ventilation

With a slim profile of only 18mm, Silhouette blends in with the wall surface to provide an unobtrusive installation. Silhouette has a FID performance of 160m³/h. Silhouette can be wall, ceiling or panel mounted and connected to an appropriate duct run to the outside.

Models

Silhouette 125B
Single speed 125mm, bathroom/toilet fan with indication light and back draught shutter.

Model	Stock Ref
B	445161

Silhouette 125T (Timer)
Single speed 125mm bathroom/toilet fan with integral adjustable electronic overrun timer (5-30 minutes), indication light and back draught shutter.

Model	Stock Ref
T	445162

Silhouette 125H (Humidistat)
Single speed 125mm bathroom/toilet fan with integral adjustable auto humidity sensor from 60-90% RH, indication light and back draught shutter.

Model	Stock Ref
H	445163

Accessories

Model	Stock Ref
Wall Kit	455226
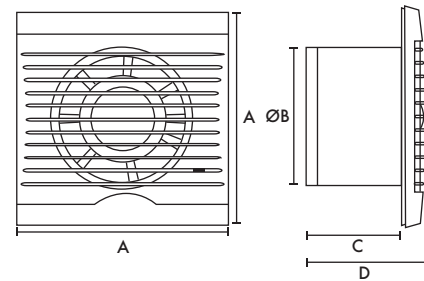
Dimensions (mm)

A	BØ	C	D
187	125	131	149

Performance Guide

Model	Extract Performance - FID		Watts	Sound dB(A) @ 3m
	m³/h	l/s		
Silhouette 125B/T/H	160	45	20	40

LuminAir Fan & Light Combination Unit

- The original fan and light combination
- IPX7 rated
- Suitable for shower enclosures and wet areas - can be used within reach of a person using a bath or shower
- Safety extra low voltage (SELV)
- Easy installation
- White, Gold and Chrome bezels available

Safety Extra Low Voltage

The revolutionary Vent-Axia LuminAir Safety Extra Low Voltage fan and light in a single ceiling mounted fitting.

The IPX7 unit is installed directly over a shower in complete safety. Vent-Axia LuminAir extracts moisture and humidity at source, preventing damaging condensation from spreading. At the same time it bathes the shower enclosure in a rich soft light - bringing any dark shower to life. Ideal for all types of bathroom and shower applications, and is particularly suitable for bedsit and en-suite shower installations.

Designed for mounting in a wide variety of ceiling thicknesses. The safety isolating transformer to BS EN 60742 is mounted in a purpose made enclosure that can be wall mounted or sited in the loft, and is designed to accept mini trunking (LuminAir L transformer - IP20 - loft mounted).

LuminAir has a 20 Watt 40˚ spread lamp to give a pool of soft warm light. The lamp has a long life and is simple to change.

Seperate lighting transformer also supplied.

Models

LuminAir L (Switch Live)
Provides simultaneous fan and light operation from the bathroom light switch.

Model	Stock Ref
L	188110

LuminAir T (Timer)
Switches the fan On with the light. When the light is switched Off, the fan continues to run for an adjustable set period to meet the Building Regulations for internal bathrooms.

Model	Stock Ref
T	188210

LuminAir H (Humidistat)
Combines a light activated by the bathroom light switch and an Ecotronic Humidity Sensor which will switch the fan On whenever the humidity level warrants.

Model	Stock Ref
H	188610

Supply to the LuminAir transformer 220-240V/ 1/50Hz.

Output to LuminAir 12V SELV/1/50Hz. Safety isolating transformers conform to BS EN 60742.

Accessories

Model	Stock Ref
Optional Bezel Chrome	452044
Optional Bezel Gold	452045

LuminAir Vent Light Safety Extra Low Voltage Duct Air Inlet
LuminAir Vent Light is for upgrading existing extract systems or to provide multiple extract points to a central fan. The Vent Light consists of a LuminAir Safety Extra Low Voltage (SELV) light with white ceiling bezel and 90˚ bend suitable for use with remote extract fan using 100mm duct. On/Off operation is via the bathroom light switch. Gold and chrome bezels are available as accessories.

Model	Stock Ref
White	453395

Installation Example

Dimensions (mm)

Vent Light

FAN & LIGHT **VENT LIGHT**
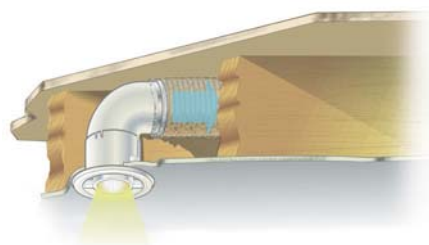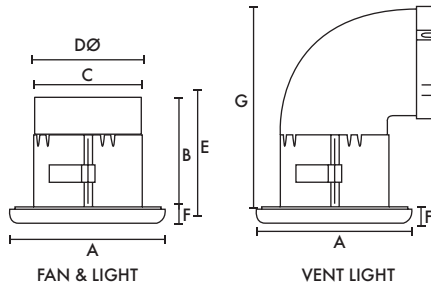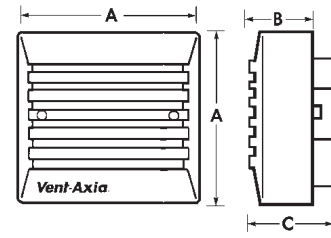
Humidity Sensor

Model	A	B	C	DØ	E	F	G
LuminAir	150	140	98	103	150	10	180
Transformer (Fan)	147	86	65				
Transformer (Light)	110	35	25				
Humidity Sensor	87	33	47				

Fixing hole diameter 110mm

Performance

	Extract performance - FID		Max Watts		Sound dB(A)	Amps
Model	m³/h	l/s	Fan	Lamp	@ 3m	@ 240V
LuminAir L	110	31	20	20	35	0.2
LuminAir T	110	31	22	20	35	0.2
LuminAir H	110	31	24	20	35	0.2

LuminAir Fan & Light Ventilation Kit

- Unique fan and light combination
- IPX7 rated inlet assembly
- Suitable for shower enclosures and wet areas - can be used within reach of a person using a bath or shower
- Safety extra low voltage (SELV) fan and lamp
- Easy installation
- White, Gold and Chrome bezels available

SELV Fan & Light Combination

LuminAir is also available in the form of a ventilation kit which, in addition to the fan and light combination, comes with a 90° bend, 3M of flexible ducting, wall grille and cable ties. The IPX7 unit is installed directly over a shower in complete safety.

Vent-Axia LuminAir extracts moisture and humidity at source, preventing damaging condensation from spreading. At the same time it bathes the shower enclosure in a rich soft light - bringing any dark shower to life. Ideal for all types of bathroom and shower applications, and is particularly suitable for bedsit and en-suite shower installations. LuminAir has a 20 Watt 40° spread lamp, to give a pool of soft warm light. The lamp has a long life and is simple to change.

Separate lighting transformer also supplied.

Models

LuminAir L, T or H SELV fan and light, choice of bezel, 90° bend, 3m of flex-duct, wall grille and cable ties.

LuminAir Shower Ventilation Kit L
(Switch Live)
Provides simultaneous fan and light operation from the bathroom light switch.
Stock Ref
453410 (White)

LuminAir Shower Ventilation Kit T
(Timer)
Switches the fan On with the light. When the light is switched Off, the fan continues to run for an adjustable set period.
Stock Ref
453413 (White)

LuminAir Shower Ventilation Kit H
(Humidistat)
Combines a light activated by the bathroom light switch and an Ecotronic Humidistat Sensor which will switch the fan On whenever the humidity level warrants.
Stock Ref
453416 (White)

Accessories

Optional Bezels
Stock Ref
452044 (Chrome)
452045 (Gold)

Installation Example

Dimensions (mm)
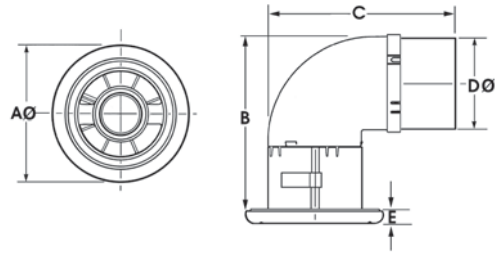
Vent Light   Humidity Sensor
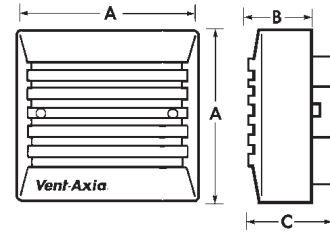
Model	AØ	B	C	DØ	E
Vent Light	150	180	139	98	10
Humidity Sensor	87	33	47		

Fixing hole diameter 110mm

Transformer Dimensions (mm)

Model	Length	Height	Depth
Transformer (Fan)	147	86	65
Transformer (Light)	110	35	25

Performance

	Extract Performance - FID		Watts		Sound dB(A)	Amps
Model	m³/h	l/s	Fan	Lamp	@ 3m	@ 240V
LuminAir Ventilation Kit L/T/H	110	31	20	20	35	0.2

LuminAir Turbo Fan & Light Ventilation Kit

- Unique fan and light combination
- IPX7 rated inlet assembly
- Suitable for shower enclosures and wet areas - can be used within reach of a person using a bath or shower
- Safety extra low voltage (SELV) lamp
- Easy installation
- White, Gold and Chrome bezels available

High Performance Fan & Light Combination

LuminAir is also available in the form of a ventilation kit. The IPX7 unit is installed directly over a shower in complete safety.

Vent-Axia LuminAir extracts moisture and humidity at source, preventing damaging condensation from spreading. At the same time it bathes the shower enclosure in a rich soft light - bringing any dark shower to life. Ideal for all types of bathroom and shower applications, and is particularly suitable for bedsit and en-suite shower installations. LuminAir has a 20 Watt 40° spread lamp, to give a pool of soft warm light. The lamp has a long life and is simple to change.

Models

For applications where a more powerful system is required, the kit comprises a luminair turbo L or T mains fan and SELV light, choice of bezel, 90° bend, 6 metres of flexible duct, quick fix wall grille and four cable ties. Meets Building Regulations approved Document F performance assuming ductwork provided is fully extended and one 90° bend.

LuminAir Turbo SKL (Switch Live)
Provides simultaneous On and Off operation of the fan and light switch from the bathroom light switch.

Model	Stock Ref
SKL White	453419

LuminAir Turbo SKT (Timer)
Switches the fan On with the light switch. When the light is switched Off, the fan continues to run for an adjustable fixed period to meet the Building Regulations for internal bathrooms.

Model	Stock Ref
SKT White	453422

Accessories

Model	Stock Ref
Optional Bezel Chrome	452044
Optional Bezel Gold	452045

Installation Example

Dimensions (mm)
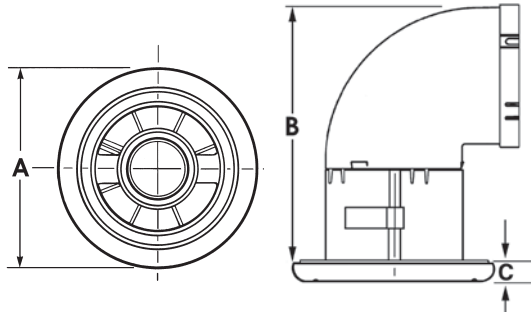
Vent Light and Bend   Turbo Fan
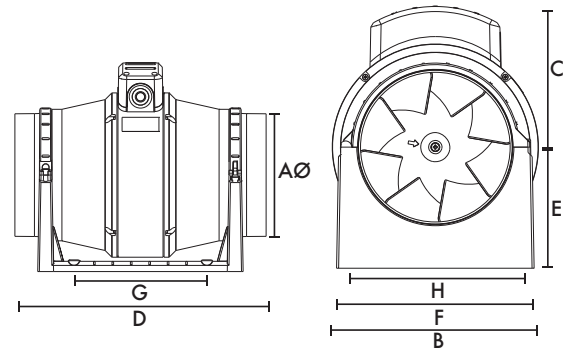
Model	AØ	B	C	D	E	F	G	H
Vent Light	150	180	10					
Turbo Fan	97	178	124	298	96	168	120	153.5

Ceiling Fixing hole diameter 110mm

Transformer Dimensions (mm)

Model	Length	Width	Lid	Base
Transformer T&H	175	90	55	30
Transformer L	83	76	70	61
Humidity Sensor	87	87	33	

Fixing Hole diameter 110mm

Performance

Model	Extract Performance - FID		Watts		Sound dB(A)	Amps
	m³/h	l/s	Fan	Lamp	@ 3m	@ 240V
SKL/SKT	160	52	8	20	23	0.3

Solo Plus

- Filterless as standard - innovative impeller design means no need for a filter
- Meets current Building Regulations Approved Documents F & L requirements for domestic bathrooms and toilets
- IPX4 rated
- Flush or surface mountable
- Adjustable rear or side exit spigot
- Extremely low sound levels
- Suitable for wall, ceiling and panel mounting

Bathroom and Toilet Ventilation

The Solo Plus range from Vent-Axia has been specially designed for through the wall and ducted applications, suitable for internal bathrooms, toilets and other small rooms. Finished in white, the Solo Plus can be flush or surface mounted, with a 100mm circular spigot for rear entry or connecting to a vertical ducting system. The spigot can also be adjusted for side ways exhaust enabling recessed ceiling installations within limited ceiling voids. The powerful centrifugal impeller allows for installations with longer duct runs using 100mm ducting, whilst still achieving 15 l/s as required by Document F of the current Building Regulations.

Continuous running products, such as the Solo Plus installed in all wet areas of a dwelling are classed as a wholehouse ventilation system and therefore, only needs to move the amount of air as laid down in table 1.1b of Document F.

The Solo Plus has a choice of two boost/override motor speeds set at installation, medium (17l/s) or high (22l/s), with an optional constant trickle speed (9l/s), also selectable at installation except in the P model. Depending on the model, the fan will switch from trickle (if selected) to boost (medium or high) via the pullcord/light switch/humidity sensor/PIR.

All models can be wall, panel or ceiling mounted and can be connected to either circular, rectangular or Vent-Axia's flat ducting. Enclosure of the electrical components is manufactured from flame retardant grade material.

Supply voltage 220-240V/1/50Hz.

Models

Solo Plus P (Pullcord)
Flush or surface mountable. Control by pullcord single speed; 1 of the 3 speeds selectable at installation.

Model	Stock Ref
P	427477

Solo Plus T (Timer)
Flush or surface mountable. Constant trickle option. 2 Speed. Adjustable timer overrun. Delay on timer option.

Model	Stock Ref
T	427478

Solo Plus HT (Humidistat/Timer)
Flush or surface mountable. Humidity controlled fan with override pullcord. Constant trickle option. Adjustable timer overrun. Delay on timer option. Adjustable humidity sensor.

Model	Stock Ref
HT	427479

Solo Plus TM (Timer/PIR)
Flush or surface mountable. Control by integral PIR detector. Constant trickle option. 2 Speed.

Model	Stock Ref
TM	427480

Accessories

Solo Plus Bezel
Used when flush mounting, reduces the need to make good.

Model	Stock Ref
Bezel	404106

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100

Filter pack (1 per pack)
The design of the Solo Plus means that is does not need a filter. However, if you are going to install the product in a heavily greasy environment, you may want to protect the product by fitting a filter.

Model	Stock Ref
Filter pack	449265

Dimensions (mm)
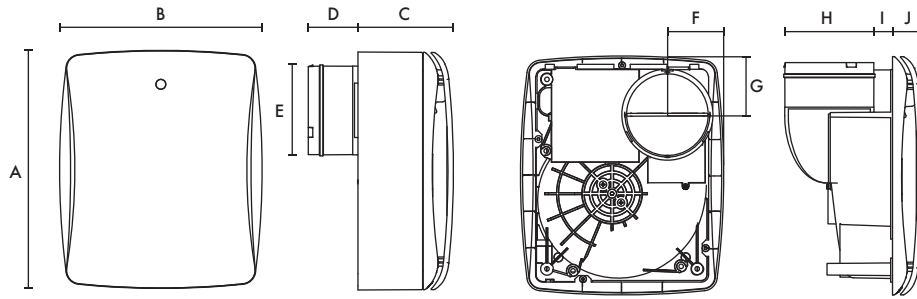
A	B	C	D	EØ	F	G	H	I	J
263	224	106	55	98	62	65	98	21	34

Performance Guide

Model	Extract Performance l/s (m³/h) - FID			Watts			dB(A) @ 3m		
	Max Boost	Min Boost	Trickle	Max Boost	Min Boost	Trickle	Max Boost	Min Boost	Trickle
Solo Plus P/T/HT/TM	22 (80)	17 (61)	9 (32)	17.1	10.9	6.3	34.5	24	11.5

Tested at 240VAC @ 50Hz

Solo Pro/SELV

- 100mm high performance centrifugal extract fan for internal bathrooms, toilets and other small rooms
- Updated design
- Now even quieter at just 30dB(A)
- Extract performance 24l/s
- Single speed and overrun timer models
- Suitable for wall, ceiling, panel and window mounting
- SELV models suitable for installation over or within reach of a shower or bath
- Suitable for use with flat ducting
- IPX4 rated - IPX7 rated (SELV)
- Transformer complies with BS EN 60742

High Performance Ventilation

The new Solo Pro is a new and improved version of our trusted Solo model. With improved aesthetics, sound and installation it has been specifically designed for effective ducted ventilation of internal bathrooms, toilets and other small rooms. Finished in White, the new Solo Pro range can be used with 100mm diameter smooth bore duct in straight runs equal to 50m, yet still meets the minimum 15l/s required by the current Building Regulations Document F for ventilation of bathrooms. Solo Pro can also be used with flat ducting for shorter concealed runs.

Models are available for surface or recessed mounting directly into standard 100mm diameter ducting. Suitable for panel, wall and ceiling installations and windows up to 25mm thick. For high rise or coastal applications, install through the wall with a Vent Cowl (Stock Ref 561403).

Safety Extra Low Voltage

SELV models are designed for areas where a fan has to be fitted within zone 1 in a room containing a fixed bath or shower according to IEE wiring regulations. The Solo SELV models can be safely installed within the spray area. The SELV models are rated IPX7, control is by a mains safety isolating transformer with 12V DC SELV output, which is sited away from any source of spray and out of reach of a person using a fixed bath or shower.

The safety isolating transformer, to BS EN 60742, is mounted in a purpose made enclosure. The enclosure can be wall mounted or sited in the loft. The enclosure will accept mini trunking.

Electrical

Rear 20mm conduit entry for recessed wiring and side entry grommet for surface wiring.

Supply voltage to transformer/controller 220-240V/1/50Hz. Output to fan 12V SELV/ 1/50Hz.

To meet IEE Regulations, timer models should be isolated using a 3 pole isolator.

Model	Stock Ref
3 pole isolator	563518

Models

Solo Pro P/SELV SVP (Pullcord)

Control by pullcord or from light/remote switch or sensor. Back draught shutter. SELV model comes with mains transformer with 12V SELV output.

Model	Stock Ref
P	409159
SVP (SELV)	409163

Solo Pro T/SELV T (Timer)

Control by light/remote switch. Overrun timer variable from 5 to 30 minutes. Back draught shutter. SELV model comes with mains transformer with 12V SELV output.

Model	Stock Ref
T	409160
SVT (SELV)	409164

Solo Pro HTP/SELV SVHTP (Humidity and Timer)

Humidity controlled with pullcord override. 17 min overrun timer. Back draught shutter. SELV model comes with mains transformer with 12V SELV output.

Model	Stock Ref
HTP	409161
SVHTP (SELV)	409165

Solo Pro TM (Timer/PIR)

Controlled by separate PIR sensor supplied with fan. Built in overrun timer, variable from 5 to 30 minutes, switches fan Off.

Model	Stock Ref
TM	409162

Accessories

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100
Window Kit	11461685

Dimensions (mm)

Wall

Front view

Rear view

Side view

B   C

A

60

60

A

E

DØ

Duct hole diameter 115mmØ

Position of flange for recessed mounting

Window

Window fixing hole Ø113mm

B   F
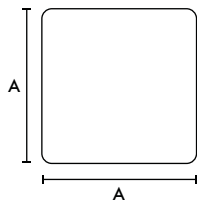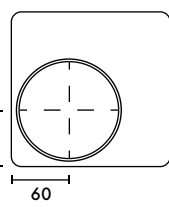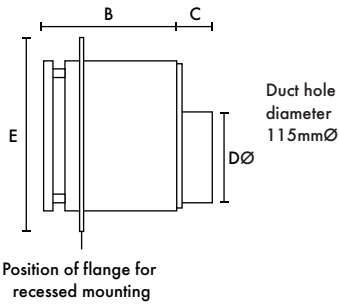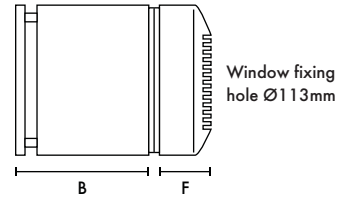
Model	A	B	C	DØ	E	F
Solo Pro/SELV12 P/T/HTP/TM	154	119	25	100	195	57.5

Transformer (W x H x D) 175 x 90 x 85

Performance Guide

Model	Extract Performance		Max	dB(A)	Amps @
	m³/h	l/s	Watts	@ 3m	240V
Solo Pro SELV12/T/HP	80	22	19	30	0.26
Solo Pro P/T/HTP/TM	80	22	17	30	0.15

VA140/150

- VA140/150 Panel models
- 2 Year Guarantee
- Thermo electric shutters to prevent back draughts
- Meets current Building Regulations Approved Document F
- IP44 rated
- Suitable for wall, ceiling, panel and window mounting

Kitchen ventilation

VA140/150 Panel models are designed to alleviate the everyday problems that condensation and household odours may cause. Effectively extracts odours and moisture laden air from kitchens giving a healthy and fresh environment.

Building Regulations

Specifically sized to meet the current Building Regulation requirements for powered extract ventilation in domestic kitchens. Control facility fitted as standard. The VA140/150 range is fitted with internal louvres conforming to the latest international safety standards.

Please contact our Customer Service Department for exposed site application.

Models

VA140/150KP (Pullcord)
Single speed kitchen extract fan with On/Off pullcord.

Model	Stock Ref
KP	140120

VA140/150KT (Timer)
Single speed kitchen extract fan with adjustable overrun timer (3-30 minutes).

Model	Stock Ref
KT	140220

VA140/150KHP (Humidistat)
Single speed humidity-controlled kitchen extract fan with full speed pullcord override. Humidity adjustment 62-82%RH.

Model	Stock Ref
KHP	140320

VA140/150KHT (Timer/Humidistat)
Humidity controlled kitchen extract fan with adjustable overrun timer (3-30 minutes). Humidity adjustment 62-82% RH.

Model	Stock Ref
KHT	140420

VA140/150VS (Variable Speed)
Variable speed kitchen extract with a built in adjustable speed controller, which can reduce the speed to 40% of its maximum performance.

Model	Stock Ref
VS	458915

Accessories

Model	Stock Ref
Wall Kit White	140902
Wall Kit Brown	140903
Window Kit	140901

Dimensions (mm)

Panel   **Wall**   **Window**

A	B	C	DØ	E	F	G	H	I
216	224	80	146	60	220	37	55	104
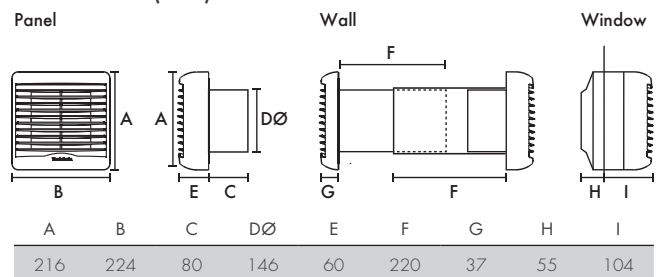
Weight 1.75kg

Fixing hole Ø 152mm (Panel), Ø 160mm (Window), Ø 152mm (Wall)

Performance Guide

Model	Shutter Actuator	Extract Performance FID m³/h	l/s	Watts	Sound dB(A) @ 3m
VA140/150KP	Pullcord	245	68	18.8	36
VA140/150KT/KHP/KHT	Instant	245	68	18.8	36
VA140/150VS	Pullcord	100 - 245	28 - 68	18.8	36

VA150

- Complete with window kit
- 2 Year Guarantee
- Meets current Building Regulations Approved Document F
- Integrated, concealed shutter
- Natural trickle vent facility when unpowered

Kitchen ventilation

VA150 Window models are designed to alleviate the everyday problems that condensation and household odours may cause. Effectively extracts odours and moisture laden air from kitchens giving a healthy and fresh environment.

Shutter

The louvre shutter on the VA150 is concealed behind the interior grille. Operates automatically when the fan is switched On. Natural trickle vent facility (unpowered) available on all models.

Building Regulations

The VA150 Range is specifically sized to meet the current Building Regulation requirements for powered extract ventilation in domestic kitchens. The VA150 range is fitted with internal and external louvres conforming to the latest international safety standards.

Motor

Maintenance free, sealed for life ball bearings in the purpose made electric motor, economical and quiet running. Double insulated appliance. Supply voltage 220-240V/1/50Hz.

Models

VA150P (Pullcord)

Specifically designed for domestic use in kitchens and utility rooms, the VA150P is a single speed 150mm (6") extract ventilation unit for windows. Fan and shutter operated by integral pullcord. (window kit supplied). IP24 Rated. Colour: white.

Model	Stock Ref
P	152110

VA150A

A single speed 150mm (6") extract fan with instant opening/closing shutter operated by remote switch. Suitable for installation in bathroom or kitchen. (Window kit supplied). IP44 Rated. Colour: white.

Model	Stock Ref
A	153110

Dimensions (mm)
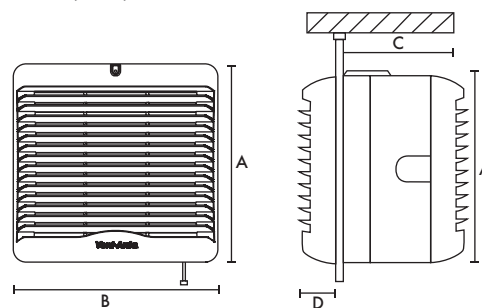
A	B	C	D
216	224	130	55

Weight 2.5kg

Window fixing hole Ø 184mm

Performance Guide

Model	Shutter Attenuator	Extract Performance - FID		Watts	Sound dB(A) @ 3m
		m³/h	l/s		
VA150P/A	Pullcord/Instant	220	60	19	37

Silhouette 150

- Stylish ultra low profile grille
- Downstream airflow guide vanes for improved pressure development
- Modern aesthetics
- Electric back draught shutters
- IPX4 rated
- Suitable for wall, ceiling and panel mounting
- Meets current Building Regulations Approved Document F

Slimline Kitchen Ventilation

The Vent-Axia Silhouette range is designed for modern living. With a profile of only 19mm on the kitchen models, Silhouette blends in with the wall surface to provide an unobtrusive installation.

Mounted in the centre of the fan, beneath the ultra slim profile grille, are the electronics, incorporating a humidistat for detecting a change in internal humidity or an overrun timer option that is adjustable between 5 and 30 minutes.

Models

Slim profile only 19mm. FID performance of 241m³/h, double insulated.

Silhouette 150X
Single speed 150mm kitchen fan with electric back draught shutter.

Model	Stock Ref
X	454059

Silhouette 150XT
Single speed 150mm kitchen fan with integral adjustable electronic overrun timer (5-30 minutes), indication light and electric back draught shutter.

Model	Stock Ref
XT	454060

Silhouette 150XH
Single speed 150mm with integral adjustable auto humidity sensor from 60-90% RH, indication light and electric back draught shutter. Switch live for override by remote switch/light switch.

Model	Stock Ref
XH	454061

Accessories

Model	Stock Ref
Wall Kit White	140902
Wall Kit Brown	140903

Dimensions (mm)
Panel
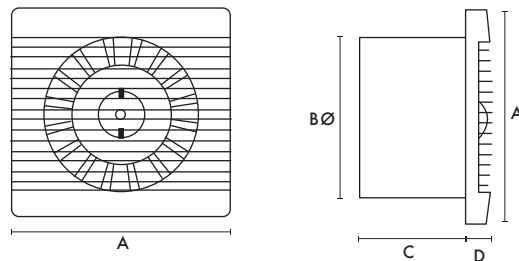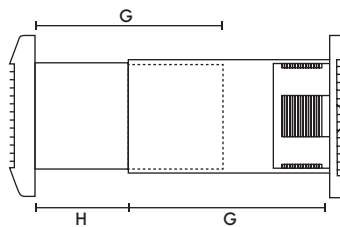
Wall

fixing hole diameter 152mmø (when wall kit used)

A	B	C	D	G	H
223	147	111	19	220	37

Weight 1.75kg

Performance

Model	Extract Performance - FID		Watts	Sound dB(A)
	m³/h	l/s		@ 3m
Silhouette 150X/XT/XH	241	67	20	43

Centrif Duo

- 100mm circular spigot for speedy installation
- Humidity sensing model for automatic operation
- Suitable for both kitchen and utility rooms
- Includes washable grease filter and removable grille assembly for easy cleaning
- Speed set at installation
- Meets current Building Regulations Approved Document F
- Timer model for internal rooms
- Surface mounted

Kitchen and Utility Ventilation

The Centrif Duo range is a series of 100mm centrifugal extract fans for the domestic environment. The range is designed to provide extraction levels that comply with Building Regulation requirements, with special humidity sensing variants for local authority use.

Motor

The motor features greased-for-life ball bearings which allow the fan to be installed at any angle. Insulation is Class E. Double insulated appliance. Supply voltage 220-240V/1/50Hz.

Fast installation

The Centrif Duo has a 100mm circular spigot. The Flush mounting kit enables the spigot to be converted to a side outlet. The spigot also encloses a built-in, spring operated back draught shutter. The Centrif Duo Range can be wall mounted using a telescopic wall fitting kit available as an accessory (requires a 115mm diameter hole).

Humidistat control

Humidistat is selectable for either kitchen or utility speed separate to any other control to reduce nuisance noise. Boost operation by pullcord or switch live.

Models

Centrif Duo P (Pullcord)

Two speed kitchen extract fan with pullcord. Choice of two speeds for boost, set at installation.

Model	Stock Ref
P	256120

Centrif Duo T (Timer)

Two speed with adjustable timer between 5-30 minutes. Choice of two speeds for boost, set at installation.

Model	Stock Ref
T	256220

Centrif Duo DP (Two Speed)

Two speed and Off with pullcord or remote switch. Switches between Off, Low and one of the 2 Boost speeds.

Model	Stock Ref
DP	256320

Centrif Duo HTP (Humidity)

Intermittent on 1 of 2 speeds (Utility or Kitchen selectable at installation). Operation by integral humidity sensor or pullcord. Separate speeds selectable for humidistat and pullcord. Optional continuous trickle speed available at installation.

Model	Stock Ref
HTP	256420

Accessories

Flush Mounting Kit

Bezel, clips and 90° duct elbow reduces the need to make good.

Model	Stock Ref
Flush Mounting Kit	439256

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100
Decoration Frame	442551

Dimensions (mm)
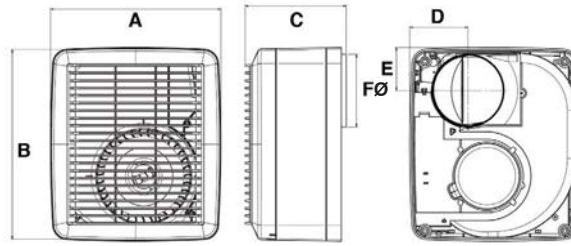
A	B	C	D	E	FØ
231	261	137	79	58	98

Weight 1.75kg

Performance

	Performance @ 0 pa						Power (W)			Sound dB(A) @ 3m			SEC
	High speed		Med speed		Low speed								
Model	m³/h	l/s	m³/h	l/s	m³/h	l/s	Kitchen	Utility	Trickle	Kitchen	Utility	Trickle	Class
Centrif Duo P/T	220	61	130	36	-	-	60	41	N/A	51.8	38	N/A	D
Centrif Duo DP/HTP	220	61	130	36	90	25	60	41	9	51.8	38	21.5	D

Centrif Duo Plus

- Meets current Building Regulations Approved Document F
- Optional filter available
- Easy installation
- Fan can be wall or ceiling mounted
- Suitable for both kitchen and utility rooms
- Constant trickle boost speed available on DP & HTP models
- IPX4 Rated

Ultra Quick Ventilation

Centrif Duo Plus is designed to provide extraction levels that comply with Building Regulations Approved Document requirements, with special humidity sensing variants for local authority use.

The Centrif Duo Plus is for kitchens and utility rooms and large bathrooms. Surface mounting directly into standard 100mm diameter ducting, through the wall or ceiling installation.

Fast Installation

The Centrif Duo Plus has a 100mm circular spigot. The Flush mounting kit enables the spigot to be converted to a side outlet.

The spigot also encloses a built-in, spring operated back draught shutter. The Centrif Duo Plus Range can be wall mounted using a telescopic wall fitting kit available as an accessory (requires a 115mm diameter hole). For ceiling applications the range is ducted either through a soffit outlet or roof cowl assembly. There is convenient access for wiring which accommodates surface or recessed installation.

Improved Humidistat Control

Humidistat is selectable for either kitchen or utility speed separate to any other control to reduce nuisance noise. Boost operation by pullcord or switch live.

Models

Centrif Duo Plus P (Pullcord)
Two speed kitchen extract fan with pullcord. Choice of two speeds for boost, set at installation.

Model	Stock Ref
P	431613

Centrif Duo Plus T (Timer)
Two speed with adjustable timer between 2-30 minutes. Choice of two speeds for boost, set at installation.

Model	Stock Ref
T	431614

Centrif Duo Plus DP (Two speed)
Two speed and Off with pullcord or remote switch. Switches between Off, low and one of the 2 boost speeds.

Model	Stock Ref
DP	431615

Centrif Duo Plus HTP (Humidity/ Timer/ Pullcord)
Intermittent on 1 of 2 speeds (Utility or Kitchen selectable at installation). Operation by integral humidity sensor or pullcord. Separate speeds selectable for humidistat and pullcord. Optional continuous trickle speed available at installation.

Model	Stock Ref
HTP	431616

Accessories

Flush Mounting Kit
Bezel, clips and 90° duct elbow reduces the need to make good.

Model	Stock Ref
Flush Mounting Kit	439256

Model	Stock Ref
Centrif Duo Plus Filter	439927
Wall Kit White	254102
Wall Kit Brown	254100
Decoration Frame	442551

Dimensions (mm)
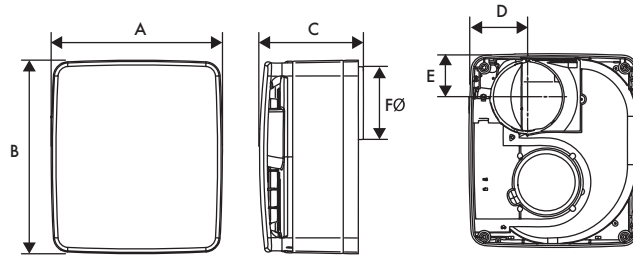
A	B	C	D	E	FØ
231	261	140	79	58	98

Weight 1.75kg

Performance Guide

Performance @ 0 Pa

Model	High speed		Med speed		Low speed		Power (W)			Sound dB(A) @3m			SEC
	m³/h	l/s	m³/h	l/s	m³/h	l/s	Kitchen	Utility	Trickle	Kitchen	Utility	Trickle	Class
Centrif Duo Plus P/T	220	61	130	36	-	-	60	41	N/A	51.8	38	N/A	D
Centrif Duo Plus DP/HTP	220	61	130	36	90	25	60	41	9	51.8	38	21.5	D

Freshvent

- Completely silent, all year round ventilation
- Complements existing ventilating fans
- Filtered, natural air without draughts
- Control of the indoor environment
- Helps prevent damaging condensation
- No energy consumption, no running costs

Natural Ventilation

Freshvent 100 is a range of passive ventilators that simply and naturally provide the effective ventilation needed by everyone working and living in an indoor environment. When used with positive pressure ventilation, Freshvent 100 provides an important outlet for air circulating around the house. Stale air is expelled through the unit to the outside without letting in noise and draughts.

This makes Freshvent 100 particularly suited to the 'tight' construction of new homes - and provides a stylish alternative to traditional slot/airbrick ventilators. In addition, Freshvent 100 is ideal for older properties that have been refurbished with double glazing and loft insulation. They require ventilation to combat the problems associated with condensation.

Kitchens, utility rooms, bathrooms and toilets are rooms where conventional domestic extract fans are normally found. The natural ventilation principle of Freshvent 100 is particularly suitable for 'clean' living spaces such as bedrooms, lounges and work rooms.

There are four Vent-Axia Freshvent 100 models and an extensive range of accessories available to customise the units to your exact requirements. All units are easily dismantled allowing quick access to the filter for cleaning or replacement. The high capacity of the filter results in fewer filter changes. The damper plate is insulated against condensation and noise penetration.

Acoustic Duct Versions

Acoustically damped pipe fitted around unit to reduce external sources of noise such as traffic. Suitable for bedrooms and other rooms where low noise levels are a priority. Comes complete with Freshvent 100 db and Freshvent 100 Thermo db versions.

Free Area

Product	Equivalent free area
Fresh 100	3200
Fresh 100dB	3200
Fresh 100 Thermo	2640
Fresh 100 Thermo-dB	2640

Models

Freshvent 100
Pullcord operated. Designed to provide filtered air from outdoors while mixing it efficiently with the air in the room. Adjustable to increase or reduce the free area and airflow to suit a particular environment.

Model	Stock Ref
100	453200

Freshvent 100 dB
Pullcord operated. Adjustable to increase or reduce the free area and airflow to suit a particular environment. Supplied with acoustically damped pipe for applications requiring low noise levels.

Model	Stock Ref
100 dB	453208

Freshvent 100 Thermo
Thermostatically regulated, with the vent size automatically adjusting according to the temperature outside. As the temperature decreases the damper closes, opening again as the temperature rises. The built-in thermostat regulates the size of the damper opening so that it starts to close at 10°C and is completely closed at -5°C.

Model	Stock Ref
100 Thermo	453182

Freshvent 100 Thermo dB

Thermostatically regulated, with the vent size automatically adjusting according to the temperature outside. As the temperature decreases the damper closes, opening again as the temperature rises. The built-in thermostat regulates the size of the damper opening so that it starts to close at 10°C and is completely closed at -5°C. Supplied with acoustically damped pipe for applications requiring low noise levels.

Model	Stock Ref
100 Thermo dB	453253

All versions come with a standard general duty filter. Replacement filters are available.

Accessories

Model	Stock Ref
Filter for Freshvent 100	453188
Filter for Freshvent 100 Thermo	453197
Extension Bushing	453275

Storm Shield

May be fitted to the Freshvent range to prevent ingress of water and eliminate the risk of draughts and cold air surges. Closes entirely during storms. Particularly suitable for high-rise/coastal applications or anywhere exposed to high winds.

Not suitable for dB models.

Model	Stock Ref
Storm Shield	453206

Dimensions (mm)

Model	Wall fixing hole dia Ømm	Max wall thickness mm
Freshvent 100	100	360
Freshvent dB 100	150	400
Freshvent 100 Thermo	100	320
Freshvent 100 Thermo dB	150	400

Cooker Hoods

- A choice of three styles for domestic applications
- Wall, ceiling or cabinet fixed
- Compatible with flat ducting or aluminium flexible ducting
- All models are provided with a charcoal filter and washable grease filter as standard
- All models are fitted with mains lead, built-in lighting and choice of 3 speeds

Kitchen Ventilation

Vent-Axia offers a range of cooker hoods for the removal of cooking odours and steam at source in the domestic kitchen. Each model is designed to provide the extraction levels necessary to comply with Building Regulation requirements for kitchens with ducted outlets plus models that provide higher outputs for busier kitchens.

A choice of styles is available to include wall, or cabinet fixed models to provide integrated ventilation in any modular fitted kitchen from a terraced galley kitchen to the most extensive layouts. Models are available that can re-circulate or extract with the use of ducting.

The Building Regulations for the mechanical ventilation of kitchens with open-able windows in dwellings require that extractor hoods should be capable of extracting at a rate of 30 l/s (108m³/h).

When used with ducting, the resistance of the entire system should be considered so that the required performance is achieved. Extractor hoods should not be sited where ambient temperatures are likely to exceed +50°C.

Models

Genova

A white cooker hood with 'flip front' glass visor and rear spigot design to be wall-mounted or mounted beneath a top cabinet. Offering three speeds with extract rates of 100/160/220m³/h.

Model	Stock Ref
Genova	120801

Rimini/Milano/Roma

The Rimini (500mm width), Milano (600mm width) and Roma (900mm width) are stainless steel chimney cooker hoods with an extending chimney to fit varying ceiling heights. Offering three speeds with extract rates of 340/420/460m³/h.

Model	Stock Ref
Rimini	427166
Milano	120841
Roma	120851

Dimensions (mm)

Model	W	D	H
Genova	600	470	150
Napoli	600	275	400
Rimini	500	500	1115
Milano	600	500	1115
Roma	900	500	1115

Extractor hoods are not suitable for use above an eye level grill. Must be mounted between 760mm and 900mm above the hob.

Pull-out System Hood

- Models available with either a White or Brushed Aluminium trim
- Fits within a 600mm wide aperture (300mm deep)
- Complete with two low energy 9W lamps
- All models are fitted with a metal washable grease filter as standard
- 125mm galvanised duct connection piece
- Integral fire damper in accordance with BRE 398
- Weight: 3.7kg

Product

The Pull-out System Hood is designed to fit in a 600mm aperture above a hob. The telescopic hood incorporates two flat removable metal grease filters, two low energy light bulbs and is available with a White or Brushed Aluminium front trim.

The hood contains an integral fire damper in accordance with BRE Digest 398 and is connected to the mechanical ventilation unit by a galvanised steel duct connection piece. When the hood is opened the mechanical ventilation unit goes to boost speed.

Why install a cooker hood?

Steam created during the cooking process can cause moisture to form on walls and furniture. In extreme cases this can lead to mould growth. Strong smells can also be created during cooking and these can spread throughout the dwelling. Cooking oils may be vaporised when frying and this oil can be deposited in areas around the cooker.

The solution

When connected to an MEV or MVHR system, the Pull-out System Hood can be wired in such a way that when the hood part of the unit is pulled out the MEV or MVHR system will automatically switch to boost.

The Pull-out Hood System Hood comes with an integrated 125mm galvanised spigot to allow for connection to the MEV or MVHR system.

Models

Model	Stock ref
White System Hood	407509
Aluminium System Hood	407206

Dimensions (mm)

TOP
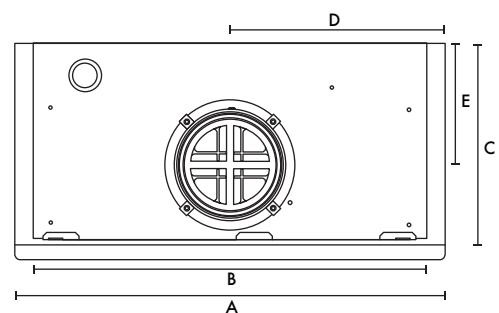
SIDE
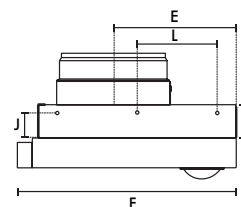
FRONT
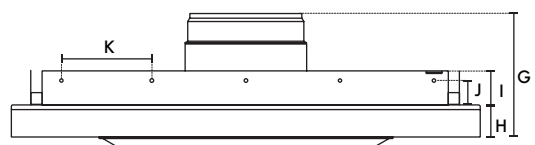
A	B	C	D	E	F	G	H	I	J	K	L
598	570	280	299	126	300	158	41	50	40	120	110

Basics Range

Bathroom/Toilet
BAS100B
Unshuttered axial fan for remote or light switch operation.
Stock Ref
436519

BAS100P
Unshuttered axial fan with integral pullcord.
Stock Ref
436520

BAS100T
Unshuttered axial fan with adjustable overrun timer.
Stock Ref
436521

Kitchen
BAS150B
Unshuttered axial fan designed for remote or light switch operation.
Stock Ref
436525

BAS150P
Unshuttered axial fan with integral pullcord.
Stock Ref
436526

BAS150T
Unshuttered axial fan with adjustable overrun timer.
Stock Ref
436527

Shower Fan & Kit
The kit consists of a IP44 In-Line fan, a white ceiling grille and spigot, 3 meters of flexible duct and an external louvre for soffit or wall mounting.
Minivent SK
Single speed 100mm in-line axial fan.
Stock Ref
248710

Minivent SKT
Single speed 100mm in-line axial fan with integral adjustable overrun timer - 5-30 minutes.
Stock Ref
248810

BAS100SLB

Single speed axial fan with integral back draught shutter for remote or light switch operation.
Stock Ref
436530

BAS100SLT

Single speed axial fan with electronic overrun timer (5-30 minutes) and integral back draught shutter.
Stock Ref
436532

BAS150SLB

Single speed axial fan with integral back draught shutter for remote or light switch operation.
Stock Ref
436533

BAS150SLT

Single speed axial fan with electronic overrun timer (5-30 minutes) and integral back draught shutter.
Stock Ref
436535

Shower Fan & Light Kit

The kit consists of a 100mm axial in-line fan 3 meters of flexible ducting, an exterior grille, light transformer and 12V 35W halogen light assembly. IP44 rated.
Basic
Stock Ref
432504

Timer
Stock Ref
432505

Eclipse 100 & 150

- Wall or Ceiling mountable
- Integral back draft shutter mechanism
- Meets current Building Regulations Approved Document F
- 100mm and 150mm size options
- Fixing kits available
- Fan IP44 rated -100mm
- Fan IPX4 rated -150mm

Bathroom Ventilation

The Eclipse range of circular axial fans is designed to be installed in kitchens and bathrooms. Its simple design provides an unobtrusive fitting that is sympathetic with most interiors.

Models

ECLIPSE 100X
Single speed 100mm bathroom/toilet fan with back draught shutter.

Model	Stock Ref
100X	427310

ECLIPSE 100XP
Single speed 100mm bathroom/toilet fan with pullcord and back draught shutter.

Model	Stock Ref
100XP	427281

ECLIPSE 100XT
Single speed 100mm bathroom toilet fan with integral adjustable overrun timer (5-30 minutes) and back draught shutter.

Model	Stock Ref
100XT	427282

ECLIPSE 150X
Single speed 150mm kitchen fan with back draught shutter.

Model	Stock Ref
150X	427283

ECLIPSE 150XP
Single speed 150mm Kitchen fan with pullcord and shutter.

Model	Stock Ref
150XP	427313

Accessories

Model	Stock Ref
Bezel Chrome 100mm	436480
Bezel Silver 150mm	436483

Wall Kit
Wall fixing hole for 150mm Ø165mm.

Model	Stock Ref
Wall Kit White	140902
Wall Kit Brown	140903

Wall fixing hole for 100mm Ø117mm.

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100

Dimensions (mm)
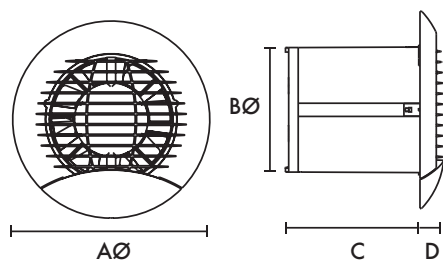
Model	A	B	C	D
Eclipse 100	157	99	107	19
Eclipse 150	201	144	123	19

Performance Guide
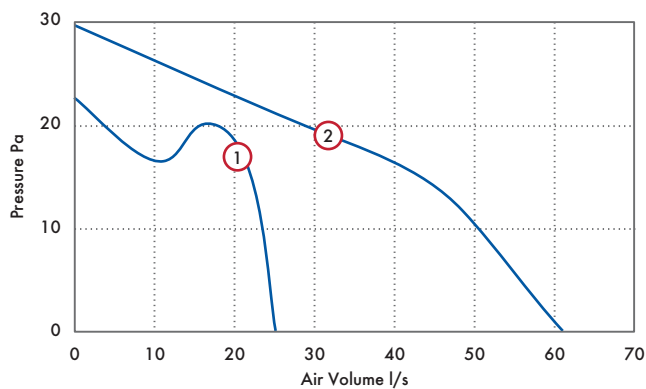
Model	Curve Ref	m³/h	l/s	Watts	@ 3m
			Extract Performance		dB(A)
Eclipse 100	1	90	25	14	38
Ecllipse 150	2	220	61	16	45

Tested at 240V 50Hz

dMEV, MEV & PIV Systems

What is dMEV & MEV?

The current Building Regulations Approved Document F gives examples of four main methods of ventilation. System 3, continuous mechanical extract ventilation, can be achieved using a single centralised extract unit such as the Sentinel Multivent ducted from 'wet' rooms (kitchen, bathroom, en-suite and WC) or by decentralised individual fans (dMEV) in the 'wet' rooms. The fans run continuously at near silent levels providing a simple and effective form of ventilation.

Lo-Carbon Response

The continuous running, constant volume Lo-Carbon Response dMEV unit features an innovative digital display. The unique display (patent pending) provides the calibrated installed airflow and pressure of the installation meaning that there is no need to test the installation with an airflow measuring device.

Quiet running and with high pressure development, the Response is best in class - an achievement that was recognised when it won Product of the Year at the prestigious Housebuilder Awards 2014.

Vent-Axia®

Lo-Carbon Centra/SELV

- Building Regulations Approved Documents F and L compliant, System 3 Continuous mechanical extract
- Recognised in SAP PCDB - Low SFP
- Discreet, tasteful styling
- IPX4 rated - IPX7 rated (SELV)
- dMEV Pressure detection device
- 5 Year Motor Guarantee
- Suitable for wall, ceiling, panel and window mounting
- SELV models supplied with remote transformer and suitable for 'Zone 1'

the ELECTRICAL industry awards WINNER 2011

Winners of the Energy Efficiency Initiative 2011 Award
with our Lo-Carbon Continuous Ventilation Product Range

What is de-centralised MEV (dMEV)?

Building Regulations Approved Document F gives examples of four main methods of ventilation. System 3, Continuous mechanical extract ventilation, can be achieved using a single centralised extract unit such as the Sentinel Multivent ducted to 'wet' rooms (kitchen, bathroom, en-suite and WC) or by decentralised individual fans, such as the Lo-Carbon Centra in the 'wet' rooms. The fans run continuously at near silent levels providing a simple and effective form of ventilation.

SELV (Safety Extra Low Voltage) is designed for areas where a fan can be installed within Zone 1 in a room where there is a fixed bath or shower. Ingress Protected (IP) to IPX7 Lo-Carbon Centra SELV can be fitted safely within the spray area. The separate transformer can be mounted away from the spray zone and out of reach from the bath or shower.

The Lo-Carbon Centra meets the latest requirements of the Building Regulations Approved Document F for wholehouse system ventilation and all models come with a 5 year motor guarantee.

Selection of the two trickle flow rates (6l/s or 9l/s) is via a simple 'jumper' on the control board. Different methods are available for operating the 15 l/s boost speed from a simple switched live to integral humidistat. See individual models for further details.

The attractive and discreet styling of the Vent-Axia Lo-Carbon Centra will complement the décor of any new home while virtually silent operation ensures optimum ventilation is achieved without intrusive noise.

Specific Fan Power

dMEV version recognised in SAP PCDB. Lo-Carbon Centra has a specific fan power of only 0.18 W/l/s in through-the-wall kitchen applications.

Models

Lo-Carbon Centra dMEV

Auto speed selection at installation and suitable for bathrooms or kitchens. The integral air pressure sensor checks the airflow when first installed and also helps the fan to compensate for external wind pressure.

Stock Ref
441782

Lo-Carbon Centra T/SELV T (Timer)

Ideal for bathroom and toilet applications, this unit runs continuously on trickle setting and may be boosted by the switched live input which activates the timer (fixed 15 min on T models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
T	442954
SELV T	443175

Lo-Carbon Centra TP/SELV TP (Timer/Pullcord)

For bathroom/toilet applications, the continuous running TP model is boosted by the pullcord which activates the timer (fixed 15 min on TP models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
TP	447127
SELV TP	447128

Lo-Carbon Centra HT/SELV HT (Humidistat/Timer)

For bathroom/toilet applications, the continuous running HT model is automatically boosted by the built-in humidistat or by a switched live input which activates the timer (fixed 15 min on HP models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
HT	442955
SELV HT	443176

Lo-Carbon Centra HTP/SELV HTP (Humidistat/Timer/Pullcord)

For bathroom/toilet applications, the continuous running HTP model is automatically boosted by the built-in humidistat or by the pullcord which activates the timer (fixed 15 min on HTP models, adjustable 5-30 minutes on SELV models).

Model	Stock Ref
HTP	443045
SELV HTP	443177

Accessories

Model	Stock Ref
150mm Conversion Kit	443334
Wall Kit White	254102
Wall Kit Brown	254100
Window Kit	442947
Ceiling Kit	443800

Dimensions (mm)

Model	A	B	C	DØ
Lo-Carbon Centra dMEV/All SELV	160	35	115	99
Lo-Carbon Centra T/TP/HT/HTP	160	35	80	99

Transformer 87 x 87 x 33mm (W x H x D) (SELV models only)

Performance Guide

Model	Extract Performance (l/s)			Power Consumption (Watts)			Sound dB(A)@ 3m		
	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost
Lo-Carbon Centra dMEV/All SELV	6	9	15	1.4	1.6	2.4	10.8	15.5	25.2
Lo-Carbon Centra T/TP/HT/HTP	6	9	15	3.2	3.5	4.2	10.8	15.5	25.2

SAP PCDB Performance (dMEV model)

Systems With Rigid Ductwork Installation Only

Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	SFP (W/l/s)
In Room (Ducted)	Kitchen	High	13.2	0.32
In Room (Ducted)	Wet Room	9 l/s	8.4	0.28
Through Wall	Kitchen	High	13.5	0.18
Through Wall	Wet Room	9 l/s	8.6	0.20

Systems With Flexible Or Mixed Ductwork Installation Only

Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	SFP (W/l/s)
In Room (Ducted)	Kitchen	High	13.2	0.37
In Room (Ducted)	Wet Room	9 l/s	8.6	0.31
Through Wall	Kitchen	High	13.5	0.18
Through Wall	Wet Room	9 l/s	8.6	0.20

Lo-Carbon Response/SELV

- Recognised in SAP PCDB
- Constant volume
- Display showing airflow and system pressure
- Switched live connection for external switches/sensors
- 220-240V input
- Day logger feature on Humidistat models
- 6l/s or 8l/s trickle speed selection 13l/s boost speed
- IPX4 rated - IPX7 rated (SELV)
- Multi-orientation grille
- New comfort control option

Lo-Carbon Response
Continuous running, constant volume dMEV unit with switched live (LS) and innovative digital display. Quiet running and with high pressure development, the Response is best in class.

The Response Fan from Vent-Axia
Following the introduction of the Domestic Ventilation Compliance Guide within Part F 2010, and the requirement to test the installed airflow of extract fans, the Response fan from Vent-Axia provides the easiest install available.

The unique display (patent pending) provides the calibrated installed airflow and pressure of the installation meaning that there is no need to test the installation with an airflow measuring device.

The constant volume technology automatically adjusts the speed of the fan to ensure the desired airflow is delivered. With a new silent higher pressure axial impeller Lo-Carbon Response can meet the requirements of many domestic installations without the need to use a traditional centrifugal fan.

Axial, rather than centrifugal?
Some centrifugal fans can develop pressure but the actual installed airflows can mean that the pressure is of no use as the airflow falls below the requirement. Using the new high pressure silent axial impeller has enabled the fan to not only develop great installed performance over duct runs, but to do it in the most energy efficient way. Response can provide excellent pressure whilst still maintaining energy efficiency and not wasting energy on high pressure at low air volumes. This enables the fan to save up to 64% of the specific fanpower (SFP) of the SAP PCDB data for existing centrifugal alternatives.

Configuration	Location	Alternative Centrifugal Fan SFP	Vent-Axia Response SFP
In room	Kitchen	0.38	0.17
	Wet Room	0.29	0.18
Through Wall	Kitchen	0.36	0.13
	Wet Room	0.28	0.15

Example Pressure Loss (6m flexible ducting, 2x 90 bends)

① Vent-Axia Lo-Carbon

② Response Fan Competitor Product

Unnecessary pressure which wastes energy

Pressuer Pa / Volume Flow l/s
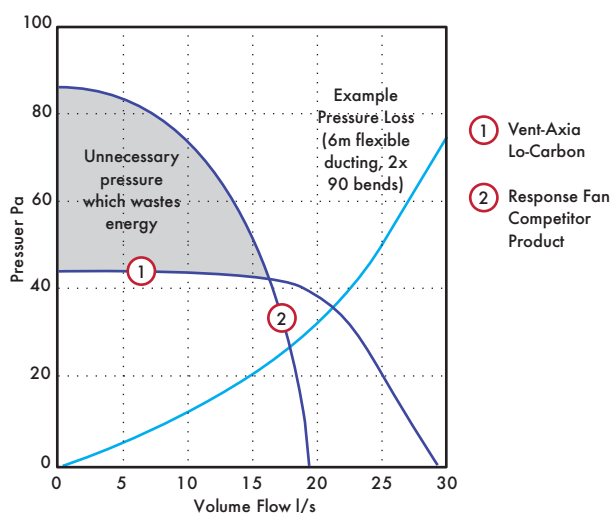
Side View of Airflow Display
Be confident that the Response is delivering the right performance with our innovative digital display showing the airflow and system pressure of the installed product.

Comfort Control Option
Designed to offer a more relaxing environment to the homeowner, the Lo-Carbon Response features a delayed start option. This new, patent pending, comfort control option is selectable at installation and allows the homeowner to enjoy a quiet, peaceful bathroom for up to 20 minutes before the Boost activates. Furthermore, if the light switch turns On and Off within 3 minutes, the Boost will not activate. No more disturbing the family if the bathroom light is turned on during the night.

Model

Lo-Carbon Response dMEV

Auto speed selection at installation. The integral air pressure sensor checks the airflow when first installed and also helps the fan to compensate for external wind pressure.

Stock Ref
404535

Lo-Carbon Response/SELV TP
(Timer/Pullcord)

For kitchen, utility and bathroom/toilet applications, the continuous running TP model incorporates an adjustable overrun timer. This adjusts the time the fan will continue to run on boost after the LS connection has been deactivated. This is also the run time period for the pullcord.

Model	Stock Ref
TP	404876
SELV TP	404878

Lo-Carbon Response/SELV HTP

(Humidistat/Timer/Pullcord)

For kitchen, utility and bathroom/toilet applications, the continuous running HTP model incorporates an adjustable (40% - 90%) ambient response humidistat. The fan will increase the extract rate if the humidity rises above the point set at installation. Day logger as standard.

Model	Stock Ref
HTP	404877
SELV HTP	404879

Accessories

Model	Stock Ref
Wall Kit White	254102
Wall Kit Brown	254100
150mm Conversion kit	408680
Ceiling kit	407928
Window kit	407927
Decoration Frame	474041

Dimensions (mm)

A	B	CØ	D
90	45	99	190

Performance Guide

1. 6l/s Constant Volume
2. 8l/s Constant Volume
3. 13l/s Constant Volume
4. Maximum pressure available to deliver airflow
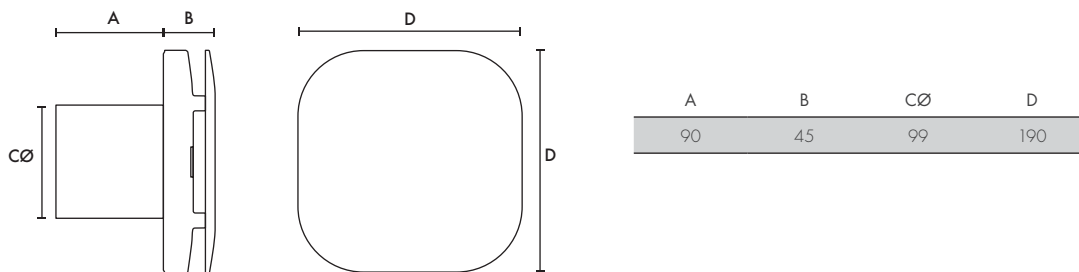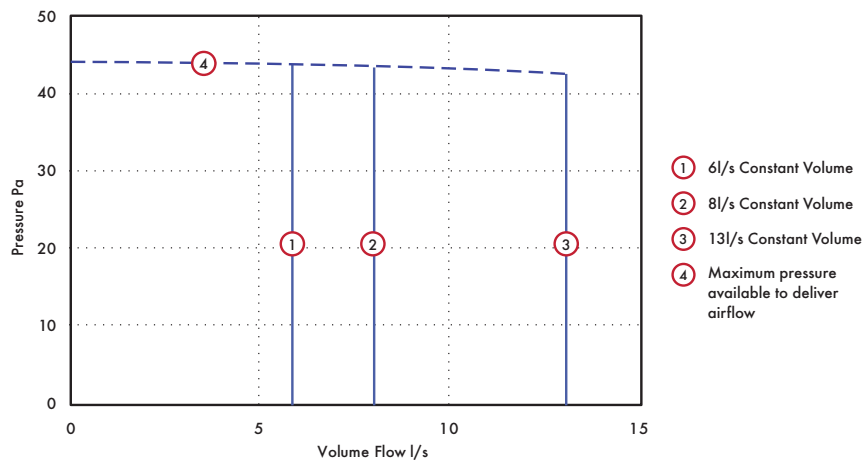
Model	Extract Performance l/s (m³/h) - FID			Watts			dB(A) @ 3m		
	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost
Lo-Carbon Response	6 (21)	8 (29)	13 (43)	1.0	1.2	1.7	12	17	32.5

SAP PCDB Performance

Unit Configuration	Location	SFP (W/l/s)
In room (rigid duct)	Kitchen	0.17
In room (rigid duct)	Wet Room	0.18
In room (flex duct)	Kitchen	0.17
In room (flex duct)	Wet Room	0.16
Through wall	Kitchen	0.13
Through wall	Wet Room	0.15

Lo-Carbon Multivent

- Reduces your carbon footprint
- EC low energy consumption motors
- Fitted with four extract 100 or 125mm diameter spigots allowing quick connection to ducts
- Option of wall, ceiling and loft mounting
- Quiet running suitable for continuous operation
- Can extract from a number of rooms, depending on the dwelling
- Wireless Controller available

The Lo-Carbon Multivent continuous mechanical extract ventilation range is designed for the simultaneous ventilation of separate areas in the home or as a multipoint extractor system for a wide range of commercial applications.

In the home the system is usually located in the loft or airing cupboard with ducts taken to the bathroom, utility room and toilets to removes air pollutants such as water vapour and odours.

Lo-Carbon Multivent is ideal for a range of commercial applications such as toilets, fitting rooms, and kiosk's. The units can be installed at any angle and where the ambient air has a high humidity content condensate drains are provided.

The Lo-Carbon Multivent H version incorporates a built-in humidity sensor to switch between two of the three speeds. A Wireless Controller is available for use with the Lo-Carbon Multivent H with three speed options offering total control of the system.

Lo-Carbon MVDC

The Lo-Carbon MVDC Multivent minimises running costs by incorporating the latest DC technology. DC efficiency means less wear and tear on the motor which guarantees longer life.

Extended motor guarantee to 5 years offered.

Models

Model	Stock Ref
MVDC	181520
MVDCH	183020

Accessories

Acoustic Lining Kit
For reducing noise in sensitive installations
Stock Ref
438195

Multivent Wireless Controller
(for use with MVDCH only)
Stock Ref
426035

Dimensions (mm)
Weight: 5.50kg

Reduction Pieces
Diameter: 100/125mm

A	B	C	D	E	F	G	H	I	J
340	72.5	25	15	360	214	310	249	150	85

Performance Curve

Technical Data

Model	Low Current Amps	Low Power Watts	Medium Current Amps	Medium Power Watts	High Current Amps	High Power Watts	SEC Class	SEC Class (inc. LDC)
MVDC	0.1	9	0.23	20	0.39	44	E	B
MVDCH	0.1	9	0.23	20	0.39	44	D	B

Sound Level

Model	Speed	FID Perf. m³/h (l/s)	Sound dB(A) @ 3m Casing Breakout	Sound dB(A) @ 3m Duct Inlet 100mmØ	Sound dB(A) @ 3m Duct Inlet 125mmØ
MVDC	Low	232 (64)	33.3	36.5	36.5
MVDC	Medium	365 (100)	33.7	47.9	47
MVDC	High	434 (120)	38.8	51.7	51.5
MVDCH	Low	232 (64)	33.3	36.3	36.5
MVDCH	Medium	365 (100)	33.7	47.9	47
MVDCH	High	434 (120)	38.8	51.7	51.5

Multivent

- Fitted with four extract 100 or 125mm diameter spigots allowing quick connection to ducts
- Option of wall, ceiling and loft mounting
- Quiet running suitable for continuous operation
- Can extract from a number of rooms
- Wireless Controller available

The Multivent continuous mechanical extract ventilation range is designed for the simultaneous ventilation of separate areas in the home or as a multipoint extractor system for a wide range of commercial applications.

In the home the system is usually located in the loft or airing cupboard with ducts taken to the bathroom, utility room and toilets to removes air pollutants such as water vapour and odours.

Multivent is ideal for a range of commercial applications such as toilets, fitting rooms and kiosks. The units can be installed at any angle and where the ambient air has a high humidity content condensate drains are provided.

The Multivent H version incorporates a built-in humidity sensor to switch between two of the three speeds. A Wireless Controller is available for use with the Multivent H with three speed options offering total control of the systems.

Models

Model	Stock Ref
MV250	181510
MV250H	183010

Accessories

Acoustic Lining Kit
For reducing noise in sensitive installations
Stock Ref
438195

Multivent Wireless Controller
(for use with MV250H only)
Stock Ref
426035
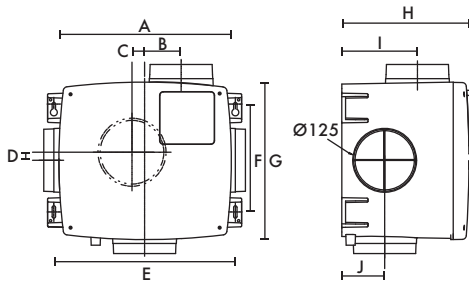
Dimensions (mm)
Weight: 5.50kg

Reduction Pieces
Diameter: 100/125mm
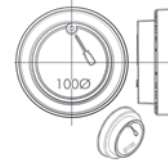
A	B	C	D	E	F	G	H	I	J
340	72.5	25	15	360	214	310	249	150	85

Performance Curve
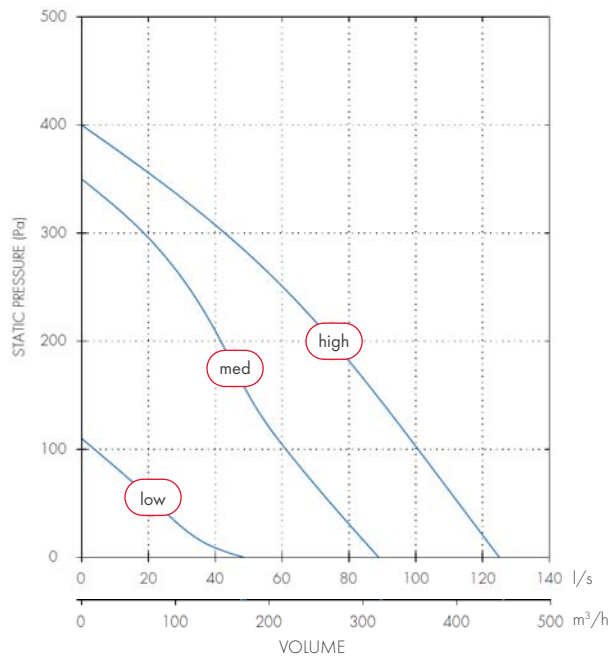
Technical Data

Model	Low		Medium		High		SEC Class	SEC Class (inc. LDC)
	Current Amps	Power Watts	Current Amps	Power Watts	Current Amps	Power Watts		
MV250	0.2	25	0.30	54	0.34	81	E	C
MV250H	0.2	25	0.30	54	0.34	81	E	C

Sound Level

Model	Speed	FID Perf. m³/h (l/s)	Sound dB(A) @ 3m		
			Casing Breakout	Duct Inlet 100mmØ	Duct Inlet 125mmØ
MV 250	low	161 (45)	22.4	27.9	27.8
	medium	305 (85)	31.0	42.9	43.2
	high	443 (123)	35.4	48.6	48.0
MV 250H	low	175 (48)	22.4	27.9	27.6
	medium	344 (95)	31.0	42.9	43.2
	high	443 (123)	35.4	48.6	48.0

Lo-Carbon Sentinel Multivent/Plus

- Reduces your carbon footprint
- Recognised in SAP PCDB
- Specific fan power as low as 0.16 W/l/s
- Suitable for use with external sensors and controllers
- Wireless control option
- Complies with Building Regulations ADF and ADL
- Manufactured in the UK from recyclable materials

Sentinel Multivent continuous mechanical extract ventilation, MEV is designed for the simultaneous ventilation of separate areas in the home or as a multipoint extraction system for a wide range of commercial applications. The units can be installed at any angle. Where the ambient air has a high humidity content condensate drains are provided.

In support of Sentinel Multivent, Vent-Axia offers:

- Practical advice on product selection and installation
- Guidance on solutions to meet legislation requirements
- Project management and site deliveries
- After sales support and maintenance information

The need to improve efficiency

Sentinel Multivent has been designed to meet the exacting demands of developers, installers and users offering advanced control options and easier installation and commissioning.

- Demand Control - enables precise ventilation rate, is set in 1% increments based on property size
- Integral LCD display allows the installer to select appropriate low, normal and boost speeds to meet demand
- Manual and automatic control options
- Integral adjustable overrun timer and delay on timer
- Plug-n-Play automatic sensor detection
- Switched live and SELV connections
- Dry Out setting – Option set at installation, Sentinel Multivent will run on boost for 1 week to assist in removing moisture
- Optional Wireless Control – up to 4 controllers on any one system
- Energy efficient EC/DC motors - 1/3 less energy lost to heat than a conventional AC motor
- Low Specific Fan Power (SFP) making it one of the most efficient products on the market

Legislation

- Meets Building Regulations Approved Document F (System 3)
- Recognised in SAP PCDB up to kitchen + 6 wet rooms

- Meets carbon footprint reduction targets
- Lowest SFP figures of any demand control MEV system

The need for better health

Removal of pollutants such as moisture, carbon dioxide and external fumes are all important factors in maintaining indoor air quality, helping to create a healthier living environment.

- The integral humidity sensor (Sentinel Multivent H) increases fan 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
- Night time relative humidity increment setback feature suppresses nuisance tripping as humidity gradually increases with falling temperature
- Acoustically lined - low noise levels only 18.1 dB(A) @ 3m

SAP PCDB

In order to make the right choice, developers and contractors should refer to Building Regulations ADL1a, SAP 2012 and SAP PCDB.

SAP PCDB was launched in June 2006 to reward innovative ventilation manufacturers by testing and listing energy efficient products that assist in helping developers meet their Target Emission Rates (TER).

SAP is the underpinning methodology behind the Energy Performance Certificates and is used to demonstrate compliance with Building Regulations for Dwellings - Approved Document L (England and Wales), Section 6 (Scotland) and Approved Document F (Northern Ireland). SAP PCDB specifically relates to wholehouse ventilation systems and lists a number of Vent-Axia Mechanical Ventilation solutions which offer an improved SAP rating over and above the default for these product types.

SEC Class

Model	SEC Class
Sentinel Multivent/Plus	C

SAP PCDB Test Results (Sentinel Multivent)

Exhaust Terminal Configuration	Fan Speed Setting	Total Flow Rate	SFP (W/l/s)
K+1	32%	21	0.16
K+2	39%	29	0.16
K+3	49%	37	0.17
K+4	59%	45	0.21
K+5	68%	53	0.24
K+6	77%	61	0.29

SAP PCDB Test Results (Sentinel Multivent Plus)

Exhaust Terminal Configuration	Fan Speed Setting	Total Flow Rate	SFP (W/l/s)
K+1	20%	21	0.25
K+2	25%	29	0.22
K+3	30%	37	0.22
K+4	34%	45	0.22
K+5	40%	53	0.25
K+6	45%	61	0.27

To assist developers and contractors Vent-Axia can provide detailed scheme designs together with installation guidance and training.

Your Carbon Footprint

The Carbon Footprint is a measure of the amount of carbon dioxide (CO_2) emitted through the burning of fossil fuels. From a residential and commercial building perspective, it is the amount of carbon generated when you consume a kilowatt of electricity. Reducing a building's carbon footprint will ultimately reduce electricity bills and save money for every individual household or business. It will also help meet the UK target for the reduction of emissions, as well as allowing you to help the environment.

Model

	Stock Ref
Sentinel Multivent	437601
Sentinel Multivent H	445655
Sentinel Multivent Plus	407001
Sentinel Multivent Plus H	407849

Dimensions (mm)

Reduction Pieces
Diameter: 100/125mm
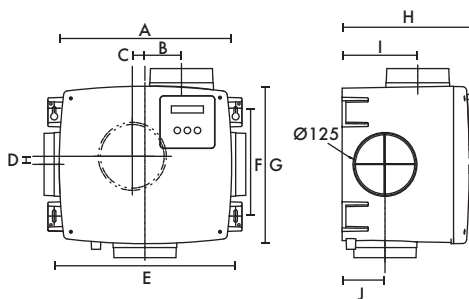
A	B	C	D	E	F	G	H	I	J
340	72.5	25	15	360	214	310	260	150	85

Performance Guide
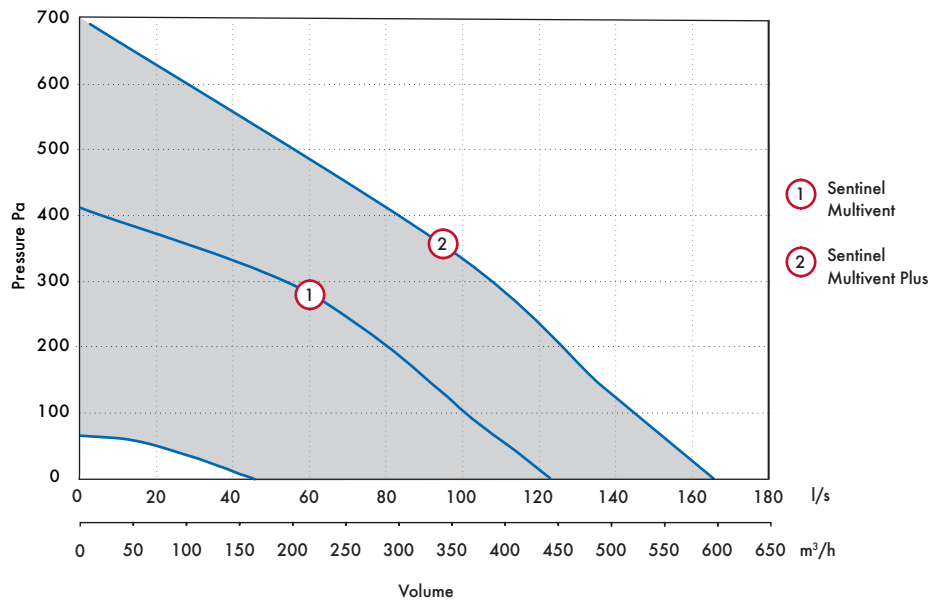
			Inlet Duct	FID	Power		SEC Class
Stock Ref	Model	Curve Ref	dB(A)	l/s	Watts	SEC Class	(inc. LDC)
437601 / 445655	Multivent	1 (max)	38	121	45	E	C
407001 / 407849	Multivent Plus	2 (max)	-	165	83	E	C

Sound Data (Sentinel Multivent)

Speed		Induct sound power levels dB								dB(A) @ 3m
		63	125	250	500	1K	2K	4K	8K	@ 3m
10%	Breakout	43.6	37	36.9	30.6	26.2	22.8	23.6	30.4	18.1
	Extract	43.8	39.9	36.1	30.4	24.6	21.8	22.	30.3	17.8
28%	Breakout	44	44.4	43.3	39	31.1	26.1	24.3	30.1	22
	Extract	42.2	40.1	42.2	40.5	32	23.3	23.4	30.5	22
46%	Breakout	45	42.8	46.7	44.1	38.8	35.6	26.7	30.6	25.8
	Extract	40.8	42.5	46.4	44.4	41	31.1	25.3	30.3	26
82%	Breakout	46.3	48.3	50	52.1	48.4	47.7	37.8	32.4	33.7
	Extract	46.7	49.6	48.9	54.3	51.8	42.7	38.1	34.2	36.1

Sound Data (Sentinel Multivent Plus)

Speed %	Test mode	Octave band, Hz, dB SWL								SPL dB(A) at 3m
		63	125	250	500	1k	2k	4k	8k	dB(A) at 3m
20	Inlet	45.0	46.0	43.9	34.1	27.4	22.8	23.1	29.7	20.5
	Outlet	45.0	40.9	45.2	39.5	33.0	26.7	23.0	29.1	29.5
	Breakout	43.9	37.4	36.5	35.5	26.7	22.6	23.7	30.2	19.0
40	Inlet	48.6	48.7	54.4	52.3	55.4	47.5	38.0	33.1	37.0
	Outlet	49.1	54.6	54.4	55.0	55.7	51.7	39.7	39.5	42.9
	Breakout	45.2	44.2	47.5	46.1	40.0	34.0	26.3	30.3	26.8
60	Inlet	48.6	48.7	54.4	52.3	55.4	47.5	38.0	33.1	37.0
	Outlet	57.1	55.9	65.2	63.3	64.8	64.5	53.7	55.5	52.2
	Breakout	49.0	49.7	58.0	53.7	48.4	46.4	36.4	33.3	34.9
80	Inlet	56.3	56.6	60.4	59.0	61.4	56.0	46.6	43.5	43.5
	Outlet	62.3	60.8	70.9	69.3	69.5	70.3	61.9	62.8	57.9
	Breakout	53.1	53.7	61.8	61.4	53.4	54.5	44.9	41.9	41.3
100	Inlet	54.1	55.5	59.4	61.8	62.7	58.9	49.7	45.8	45.3
	Outlet	63.1	61.8	67.8	72.7	70.5	71.5	62.9	64.4	59.0
	Breakout	56.5	54.3	60.8	65.6	54.0	54.6	46.3	42.3	43.7

Controllers and Sensors

Sentinel Multivent can be used with a wide range of Vent-Axia controllers and sensors. Ranging from integral humidistats, through to wireless controllers to wired remote sensors.

Integral Humidistat
- Simple Plug-n-Play installation
- Eliminates the need for additional controllers or sensors
- Reacts to any rapid increases in relative humidity or when humidity rises above adjustable threshold
- Future proof – can be fitted after installation
- Self programming

Stock Ref
437598

Ambient Response Humidity Sensor
- Pullcord override and indication light
- Changeover relay switch
- Operating range: 30% - 90%RH
- Ambient operating temp. 5°C to 40°C
- 220-240V AC
- Will fit single gang box for surface mounting

Stock Ref
563550

Visonex PIR Sensor
- Fits any UK single gang mounting box
- Adjustable timer overrun (5-25 mins)
- Range of detection up to 10 metres
- Designed to meet IP43
- Ambient operating temp. range 0°C to 50°C

Stock Ref
459623

Wireless Transmitter Controller Receiver Kit
- Manual boost
- Adjustable overrun timer
- Easy wireless installation
- Reduces installation time
- Future proof - add more controllers any time

Stock Ref
439352

Ecotronic Humidity Sensor
- Set point adjustable
- Maximum switching load 1 Amp inductive
- Pullcord override indicator
- Ambient operating temp. 0°C to 40°C
- Supply voltage 220-240V

Stock Ref
563532

CO$_2$ + Temp Room Sensor
- 240V DC
- 0 - 2000ppm CO$_2$ working range
- 0 - 50°C working range
- Auto-calibrating NDIR CO$_2$ absorption sensor
- Thin film platinum temperature sensor for high accuracy

Stock Ref
433257

Wireless Transmitter Controller
- Additional controller for 439352
- A maximum of 4 controllers can be used per system
- Can be connected to other accessories (e.g. Humidistat) to send a boost signal wirelessly

Stock Ref
437827

Air Quality Sensor
- Ambient operating temp. 0°C to 50°C
- DEMKO approved
- Surface mounted
- 1 - 25 min O/R timer
- Supply voltage 220-240V

Stock Ref
563506

Ventwise
- Automatically boosts fan when temperature of the supply pipe to a shower or bath increases
- Automatically boosts fan when electric hob is switched on
- Can be used in conjunction with manual override input
- Adjustable overrun timer
- Two sensor options available

Stock Ref
435960

Lo-Carbon Multivent MVDC-MS/MSH

- Best in class Specific Fan Power
- Reduces your carbon footprint
- Recognised in SAP PCDB
- Fitted with four extract 125 or 100mm diameter spigots allowing quick connection to ducts
- Complies with Building ADF (System 3)
- Option of wall, ceiling and loft mounting
- Improved controllability
- Switched Live Boost connection
- Fully variable normal and boost speeds
- Ultra quiet - acoustically lined for low noise levels
- Integral humidistat (H version)

With growing concerns about accurate ventilation of properties, the Lo-Carbon Multivent MVDC range offers the option of 'Close Control' both in the residential and the commercial sectors. With a DC motor the multi speed Lo-Carbon Multivent is one of the most efficient central extract units available.

The units have two fully variable speeds for trickle and boost, with a switched live (LS) activation for the boost speed. An additional third speed (purge) is available using a second switched live connection.

An acoustic lining is included as standard, ensuring minimum noise levels.

The potentiometer controlled speed selector allows accurate setting of airflow, ensuring exactly the right ventilation rate. This feature also reduces noise, and energy consumption.

Models

	Stock Ref
MVDC-MS	437634
MVDC-MSH	443298

SAP PCDB Test Results

Exhaust Terminal Configuration	Total Flow Rate	SFP (W/l/s)
K + 1	21	0.16
K + 2	29	0.15
K + 3	37	0.17
K + 4	45	0.20
K + 5	53	0.24
K + 6	61	0.28

Dimensions (mm)

Weight: 5.50kg
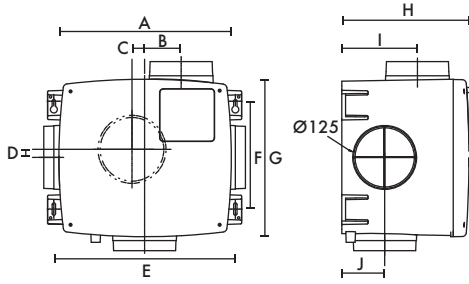
Reduction Pieces
Diameter: 100/125mm
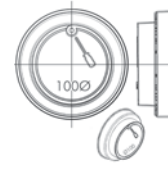
A	B	C	D	E	F	G	H	I	J
340	72.5	25	15	360	214	310	249	150	85

Performance Guide

MVDC-MSH features an integral humidistat which triggers the unit to boost when humidity levels in the duct system exceed 70%.

1 Min Speed

2 Max Speed

Fully adjustable speed settings
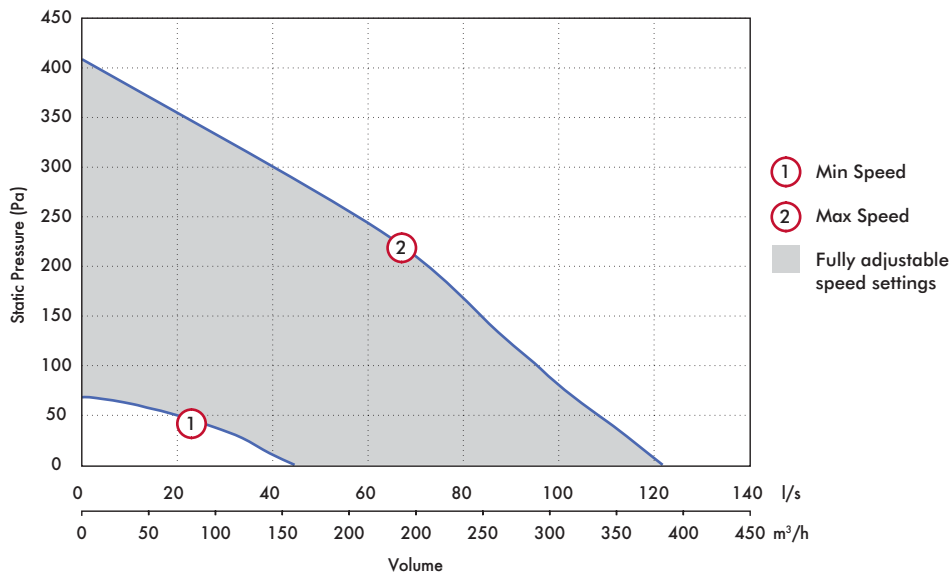
Model	Min				Max					
	Casing Breakout dB(A) @ 3m	Inlet Duct dB(A)	FID l/s	Power Watts	Casing Breakout dB(A) @ 3m	Inlet Duct dB(A)	FID l/s	Power Watts	SEC Class	SEC Class (inc. LDC)
MVDC-MS	19	18	43	6	37	38	121	45	E	B
MCDC-MSH	19	18	43	6	37	38	121	45	E	B

NEW Lo-Carbon PoziDry Pro

- Available Autumn 2017
- Anti-Vibration joist mounting legs as standard
- Selectable air capacities to suit floor area up to 150m²
- Smart Sense Technology offers simple control and data logging
- Uses latest Lo-Carbon motor technology for low running costs
- Ultra low sound level
- Complete with ceiling diffuser, flexible duct and worm drive clips
- Standard 5 year guarantee
- Up to 5 year maintenance free G4 filter
- IPX2 rated

Positive Pressure Ventilation

Designed to prevent and treat condensation and mould quickly. The PoziDry Pro is the perfect solution for Social Housing or general refurbishment, as its discreet, easy to install and almost silent running.

Lo-Carbon PoziDry Pro offers a quick and simple solution. A loft mounted positive input fan draws fresh air from the insulated loft, filters it and gently feeds it into the dwelling via a ceiling mounted diffuser. Stale air in the property is forced out through the natural leakage points, such as under doors or window mounted trickle vents.

Installation

The Lo-Carbon PoziDry Pro is uniquely flexible in its installation methods, high sided anti vibration legs and a hanging kit both come as standard, allowing the PoziDry Pro to be installed quickly in any sized loft. The easy carry handle incorporated into the body makes carrying the unit easy and safe; especially useful when lifting the unit through loft hatches. The unit is supplied with a purpose designed diffuser to be located over the stairwell of a conventional dwelling or in the main hall of a bungalow. Using Smart Sense technology the unit is easily set to the appropriate speed at installation based on the size of the dwelling. Background ventilation openings provide the exhaust points. En-suites and utility areas should be serviced by continuous mechanical extract ventilation.

Performance

With a lightweight construction, the Lo-Carbon PoziDry Pro features a specially developed Lo-Carbon DC fan/motor arrangement which runs quietly and delivers incredibly low running costs. The Lo-Carbon PoziDry pro uses a sensor to monitor the temperature in the loft, automatically adjusting the air volume when necessary. The unit will continuously ventilate silently in the background whilst in 'Trickle' mode. Once the unit automatically senses excess heat being lost into the loft the airflow will increase to 'Normal' mode to recover heat that would otherwise be lost through the roof. During summer months should the loft exceed 27°C the unit will enter 'stand-by' mode in order stop the circulation of warm air allowing for a more comfortable living environment. PoziDry Pro Heater

models automatically turn on the 500W heater to boost air temperature by 10°C during colder months. Under assessment with BBA.

Filter

Standard filters supplied with the PoziDry Pro are G4 (PM10 filtration) which filter out many every day pollutants such as pollen & dust. Optional F7 filters are available (PM2.5 Filtration) removing tobacco smoke, diesel particulates, spores and a number of bacterias.

Day logger

Smart Sense technology allows the unit to record how long it has been running in each of its speeds. It also measures the number of days the product has been switched on to provide precise running information. Smart Sense technology can also record the duration of heater activity and energy used

Speed Control

Smart Sense technology makes speed selection easy. Once house size is selected based on number of bedrooms, PoziDry Pro automatically selects the correct Trickle and Normal speeds. Should you need to adjust speed manually this can be done easily.

Heater

The 500W heater is fully flexible and has the option to be installed at diffuser level to reduce heat loss through the ducting. This means more heat enters the habitable areas of the house. Smart Sense controls allow the Pozidry Pro to be adjusted fully when the heater is activated making it adaptable for all lifestyles.

Air Replacement Grille Set

For air replacement through doors. Consists of a two-piece telescopic set, which fits unobtrusively on either side of the door panel. Minimum fixing thickness 30mm. Plastic. Dimensions: 454 x 90mm.

Mounting Options

PoziDry Pro comes as standard with both high sided anti vibration legs and a hanging kit. The legs are designed to mount between standard joists widths between 400-600mm centres. Clip and fit connections allow for easy installation.

Motor

The electronically controlled DC motor is manufactured with long life ball bearings and is fitted with Standard Thermal Overload Protection (S.T.O.P.). Suitable for ambient operating temperatures of -25°C to +40°C. For complete peace of mind, the Vent-Axia Lo-Carbon PoziDry Pro is backed by a 5 year guarantee.

Models

PoziDry Pro
Stock Ref
476310

PoziDry Pro with Heater
Stock Ref
476311

PoziDry Pro FD with Heater (Multi-storey Compliant)
Stock Ref
476312

Accessories

Twin Spigot Kit
An additional kit to allow an extra circular diffuser to be installed near the PoziDry unit
Stock Ref
449071
Includes:
1 x 436592 (200mm Duct)
2 x 561707 (Worm Clips)
1 x 452085 (200mm equal Y Piece)
1 x 10544200 (Diffuser)

F7 Filter Set
Offers additional filtration removing harmful particulates down to PM2.5
Stock Ref
476401

Dimensions (mm)
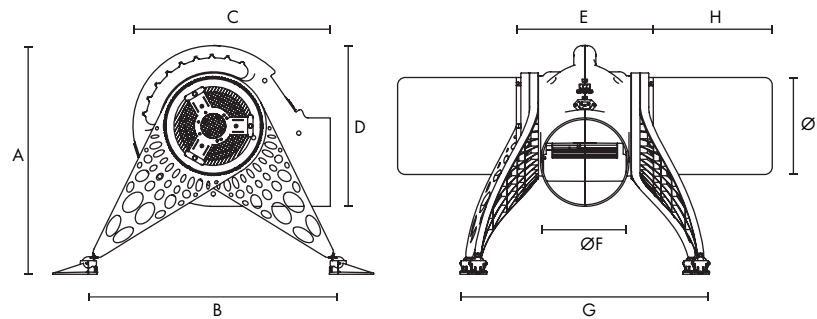
A*	B**	C	D	E	ØF	G***	H	ØI
517	300-650	447	364	310	200	400-600	300	220

* 'A' shown where B is 725mm. Height will change if B dimension changes. ** Variable to allow for adapting product height. ***Variable to adapt to differing joist widths.

Performance Guide

Extract Performance (l/s) - FID

Bedroom	Trickle	Normal
1	13	25
2	17	31
3	21	38
4	25	44
5	29	50
Adjustable	10-60	10-16

Lo-Carbon PoziDry Compact

- BBA Approved
- Ultra low sound level
- Selectable air capacities to suit volumes of up to 34 l/s or floor area up to 100m^2
- Extremely low running costs - from less than one pence per day
- Washable, high capacity G4 filter
- Datalogger feature as standard
- Round to rectangular duct adaptor included
- 5 Year Guarantee
- Ideal for apartments

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 15/5180

Positive Pressure Ventilation

For those properties that do not have a loft, the BBA approved Lo-Carbon PoziDry Compact provides an easy to install solution. The unit is duct mounted and can be fitted in a number of locations within a single floor flat or apartment.

Air is drawn into the Lo-Carbon PoziDry Compact unit via an external inlet and through a short length of duct. The specially developed fan/motor assembly (using the Lo-Carbon DC motor technology) draws the air through an integral, high capacity, washable filter. The backward curved impeller guarantees increased efficiency, lower sound levels and better performance.

The fresh, filtered airflow passes along the ducting and terminates on an internal wall with a discreet grille. This directs the airflow upwards where the incoming air mixes with the warm air that gathers at ceiling height.

The system provides fresh, tempered air into the home and creates an indoor environment where the damaging effects of condensation find it hard to exist, benefiting both the occupants and the structure of the building.

The Lo-Carbon PoziDry Compact can be used for air replacement in conjunction with an extractor fan. A G4 filter is included as standard.

Performance

The Lo-Carbon PoziDry Compact uses a sensor to monitor the ambient temperature, automatically adjusting the air volume when necessary and providing partial heat recovery.

'Trickle' speed is automatically selected when the ambient temperature is up to 18°C.

'Normal' is automatically selected when the ambient temperature is between 18 and 27°C.

If the ambient temperature exceeds 27°C, the Lo-Carbon PoziDry Compact will automatically switch to standby (no airflow). The standby power consumption is 2W.

In the case of the integral 300W heater version, the heater element is automatically activated when necessary and tempers the supply air to 10°C.

Air Replacement Grille Set

For air replacement through doors. Consists of a two-piece telescopic set, which fits unobtrusively on either side of the door panel. Minimum fixing thickness 30mm. Plastic. Dimensions: 454 x 90mm. See Ducting section.

Day logger

As standard. Measures the number of days the product has been switched on to provide precise running information.

Model

Without heater
Stock Ref
444076

With integral heater
Stock Ref
444767

Installation Packs

Stock Ref	453546	453547	453548
Quick Fit Grille (White)	1	1	1
Wall fitting kit (Brown)	1	1	1
Round to Rectangle Adaptor	1	3	3
Vertical 90° bend	2	2	2
Elbow/Spigot	1	1	1
1m Flat Channel	1	2	2
1.5m Flat Channel	1	2	2
Connector	1	4	4
Horizontal 90° Bend	-	-	2
Channel Clip	4	6	2

Dimensions (mm)

Duct Adaptor (included)
Rear duct entry option
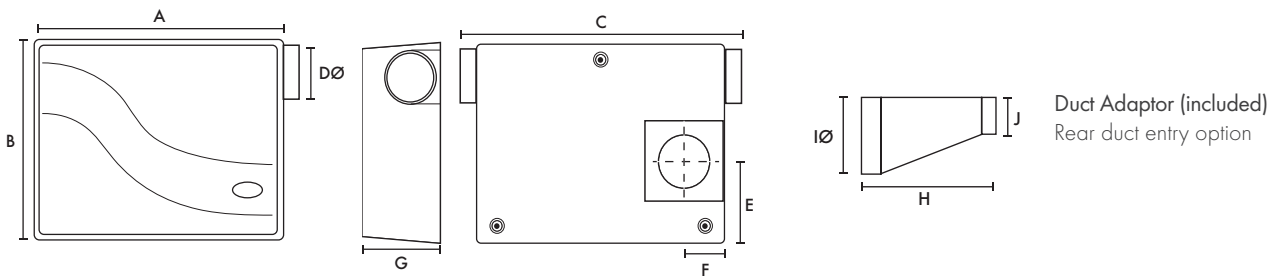
A	B	C	DØ	E	F	G	H	IØ	J	Unit Weight
435	365	490	100	160	58	160	180	105	55 x 110	7kg

Performance Guide

Speed	FID (l/s)	Power (W)*	Floor Area (m²)	SEC Class
1	10	5.7	30	
2	18	12.2	54	E
3	26	24.6	78	
4	34	49.8	100	

*add 300W for heater version

Sound Data

Setting	Test mode	63	125	250	500	1k	2k	4k	8k	SPL dB(A) @ 3m
					Octave band, Hz, dB SWL					
Speed 1	Supply	37.6	32.7	33.4	35.0	29.8	27.5	18.2	22.6	18.0
	Extract	37.0	32.3	32.5	32.4	21.9	25.3	16.8	22.6	15.5
	Breakout	35.3	46.9	38.8	33.1	22.9	22.2	17.8	23.3	15.0
Speed 4	Supply	65.2	57.2	60.8	67.6	62.2	59.7	50.8	41.2	50.0
	Extract	60.8	51.7	58.5	62.1	56.1	56.4	45.2	37.9	45.5
	Breakout	57.2	55.2	55.5	63.3	55.1	52.2	44.1	32.9	41.5

Residential & Commercial Single Room dMVHR

Improving air quality on a room-by-room basis, the Vent-Axia through-the-wall mounted range of heat recovery ventilation units simultaneously extract stale air and introduce fresh air – warming the incoming airflow with heat recovered from the exhaust stream.

Lo-Carbon Tempra
The Vent-Axia Lo-Carbon Tempra through-the-wall heat recovery unit provides a flexible solution, which meets the requirements for high efficiency ventilation. Tempra is ideal for refurbishment projects and is designed for use in bathrooms, toilets, utility rooms and kitchens. Tempra also meets the current Building Regulations Approved Document F and L.

Vent-Axia®
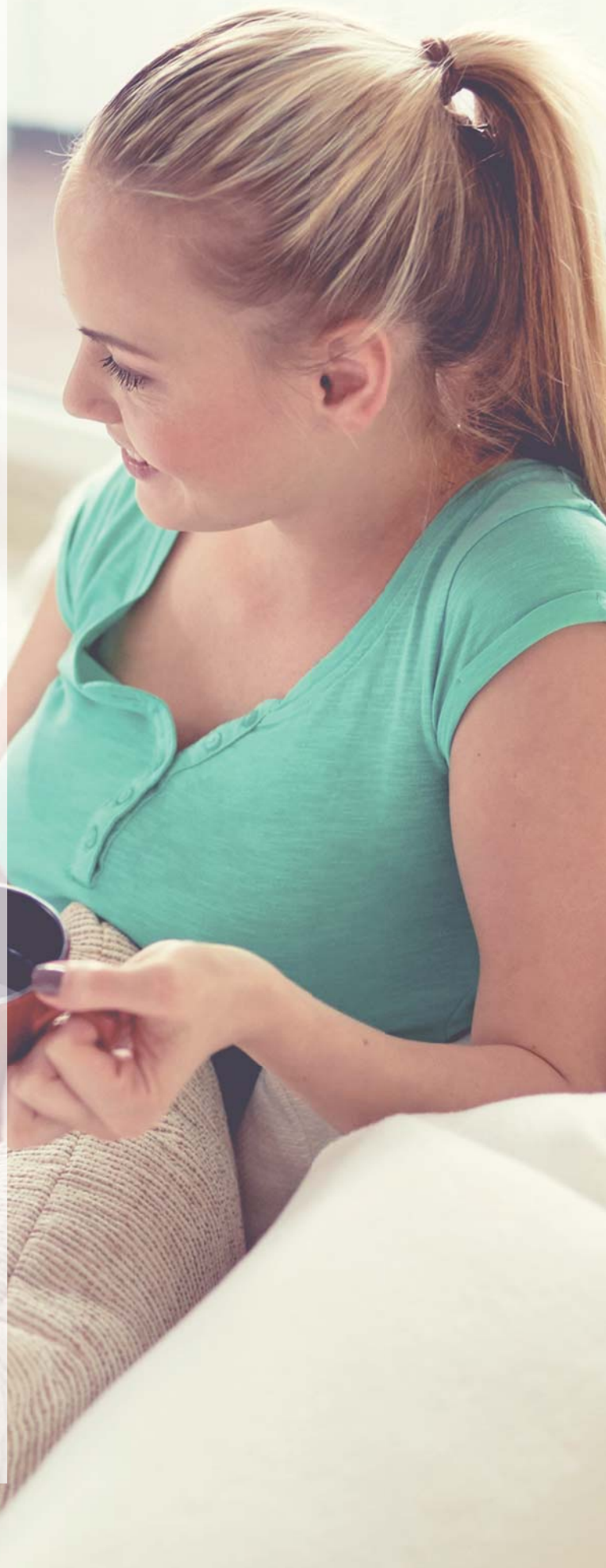
Lo-Carbon Tempra/SELV

- Fits in 100mm diameter hole – ideal for refurbishments
- Up to 78% heat recovery
- Available in 2 wall depths: 320mm and 460mm
- Reduces the home's carbon footprint
- IPX4 rated
- Summer setting (extract only)
- Helps prevent noise ingress
- Continuous running or intermittent extract
- Meets current Building Regulations Approved Documents F and L
- Low power consumption - only 3.2 W

Through-The-Wall Heat Recovery Unit

The Vent-Axia Lo-Carbon Tempra is designed to fit in 100mm diameter hole and is suitable for refurbished properties in kitchens, bathrooms, toilets or utility rooms. The unit meets the performance requirements for continuous extract fans under the current Building Regulations Approved Document F.

The Tempra is available in three models, a P version with pullcord control, a T version with overrun timer and an HTP version with built-in pullcord, overrun timer and humidistat. Two spigot lengths are available; 320mm and 460mm.

The manual summer setting allows the unit to be set to extract only, helping to prevent a dwelling becoming too warm in hot summer conditions.

Performance

Tempra can be set to run continuously at 6 l/s or 9 l/s, boosting up to 15 l/s, recovering heat from extracted air and returning it to the dwelling. The unique, compact heat exchanger has a temperature efficiency up to 78%, saving energy and reducing your carbon footprint. For intermittent extract the Tempra is set to 15 l/s.

Tempra is also designed so that the replacement air being introduced is at a reduced rate ensuring that the room being ventilated is still under a slight negative pressure. This ensures that fresh air is bought into the room from the rest of the house preventing humid air migrating.

The Lo-Carbon EC/DC motor with twin impellers consumes as little as 3.2 Watts on trickle rate and runs almost silently at only 20dB(A).

Typical Installation

The unique heat exchanger design allows the Tempra to be fitted in a 100mm diameter hole, allowing it to replace standard 100mm extract fans while giving all the benefits of heat recovery. Maximum wall thickness is 460mm.

A longer version of the Tempra is available, designed for installations where the wall thickness is between 321mm and 460mm. 460mm models are identified by an 'L'.

Models

Lo-Carbon Tempra P (Pullcord)
Constant trickle speed with pullcord to boost or intermittent operation by pullcord.

Model	Stock Ref
320mm P	443312
320mm SELV P	444368
460mm LP	403832
460mm SELV LP	403833

Lo-Carbon Tempra T (Timer)
Constant trickle speed with switch live to boost or intermittent operation by switch live.

Model	Stock Ref
320mm T	443310
320mm SELV T	444369
460mm LT	403834
460mm SELV LT	403835

Lo-Carbon Tempra HTP (Humidistat/Timer/Pullcord)
Constant trickle speed with humidistat and linked overrun timer to boost or intermittent operation by switch live.

Model	Stock Ref
320mm HTP	443311
320mm SELV HTP	444370
460mm LHTP	403836
460mm SELV LHTP	403837

Accessories

100mm High Rise Kit
320mm white duct with black seal.

Model	Stock Ref
100mm High Rise Kit	449011

Wall kit
Extendable Wall Tube suitable for both spigot lengths.

Model	Stock Ref
Wall kit	445529

150mm Conversion kit
For replacement of 150 diameter fan.
Stock Ref
403847

Dimensions (mm)
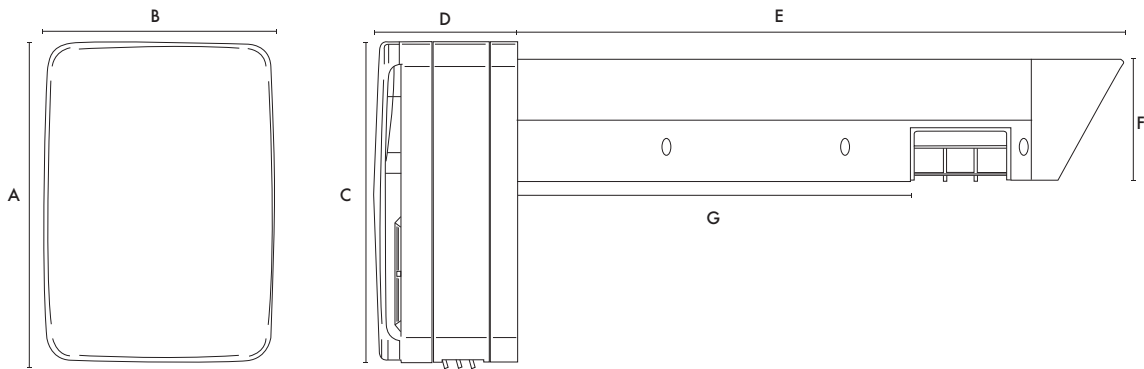
	A	B	C	D	E	F	G
Standard	266	190	262	117	496	99	321
Long	266	190	262	117	636	99	461

Performance

	Extract Performance l/s			Power Consumption Watts			Sound @dB(A)*		
Model	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost	Trickle Low	Trickle High	Boost
Lo-Carbon Tempra (All Models)	6	9	15	3.2	5.7	26.6	20	22	36

*Octave band frequency range of 250Hz to 4KHz at 3m. Unit mounted on a reflective surface.

Heat Exchange - what is heat recovery?

Stale Warm air from dwelling

Fresh Warmed air returned to dwelling

Stale Cool air out

Fresh Cold air in
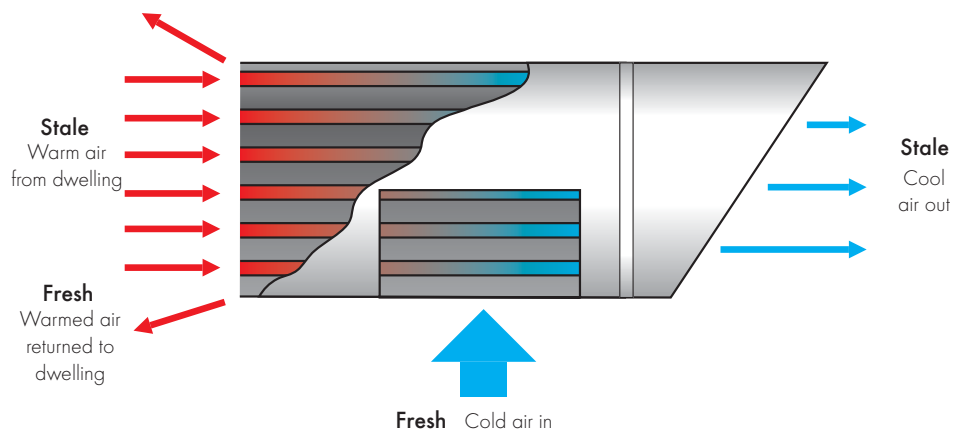
HR200WK

- Single room domestic heat recovery ventilation unit
- 3 speed motor
- Integral washable filter
- Up to 75% heat recovery
- Saves energy - controls condensation
- Low noise

Heat Recovery Ventilation

The Vent-Axia HR200WK is a heat recovery ventilation unit specifically designed for use in domestic kitchens and utility rooms to meet the Building Regulations. The unit is also suitable for light commercial applications up to 220m³/h (50l/s). The compact, self contained unit is designed for through-the-wall mounting.

The three speed, external rotor motor has two matched impellers to ensure a controlled airflow through the unit, with exceptionally economical 25 Watt low speed power consumption.

Easy Installation

The HR200WK fits through walls up to 335mm thick requiring a fixing hole 250mm square. The internal grille has washable, polymeric foam supply and extract filters. Only the neat internal twin grille is visible from the room. A wall extension sleeve is available for walls up to 550mm thick.

Heat Exchanger

The highly efficient, polymeric heat exchanger cube is washable. The compact cube interleaves outgoing moist warm air with incoming fresh air and allows the heat from one to warm the other without the two air streams mixing. Up to 75% of the heat, which would otherwise be lost, is transferred to the intake air, ensuring energy saving ventilation.

Electrical

HR200WK 220-240V/1/50Hz Class 1 earthed appliance. The 3 speed motor, can be wired to operate On/Off for any one of the three speeds. Alternatively, an Ambient Response Humidity Sensor or simple changeover switch can be used to provide switching between any two speeds, giving permanent trickle ventilation and automatic changeover to a higher speed during periods of high moisture generation. Also the 3 speed controller enables the unit to be switched from permanent trickle to either medium or boost speed.

Models

HR200WK

A heat recovery unit specifically designed for use in domestic kitchens and utility rooms to meet the latest building regulations. 3 speed motor, trickle ventilation mode, optional range of switches available.

Model	Stock Ref
HR200WK	14120020

Accessories

Model	Stock Ref
Extension Wall Sleeve	370421
Electronic Controller	W300310

Controllers

HR200WK Controller

A three position rotary control which enables the unit to be switched from permanent trickle ventilation to either medium or boost speed.

Model	Stock Ref
HR200WK Controller	563533

SEC Class Rating

Model	SEC Class	SEC Class (inc. LDC)
HR200WK	C	A

Dimensions (mm)
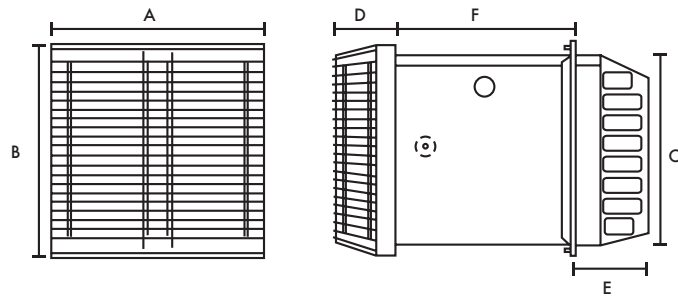
Wall fixing hole 250mm x 250mm sq.

A	B	C	D	E	F
270	270	245	85	68min	335max

Weight 9.7kg

Performance

	Performance l/s (m³/h)		Watts	% Heat Recovery	Sound dB(A) @ 3m	SEC Class	SEC Class (inc. LDC)
	Extract	Intake					
Speed 1	16 (60)	13 (50)	25	75	19		
Speed 2	30 (110)	27 (100)	60	70	33	C	A
Speed 3	61 (220)	55 (200)	140	65	46		

HR300

- Designed for continuous operation, providing up to 70% heat recovery
- Controls condensation and eliminates mould
- Speed controllable
- Quiet operation
- Washable filters

Heat Recovery Ventilation

The HR300 provides ventilation with heat recovery. It is ideal for light commercial applications including function rooms, offices, classrooms etc. The HR300 unit comes complete with an integral shutter.

Performance

The HR300 unit is designed for continuous operation providing up to 70% heat recovery. Effectively lowering internal relative humidity the HR300 unit controls condensation and eliminates mould.

Fresh, pre-warmed air from the outside is continually supplied to the room with simultaneous extraction of stale moist air and smells. Heat is transferred via a unique plastic heat exchanger from outgoing air to the fresh air supply with no cross contamination, maintaining internal temperatures and providing a fresh indoor environment.

The unit is fully controllable for speed using a small dedicated speed controller. Automatic ON/OFF control or switching to boost is easily achieved using sensors/timers e.g. humidistat. For summer operation the heat exchanger can be removed and replaced with a plastic divider board to provide positive cooling to rooms.

Installation

The HR300 unit requires a 380mm x 280mm hole. Units should be level and square in the wall. The unit should be fitted so that it overhangs by a minimum of 50mm on the inside, and a minimum of 70mm on the outside. An extension sleeve is available for walls up to 650mm thick.

Maintenance

The heat exchanger should be washed in warm soapy water every twelve months, or as conditions necessitate. Access to the filter and heat exchanger is via two screws on the internal grille.

Filters should be cleaned by washing every six months or as conditions necessitate. Replacement filters can be purchased in packs of two.

Models

Model	Stock Ref
HR300	370394

Accessories

Model	Stock Ref
Filters	370402
Extension Sleeve	370422
Electronic Controller	W300310
VCON6 Controller	370356

SEC Class Rating

Model	SEC Class
HR300	B

Dimensions (mm)
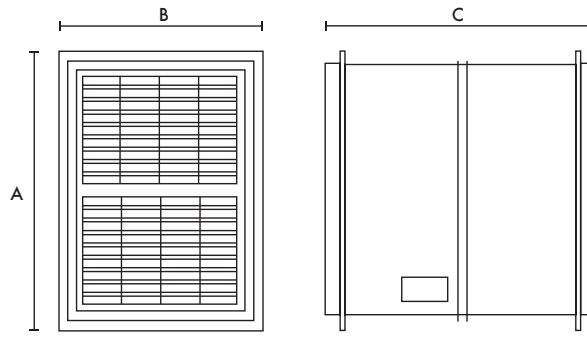
A	B	C
370	270	400

Weight 11kg

Performance

Model	Extract Performance l/s (m³/h)			Intake Performance l/s (m³/h)			Max	Sound dB(A) @ 3m			SEC Class	SEC Class (inc. LDC)
	Low	Normal	Boost	Low	Normal	Boost	Watts	Low	Normal	Boost		
HR300	20 (75)	58 (210)	83 (300)	19 (70)	52 (190)	75 (270)	108	37	40	44	B	A

MVHR for residential & commercial applications

Vent-Axia offers a complete range of Mechanical Ventilation with Heat Recovery (MVHR) units for residential and commercial applications, including many that are recognised in the SAP Product Characteristics Database.

Lo-Carbon Sentinel Kinetic® Advance
Our multi award winning MVHR system incorporates a range of unique features. Offering units with wifi and App control options along with integrated digital controls for easy installation the range is designed with developers, specifiers and installers in mind. With over 93% efficiency and low specific fan powers down to 0.38 W/l/s; designers will see a reduction in their dwelling emission rate.

Vent-Axia®

Lo-Carbon Sentinel Kinetic Advance

- Touch screen controller
- Lightweight for easier installation
- Full summer bypass
- WiFi connectivity option
- Wireless commissioning
- Pre-commissioning via USB
- App control option
- Left/Right handing through the controller
- Pre-heater option for cold climates
- Post-heater control option
- Developed and manufactured in the UK
- G3, M5 and F7 filter options

The award winning Sentinel Kinetic® Advance from Vent-Axia is the next generation of heat recovery ventilation systems. It is designed to offer the highest level of comfort and control available ensuring the best possible customer experience.

A whole new experience

The highly sculpted interior surfaces, designed using the latest CFD techniques, ensures airflows are maximised through the unit, minimising noise and energy use. This feature alone provides an experience which we are confident will delight home owners and fulfil our ambition of providing the most discrete and efficient ventilation available.

With the widest range of options available, installers can now order a system that is tailored to their client's needs.

Air Quality and Health

We have strived to make the Advance system the most flexible solution available on the market. Optimisation has been targeted in every aspect of the design to ensure that it really does improve quality of life. Whatever the outside environment, we a have a method to help reduce air pollution from entering the living space. Our range of filter options, up to and including F7, ensure that even homes in heavily urbanised areas have the opportunity to filter out the impurities and help protect their family from respiratory issues.

Low noise levels

The most common concern with home owners is that ventilation devices create noise. With Advance, absolute optimisation of every element does everything possible to minimise generation and transmission of both motor and airflow noise. We believe that we have one of the quietest units available.

Ventilation how you want it

We have spent our time considering every element of the ventilation control. Should you want to run the system at certain times and at certain speeds, all of the options are available for you. With a programmable controller, it is possible to boost the unit if required, for example during hot periods in the summer, or even reduce the speed if needed, perhaps when a baby is due to go to bed. Whatever the situation, Advance can be made to operate as needed.

At the same time, automatic functions such as frost protection and summer bypass even have a choice of algorithms designed to suit different climates and lifestyles.

Controllability

With building services often hidden away in cupboards or in lofts we have developed a number of options for system control. From an App which provides instant access wherever you are, to full on-board touch screen controls, an option will be available to suit your needs.

SEC Class

Model	SEC Class
Advance S/SX	A+

Model

Model	Stock Ref
Advance S	405215
Advance SX	405216

Accessories

Model	Stock Ref
Wifi Controller	409195
Docking Kit for Wired Controller	474491
Volt-free Expansion (Four additional inputs)	472697
Switched Live Expansion (Two additional inputs)	472699
0V - 10V Input Board (Two inputs)	472701

Spare Filters

Model	Stock Ref
G3 (2 pack)	472667
M5 Pollen Filter (1 pack)	472669
F7 Particulate Filter (1 Pack)	472671

Spigot Configuration

Right Handed

Left Handed

Supply Extract Intake Exhaust

Exhaust Intake Extract Supply
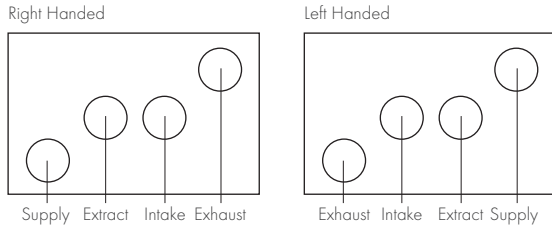
Hand-able through controller (except if pre-heater fitted)

Models	Advance S	Advance SX
Sentinel Touch Screen Controller	✓	✓
App Control	O	✓
App Commissioning	O	✓
Auto Summer Bypass	✓	✓
Easy Access Filters	✓	✓
G3 Filter	✓	✓
M5, F7 Filter Options	✓	✓
Very Low Noise Levels	✓	✓
Built-In Humidistat	✓	✓
Active Frost Protection to -20°C	✓	✓
Delay-On	✓	✓
Clean Filter Indicator (Time)	✓	✓
Clean Filter Indicator (Pressure)	X	✓
Fault Code Indicator	✓	✓
Switched Live	✓	✓
Volt Free	✓	✓
0V - 10V Proportional Control	O	O
Lightweight	✓	✓
22mm or 32mm Condensate Connection	✓	✓
Left/Right Orientation Through Control	✓	✓
Ventwise Control	O	O
PIN Number Lock	✓	✓
Running Time Indicator	✓	✓
External Pre-Heater Controller	O	O
External Post-Heater Controller	O	O
Built-in Pre-Heater	X	X
Enthalpy Heater Exchanger	O	O
Fan Curve Flow	✓	✓
Constant Volume	X	✓
Email Status Notifications	X	✓
Soft-Start Boost	✓	✓

Mounting Options

Wall   Surface
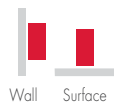
O - Optional extra. Contact us for more information.

SAP PCDB Test Results

	Thermal Efficiency %	SFP (W/l/s)
K+1	93	0.38
K+2	93	0.38
K+3	92	0.42
K+4	92	0.50
K+5	91	0.58
K+6	91	0.68
K+7	90	0.82

Dimensions (mm)
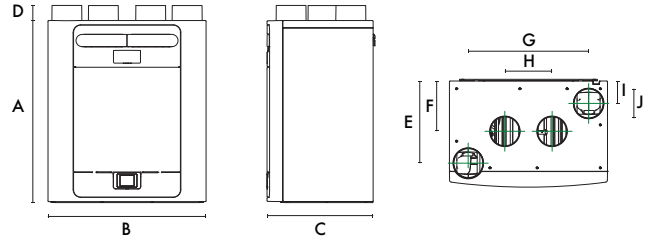
A	B	C	D	E	F	G	H	I	J	kg
760	660	443	63	343	210	503	197	93	125	27

Packed weight: 32kg

Performance
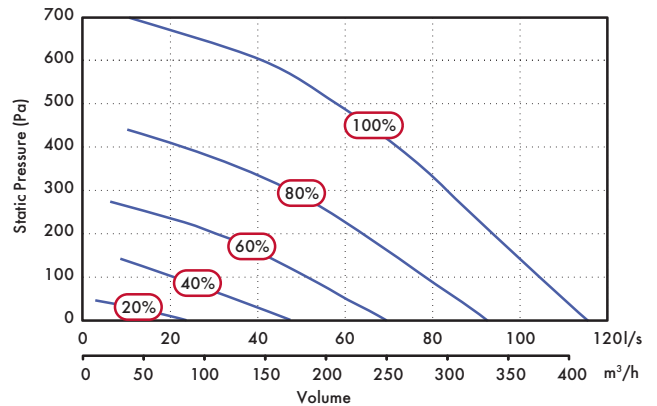
Sound Spectrum

Speed	Test mode	Octave Band (Hz) Sound Power Levels, dB								SPL dB(A) @ 3m
		63	125	250	500	1k	2k	4k	8k	
20%	Extract	50.3	49	36	31.5	23.6	16.1	18.9	25.3	18.9
	Supply	52.9	50.9	46.8	43	34.6	27.1	19.2	25.4	26.4
	Breakout	34.6	34.8	35.7	34.9	29.6	25.1	21	25.3	15.5
40%	Extract	51.9	51.3	50.4	41.2	35	25.3	19.8	25.4	27.3
	Supply	59.5	56.5	59.4	55	48.2	42.6	31.8	26.1	38.4
	Breakout	40.2	42.6	46.5	45.4	41	36.2	25.5	25.3	26.0
60%	Extract	60.6	60.3	54.2	49.5	44.4	36.2	27.9	26.3	34.2
	Supply	66.9	62.4	63.3	62	57.9	53.5	43.4	34.2	45.7
	Breakout	45.5	49.8	52.5	53.1	49.7	46.7	36.2	26.9	34.0
80%	Extract	75.5	68.6	59.3	56	48.3	44.2	36.9	31.3	41.1
	Supply	82.4	67.6	65.2	67.6	64.2	60.8	50.8	43.2	51.7
	Breakout	59.2	55	56.8	60	55.4	53.9	44.1	33.4	40.5
100%	Extract	72.4	70.5	60.5	56.4	49.8	46.3	39	33.4	42.0
	Supply	79.4	69.6	66.6	75.1	64.9	63.6	53.4	45.7	56.2
	Breakout	63	57.1	58.5	63.7	56.8	55.9	46.4	36.2	43.0

Tested according to BS EN 13141-7:2010. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Lo-Carbon Sentinel Kinetic Range Overview

- Manufactured in the UK
- Building Regulations ADF and ADL compliant
- Recognised in SAP PCDB
- Specific Fan Power down to 0.4 W/l/s
- Up to 94% heat recovery
- Fully automatic Summer bypass
- Horizontal and/or vertical duct outlets
- Integrated digital controller for simple and accurate commissioning
- Lightweight for easy installation
- External condensate connection
- Plug and play controls; Humidistat, Ventwise, Wireless Remote

The Sentinel Kinetic Range Incorporates:

- A wholehouse heat recovery system with up to 94% energy efficiency
- An easily accessible heat recovery cell protected by two removable G3 filters
- Two Lo-Carbon energy saving EC/DC fans which ensure long life (typically over double the life of AC motors) and lowest possible energy use
- Fully insulated construction with built-in condensation drain
- Specifically designed for new build constructions with a high level of insulation

The Lo-Carbon Sentinel Kinetic meets the latest requirements of the Building Regulations ADF and ADL for wholehouse system ventilation: System 4 - Continuous mechanical supply and extract with heat recovery. The Lo-Carbon Sentinel Kinetic models have 3 fully adjustable speeds and a purge setting (maximum flow). Provided with the unit is a digital controller that can be used to preset the speeds to any required airflow within the performance range.

Integral Humidity Sensor

The integral humidity sensor (models with H suffix) 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.

Optional M5 Supply Filters

Kinetic B, BH & Cooker Hoods Filter

Stock Ref
444199
Kinetic Plus Range Filter
Stock Ref
444201

For sensors see Accessories & Controllers section.

Sentinel Control

The Sentinel controller is the most advanced system available, providing Demand Control Ventilation (DCV), minimising energy consumption and noise levels, and optimising ventilation performance. Sentinel controlled units may be set to operate fully automatically or with varying levels of manual intervention.

Building Management System (BMS) Options

There are two levels of BMS available: Basic Output and full Electronic BMS.

Basic Output provides a 5 volt output from the LED terminals on the controller. This output occurs whenever a message appears in the digital display, for example; 'Check Filters' or a fault code. The output can also be converted to volt-free with the addition of an optional Opto-Coupler.

Electronic BMS: A full range of two-way digital signals are available through the RJ11 connector on the control board. The BMS system provider will translate this signal to extract the desired data. Contact Vent-Axia to discuss your specific requirements.

LED Alarm

MVHR units are often installed in lofts or other locations where they are difficult to monitor. The optional remote LED alarm illuminates when any message is visible in the MVHR unit display panel. The LED alarm can be installed in a convenient location within the dwelling allowing end users to see that the unit requires attention.

Control Inputs

Five volt-free pairs of switch terminals for sensor inputs allow boosting from a full range of Vent-Axia controllers – humidistats, PIR, timers.

Two terminals with 0-24V outputs allow 0V to 10V proportional control by sophisticated controllers such as CO_2 sensors and proportional humidistats.

The optional Ventwise controller senses temperature rise in a bath/shower hot water supply and/or current in a cooker/hob electrical circuit to activate boost, ensuring additional ventilation when needed.

Switched-live for boosting via light switches (220-240 V AC) or manual Normal/Boost switches. This connection has the advantage of Delay-On and Delay-Off facility. Delay-On enables you to prevent the Boost airflow between 0 and 10 minutes, after a light switch has been activated. Delay-Off allows the Boost airflow to continue after a light switch is turned off to ensure effective clearance of humidity. This timer is adjustable between 0 and 25 minutes.

The units can be boosted incrementally via the on-board controller or the Wired Remote Controller: One press = 30 minutes, two presses = 60 minutes, three presses = continuous.

Optional Controls

LED Alarm with 15 metre cable
Stock Ref
448356

Wired Remote Controller with 15 metre cable
Stock Ref
443283

Wireless Enable Kit (includes one switch)
Stock Ref
441865

Additional Wireless Boost Switch
(max 3 switches)
Stock Ref
437827

Ventwise Controller (also requires sensors, see Accessories & Controllers section)
Stock Ref
441780

Purge Setting

The unit can be set to maximum flow (100%) by pressing and holding the Boost button on the unit itself or optional wired controller for 5 seconds. Purge will continue for two hours unless cancelled by pressing the Boost button again.

Summer Bypass

An internal damper operates when the external temperature is below the internal temperature, and the internal temperature is too high.

The bypass opens and allows the cooler outside air to help cool the dwelling.

Normal mode: Fans run on Normal speed with bypass open until the internal dwelling temperature falls below the set 'Indoor' (maximum desired) temperature.

Evening Purge mode: The fans run on Boost speed until the internal temperature falls below the set 'Indoor' temperature. If, after five hours the internal temperature is still above the set 'Indoor' temperature, the unit will switch down to normal speed for the remainder of the 'bypass open' period.

Night-time Purge mode: As Evening Purge, except that the unit will continue on Boost speed until the internal air temperature reaches the 'Outdoor' temperature set point (Default 14°C). This mode gives pre-cooling of the dwelling for the following day.

In Evening and Night Time Purge modes, the user can turn off the boost function by pressing the Boost button.

A Summer Bypass can make a contribution to reducing internal temperatures but is not a substitute for appropriate design and construction.

Frost Protection

In order to prevent frost forming inside the unit in winter conditions, the Kinetic range employs a sophisticated frost protection strategy that modifies the airflows ensuring heat recovery continues down to -20°C. Below this temperature, the units will operate as 'extract only' fans. If balanced ventilation is required at low temperatures, a duct pre-heater should be used.

System Cooker Hood Range

System canopy hoods are a motorless hood with extract being provided by the MVHR unit. When the Boost button on the canopy is activated, the MVHR unit goes to boost setting and the summer bypass opens preventing cooking by-products entering the heat exchanger cell.

White Pull-out System Hood
Stock ref
407509

Aluminium Pull-out System Hood
Stock ref
407206

Wired Remote Controller

Standard with horizontal units, optional extra with vertical units. Supplied with 15 metres of cable (max length), the Wired Remote Controller duplicates all the features of the on-board control panel, allowing commissioning, diagnosis and user control. Flush mounting, suitable for a single gang pattress box 16mm deep.

Model Range Overiew

	Sentinel Kinetic Range										Kinetic E Range
Model Ranges	Lo-Carbon Sentinel Kinetic			Lo-Carbon Sentinel Kinetic F	Lo-Carbon Sentinel Kinetic Plus	Lo-Carbon Sentinel Kinetic High Flow	Lo-Carbon Sentinel Kinetic Cooker Hood	Lo-Carbon Sentinel Kinetic Horizontal			Lo-Carbon Kinetic Plus E
Models	V	B	BH	F	Plus	High Flow	CH	200ZP/ZPH	300ZH	200Z/ZH/ZMH*	Plus E
Auto Summer Bypass		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Easy Access Filters	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Very Low Noise Levels	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Integral Cooker Hood							✓				
Built-In Humidistat		✓	✓	✓	✓	✓	✓	✓			
Kitchen Cupboard Installation	✓	✓	✓								
Max Airflow @ 100Pa	68	68	68	79	117	185	68	37	81	50	117
Frost Protection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Delay-On	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wired Remote Control	○	○	○	○	○	○	○	✓	✓	✓	
Wireless Boost	○	○	○	○	○	○	○	○	○	○	
Clean Filter Indicator (Time)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fault Code Indicator	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Potentiometer Adjustment											✓
Sentinel Control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Switched Live	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Volt Free Contact	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
0V - 10V Proportional Control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
BMS Input/Output	✓1	✓1	✓1	✓1	✓1	✓1	✓1	✓1	✓1	✓1	
Lightweight	✓	✓	✓	✓	✓	✓					✓
External Condensate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Horizontal Duct Option	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Horizontal (Slab) Installation								✓	✓	✓	
Left/Right Orientation	✓	✓	✓	✓	✓	✓	✓				✓
Ventwise Control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
PIN Number Lock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Running Time Indicator	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Enthalpy Heater Exchanger		○	○	○	○	○					
Mounting Options	Wall Surface			Wall Surface	Wall Surface	Wall Surface	Wall	Slab			Wall Surface

O - Denote Optional, 1- Seek technical advice from Vent-Axia. *ZMH rectangular spigot model.

Sentinel Demand Control

The Lo-Carbon Sentinel Kinetic Range can be used with a wide range of optional Vent-Axia controllers and sensors. Ranging from integral humidistats, through wireless controllers to wired remote sensors.

Wired Remote Controller
- Standard with horizontal units, optional extra with vertical units
- Supplied with 15 metres of cable (max length), the Wired Remote Controller duplicates all the features of the on-board control panel, allowing commissioning, diagnosis and user control
- Flush mounting, suitable for a single gang pattress box 16mm deep

Stock Ref
443283

Wireless Transmitter Controller Receiver Kit
- Manual boost
- Adjustable overrun timer
- Easy wireless installation
- Reduces installation time
- Future proof - add more controllers at any time

Stock Ref
441865

Wireless Transmitter Controller
- Additional controller for 441865
- A maximum of 4 controllers can be used per system
- Can be connected to other accessories (eg Humidistat) to send a boost signal wirelessly

Stock Ref
437827

Ambient Response Humidity Sensor
- Pullcord override and neon indicator
- Changeover relay switch
- Operating range: 30% - 90%RH
- Ambient operating temp. 5°C to 40°C
- 220-240V AC
- Will fit single gang box for surface mounting

Stock Ref
563550

Ecotronic Humidity Sensor
- Set Point adjustable
- Maximum switching load 1 amp inductive
- Pullcord override indicator
- Ambient operating temp. 0°C to 40°C
- Supply voltage 220-240V

Stock Ref
563532

Air Quality Sensor
- Ambient operating temp. 0°C to 50°C
- Min - Max mode or direct damper control
- Surface mounted
- 1 - 25 min O/R timer
- Supply voltage 220-240V

Stock Ref
563506

Normal Boost Switch
- A single gang switch to boost from low to high speeds on heat recovery systems
- 85 x 85 x 10mm (H x W x D)

Stock Ref
455213

Visonex PIR Sensor
- Fits any UK single gang mounting box
- Adjustable timer overrun (5-25 mins)
- Range of detection up to 10 metres
- Designed to meet IP43
- Ambient operating temp. range 0°C to 50°C

Stock Ref
459623

CO_2 + Temp Room Sensor
- 240V DC
- 0 - 2000ppm CO2 working range
- 0 - 50°C working range
- Auto-calibrating NDIR CO22
- Thin film platinum temperature sensor for high accuracy

Stock Ref
433257

Ventwise
- Automatically boosts fan when temperature of the supply pipe to a shower or bath increases
- Automatically boosts fan when electric hob is switched on
- Can be used in conjunction with manual override input
- Adjustable overrun timer
- 3 sensor inputs

Stock Ref
441780

Momentary Push Switch
- Compatible with Sentinel Kinetic range, the momentary switch boosts the unit for 30 minutes
- 85 x 85 x 10mm (H x W x D)

Stock Ref
448929

Normal Boost Switch with Light Indicator
- Single gang switch with LED illumination when in the Boost condition
- 85 x 85 x 10mm (H x W x D)

Stock Ref
449060

Normal Boost Switch - Stainless Steel
- A single gang switch to operate normal/boost functions on MVHR systems
- Brushed stainless steel finish
- 90 x 90 x 18 (H x W x D)

Stock Ref
437320

Isolator Relay Controller
- Allows fan unit to be isolated from other mains circuit when used with TIM2 trickle/boost switch or light switch control

Stock Ref
442030

Lo-Carbon Sentinel Kinetic

- Recognised in SAP PCDB
- Ultra quiet
- 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, Ventwise, Wireless Remote
- BMS connectivity
- LS inputs (Light Switch)
- Horizontal duct options

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.

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	438342
Kinetic B Right	438222
Kinetic B Left	438222L
(with summer bypass)	

Model	Stock Ref
Kinetic BH Right	443319
Kinetic BH Left	443319L
(with summer bypass & humidity sensor)	

B & BH models available in left hand or right hand configurations (L).

Accessories

Model	Stock Ref
Wired Remote Controller	443283
Wireless Enable Kit	441865
Wireless Transmitter Controller	437827
Ventwise Controller	441780
LED alarm with 15m cable	448356

Kinetic V, B & BH	Stock Ref
Kinetic Spare Filter 2 pk	442356
M5 Pollen Filter	444199

SAP PCDB Test Results (Kinetic V)

	Thermal Efficiency %	SFP (W/l/s)
K+1	90	0.60
K+2	90	0.59
K+3	90	0.68
K+4	89	0.79
K+5	90	0.97

SEC Class

Model	SEC Class
Kinetic V/ B/BH	A

Dimensions (mm)
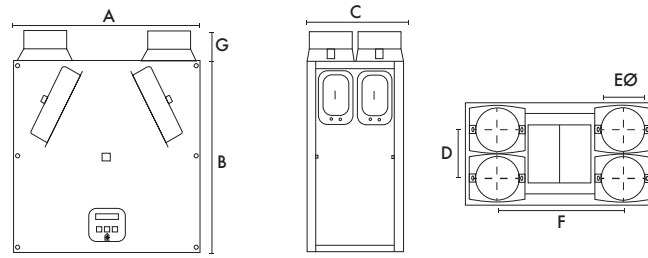
A	B	C	D	EØ	F	G
550	550	285	140	125	360	90

Weight: 15kg

Performance

Fan speeds are fully adjustable within the performance range.

⊗ figure relates to Wattage (both motors)

Example system curves - vertical spigots

⊗ figure relates to Wattage (both motors)

Example system curves - horizontal spigots
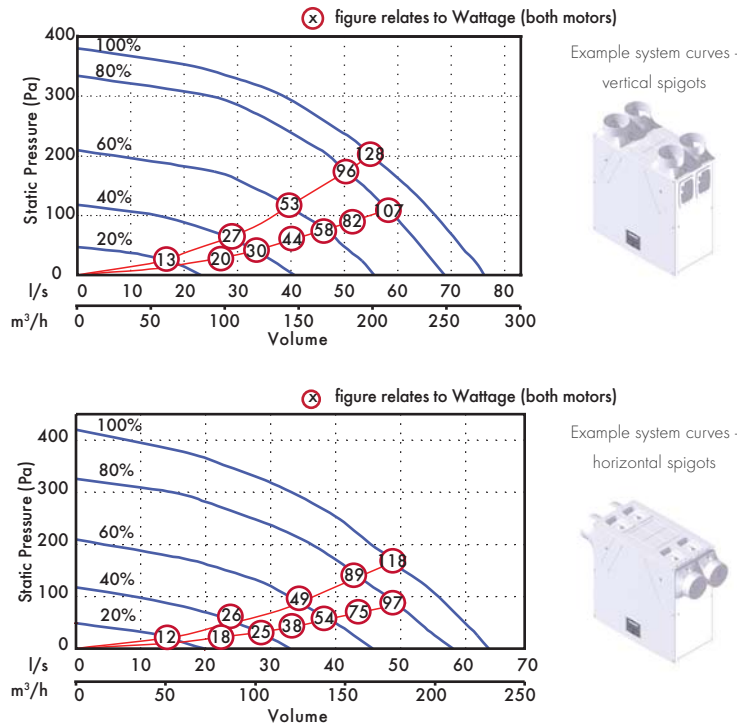
Sound Data (Kinetic B & V)

Speed	Test mode	Octave band, Hz, dB SWL								SPL dB(A)
		63	125	250	500	1k	2k	4k	8k	@ 3m
20%	Supply	52.9	52.9	46.5	41.7	39.3	29.3	19.3	22.8	23.9
	Extract	50.7	41.9	37.4	34.5	29.8	17.7	17.4	22.7	15.2
	Breakout	36.0	34.5	33.6	34.3	33.8	27.2	22.2	25.3	16.7
40%	Supply	57.1	64.1	56.8	50.6	49.7	41.1	32.8	26.4	34.2
	Extract	55.2	50.3	44.9	43.0	38.3	27.7	19.8	22.9	23.3
	Breakout	43.5	41.7	40.4	41.3	41.7	36.1	27.8	26.2	24.2
60%	Supply	71.3	72.5	68.5	57.6	56.4	51.1	42.7	38.1	43.1
	Extract	60.2	56.3	52.0	48.8	44.8	35.5	26.9	24.4	29.7
	Breakout	50.7	47.8	47.7	47.7	48.3	44.9	36.7	30.0	31.3
80%	Supply	66.3	74.8	71.2	62.8	61.0	56.3	49.8	46.7	46.8
	Extract	63.8	59.4	57.6	53.8	49.2	41.2	33.5	29.0	34.5
	Breakout	54.4	52.7	54.0	52.7	53.5	50.3	43.6	37.7	36.7
100%	Supply	70.3	75.7	73.9	66.3	63.5	59.7	53.2	50.6	49.5
	Extract	66.6	63.9	60.9	56.5	51.2	44.2	36.8	32.6	37.4
	Breakout	59.1	55.2	56.8	55.6	56.1	53.5	47.1	41.6	39.6

Tested according to BS EN 13141-7:2010. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Consultant's Specification (B and 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 facia 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 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

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

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Mounting Option

Wall   Surface

Airflow Direction

Plan View

Insulated duct exhaust to atmosphere (Brown)

Insulated duct from atmosphere (Green)

Acoustic duct (Optional) supply to dwelling (Red)

Duct extract from dwelling (Yellow)

Front (LH)

Duct extract from dwelling (Yellow)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct from atmosphere (Green)

Insulated duct exhaust to atmosphere (Brown)

Front (RH)

Electrical Connection (B and BH Models)

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

3 Pole Isolating switch (563518)

1 Phase Supply (220-240V 50Hz).

To LS Input

Switched Fused Spur for unit (3A)

Trickle to Boost by Trickle/Boost switch

SW4   SW5

MAINS IN

L   N   ⏚   LS

TRICKLE/BOOST SWITCH (455213)

TRICKLE/BOOST SWITCH (455213)

C

L1   L2

C

L1   L2

MAINS SUPPLY 220/240V 50Hz

L

N

E

Lo-Carbon Sentinel Kinetic FH

- Ultra quiet
- Lightweight for easier installation
- Horizontal duct option for space-saving installations
- Integrated digital controller for simple and accurate commissioning
- Plug and play controls; Humidistat, Ventwise, Wireless Remote
- BMS connectivity
- LS inputs (Light Switch)
- Volt-free inputs
- Self diagnosis for simplified fault finding
- Adjustable delay On/delay Off timer

Easy Installation

The Sentinel Kinetic models can be mounted vertically in a roof space or in an appropriate cupboard within the dwelling. When mounted in an unheated area the ducting and unit must be insulated in accordance with the Domestic Ventilation Compliance Guide. Ducting can be attached to the unit horizontally, vertically or both.

Left (L) or right (R) hand installation. Left hand and right hand units are available.

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

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.

Model

Model	Stock Ref
Kinetic FH Right	408167
(right handed with summer bypass & humidity sensor)	
Kinetic FHL Left	408169
(left handed with summer bypass & humidity sensor)	

Accessories

Model	Stock Ref
Wired Remote Controller	443283
Wireless Enable Kit	441865
Wireless Transmitter Controller	437827
Ventwise Controller	441780
LED alarm with 15m cable	448356
Kinetic F Spare G3 Filter 2pk	409764
Kinetic F Spare M5 Filters 2pk	472153

SAP PCDB performance

	Thermal Efficiency %	SFP (W/l/s)
K+1	90	0.53
K+2	89	0.51
K+3	88	0.56
K+4	87	0.65
K+5	85	0.75

SEC Class

Model	SEC Class
Kinetic FH/FHL	A+

Dimensions (mm)
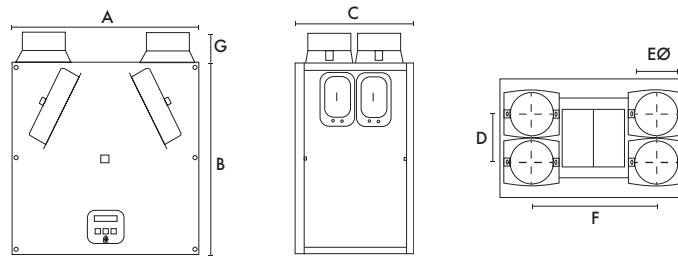
A	B	C	D	EØ	F	G
555	550	350	140	125	360	90

Weight: 18kg

Performance

Fan speeds are fully adjustable within the performance range.
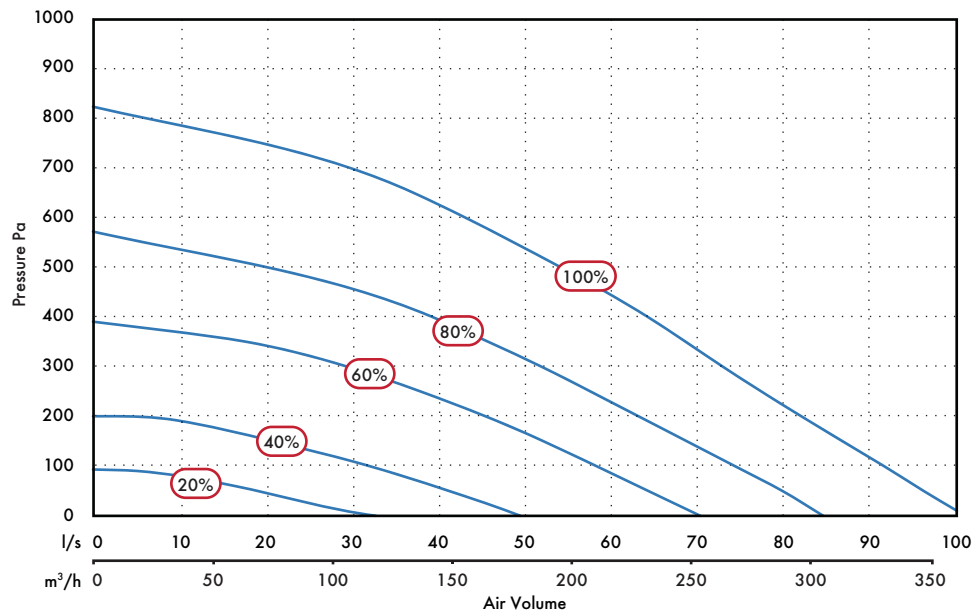
Sound Data

Speed	Test mode	63	125	250	500	1k	2k	4k	8k	@ 3m
100%	Extract	83.3	68.3	66.9	71.2	60.7	51.4	42.4	36.1	52.2
	Supply	95.5	77.7	74	80.4	68.7	62.9	56.9	52.4	61.6
	Breakout	62.1	59.7	62.9	70	61	57.3	52.3	46.9	47.5
80%	Extract	83.5	65.2	65	65.5	57	47.7	37.9	31.3	48
	Supply	85	75.3	72.5	77.9	65.3	58.8	52.1	47.4	58.5
	Breakout	56.4	56.4	60.4	69.8	56.7	53.2	47.8	42	46
60%	Extract	67.3	61.9	66.5	58.9	52.2	42.7	32.6	27.6	43.6
	Supply	72.8	72.5	82.2	64.4	59.9	53.8	46.2	40.3	56.9
	Breakout	53.9	53.2	65.9	55.8	52.2	48.2	42.5	39.3	40.5
40%	Extract	66.8	56.1	56.9	52.1	44.7	34.6	23.8	25.8	35.7
	Supply	68.9	66.4	68.8	57.8	52.1	44.9	35.3	28.8	44.9
	Breakout	47.3	47.5	56.4	48	44	39.6	32.8	29.1	30.5
20%	Extract	57.7	56.6	47.2	43.5	35.3	24.1	19.6	25.7	28.2
	Supply	66.2	67.2	54.3	48	42.1	33.3	22.5	25.6	36.4
	Breakout	41.2	47	41.7	39.5	34.6	30.4	22.5	25.7	20.5

Tested according to BS EN 13141-7:2010. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Consultant's Specification

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, integral minimum and maximum infinitely variable speed controls with facia 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 backward curved centrifugal type.

The unit shall have a heat exchanger cell with a thermal efficiency of up to 90% when tested to EN 308. This shall be protected by 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

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
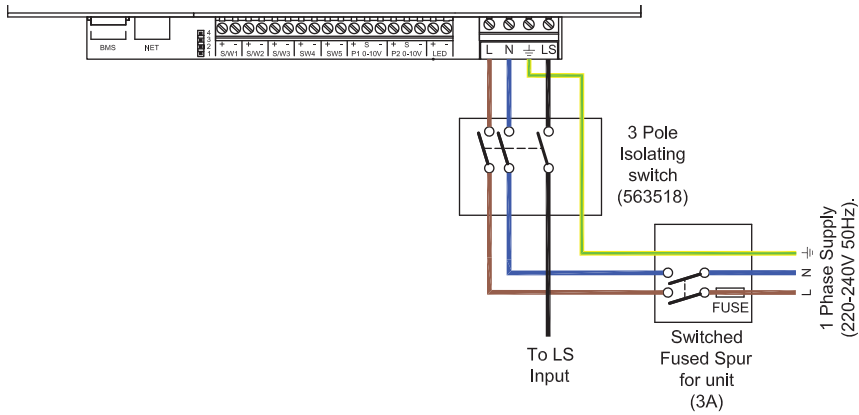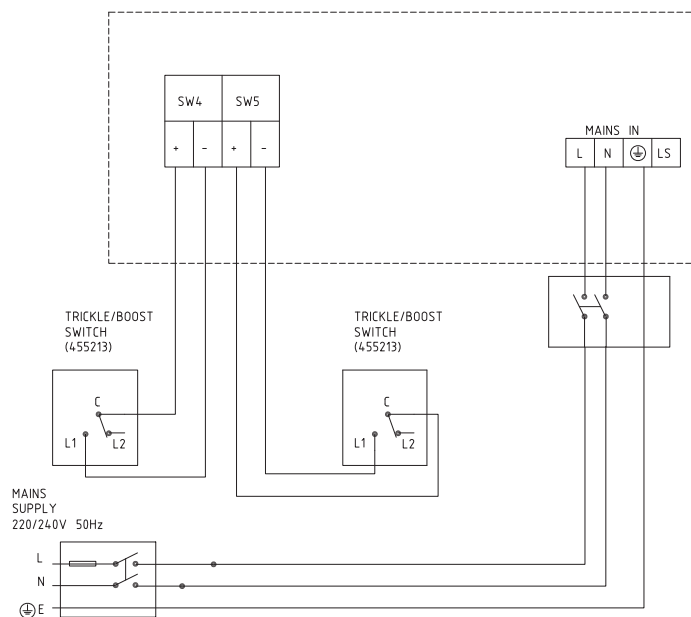

Mounting Option

Wall   Surface

Airflow Direction

Plan View

Insulated duct from atmosphere (Green)

Insulated duct exhaust to atmosphere (Brown)

Acoustic duct (Optional) supply to dwelling (Red)

Duct extract from dwelling (Yellow)

Front (LH)

Duct extract from dwelling (Yellow)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct exhaust to atmosphere (Brown)

Insulated duct from atmosphere (Green)

Front (RH)

Electrical Connection

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

BMS NET J4

4 3 2 1

+ - S/W1 | + - S/W2 | + - S/W3 | SW4 | + - S/W5 | + S - P1 0-10V | + S - P2 0-10V | + - LED

L N ⏚ LS

Ventwise connector

Switches 1-5

Proportional Inputs 1&2

LED

2m mains cable fitted to unit

Switched fused spur

Brown

3A

Black

Blue

Green/Yellow

L N LS E

220-240V 50Hz

Trickle to Boost by Trickle/Boost switch

SW4 SW5

+ - + -

MAINS IN

L N ⏚ LS

TRICKLE/BOOST SWITCH (455213)

TRICKLE/BOOST SWITCH (455213)

C

L1 L2

C

L1 L2

MAINS SUPPLY 220/240V 50Hz

L

N

⏚ E

Lo-Carbon Sentinel Kinetic Plus

- Recognised in SAP PCDB
- Ultra quiet
- Horizontal duct option for space-saving installations
- High airflow, ideal for student accommodation clusters
- Unique folding filter for removal when access is restricted
- Integrated digital controller for simple and accurate commissioning
- Lightweight for easy installation
- Plug and play controls; Humidistat, Ventwise, Wireless Remote
- BMS connectivity
- LS inputs (Light Switch)
- Volt-free inputs
- Self diagnosis for simplified fault finding
- Adjustable delay On/delay Off timer

Increased Performance
The Sentinel Kinetic Plus benefits from the latest high efficiency, backward curved impeller design, ensuring the lowest possible energy consumption, ultra quiet operation and an exceptional performance range covering small one bed apartments to the largest of houses.

Care Homes & Student Accommodation
The Sentinel Kinetic Plus is ideal for larger homes and multiple occupancy units such as care homes and student accommodation. Capable of 400m³/hr at 150Pa, the unit can extract from up to ten bathrooms and a communal kitchen while still achieving almost 90% heat recovery. The fully automatic capability of the Kinetic range means that adequate ventilation is always achieved.

The Kinetic's BMS capability is also ideal for those commercial applications where landlords or property managers want to monitor and optimise building performance and maintenance. The Kinetic BMS can provide status information and its self diagnostics can report if any fault is found.

Spigot Options
Spigots may be re-positioned to give horizontal connection or a combination of vertical and horizontal connection.

Optional 180mm/200mm spigots can simplify connection in commercial installations where larger diameter duct work has been used.

Quick Change Filter
As many systems are placed within cupboards the unique filter design folds as you remove it to ensure easy access in restricted spaces.

Integral Humidity Sensor
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 Plus B Right	443028
Kinetic Plus B Left	443028L

Accessories

Model	Stock Ref
Wired Remote Controller	443283
Wireless Enable Kit	441865
Wireless Transmitter Controller	437827
Ventwise Controller	441780
LED Alarm with 15m cable	448356
Opto-coupler for volt-free bms connection	447340
Kinetic Spare Filters 2 pk.	403702
M5 Pollen Filter	444201
180mm/200mm Spigot Kit (One per pack)	446523

SAP PCDB Test Results

	Thermal Efficiency %	SFP (W/l/s)
K+1	91	0.51
K+2	91	0.40
K+3	90	0.41
K+4	90	0.45
K+5	90	0.53
K+6	90	0.60
K+7	90	0.70

SEC Class

Model	SEC Class
Kinetic Plus B	A+

Dimensions (mm)
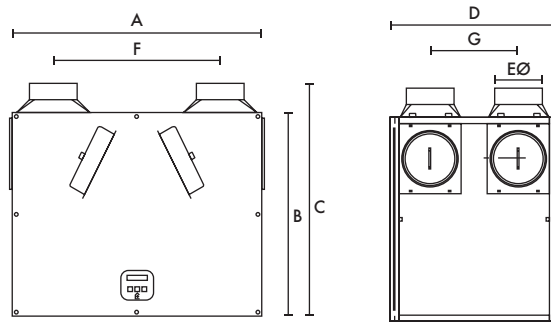
A	B	C	D	EØ	F	G
785	635	722	550	150	520	275

Weight: 24kg

Performance

Fan speeds are fully adjustable within the performance range.
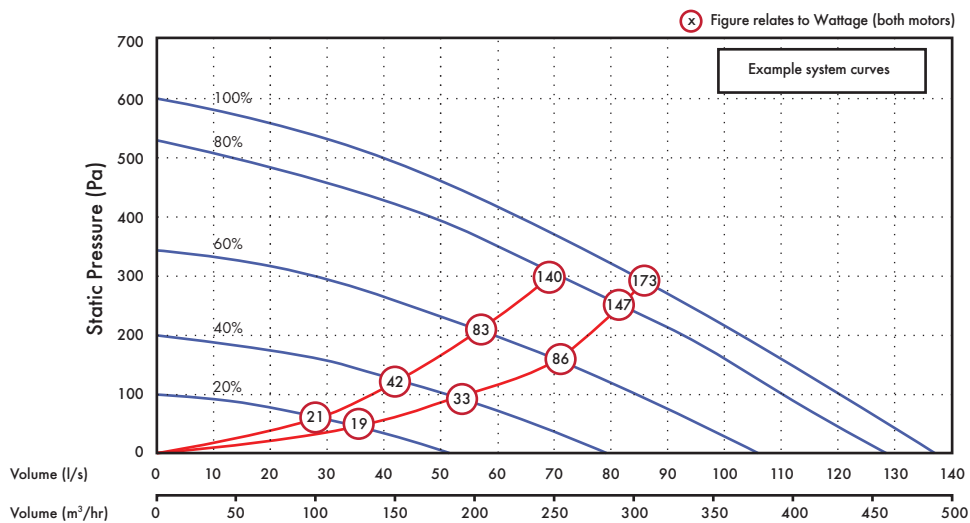
Sound Data

Flow l/s	Unit setting	Test mode	Octave band, Hz, dB SWL								SPL dB(A)
			63	125	250	500	1k	2k	4k	8k	at 3m
50	20%	Supply	46.5	54.3	46.4	44.8	36.2	28.5	24.5	31.2	28.5
		Extract	46	52.2	42.3	38.7	27.6	24.2	24	31.7	25
		Breakout	48.5	42.6	43.3	38.9	35.8	29.3	23.8	30.7	22.8
78	40%	Supply	50.3	59.1	54.5	56.5	47	39.9	26.3	31.7	38
		Extract	46.8	51.6	47.8	44.4	32.7	27.4	24.4	31.7	28
		Breakout	48.4	51.2	53.4	46	41	34.6	25	30.3	28.5
104	60%	Supply	52.4	57.2	60.4	60.9	55.8	50.3	33.1	33.9	43.6
		Extract	50	49.8	56.8	52.4	40.2	35.9	33.4	39.8	35.2
		Breakout	55	49.6	59.7	54.5	46.9	39.9	33.6	39.2	34.9
127	80%	Supply	54.9	60.7	67.4	66.6	61.8	56	39.6	37.7	49.5
		Extract	50.4	52	61.2	56.6	45.1	39.6	34.2	40.2	39.1
		Breakout	53.5	53.4	60.8	59.1	53	45.3	36	40.1	38.7
137	100%	Supply	54.7	61.7	70.5	69.9	62.7	57.5	42.1	38.3	52
		Extract	54.4	55.1	65.8	57.5	46.9	40.6	33.7	40	41.8
		Breakout	56.6	54.6	60.5	60.7	54.7	45.9	36.5	39.6	40

Tested according to BS848. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Consultant's Specification

Operation

The supply and extract ventilation unit shall be as Sentinel Kinetic Plus 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 Plus 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, integral minimum and maximum infinitely variable speed controls with facia 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 backward 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 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

Access shall be provided for wiring termination and setup/commissioning. The backlit LCD user interface therein may be duplicated 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 input/output 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

- ✓ 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
- ✓ The unit shall incorporate 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
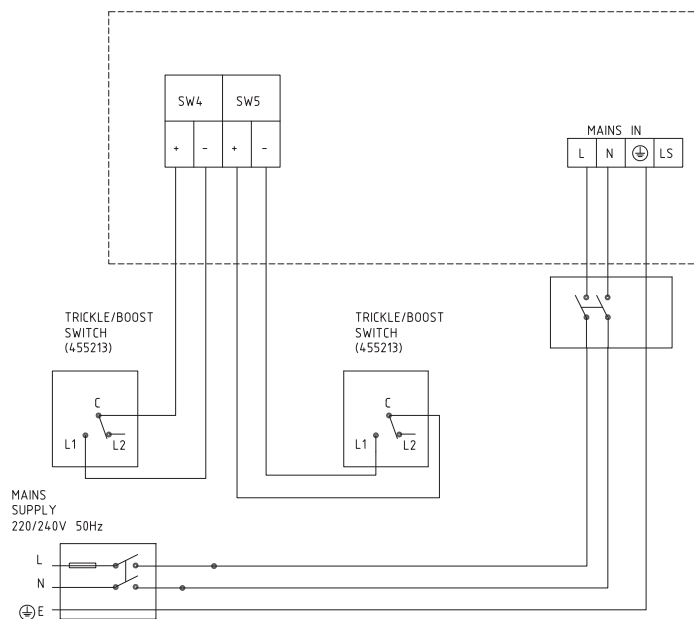- ✓ The unit shall be controlled by the 'Sentinel' control devices (enablers and sensors) as detailed in the schedule or on the drawings.
- ✓ Tool free filter access

Mounting Option

Wall   Surface

Airflow Direction

Plan View

Insulated duct from atmosphere (Green)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct exhaust to atmosphere (Brown)

Duct extract from dwelling (Yellow)

Front (LH)

Duct extract from dwelling (Yellow)

Insulated duct exhaust to atmosphere (Brown)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct from atmosphere (Green)

Front (RH)

Electrical Connection

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

3 Pole Isolating switch (563518)

1 Phase Supply (220-240V 50Hz).

To LS Input

Switched Fused Spur for unit (3A)

Trickle to Boost by two lighting circuits or Trickle/Boost switch

TRICKLE/BOOST SWITCH (45 52 13)

Supply 220-240V 50Hz Lighting circuit 1

LAMP 1

ISOLATOR RELAY CONTROLLER FOR LIGHTING CIRCUIT 1 (442030)

Light switch

Supply 220-240V 50Hz Lighting circuit 2

LAMP 2

ISOLATOR RELAY CONTROLLER FOR LIGHTING CIRCUIT 2 (442030)

Light switch

3 POLE LOCAL ISOLATOR

MAINS SUPPLY 220/240V 50Hz

Lo-Carbon Sentinel Kinetic High Flow

- Recognised in SAP PCDB
- 180mm/200mm spigots
- Horizontal duct option for space-saving installations
- High airflow, ideal for student accommodation clusters
- Unique folding filter for removal when access is restricted
- Integrated digital controller for simple and accurate commissioning
- Plug and play controls; Humidistat, Ventwise, Wireless Remote
- BMS connectivity
- LS inputs (Light Switch)
- Volt-free inputs

Increased Performance

The Sentinel Kinetic Plus benefits from the latest high efficiency, backward curved impeller design, ensuring the lowest possible energy consumption, ultra quiet operation and an exceptional performance range covering small one bed apartments to the largest of houses.

Care Homes & Student Accommodation

The Sentinel Kinetic Plus is ideal for larger homes and multiple occupancy units such as care homes and student accommodation. Capable of 400m³/hr at 150Pa, the unit can extract from up to ten bathrooms and a communal kitchen while still achieving almost 90% heat recovery. The fully automatic capability of the Kinetic range means that adequate ventilation is always achieved.

The Kinetic's BMS capability is also ideal for those commercial applications where landlords or property managers want to monitor and optimise building performance and maintenance. The Kinetic BMS can provide status information and its self diagnostics can report if any fault is found.

Duct attenuators should be considered for high air-flow applications.

Spigot Options

Spigots may be re-positioned to give horizontal connection or a combination of vertical and horizontal connection.

Optional 180mm/200mm spigots can simplify connection in commercial installations where larger diameter duct work has been used.

Quick Change Filter

As many systems are placed within cupboards the unique filter design folds as you remove it to ensure easy access in restricted spaces.

Integral Humidity Sensor

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 High Flow Right	408449
Kinetic High Flow Left	408451

Accessories

Model	Stock Ref
Wired Remote Controller	443283
Wireless Enable Kit	441865
Wireless Transmitter Controller	437827
Ventwise Controller	441780
LED Alarm with 15m cable	448356
Opto-coupler for volt-free bms connection	447340
Kinetic Spare Filters 2 pk.	403702
M5 Pollen Filter	444201

SAP PCDB Test Results

Exhaust Terminal Configuration	Thermal Efficiency %	SFP (W/l/s)
K + 1	88%	0.65
K + 2	88%	0.54
K + 3	90%	0.52
K + 4	90%	0.55
K + 5	91%	0.6
K + 6	91%	0.66
K + 7	90%	0.74

SEC Class

Model	SEC Class
Kinetic High Flow	A

Dimensions (mm)
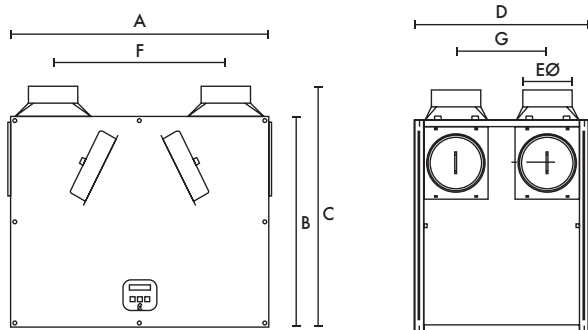
A	B	C	D	EØ	F	G
785	635	722	550	180/200	520	275

Weight: 34kg

Performance
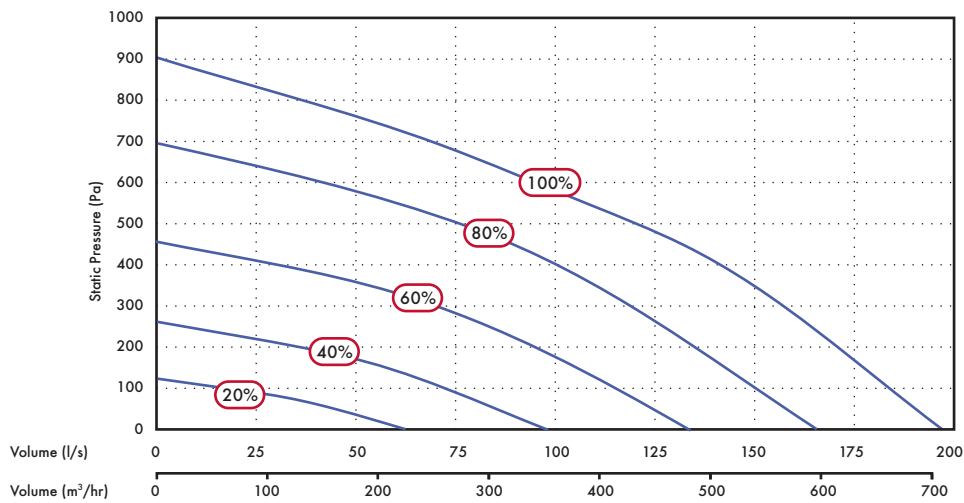
Sound Data

Test Mode	Flow %	Octave band, Hz, dB SWL								SPL dB(A)
		63	125	250	500	1.0K	2.0K	4.0K	8.0K	@ 3m
Supply		55.1	65.9	55.2	53.8	44.4	37.4	25.3	24.9	37.4
Extract	20	58.2	57.4	48	45.6	43.8	34.5	20	24.5	31.1
Breakout		43.3	46.6	44.9	44.7	41.8	30.4	21.6	22.5	25
Supply		63.1	69	67.1	64	55	51.6	39.7	32.4	46.8
Extract	40	58.6	58.4	60.1	53.7	41.9	41.5	31.7	25.1	37.5
Breakout		55.4	49.6	60.6	53.8	46.5	41.5	33.2	27.4	34
Supply		70.3	74.3	81.4	71.5	63.6	59.9	49.6	43.1	57.4
Extract	60	64.4	64.2	72.6	59.1	48.7	45.7	37.8	29.3	47.6
Breakout		62.8	54.6	65.7	57.2	55.5	49.2	41.4	36.4	40.5
Supply		75.3	77.9	88.1	78.7	68.4	65.1	56	50.1	64
Extract	80	71.1	68.2	73.6	61.8	51.9	49.5	42.7	37.6	49.1
Breakout		66.2	59	73.4	61.8	57	54.6	47.3	43.1	47.5
Supply		90.9	80.9	84.4	80.1	71.5	68	59.3	54.5	63.3
Extract	100	92.4	71.8	78.1	67.4	54.9	51.5	44.6	41.4	55.1
Breakout		69.3	62.9	74.9	67.5	59.2	56.6	49.1	44.7	49.5

Tested according to BS EN 13141-7:2010. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Lo-Carbon Sentinel Kinetic Cooker Hood

- Recognised in SAP PCDB
- Includes Cooker Hood Canopy
- Horizontal duct option for space-saving installations
- Fits within a 600mm wide aperture (300mm deep)
- Integrated digital controller for simple and accurate commissioning
- Plug and play controls; Humidistat, Ventwise, Wireless Remote
- BMS connectivity
- LS inputs (Light Switch)
- Volt-free inputs
- Self diagnosis for simplified fault finding
- Adjustable delay On/delay Off timer

Easy Installation

Ducting can be attached to the unit horizontally, vertically or both. Minimum internal depth of kitchen cupboard: 300mm.

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

The condensate connection can be taken through the rear of the unit or through the side of the unit into an adjacent cupboard prior to connection into pre-installed domestic waste water system.

Cooker Hood Unit

The Sentinel Kinetic Cooker Hood is designed to fit in a 600mm wide aperture above a hob. The telescopic hood incorporates two flat removable metal grease filters, low energy light bulbs and is available with a White or Brushed Aluminium front trim.

The hood contains an integral fire damper in accordance with BRE Digest 398 and is connected to the heat recovery unit by a galvanised steel duct with access for cleaning. When the hood is opened, the heat recovery unit goes to boost speed and the summer bypass automatically opens to prevent cooking by-products entering the heat recovery cell. As an additional safety feature, the duct also contains a thermal cut-out fuse which turns off the MVHR unit in the event of excessive temperature in the airway. Cooker Hood units cannot be handed on-site and must be purchased as left hand (L) or right hand (R) models.

Models

Lo-Carbon Sentinel Kinetic with summer bypass and humidity sensor.

Model	Stock Ref
Kinetic CWH L (White Cooker Hood)	446756
Kinetic CSH L (Brushed Aluminium Cooker Hood)	446757
Kinetic CWH R (White Cooker Hood)	446758
Kinetic CSH R (Brushed Aluminium Cooker Hood)	446759

Integral Humidity Sensor

The integral humidity (models with H suffix) 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.

Accessories

| Model	Stock Ref
Wired Remote Controller	443283
Wireless Enable Kit	441865
Wireless Transmitter Controller	437827
Ventwise Controller	441780
LED Alarm with 15m cable	448356
Opto-coupler for volt-free bms connection	447340
Kinetic Spare Filters 2 pk.	442356
M5 Pollen Filter	444199

SAP PCDB Test Results

	Thermal Efficiency %	SFP (W/l/s)
K+1	85	0.72
K+2	85	0.74
K+3	84	0.83
K+4	83	0.92

SEC Class

Model	SEC Class
Kinetic CWH/CSH	A

Dimensions (mm)

Minimum clearance from the bottom of this unit to the top of the hob must be:
Gas: 750mm
Electric: 650mm
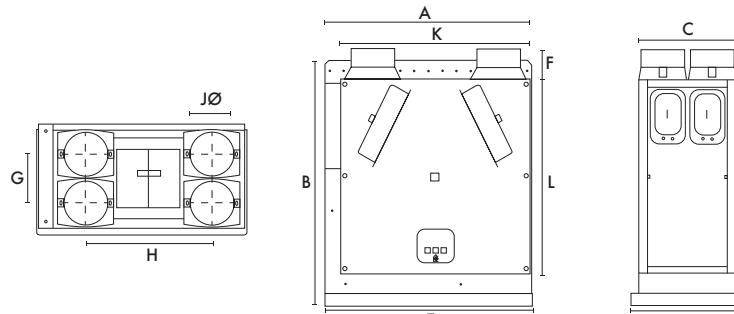
A	B	C	D	E	F	G	H	JØ	K	L	kg
590	710	295	316	598	90	140	360	125	550	550	27

Performance

Fan speeds are fully adjustable within the performance range.

Ⓧ figure relates to Wattage (both motors)

Example system curves - vertical spigots

Ⓧ figure relates to Wattage (both motors)

Example system curves - horizontal spigots
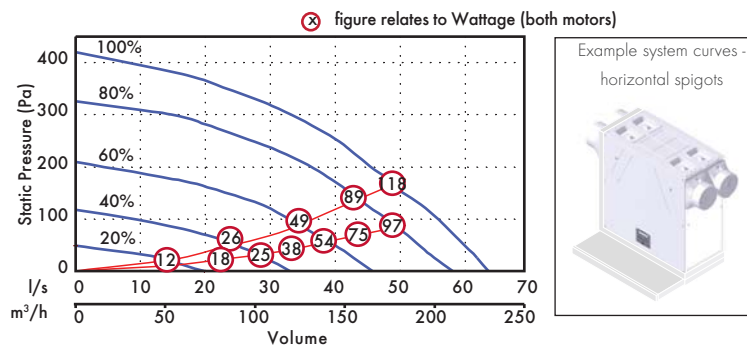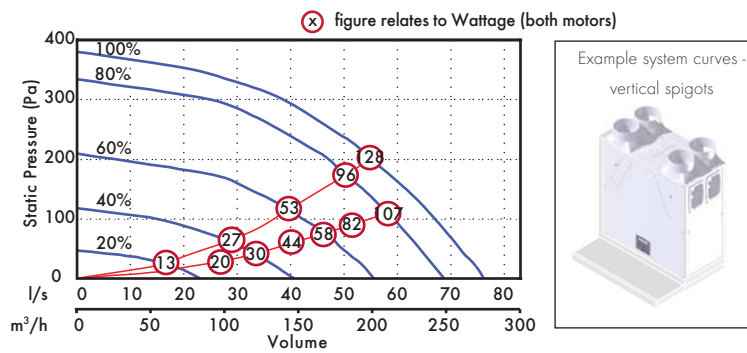
Sound Data

Flow l/s	Test mode	63	125	250	500	1K	2k	4K	8K	SPL dB(A) @ 3m
					Octave band, Hz, dB SWL					
10	Supply	47.8	40.2	38	31.1	28.2	22.1	23.6	30.9	21.4
	Extract	47	38.7	36	29.9	25	22.4	23.3	30.8	20.6
	Breakout	43.6	36.2	37.4	30.9	27.4	23.3	24.2	31.4	18.6
20	Supply	54	46.6	50.2	44.5	44.4	38.3	28.8	31.9	31.2
	Extract	46.8	40.5	34.6	34.2	34.6	25.9	23.7	30.3	22.9
	Breakout	45.9	39.9	40.6	35.7	33.5	28.4	25.3	31.2	21.3
30	Supply	58.1	54.5	57.6	52.2	51.7	47.6	38.6	35.8	38.5
	Extract	47.6	46.2	38.7	41.3	42.8	33.9	26.4	30.5	28.4
	Breakout	45.2	42.4	48.2	40.8	37.7	35.2	30	31.1	25.2
40	Supply	65.2	58.4	62.3	58	56.5	52.5	44.1	41.4	43.6
	Extract	53.5	53	44	47.7	48.1	39.7	31.5	31.5	33.5
	Breakout	50.9	47.6	47.4	48.1	42.5	40.8	36.3	34.4	29.3
50	Supply	66.4	63.2	66.3	62.5	61.7	57.4	50	47.8	48.3
	Extract	64.2	55.2	48	50.9	52.1	44.5	35.9	35	37.2
	Breakout	55	51	51.3	51.6	46.9	46.0	42	38.3	33.2

Tested according to BS848. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Consultant's Specification

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 metal duct to the cooker hood, intumescent fire damper and thermal switch, in accordance with BRE Digest 398.

The unit shall have a high efficiency composite plastic counterflow heat exchanger, supply and extract filters, automatic summer bypass, integral minimum and maximum infinitely variable speed controls with facia 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 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

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

Integral Cooker Hood Specification

The Sentinel Kinetic Cooker Hood shall consist of a telescopic Hood and galvanised steel duct connection to the MVHR Unit.

The Hood construction shall be of grey powder coated steel with Brushed Aluminium or White painted fascia.

The Hood shall trigger the MVHR unit to a pre-defined boost speed and open the summer bypass when opened, and shall have two low-energy lamps illuminating the hob top.

Filter shall be a flat metal grease filter, removable for cleaning.

The galvanised steel ductwork shall provide a continuous fire barrier between the Hood and the MVHR unit. It shall contain an Intumescent fire damper, thermal cut-out and volume balancing damper. The thermal cut-out shall switch off the MVHR unit at a pre-defined safety temperature.

The duct shall have an access panel for cleaning by the end-user.

Mounting Option

Wall

Airflow Direction
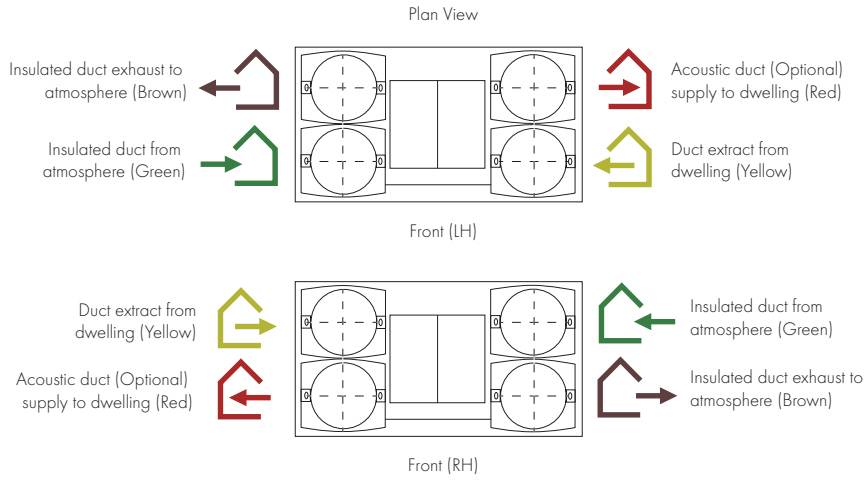
Plan View

Insulated duct exhaust to atmosphere (Brown)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct from atmosphere (Green)

Duct extract from dwelling (Yellow)

Front (LH)

Duct extract from dwelling (Yellow)

Insulated duct from atmosphere (Green)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct exhaust to atmosphere (Brown)

Front (RH)

Electrical Connection

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

3 Pole Isolating switch (563518)

1 Phase Supply (220-240V 50Hz).

FUSE

To LS Input

Switched Fused Spur for unit (3A)
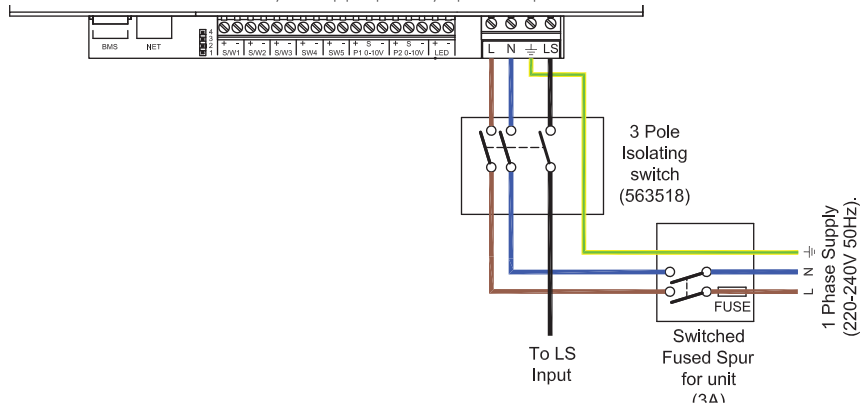
Trickle to Boost by a Light Circuit

SENTINEL KINETIC

LOGIC BOARD

CONTACT

S/W1	S/W2	S/W3	SW4	SW5	P1 0-10V	P2 0-10V	LED
+ -	+ -	+ -	+ -	+ -	+ S -	+ S -	+ -

L N ⊕ LS

J12

LS ⊕ N L

MAINS IN

L N ⊕ LS

POWER BOARD

N.B.
PURGE VIA CONTROL ON FAN UNIT OR OPTIONAL WIRELESS CONTROLLER

INTEGRAL PLUG & PLAY HUMIDISTAT FACTORY FITTED

LAMP 1

LAMP 2

Supply 220-240V 50Hz Lighting circuit 1

Supply 220-240V 50Hz Lighting circuit 2

N
L

N
L

TRICKLE/BOOST SWITCH (45 52 13)

ISOLATOR RELAY CONTROLLER FOR LIGHTING CIRCUIT 1 (442030)

ISOLATOR RELAY CONTROLLER FOR LIGHTING CIRCUIT 2 (442030)

3 POLE LOCAL ISOLATOR

C

L1   L2

Light switch

Light switch

5 4 3 2 1

5 4 3 2 1

MAINS SUPPLY 220/240V 50Hz

E
N
L

Lo-Carbon Sentinel Kinetic Horizontal

- Manufactured in the UK
- Building Regulations ADF compliant
- Recognised in SAP PCDB
- Energy Savings Trust best practice compliant
- Up to 81% heat recovery whilst controlling condensation
- Programmable Summer bypass
- Digital controller for simple and accurate commissioning
- External condensate connection
- Plug and play controls; Humidistat, Ventwise, Wireless remote
- LS inputs (Light Switch)
- Volt-free inputs
- Self diagnosis for simplified fault finding
- Adjustable delay On/delay Off timer

The Sentinel Kinetic Horizontal Range

A wholehouse heat recovery system with up to 81% heat exchange efficiency. An easily accessible heat recovery cube protected by two removable G3 filters. Two Lo-Carbon Energy Saving EC/DC fans ensure long life (typically over double the life of AC motors) and lowest possible energy use. Fully insulated construction with built-in condensation drain. Specifically designed for new build constructions with a high level of insulation.

Lo-Carbon Sentinel Kinetic Horizontal meets the latest requirements of the Building Regulations ADF for wholehouse system ventilation: System 4. Continuous mechanical supply and extract with heat recovery. Each model has three fully adjustable speeds and a purge setting (maximum flow). Supplied with the unit is a digital controller that can be used to pre-set the speeds to any required airflow within the performance range.

Integral Humidity Sensor

The integral humidity sensor ('H' models) 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. Acoustically lined - low noise levels from only 20dB(A) @ 3m.

Models

Model	Stock Ref
Kinetic 200ZPH	407162
Kinetic 200ZH	449540
Kinetic 200ZMH	448778
Kinetic 300ZH	449536

Optional Controls

Model	Stock Ref
Wireless Enable Kit	441865
(includes one switch)	

Wireless Boost Switch	437827
(max 3 switches)	
Ventwise Controller	441780
(also requires sensors: see Accessories & Controllers section)	

Filter Spares

Model	Stock Ref
Kinetic 200ZPH(G3) 2 pack	407584
Kinetic 200ZH/ZMH(G3) 2 pack	449524
Kinetic 200ZH/ZMH(M5) 1 pack	404574
Kinetic 300ZH (G3) 2 pack	449575
Kinetic 300ZH (M5) 1 pack	404575

Multiple Control Options:

Five Volt-free pairs of switch terminals for sensor inputs allow boosting from a full range of Vent-Axia controllers – humidistats, PIR, timers.

Two terminals with 0-24V outputs allow 0V to 10V proportional control by sophisticated controllers such as CO_2 sensors and proportional humidistats.

The optional Ventwise controller senses temperature rise in a bath/shower hot water supply and/or current in a cooker/hob electrical circuit to activate boost, ensuring additional ventilation when needed. Switch-live for boosting via light switches (220-240V AC) or manual Normal/Boost switches. This connection has the advantage of Delay-On and Delay-Off facility. Delay-On enables you to prevent the Boost airflow between 0 and 10 minutes after a light switch has been activated. Delay-Off allows the Boost airflow to continue after a light switch is turned off to ensure effective clearance of humidity. This timer is adjustable between 0 and 25 minutes.

Summer Bypass

An internal damper operates when the external temperature is below the internal temperature, and the internal temperature is too high.

The bypass opens and allows the cooler outside air to help cool the dwelling.

Normal mode: Fans run on Normal speed with bypass open until the internal dwelling temperature falls below the set 'Indoor' (maximum desired) temperature.

Evening Purge mode: The fans run on Boost speed until the internal temperature falls below the set 'Indoor' temperature. If, after five hours the internal temperature is still above the set 'Indoor' temperature, the unit will switch down to normal speed for the remainder of the 'bypass open' period.

Night-time Purge mode: As Evening Purge, except that the unit will continue on Boost speed until the internal air temperature reaches the 'Outdoor' temperature set point (Default 14°C). This mode gives pre-cooling of the dwelling for the following day.

In Evening and Night Time Purge modes, the user can turn off the boost function by pressing the Boost button.

Frost Protection

In cold climates there is a possibility of frost building up on the intake side of the heat exchanger. In order to prevent damage, the Kinetic reduces supply flow while maintaining extract flow at temperatures down to -20°C.

SEC Class

Model	SEC Class
Kinetic 200ZH/ZPH/ZMH	A
Kinetic 300ZH	A

SAP PCDB Test Results

200ZPH

	Thermal Efficiency %	SFP (W/l/s)
K+1	86	0.62
K+2	84	0.65
K+3	83	0.76

200ZH/ZMH

	Thermal Efficiency %	SFP (W/l/s)
K+1	80	0.69
K+2	81	0.70
K+3	80	0.80
K+4	80	0.97
K+5	79	1.14

300ZH

	Thermal Efficiency %	SFP (W/l/s)
K+1	77	0.59
K+2	78	0.51
K+3	78	0.57
K+4	78	0.66
K+5	78	0.76
K+6	78	0.88
K+7	77	1.05

Dimensions (mm)

FRONT SIDE BACK

Model	A	B	C	D	E	F	G	H	I	J	K	Spigots Ø
200ZH	895	849	200	570	155	144	122	76	167	131	122	125
300ZH	985	940	301	720	184	179	187	102	279	174	187	150

Weight: 200ZH - 26kg, 300ZH - 38kg

FRONT SIDE BACK

Model	A	B	C	D	E	F	G	H	I	J	K	Spigots
200ZPH	1000	950	200	575	155	142	60	61	142	154	143	204x60
200ZMH*	895	849	200	570	195	140	54	66	168	138	143	204x60

Weight: 200ZPH - 14kg, 200ZMH - 26kg

*Galvanized steel outer case construction

Performance - 200ZH/ZMH/ZPH Model

Fan speeds are fully adjustable within the performance range.

200ZPH

200ZH/ZMH
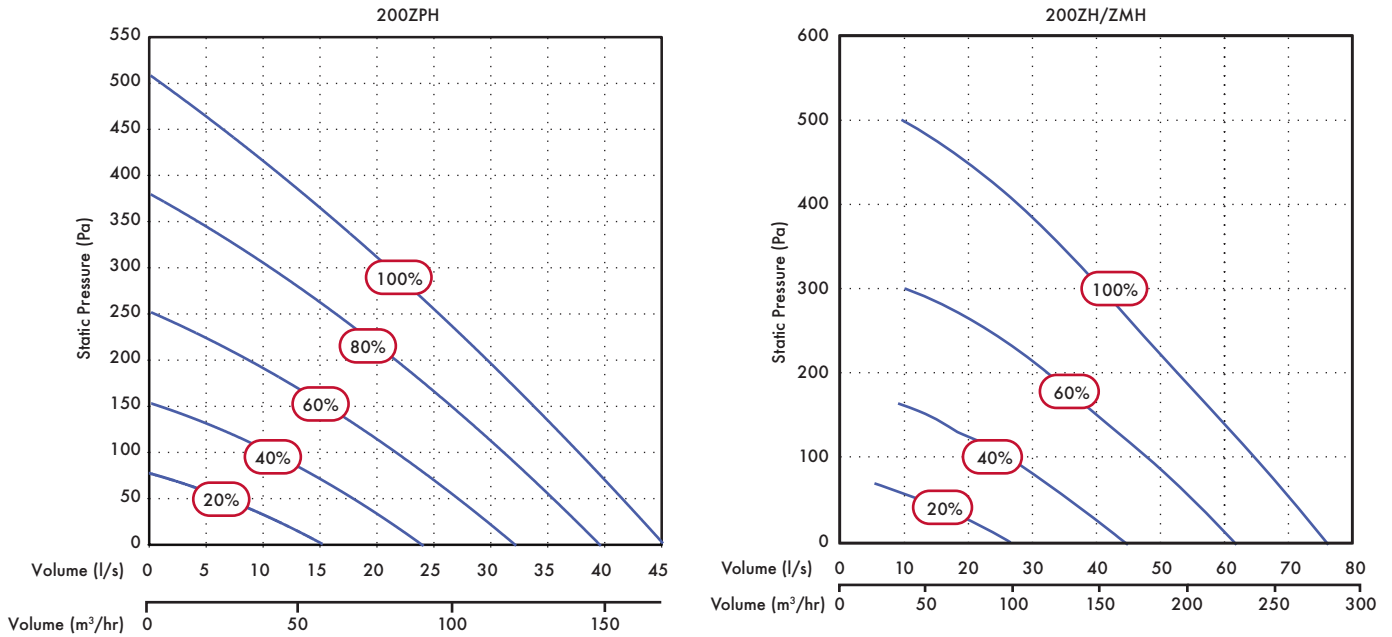
Sound Data - 200ZPH Model

Speed	Test mode	63	125	250	500	1k	2k	4k	8k	dB(A) at 3m
20%	Breakout	48.3	41.3	37.7	35.8	34.5	28.2	26	31.2	21.5
	Supply	39.6	37.1	36	32.9	30.6	22.9	24.9	29.4	23.1
	Extract	49.4	40.7	35	30.4	26.3	22.5	23.6	30.1	20.8
40%	Breakout	47.8	42.2	46.7	40.6	40.2	34.2	28.1	31.2	25.3
	Supply	45.7	38.3	40.7	39	38.1	28.7	24.9	28.5	28.1
	Extract	50	45.5	39.9	37	34.3	28.6	25.1	30.6	24.3
60%	Breakout	54.4	51.2	53.8	46.2	43	38.9	33.8	32	29.7
	Supply	46.1	49.2	45.3	44.4	42.4	35.2	27	29.3	32.7
	Extract	49.5	41.9	45.4	41.7	39.4	35.2	27.6	30.3	27.7
80%	Breakout	50.4	51.2	56.7	53.9	48.5	43.2	39.9	34.9	34.5
	Supply	52.9	48.9	47.5	51.3	47.2	40.8	31.2	30	36.8
	Extract	48.9	43.3	46.8	50	42.4	38.6	31.3	30.1	32.2
100%	Breakout	49.3	49.8	52.9	54	51	46.3	41.2	35.7	35.1
	Supply	43.8	45.8	50.7	56.3	50	44.3	35.7	29.7	38.2
	Extract	53.2	46.9	48	52.8	45.4	42.1	35.1	30.5	34.9

Sound Data - 200ZH/ZMH Model

Flow %	Test mode	63	125	250	500	1k	2k	4k	8k	dB(A) at 3m
20	Supply	50.3	54	50.1	45.5	37	36	27.5	31.1	30.0
	Extract	47.2	47.7	46.6	41.8	30.7	27.9	24.6	30.5	26.3
	Breakout	48.8	55.8	51.2	43.8	32.4	29.0	25.4	30.8	26.8
40	Supply	52.7	61.7	60.1	61.8	47.4	45.1	38.1	40.1	42.7
	Extract	50.7	55.4	55.0	51.5	37.5	34.6	25.9	30.7	33.9
	Breakout	53.7	60.1	61.1	50.7	40.2	35.8	27.1	30.3	34.0
60	Supply	52.8	64.5	66.7	59.4	51.1	51.1	42.9	39.3	44.0
	Extract	50.6	59.0	62.1	57.1	43.7	40.0	29.0	31.6	39.7
	Breakout	55.1	64.4	66.8	57.5	47.0	41.4	32.0	32.0	39.7
100	Supply	58.3	69.2	68.6	64.6	56.9	56.1	47.9	45.6	48.1
	Extract	51.8	63.1	64.9	63.9	52.4	45.9	34.8	34.8	45.2
	Breakout	59.4	68.1	69.7	68.3	53.1	47.1	36.5	34.3	46.5

Tested according to BS 848. Breakout quoted spherical. Supply and extract quoted hemispherical.

Performance - 300ZH Model

Fan speeds are fully adjustable within the performance range.
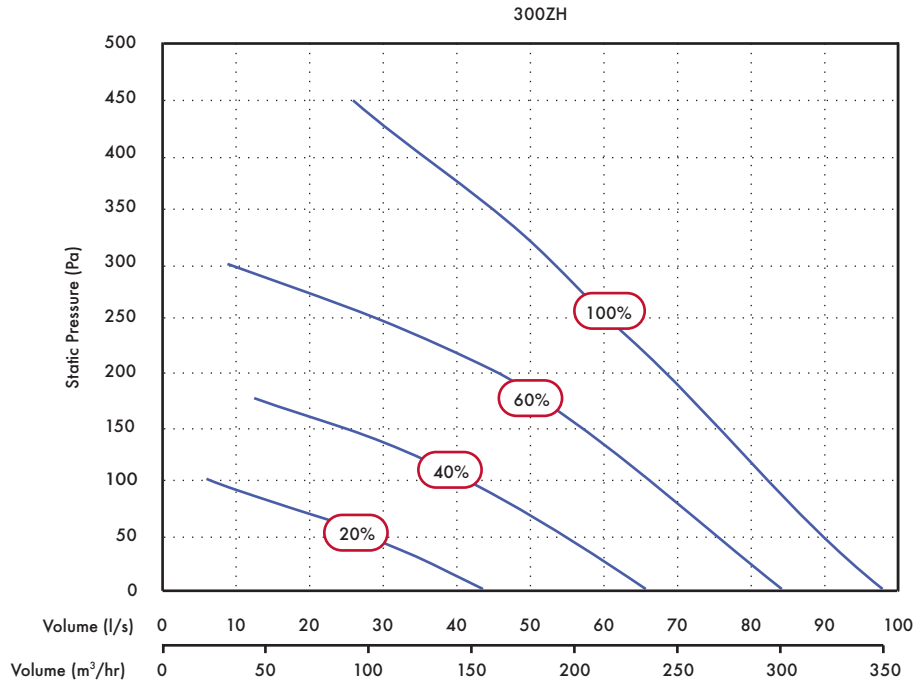
300ZH

Sound Data - 300ZH Model

Flow l/s	Flow %	Test mode	63	125	250	500	1k	2k	4k	8k	dB(A) at 3m
26	10	Supply	42.5	42.8	38.3	32.9	28	24.6	25.5	30.3	26.3
		Extract	46.9	45	40.3	34.4	27.4	23	24.3	30.1	22.5
		Breakout	48.7	52.1	47.7	40.5	32.9	27.3	25.1	31.6	24.4
44	20	Supply	45.6	47	41.7	35.7	31.7	26.7	24.8	30	29.9
		Extract	46.9	48.6	47	38.2	29.5	25.3	23.8	29.9	25.3
		Breakout	50.2	56.4	53.9	46.3	37.5	32.5	25.2	31.4	28.8
55	30	Supply	44.4	46	52.9	39.4	35.1	31.9	25.5	30.5	33.9
		Extract	47	48	55.5	42.5	32.2	29.9	25.7	30.6	30.6
		Breakout	52.2	59.6	62	51.4	41.9	37.4	28.1	31.4	34.7
66	40	Supply	43.1	44.4	54.3	43.5	39.2	35.7	27.7	29.9	35.0
		Extract	48.9	49	58.4	45.9	35.7	33.4	25.3	29.9	33.4
		Breakout	54.6	58.3	66.1	52.6	39.3	36.5	31.1	35.3	37.7
85	60	Supply	44.7	49.8	58	50.4	45	41.9	30.6	30.3	39.1
		Extract	51	53.6	61.2	50.1	41.6	40.1	30.7	31.1	36.7
		Breakout	57.5	62.6	68.7	57.5	45.9	41	36.3	34	40.7
96	80	Supply	46	52.2	57.1	56.5	47.2	44.2	32.3	30.5	40.5
		Extract	55.5	55	63.1	53.4	44.3	41	33.5	31.4	38.8
		Breakout	62.2	65.7	68.8	63	50.8	43.8	38.8	35.4	42.9
98	100	Supply	46.6	52.3	57	55.4	47.1	43.7	32.1	30.3	40.1
		Extract	53.7	55.2	63.3	53.3	44.1	41.2	33.2	31.5	38.9
		Breakout	62.2	73.8	77.4	74.1	67.4	61	53.6	45.4	53.9

Tested according to BS848. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Consultant's Specification

Operation

The supply and extract ventilation unit shall be as Sentinel Kinetic Z as manufactured by Vent-Axia and shall be sized as indicated on the drawings and shall be in accordance with the particular specification; 200Z – 200mm deep, 300Z – 300mm deep.

The Sentinel Kinetic Z 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 the wired remote control unit. The fans themselves shall have independent, infinitely variable speed control.

Unit Specification (200Z/ZM, 300ZH)

The unit shall be manufactured with a galvanized steel outer case construction and shall have a high efficiency aluminium heat exchanger.

Unit Specification (200ZP)

The unit shall be manufactured with high density EPP case and shall have a high efficiency polymer heat exchanger.

The unit shall have supply and extract filters, automatic summer bypass, integral minimum and maximum infinitely variable speed controls with failure indication via the wired remote controller.

The unit shall have low energy, high efficiency EC/DC fan/motor assemblies with sealed for life bearings. The impellers shall be high efficiency backward curved centrifugal type.

The unit shall have a heat exchanger cell with a thermal efficiency of up to 81% when tested to EN 308. This shall be protected by 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 access panel allowing full maintenance access from below. The removable panel shall provide access to the following:

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

Access shall be provided for wiring termination and setup/commissioning.

Standard Controls

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

✓ Infinitely variable fan speed control on supply and extract
✓ Min/max ventilation control/set point
✓ Heating interlocks
✓ 0-10V proportional speed adjustment
✓ Volt free contacts
✓ 24V sensor supply
✓ 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
✓ 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

The unit shall be controlled by the 'Sentinel' control devices (enablers and sensors) as detailed in the schedule or on the drawings.
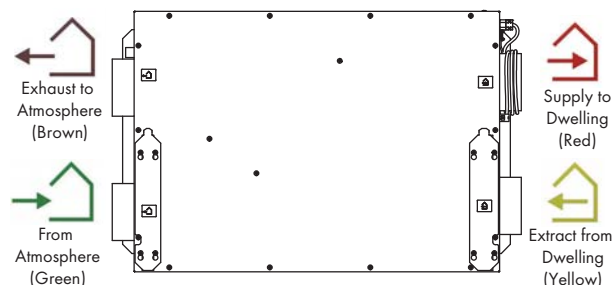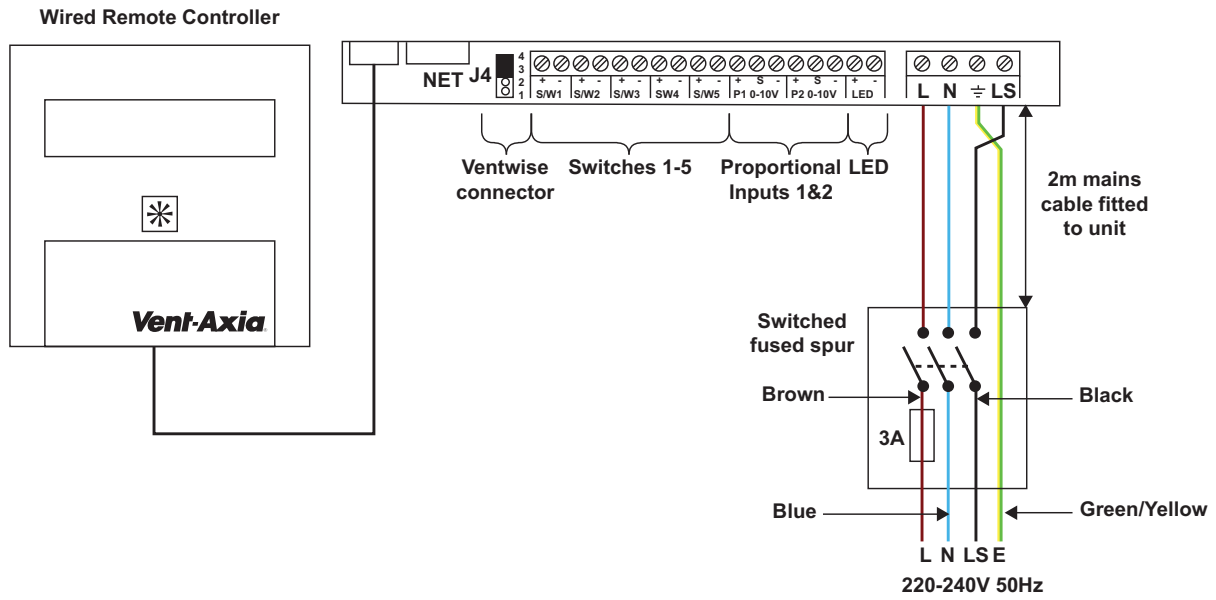

Mounting Option

Slab

Airflow Direction

View from beneath (drawing for airflow demonstration only - not intended to be an accurate representation of the product)

View from beneath

Exhaust to Atmosphere (Brown)

From Atmosphere (Green)

Supply to Dwelling (Red)

Extract from Dwelling (Yellow)

Electrical Connection

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

Wired Remote Controller

NET **J4**

S/W1 S/W2 S/W3 SW4 S/W5 P1 0-10V P2 0-10V LED

L N ⏚ LS

Ventwise connector **Switches 1-5** **Proportional Inputs 1&2** **LED**

2m mains cable fitted to unit

Switched fused spur

Brown **Black**

3A

Blue **Green/Yellow**

L N LS E
220-240V 50Hz

Vent-Axia

Trickle to Boost by two lighting circuits or Trickle/Boost switch

S/W2

+ –

L N ⏚ LS

MAINS IN

L N ⏚ LS

TRICKLE/BOOST
SWITCH
(45 52 13)

C

L1 L2

LAMP 1

Supply 220-240V 50Hz
Lighting circuit 1

N
L

ISOLATOR RELAY
CONTROLLER
FOR LIGHTING CIRCUIT 1
(442030)

Light
switch

5 4 3 2 1

LAMP 2

Supply 220-240V 50Hz
Lighting circuit 2

N
L

ISOLATOR RELAY
CONTROLLER
FOR LIGHTING CIRCUIT 2
(442030)

Light
switch

5 4 3 2 1

3 POLE
LOCAL ISOLATOR

MAINS
SUPPLY
220/240V 50Hz

E ⏚
N
L

Lo-Carbon Kinetic Plus E

- Lightweight for easy installation
- Easy access filters
- External condensate connection
- Compatible with a range of controls: PIR, Humidistat
- Horizontal duct option for space-saving installations
- Up to 94% heat recovery
- Summer mode
- Manufactured in the UK
- Switched live inputs (Light switch control)

A wholehouse heat recovery system with up to 94% energy efficiency. An easily accessible heat recovery cube protected by two removable G3 filters. Two Lo-Carbon Energy Saving EC/DC fans ensure long life (typically over double the life of AC motors) and lowest possible energy use. Fully insulated construction with built-in condensation drain.

Lo-Carbon Kinetic Plus E meets the latest requirements of the Building Regulations Approved Document F for wholehouse system ventilation.

The Lo-Carbon Kinetic Plus E model has two adjustable speeds, normal and boost. A third fixed speed is available to provide maximum flow (Purge). On the front of the unit is the controller that can be used to preset the speeds to any required performance, up to 111l/s (400m³/hr) 150Pa. Offering 'Close Control' to prevent over ventilating. Acoustically lined - low noise levels from only 20dB(A) @ 3m.

Left or Right Hand Installation
Units are supplied right handed with duct spigots to outside on the right hand side. These can be reversed onsite by simply removing the control panel, rotating the unit 180 degrees and reattaching the control panel.

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

Filter Check
An LED on the control panel illuminates at 6 month intervals to remind users to check and clean the filters.

Frost Protection
The Kinetic E range benefits from an automatic frost protection system to prevent the heat recovery cell freezing in very cold weather, while at the same time maintaining ventilation.

Control Options
There are two LS (Switched Live) inputs allowing the unit to be connected to a number of sensors and controllers such as Ventwise, Timespan, Ambient Response Humidistat. One of the LS connections also benefits from a 'Delay-On' feature which prevents the unit boosting unnecessarily. Switching on the control panel allows activation of the Summer Mode.

Model

Model	Stock Ref
Kinetic Plus E	449059

Accessories

Model	Stock Ref
Kinetic Plus E Spare Filters 2 pack	403702
Optional M5 Pollen Filter	444201
Isolator Relay Controller	442030
180mm/200mm Spigot Kit (One per pack)	446523

SAP PCDB Test Results

Exhaust Terminal Configuration	Thermal Efficiency %	SFP (W/l/s)
K + 1	94	0.41
K + 2	94	0.40
K + 3	94	0.43
K + 4	94	0.45
K + 5	93	0.52
K + 6	93	0.61
K + 7	93	0.73

SEC Class

Model	SEC Class
Kinetic Plus E	A+

Dimensions (mm)
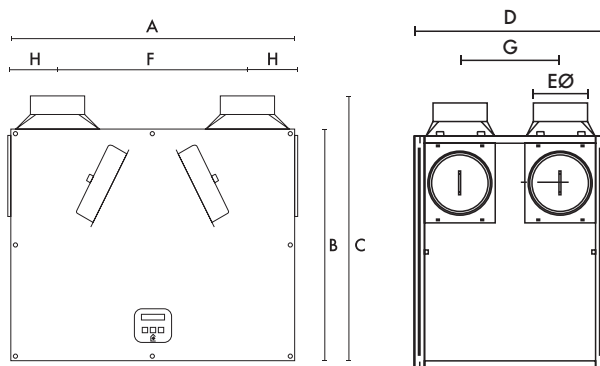
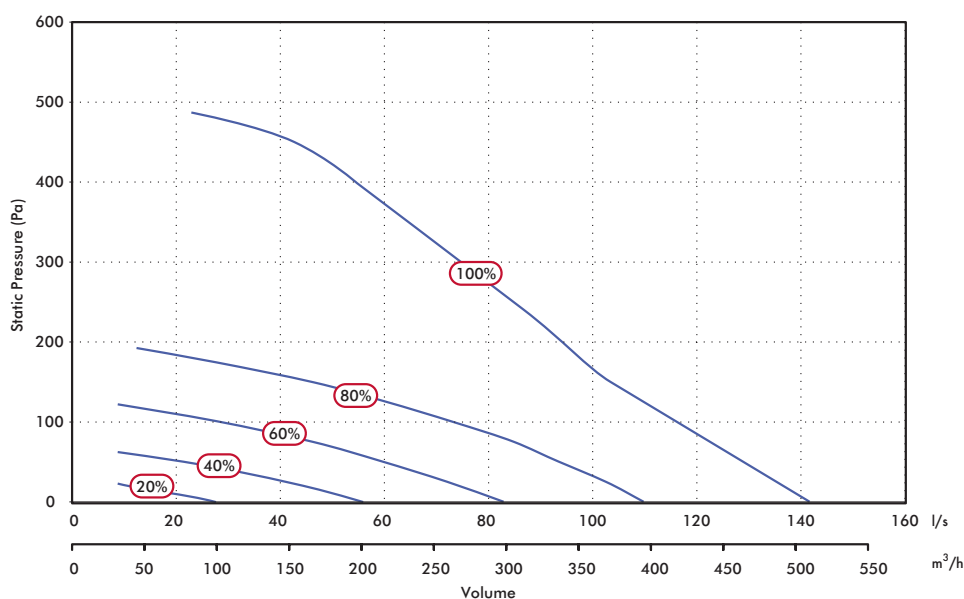| A	B	C	D	EØ	F	G	H
785	635	722	550	150	520	275	135

Weight: 24kg

Performance

Fan speeds are fully adjustable within the performance range.

Sound Data

Flow l/s	Unit setting	Test mode	63	125	250	500	1k	2k	4k	8k	SPL dB(A) at 3m
						Octave band, Hz, dB SWL					
50	20%	Supply	46.5	54.3	46.4	44.8	36.2	28.5	24.5	31.2	28.5
		Extract	46	52.2	42.3	38.7	27.6	24.2	24	31.7	25
		Breakout	48.5	42.6	43.3	38.9	35.8	29.3	23.8	30.7	22.8
78	40%	Supply	50.3	59.1	54.5	56.5	47	39.9	26.3	31.7	38
		Extract	46.8	51.6	47.8	44.4	32.7	27.4	24.4	31.7	28
		Breakout	48.4	51.2	53.4	46	41	34.6	25	30.3	28.5
104	60%	Supply	52.4	57.2	60.4	60.9	55.8	50.3	33.1	33.9	43.6
		Extract	50	49.8	56.8	52.4	40.2	35.9	33.4	39.8	35.2
		Breakout	55	49.6	59.7	54.5	46.9	39.9	33.6	39.2	34.9
127	80%	Supply	54.9	60.7	67.4	66.6	61.8	56	39.6	37.7	49.5
		Extract	50.4	52	61.2	56.6	45.1	39.6	34.2	40.2	39.1
		Breakout	53.5	53.4	60.8	59.1	53	45.3	36	40.1	38.7
137	100%	Supply	54.7	61.7	70.5	69.9	62.7	57.5	42.1	38.3	52
		Extract	54.4	55.1	65.8	57.5	46.9	40.6	33.7	40	41.8
		Breakout	56.6	54.6	60.5	60.7	54.7	45.9	36.5	39.6	40

Tested according to BS848. Breakout quoted spherical. Supply and Extract quoted hemispherical.

Consultant's Specification

Operation
The supply and extract ventilation unit shall be as Kinetic Plus E 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 Kinetic Plus E 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 vary their speed 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. 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, integral minimum and maximum infinitely variable speed controls with facia 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 backward curved centrifugal type. The unit shall have a heat exchanger cell with a thermal efficiency of up to 94% when tested to EN 308. This shall be protected by 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
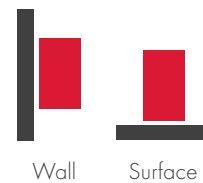
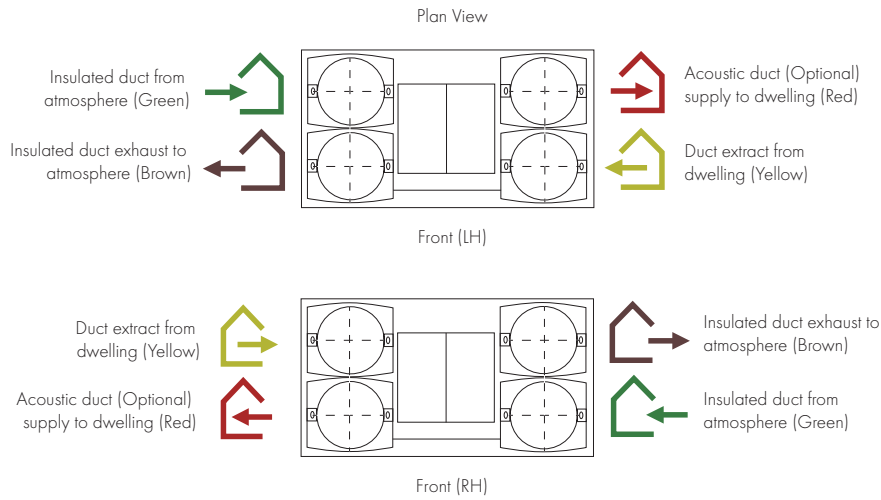Access shall be provided for wiring termination and setup/commissioning.

Standard Controls
All Kinetic Plus E 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 on/off or trickle boost function from remote switch, e.g. PIR occupancy detector

✓ Switched Live input with adjustable 'delay-on' feature

✓ Tool free filter access

✓ Frost protection

✓ LED 'filter check' indicator

Mounting Option

Wall   Surface

Airflow Direction

Plan View

Insulated duct from atmosphere (Green)

Insulated duct exhaust to atmosphere (Brown)

Acoustic duct (Optional) supply to dwelling (Red)

Duct extract from dwelling (Yellow)

Front (LH)

Duct extract from dwelling (Yellow)

Acoustic duct (Optional) supply to dwelling (Red)

Insulated duct exhaust to atmosphere (Brown)

Insulated duct from atmosphere (Green)
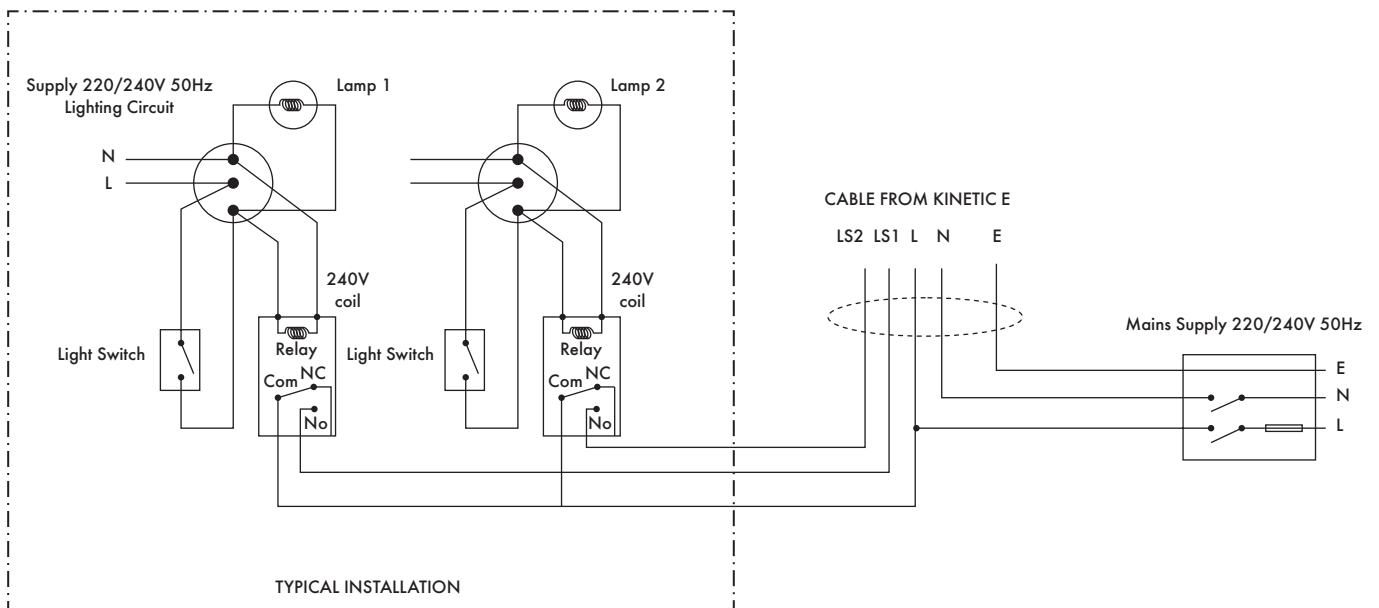
Front (RH)

Electrical Connection

The unit can be switched to boost by applying 230 V to the LS1 or LS2 inputs. Alternatively, the boost button on the control unit may be used.

Mains Cable Connections

Terminal No.	Name	Description
L	Mains Live	220-240 V AC, 50 Hz input
N	Mains Neutral	220-240 V AC, 50 Hz input
EARTH	Mains Earth	Earthing connector
LS1	Switched Live 1	220-240 V AC, 50 Hz input
LS2	Switched Live 2	220-240 V AC, 50 Hz input

Supply 220/240V 50Hz Lighting Circuit

N
L

Lamp 1

Lamp 2

Light Switch

240V coil

Relay

Com NC

No

Light Switch

240V coil

Relay

Com NC

No

TYPICAL INSTALLATION

CABLE FROM KINETIC E

LS2 LS1 L N E

Mains Supply 220/240V 50Hz

E
N
L

Integra

- Powered heat recovery unit for smaller residential or commercial applications up to 180m^2
- Up to 70% heat recovery
- Low power consumption
- Effective condensation control
- Summer mode

The Integra heat recovery unit has been specially designed to provide ventilation for flats or rooms in residential, commercial, educational or leisure applications. Balanced ventilation is achieved by using nominal 100mm diameter rigid ducting.

Using a high performance, polymeric heat exchange cube, together with two powerful fans, the Vent-Axia Integra achieves efficiencies of up to 70%.

The compact cube interleaves outgoing moist air with incoming fresh air, allowing the heat from one to warm the other without the two air streams mixing. Energy is saved on room heating, with no power being used by the cube itself.

Performance of Integra: Up to 49l/s FID. Ideal for installation in ceilings voids or cupboards.

The 150VA Transformer enables the selection of trickle settings to match dwelling volume.
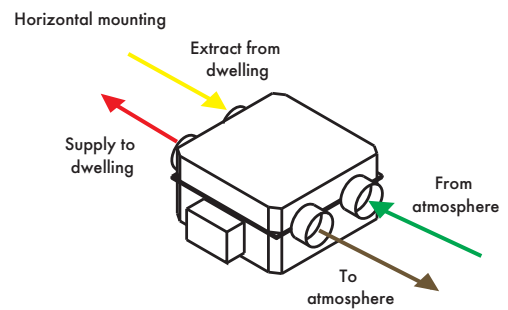
Models

Model	Stock Ref
Integra	456864

Controller

Model	Stock Ref
Controller 150VA	563538

Airflow Direction

Horizontal mounting

Extract from dwelling

Supply to dwelling

From atmosphere

To atmosphere

SEC Class

Model	SEC Class	SEC Class (inc. LDC)
Integra	F	C

Dimensions (mm)
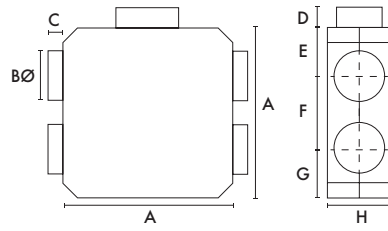
A	BØ	C	D	E	F	G	H
400	98	50	65	85	230	85	210

Weight: 6.5kg

Performance
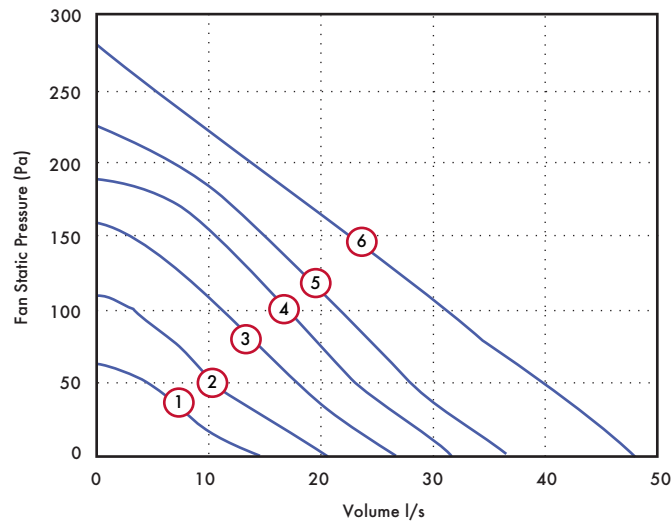
Motor Speed/Curve	Volume (l/s) (FID)	Voltage (V)	Wattage (W)
1	15	80	32
2	21	100	47
3	27	120	64
4	32	140	81
5	37	160	99
6	49	240	182

Integra to be used with a 150VA Transformer for maximum controllability.

Integra Plus EC

- Powered heat recovery unit for larger residential or commercial applications
- Up to 70% heat recovery
- Low power consumption
- Effective condensation control
- 3 speed control
- Summer mode
- EC motors

Easy Installation

The Vent-Axia Integra Plus EC is designed for mounting in ceiling voids, lofts and above a suspended ceiling. Four 150mm spigots are provided for simple connection to insulated flexible or rigid ventilation ducting. The unit comes complete with a 22mm condensate outlet.

The Integra Plus EC incorporates two adjustable speeds and a Purge setting (full Speed).

Switching on the controller allows activation of the Summer Mode.

Controllers & Sensors

Model	Stock Ref
Ambient Response Humidistat	563550
Visionex PIR	459623
TIM2	370346

Model

Model	Stock Ref
Integra Plus EC	437666EC

SEC Class

Model	SEC Class	SEC Class (inc. LDC)
Integra Plus EC	B	A

Airflow Direction

From atmosphere

To atmosphere

Extract from dwelling

Supply to dwelling
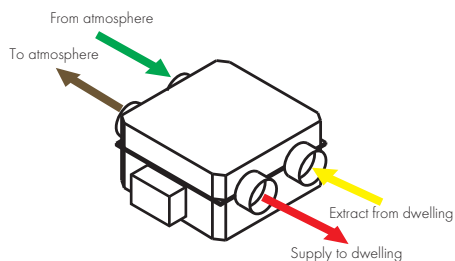
Dimensions (mm)
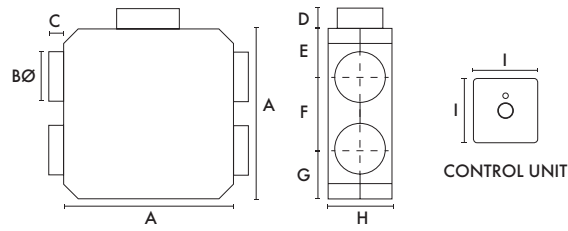
A	ØB	C	D	E	F	G	H	I
580	150	100	64	125	350	125	305	85

Weight: 17kg fan box

Performance
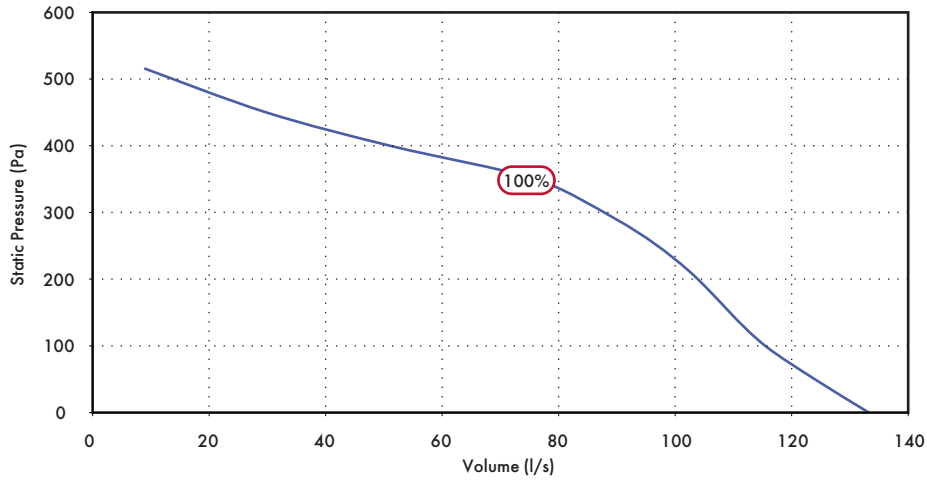
Sound Data

Flow, l/s	Unit setting V	Test mode	Octave band, Hz, dB SWL								SPL dB(A) at 3m
			63	125	250	500	1k	2k	4k	8k	
55	4	Supply	39.2	43.1	44.5	47.1	42.6	36.0	29.3	30.7	30.7
		Extract	47.0	42.4	38.6	40.4	35.5	28.0	27.9	32.6	25.3
		Breakout	43.2	42.7	38.2	37.6	33.4	28.4	27.6	31.5	21.7
69	5	Supply	42.0	47.6	46.1	49.9	48.8	41.2	33.7	32.5	34.4
		Extract	47.8	42.2	41.4	43.2	40.4	29.6	27.7	32.5	27.7
		Breakout	45.2	45.7	41.9	40.7	37.3	30.5	27.5	32.4	23.8
79	6	Supply	46.0	49.7	50.6	54.0	54.4	45.9	39.6	36.9	38.7
		Extract	44.5	43.2	44.8	46.4	46.2	32.2	28.4	32.3	31.4
		Breakout	46.2	47.2	44.3	43.4	43.1	32.8	28.5	32.2	26.6
81	6.6	Supply	47.0	52.5	53.8	56.4	58.3	48.8	42.8	40.8	41.8
		Extract	50.3	45.3	47.7	48.5	47.4	35.0	30.7	32.9	33.0
		Breakout	45.5	47.9	45.5	45.5	45.5	34.0	29.2	31.5	28.3
95	7	Supply	48.9	54.1	56.3	58.0	59.2	51.0	45.9	43.8	43.3
		Extract	47.6	46.5	49.4	49.7	48.3	37.0	31.1	32.3	34.0
		Breakout	49.0	49.5	48.2	47.5	47.3	36.7	31.1	32.3	30.1
109	8	Supply	51.0	58.2	57.4	60.1	61.2	54.4	48.9	48.0	45.6
		Extract	56.2	52.4	51.7	53.1	49.6	39.5	33.8	33.2	36.3
		Breakout	51.8	53.9	51.3	50.7	48.7	40.3	34.0	32.5	32.2
113	9	Supply	49.1	56.1	59.4	62.8	63.3	57.2	52.1	50.8	47.4
		Extract	54.5	50.9	52.4	54.5	51.4	42.3	35.3	33.8	37.8
		Breakout	53.6	54.3	52.8	52.3	50.8	43.4	36.2	33.5	34.1

Tested according to BS848. Breakout quoted spherical. Supply and Extract quoted hemispherical.

HR100R/RS

- Controls condensation and odours - saves energy
- Eliminates mould growth
- Up to 70% heat recovery
- Extremely quiet operation
- Two speed settings

The HR100R and HR100RS are ideal for single bedrooms/bathroom applications situated in hotel rooms, nursing homes and residential care homes.

The HR100R features top access making it ideal for loft installations.

The HR100RS features bottom access for installation on the slab above a suspended ceiling.

The HR100R/RS is a self-contained heat recovery unit for mounting in lofts and suspended ceilings. The unit is supplied without controls to allow for the unit to be tailored to suit the individual requirements.

Compatible with standard 100mm ducting for connection to internal grilles and external cowl.

The unit comes fitted with a single 2-speed motor, and provides continuous low volume ventilation with a boost option. A variety of control devices are available for manual or automatic speed control.

An integral heat exchanger transfers heat from the outgoing stale air to the fresh air supply, raising the supply air temperature whilst at the same time reducing its relative humidity.

Up to 18l/s FID capacity. The unit provides superior control of condensation and odours, ideal for bathrooms or small internal rooms.
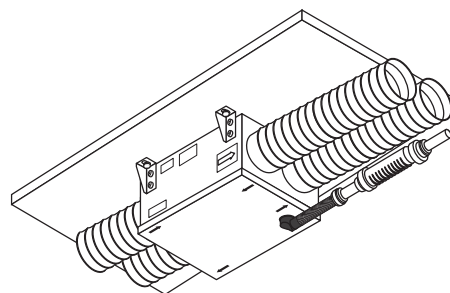
Controllers

Normal Boost Switch

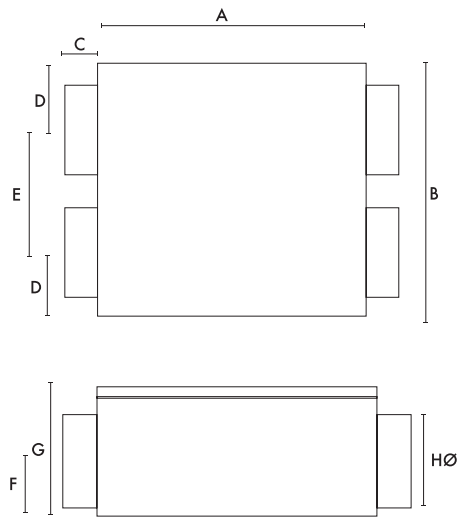A single gang switch to boost from high to low speeds on all heat recovery systems.

85 x 85 x 10mm (H x W x D)

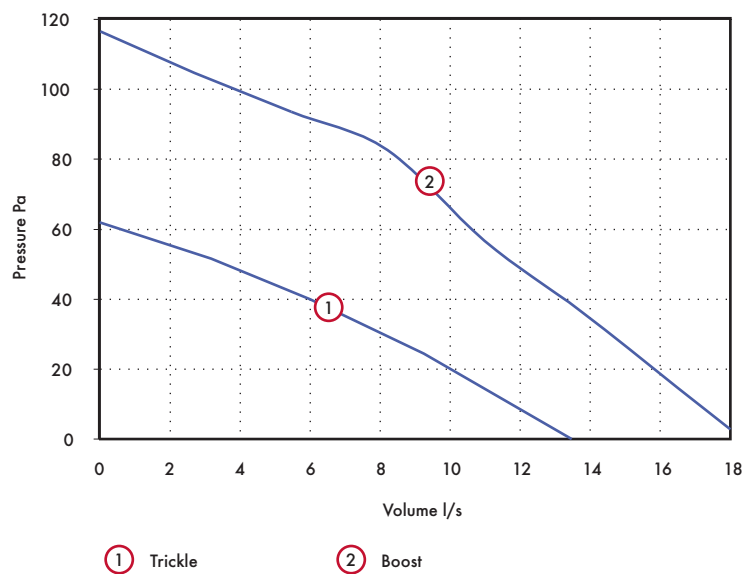| Model	Stock Ref
Normal Boost Switch	455213

HR100RS Version

Models

HR100R
Top access - ideal in loft installations.

Model	Stock Ref
HR100R	370377

HR100RS
Bottom access - ideal for suspended ceilings.

Model	Stock Ref
HR100RS	435004

Dimensions (mm)

A	B	C	D	E	F	G	HØ
305	240	50	60	120	70	160	98

Performance

Pressure Pa / Volume l/s

1 Trickle   2 Boost

Model	Weight	Extract Perf. l/s		Watts		dB(A) @ 3m*	
	kg	Boost	Trickle	Boost	Trickle	Boost	Trickle
HR100R	5.6	18.3	13.6	29	19	30	20
HR100RS	5.6	18.3	13.6	29	19	30	20
Mains electrical supply: 230V/50Hz							

HR200V

- Powered heat recovery module for smaller commercial applications
- Up to 70% heat recovery
- 150mm duct connection
- Extremely quiet on low speeds
- Low power consumption
- Washable heat exchanger
- Pre-wired to a flexible cable

A ducted heat recovery unit for residential or commercial applications. The HR200V is self-contained and includes two mixed flow speed controllable fans. Using a high performance, polymeric heat exchange cube together with two power fans, the HR200V can boast a temperature efficiency of up to 70%. Low speed for trickle ventilation mode.

Specially designed to provide ventilation for small internal rooms in commercial, educational and leisure applications. Ventilation is achieved by using nominal 150mm diameter ducting.
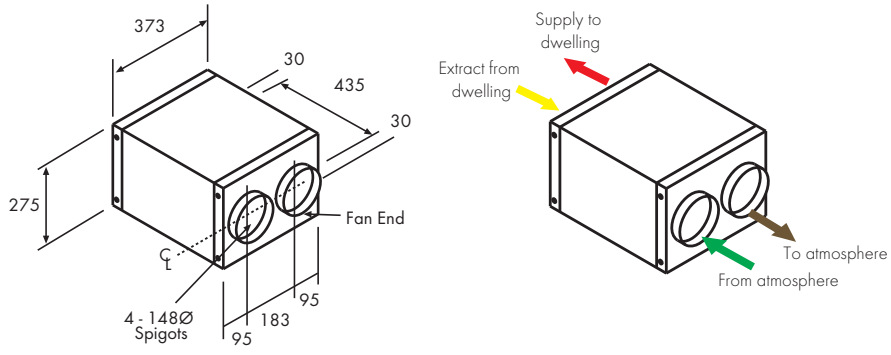
Models

Model	Stock Ref
HR200V	14120010

Accessory

Model	Stock Ref
Transformer 150VA	563538

SEC Class

Model	SEC Class	SEC Class (inc. LDC)
HR200V	C	B

Dimensions (mm)

Weight: 15.5kg fan box, 5kg controller

373

30

435

30

275

Fan End

4 - 148Ø Spigots

95

183

95

95

Supply to dwelling

Extract from dwelling

To atmosphere

From atmosphere

Performance

Static Pressure (Pa)

140

120

100

80

60

40

20

0

0   20   40   60   80   100   120

Volume (l/s)

— 240V Supply
— 160V Supply
— 140V Supply

— 240V Extract
— 160V Extract
— 140V Extract
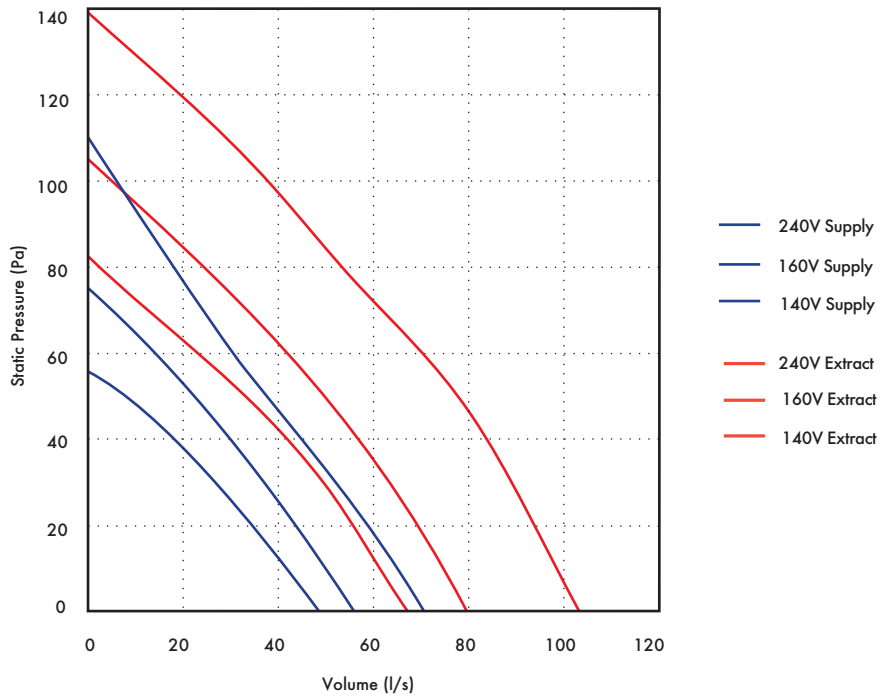
Motor Speed	1	2	3
Voltage	140	160	240
Watts	51.5	60	110
Volume l/s (FID) Supply	48.3	55.8	70.3
Extract	241	286	371

HR200V to be used with a 150VA Transformer for maximum controllability.

HR500

- Efficient 550m³/h heat recovery ventilation unit or high performance 900m³/h extract fan
- Lightweight, compact and easy to install
- Integral shutters on X type model
- Easy to clean
- Up to 70% heat recovery
- Controller with sensor mode, allows a range of sensors to be used in conjunction with the HR500 and HR500X units
- IPX5 rated

Heat Recovery Ventilation

HR500 heat recovery ventilation units for through the wall installation, which exhaust stale air whilst introducing warmed fresh air from the outside.

Ideal for computer rooms, classrooms, offices and the health and leisure industries. The Vent-Axia HR500 unit is the perfect solution for commercial areas that require a high performance balanced intake/extract ventilation scheme. As a heat recovery ventilation unit it moves a useful 153l/s of air.

The compact heat recovery cube interleaves outgoing warm air with incoming fresh air and allows the heat from one to warm the other without the two air streams mixing. Energy is saved on room heating with no power being used by the cube itself.

The HR500 and HR500X consist of a tough telescopic wall sleeve into which the main body of the unit is housed. Walls of up to 670mm thick can be easily accommodated. Behind the neat deflecting fascia grilles are the filters, the heat exchange cube and fan units. All wall sleeve components, the heat exchange cube and the fascia grilles are made of tough polymeric materials.

Electrical

Maximum ambient temperature +40°C.
Supply Voltage 220-240V/1/50Hz.

Models

HR500 Commercial

Wall-mounted intake/extract ventilation unit with built-in heat recovery facility. For commercial and leisure areas. Lightweight, compact and easy to install.

Model	Stock Ref
HR500	14101010

HR500X

As HR500 with shutters.

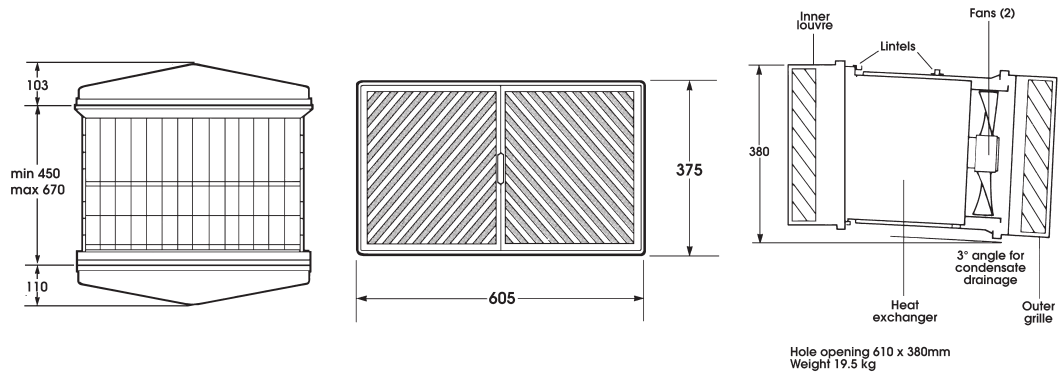| Model	Stock Ref
HR500X	14101070

Controller

HR500 Controller

Surface mounting. On/Off remote sensor mode. Heat exchange, single fan extract or twin fan extract modes. Infinitely variable speed. Minimum speed setting. Suitable for controlling up to 2x HR500. 86 x 156 x 53 (W x H x D).

Model	Stock Ref
HR500 Controller	W14301010

Dimensions (mm)

103

min 450
max 670

110

375

605

Inner louvre

Fans (2)

Lintels

380

3° angle for condensate drainage

Heat exchanger

Outer grille

Hole opening 610 x 380mm
Weight 19.5 kg

Performance

| Model | Airflow performance (l/s) | | Watts | Sound |
	Heat recovery mode	Extract mode (max)	(max)	dB(A) @ 3m (max)
HR500	153l/s	250l/s	200	53
HR500X	153l/s	250l/s	220	53

HR500D

- Self-contained unit with integral fans
- Up to 70% heat recovery
- External wall mounting

The HR500D is a self-contained unit with integral extract and supply fans to provide balanced ventilation and heat recovery via supply diffusers and extraction grilles. The unit is fully speed controllable.

The compact heat recovery cube interleaves outgoing warm air with incoming fresh air and allows the heat from one to warm the other without the two air streams mixing.

Energy is saved on room heating with no power being used by the cube itself.

Performance of HR500D: Supply and extract up to 174l/s FID capacity on heat recovery mode. Ideal for offices, computer rooms, pubs and clubs, etc.

Model

Surface mounting. On/Off remote sensor mode. Heat exchange, single fan extract or twin fan extract modes. Infinitely variable speed. Minimum speed setting. Suitable for controlling up to 2x HR500.
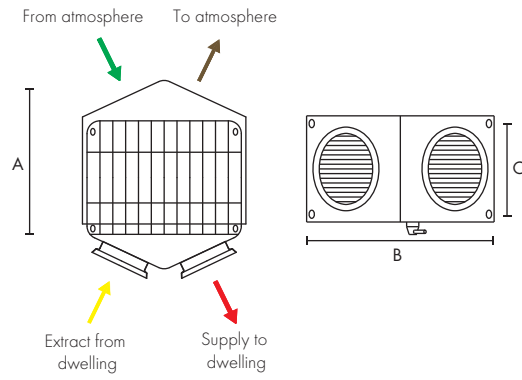
Model	Stock Ref
HR500D	370450

Controller

Model	Stock Ref
Speed Controller	W14301010

Dimensions (mm)

Hole opening: 610 x 381mm

From atmosphere   To atmosphere

A

C

B

Extract from
dwelling

Supply to
dwelling

A	B	C
480-750	600	340

Performance Guide

Heat Exchanger Efficiency

% Thermal Efficiency

Volume (m³/h)
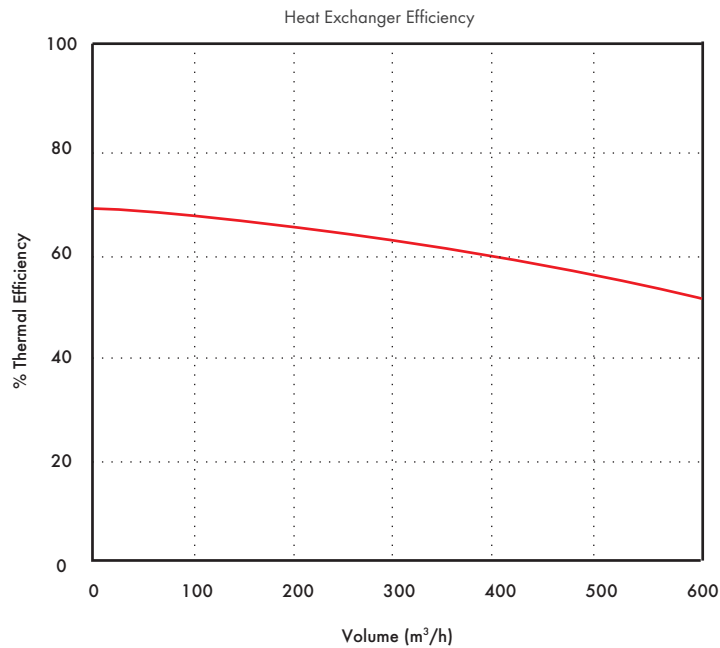
Airflow performance l/s (max)	Watts (max)	dB(A) @ 3m (max)	Weight kg
174 l/s	210	53	19

HR500EP/IP

- Passive - no fans
- Lightweight - easy installation
- Up to 70% heat recovery
- Internal wall mounting HR500IP
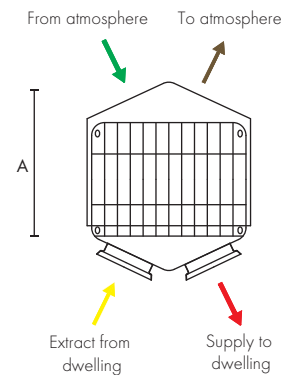- External wall mounting HR500EP

The unit is a semi-remote heat exchange unit with 70% heat recovery, designed for mounting in internal walls (HR500IP) and external walls (HR500EP) for installations using ducted extraction and fresh air supply. The HR500 units provides air movement via two independent in-line duct fans to suit length and configuration of ducting systems. The unit is ideal for use with in-line centrifugal type fans and compatible accessories. Performance of HR500EP and HR500IP: Up to 244 l/s FID capacity (balanced airflow). Ideal for computer rooms, classrooms, offices and the health & leisure industries.
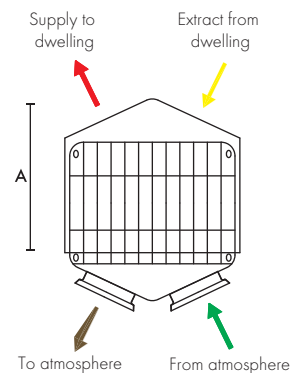
Model

Model	Stock Ref
HR500IP	370447
HR500EP	370451

EP Unit
Hole opening: 610 x 381mm

From atmosphere   To atmosphere

A

Extract from dwelling   Supply to dwelling

IP Unit

Supply to dwelling   Extract from dwelling

A

To atmosphere   From atmosphere

Dimensions (mm)

EP & IP Unit
Hole opening: 610 x 381mm
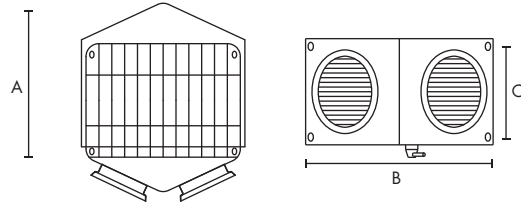
A	B	C
480-750	600	340

Weight: 9kg

Performance

Pressure Drop over Heat Exchange Unit

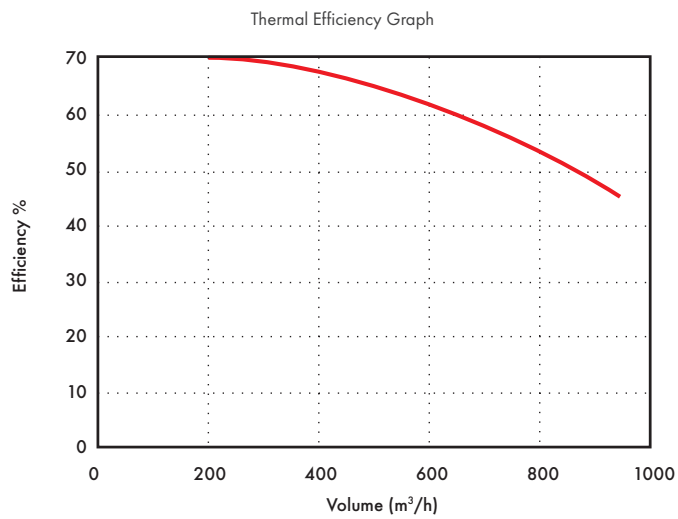Pressure Drop (Pa) vs Volume (m³/h)

Thermal Efficiency Graph

Efficiency % vs Volume (m³/h)
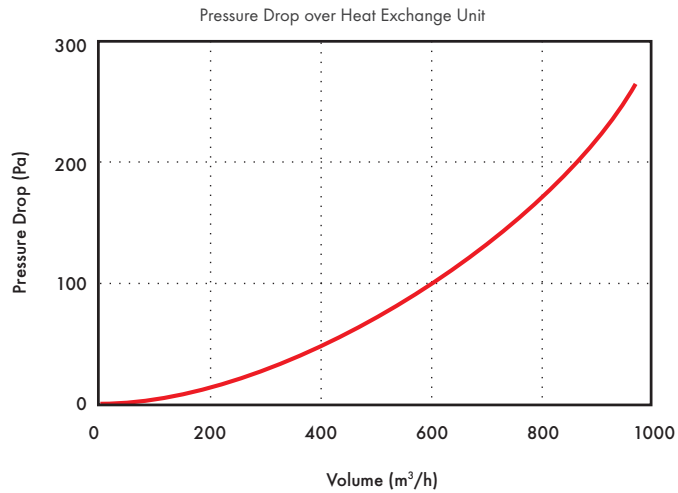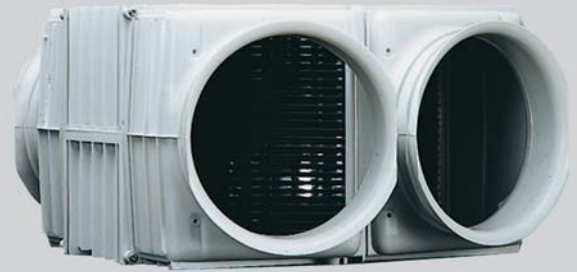
HR500DP

- Passive - no fans
- Lightweight, compact and easy to install
- Up to 70% heat recovery
- Easy to clean

A 'stand alone' heat exchange module which will transfer up to 70% of the outgoing heat to incoming air. Polymeric construction with spigots to suit 200, 250 and 315mm Ø flexible ductwork.

Module accessible for routine cleaning. Condensate outlet provided. Ideal for use in air conditioned environments.
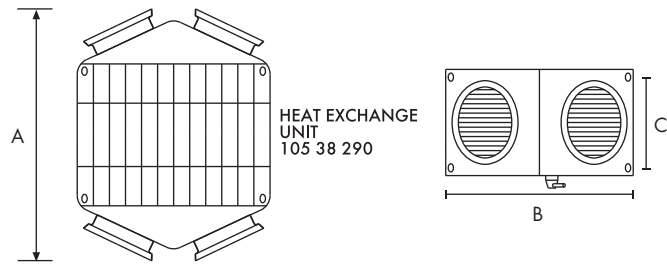
The heat exchanger works at the same high efficiency, automatically keeping a cool room cool.

Performance of the Heat Exchange Unit: At 180l/s achieves 70% temperature efficiency (balanced airflow). Ideal for schools, pubs, offices and leisure industries.

Model

Model	Stock Ref
HR500DP	10538290

Dimensions (mm)

HEAT EXCHANGE
UNIT
105 38 290

A	B	C
700	600	340

Weight: 9kg

Performance

Heat Exchange Resistance Graph

Preasure Drop (Pa) vs Volume (m³/h)

Thermal Efficiency Graph

% Thermal Efficiency vs Volume (m³/h)
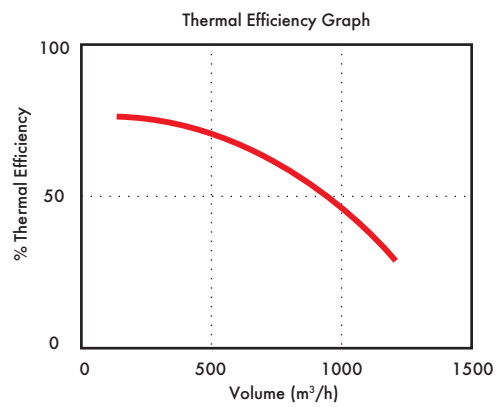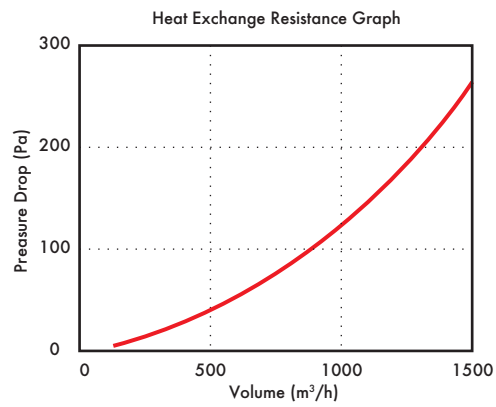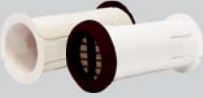
Ducting
& Fittings

Since 1936, Vent-Axia has been known for providing a complete ventilation solution. This has not changed, and now we offer one of the widest ranges of ancillaries available today.

Vent-Axia®

NEW Vent-Axia Pure Air

- Removes NOX and other gases
- Removes particles down to PM2.5
- Offers multiple spigot options
- Low pressure drop
- Easy to install with mounting brackets
- Conforms to international air quality guideline limits
- Easy installation & maintenance
- Various sizes to suit residential or commercial applications
- Provides induct noise attenuation
- Insulating jackets available

What is it?

The Vent-Axia Pure Air combines particulate and gas filters to remove pollutants prior to entering residences and commercial buildings through mechanical ventilation and heat recovery systems. The Vent-Axia Pure Air is designed to bring outdoor air pollutant levels within the guideline exposure limits as set out in the World Health Organisation Air Quality Guidelines and the CAFE Directive prior to entering an occupied space.

Indoor air quality (IAQ) is becoming increasingly important with properties being built in urban, industrialised areas. The Vent-Axia Pure Air offers a complete filtration solution with a range of specifiable products that meet planning obligations and refine traditional filtration, leaving home owners with confidence in their heat recovery systems.

What does it do?

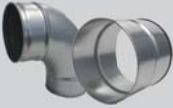The Vent-Axia Pure Air sets the benchmark for high level filtration. It targets pollutants generated outside of the home, by traffic and industrial processes, and reduces these before supplying the air into the dwelling.

The Vent-Axia Pure Air filter is fitted to the intake airflow and incorporates two types of filtration:
- Enhanced activated Carbon which removes unpleasant odours and harmful gasses such as Nitrous Oxide (NO_2).
- G4 or F7 particulate filters which can remove tiny airborne contaminants such as pollen, bacteria and even PM2.5 diesel particulates.

The combination of MVHR and Vent-Axia Pure Air filtration offers the ideal indoor environment.

Unit Specification

The Vent-Axia Pure Air is manufactured from 1.2mm Galvanised Steel together with suitable sealing for particulate and gas filters. Access is available on both sides via bolted lift off panels. Various round and rectangular transformation spigots are available to suit ductwork systems for both domestic and commercial duct work.

Filter Specification

Particulates, PM10, PM2.5

The Vent-Axia Pure Air can house up to two particulate filters. Panel filters of Grade G4 to EN779 having an arrestance above 90%, making it suitable for the removal of PM10 Particulates. An additional particulate filter of grade F7 to EN779 can be included to further reduce smaller particles (PM2.5) to an efficiency between 70% and 80% at 0.4µm.

Pollutant Gases, NO_2, SO_2, O_3, VOC

The gas stage filters in the Vent-Axia Pure Air are designed to achieve a minimum contact time suitable for the removal of pollutant gases at the rated airflow. A specially formulated activated carbon and chemical mix acts upon pollutant concentrations common in dirty city air, reducing them below guidelines set by current legislation.

Unit Configuration

Configurable Supply Spigot   Configurable Extract Spigot
Replaceable PM2.5 or PM10 Filters
Replaceable Gas Filters

Accessories

Model	Stock Ref
Spare PM2.5 filter	PAFIL-25
Spare PM10 filter	PAFIL-10
Spare gas filter	PAFIL-NO2

Models

Stock Ref	Airflow l/s	Intake Spigot (mm)*	Exhaust Spigot (mm)*	Filter Types	Clean Filter Pressure Drop (Pa)	Approximate Unit Weight (kg)
PA50-125125-25	50	125Ø	125Ø	PM2.5	100	25
PA50-125204-25	50	125Ø	204 x 60	PM2.5	100	25
PA50-204204-25	50	204x60	204x60	PM2.5	100	25
PA50-125125-10	50	125Ø	125Ø	PM10	45	25
PA50-125204-10	50	125Ø	204x60	PM10	45	25
PA50-204204-10	50	204x60	204x60	PM10	45	25
PA100-150150-25	100	150Ø	150Ø	PM2.5	100	49
PA100-150220-25	100	150Ø	220x90	PM2.5	100	49
PA100-220220-25	100	220x90	220x90	PM2.5	100	49
PA100-150150-10	100	150Ø	150Ø	PM10	45	49
PA100-150220-10	100	150Ø	220x90	PM10	45	49
PA100-220220-10	100	220x90	220x90	PM10	45	49
PA200-200200-10	200	200Ø	200Ø	PM10	45	96
PA200-250250-10	200	250Ø	250Ø	PM10	45	96
PA300-315315-10	300	315Ø	315Ø	PM10	45	144

*Airflow may be reversed through the unit to offer alternative spigot options.

Example Stock Ref:

PA	50	-	125	125	-	25
Pure Air	Litres Per Second		Intake Spigot Dia.		Exhaust Spigot Dia.	PM Filter Grade

Dimensions (mm)

Access Space
Filters can be accessed from either side of the unit.

12mmØ

Top

Side

Front

Airflow l/s	A	B	C	D	E	F	G	H	I	J
50	310	980	50	700	25	435	405	10	220	340
100	620	980	50	700	25	730	700	10	220	650
200	620	980	50	700	110/85	730	700	10	420	650
300	620	980	50	700	160	730	700	10	630	960

Spigot Configuration

125Ø to 204x60
150Ø to 220x90

204x60 to 204x60
220x90 to 220x90

125Ø to 125Ø
150Ø to 150Ø

200Ø to 200Ø
250Ø to 250Ø
315Ø to 315Ø

NEW Wholehouse Attenuators

- Reduces induct noise
- Variety of sizes to suit specified noise requirements
- Compatible with both 204x60mm² and 220x90mm² rectangular ductwork
- Central and offset spigot options to suit each installation
- Rigid galvanized steel construction
- Easy installation
- Suitable for almost any ventilation system
- Low pressure loss

The Vent-Axia Wholehouse Attenuator has been developed to reduce induct noise in both residential and commercial ducting systems.

Technical Details

The Wholehouse Attenuator is compatible with either 204x60mm² or 220x90mm² ducting. It also offers two spigot options to suit the installation and design requirements. The Wholehouse Attenuator is available with either a standard centralised spigot or, for instances when the ducting is installed flat to a concrete slab, an offset spigot. As well as saving the need for additional ducting components, this allows for a much easier and quicker installation.

Noise Reduction

Offering excellent sound reduction over a range of frequencies, the Wholehouse Attenuator is available in two lengths depending on the noise suppression requirements. For MVHR systems the attenuator can be fitted on the supply side to habitable rooms, reducing airborne in-duct noise. For MVHR and extract-only systems, the attenuator may be placed on the extract side to limit 'cross-talk' through ductwork between rooms.

Models

Central Spigot

Model	Stock Ref
204x60 Duct 920mm Length	407915
204x60 Duct 1220mm Length	407916
220x90 Duct 920mm Length	407920
220x90 Duct 1220mm Length	407921

Offset Spigot

Model	Stock Ref
204x60 Duct 920mm Length	475427
204x60 Duct 1220 Length	475428
220x90 Duct 920mm Length	475429
220x90 Duct 1220mm Length	475430

Dimensions (mm)

Front (Offset) | Front (Central) | Side
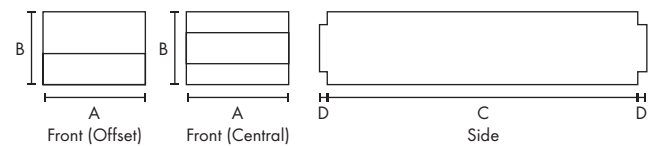
Stock Ref	A	B	C	D	kg
407915	200	120	920	50	13
407916	200	120	1220	50	17
407920	210	145	920	50	14
407921	210	145	1220	50	17
475427	200	120	920	50	13
475428	200	120	1220	50	17
475429	210	145	920	50	14
475430	210	145	1220	50	17

Acoustic Performance

Stock Ref	Insertion Loss (dB)							
	63	125	250	500	1k	2k	4k	8k
407915	4	5	10	19	30	47	49	36
407916	4	7	13	26	39	55	53	38
407920	4	7	14	24	39	51	48	38
407921	5	8	18	32	50	55	52	41
475427	4	5	10	19	30	47	49	36
475428	4	7	13	26	39	55	53	38
475429	4	7	14	24	39	51	48	38
475430	5	8	18	32	50	55	52	41

Pressure Loss

Stock Ref	Duct Size (mm)	Length (mm)	Volume (l/s)	Pressure Loss (Pa)
407916/475428	204x60	1220	15	6
407916/475428	204x60	1220	30	10
407916/475428	204x60	1220	60	25
407916/475428	204x60	1220	80	41
407921/475430	220x90	1220	15	6
407921/475430	220x90	1220	30	10
407921/475430	220x90	1220	60	22
407921/475430	220x90	1220	80	36

Universal Roof Vents

- Models available for both pitched and flat roof types
- Complies with Building Regulations
- Suitable for most installations
- Corrosion and weather proof
- Compatible with both mechanical and natural ventilation systems
- Three colours available for pitched roof vents
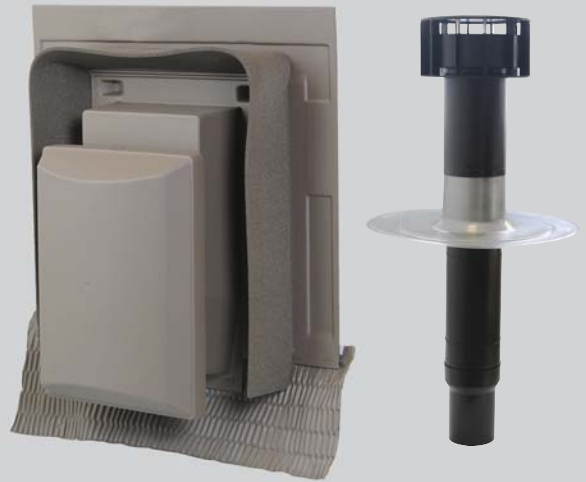
Wholehouse ventilation systems require termination to the external atmosphere, often through the roof. To ensure that the ventilation system is able to achieve it's optimum level of performance, it is important that a suitable roof termination product is installed.

With this in mind, Vent-Axia is pleased to offer a range of Universal Roof Vents; including products suitable for both pitched and flat roof types.

A selection of colours and sizes should ensure that our range offers a product suitable for most residential applications with a pitched or flat roof.

Models

Universal Roof Vent suitable for Pitched Roofs
Manufactured in the UK, these products have been specifically developed for use with both natural and mechanical ventilation systems.

All models have been independently tested by the BRE to BS476 Part 3: 2004 and have been awarded an AA classification - the highest possible. Thus they can be installed without restriction on any pitched roof.
All models have low resistances to airflow (see table) and incorporate condensation grooves to prevent any condensate running back down the duct. Universal Roof Vents are designed to resist the ingress of deluge and driving rain.

Universal Roof Vents (pitched roof models) are suitable for roof pitches between 20° and 60°.

The pitched roof vents are available as a 'tiled' roof vent to fit alongside most traditional roof tiles, as well as a 'slate' version which can be easily cut down to fit alongside all traditional roof slates. Pitched roof vents are available in a variety of colours as detailed in the Specification Table - custom colour and textured vents to match your exact needs are also available at an extra charge.

Stock Ref	Tile Type	Spigot mm	Colour	Airflow Resistance (Pa) at l/s				
				14	28	56	83	140
370538	Tile	100-160	Black	vary on installation				
407329	Tile	125	Red	1.1	4.1	16.8	N/A	N/A
407330	Tile	125	Brown	1.1	4.1	16.8	N/A	N/A
407331	Tile	125	Grey	1.1	4.1	16.8	N/A	N/A
407332	Tile	150	Red	0.3	1.0	4.2	9.5	27.4
407333	Tile	150	Brown	0.3	1.0	4.2	9.5	27.4
407334	Tile	150	Grey	0.3	1.0	4.2	9.5	27.4
407335	Slate	125	Slate Blue/Black	1.1	4.1	16.8	N/A	N/A
407336	Slate	150	Slate Blue/Black	0.3	1.0	4.2	9.5	27.4

Universal Roof Vent suitable for Flat Roofs
Capped stacks for use in asphalt and built-up felt roofs. Special low air resistance cowl - the pressure/airflow resistance is <1.0 Pascal at 63 l/s. The pipework above the roofline is twin walled and incorporates an integral condensation drain. The stack pipe has an integral collar and separate aluminium flange for use with both felt and asphalt roof finishes.

All Vent-Axia Universal Roof Vents have a free area exceeding those required by building regulations.

Stock Ref	Colour	Free Vent Area mm²	Pressure/Airflow Resistance	Dia. mm	Height Above Roof mm	Flange Dia. mm	Depth Below Flange mm
407337	Black	8,400	<1.0	110	300	395	350
407338	Black	12,000	<1.0	131	400	450	350
407339	Black	20,000	<1.0	166	540	450	510

Arterial Duct System

- Reduces installation time
- Can be applied in SAP as a rigid duct system
- Crush resistant semi-rigid duct
- Unique low-resistance manifolds
- Simple installation through joists
- Smooth inner surface with antistatic and antibacterial coating
- Combines the advantages of rigid ducting with the versatility of a semi-rigid system

Arterial System

For use with MVHR systems, the Arterial air distribution system provides a flexible, highly robust solution, which can significantly reduce the installation time when compared to a standard system.

Rigid vs Semi-Rigid Systems

Both traditional duct types have limitations in modern construction.

Rigid systems: Passing rigid duct through a floor cassette at right-angles to the joists is time consuming and multiple connections increase the risk of leaking ductwork.

Semi-rigid Systems: It can often be difficult to accommodate two distribution boxes and multiple semi-rigid pipe runs in new buildings and the time saving advantages are soon overtaken by the additional cost of materials.

Reduced Installation Time

The Vent-Axia Arterial range combines the advantages of semi-rigid and traditional rigid ducting in one simple system. The system is independently tested and can be applied in SAP as a standard rigid system. Drops between floors to/from the MVHR unit remain in rigid PVC, having the advantage of low space usage and low cost. Traversing through joists in a floor cassette is much simpler and faster when using semi-rigid duct. The secret to the Arterial System is the unique low-resistance distribution plenum (Patent Pending) which is sited between joists allowing connection between semi-rigid and rigid sections.

Single Spigot Adaptor

		External Dimensions (mm)		
Stock Ref	Duct Size	A	B	C
408872	220x90 to 78Ø	94	258	150

Double Connector Plate
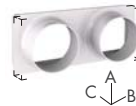
		External Dimensions (mm)		
Stock Ref	Duct Size	A	B	C
408873	220x90 to 78Ø	98	226	66

Single Connector Plate
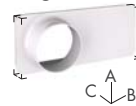
		External Dimensions (mm)		
Stock Ref	Duct Size	A	B	C
408874	220x90 to 78Ø	98	226	66

Blank Plate

		External Dimensions (mm)		
Stock Ref	Duct Size	A	B	C
408875	220x90 to 78Ø	98	226	26

Reducer

		External Dimensions (mm)		
Stock Ref	Duct Size	A	B	C
408885	120 to 78Ø	129	105	129

Semi-Rigid Ducting

Stock Ref	O/I Ømm	Length m	Coil Ømm	Coil Height mm	kg
406587	75/64	50	1100	350	24.3
406588	90/78	50	1130	250	19.5

Complete System Setup Example

Model
125mmØ Circular Exhaust Diffuser
Stock Ref
10544125

Model
125mmØ Round Ducting Insulated
Stock Ref
406874

Model
125mmØ Round Ducting
Stock Ref
434715

MVHR Unit

Model
125mmØ Circular Supply Diffuser
Stock Ref
10543125

Model
220x90 to 90mmØ (78mm ID) Single Spigot Adapter
Stock Ref
427360

Joists

Model
90mmØ (78mm ID)
eDuct Circular Pipe
Stock Ref
406588

Model
Round 125mmØ to 204x60 Adapter FF
Stock Ref
370127

Model
Equal Tee MMM
Stock Ref
428636

Model
125mmØ 90° Bend MM
Stock Ref
427360

Model
220x90 to 150mmØ Elbow Bend FM
Stock Ref
449362

Model
120 to 78mmØ Reducer
Stock Ref
408885

Model
220x90 Double Connector Plate
Stock Ref
408873

Model
220x90 Flat Channel
Stock Ref
403025

Model
90mmØ (78mm ID)
eDuct Circular Pipe
Stock Ref
406588

Model
220x90 to 150mmØ Elbow Bend FM
Stock Ref
449362

Model
220x90 to 150mmØ Elbow Bend FM
Stock Ref
449362

Model
220x90 to 78mmØ Single Spigot Adapter
Stock Ref
427360

System Configuration Examples

Double Connector Plate

90mm Semi Rigid Duct

Single Spigot Adapter

Single Connector Plate

220x90 Duct Connector

Single Spigot Adapter

220x90 Blanking Plate

Double Connector Plate

Single Spigot Adapter

Single Spigot Adapter

Single Spigot Adapter

Single Spigot Adapter

Single Spigot Adapter

153
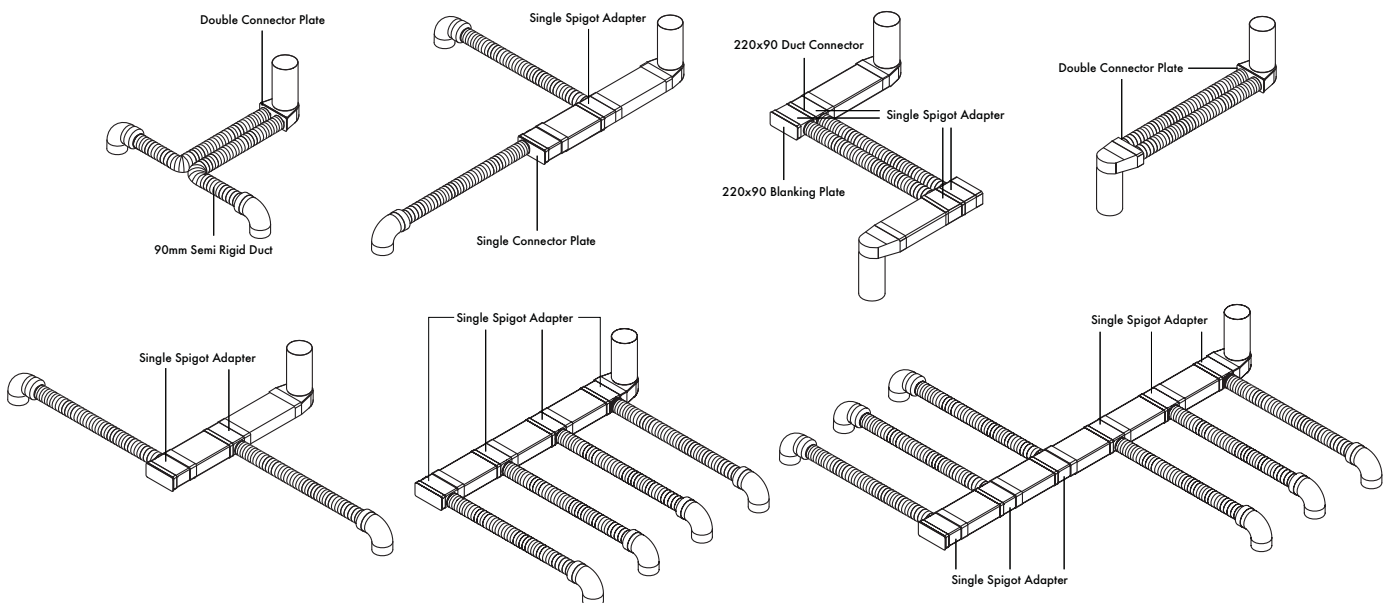
Uniflexplus+ Semi-Rigid Duct System

- Compact, low profile system
- Highly flexible and robust
- Extremely crush resistant
- Quick and easy to install
- PCDB listed
- Suitable for installation in concrete
- Corrosion resistant
- Smooth inner surface with antistatic and antibacterial coating
- Independently tested and accredited for air tightness
- Class D air tightness
- Operating temp.: -20°C to +60°C
- A spigot blanking cap is provided for use with single runs of semi-rigid.
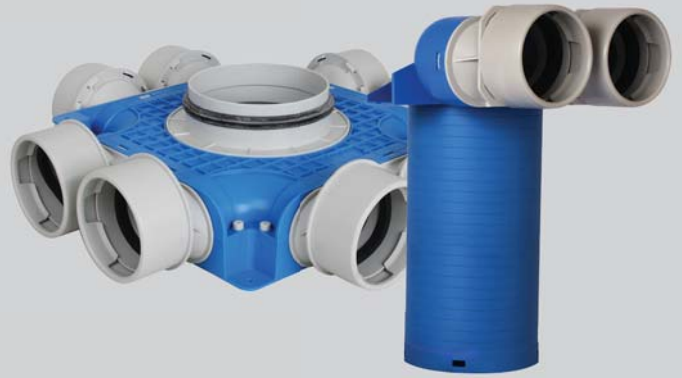
Uniflexplus+ Semi-Rigid Range

The Uniflexplus+ Semi-Rigid Range sets the standard for easy to install, low profile ducting solutions. The system gives all of the flexibility that semi-rigid ducting provides - without taking up vital space. With minimal components, the system is uncomplicated to ensure a hassle-free, speedy install.

The Uniflexplus+ Semi-Rigid Range is compatible with most wholehouse ventilation systems including the Lo-Carbon Sentinel Kinetic Range (MVHR).

Accessories

Circular Extract Diffusers

Duct Size	Stock Ref
125 ∅	10544125

Circular Supply Diffusers

Duct Size	Stock Ref
125 ∅	10543125

Duct Knife

Duct Size	Stock Ref
90 ∅	472252
75 ∅	472258

90° Bend

Duct Size	Stock Ref
90 ∅	472253
75 ∅	472259

Coupler

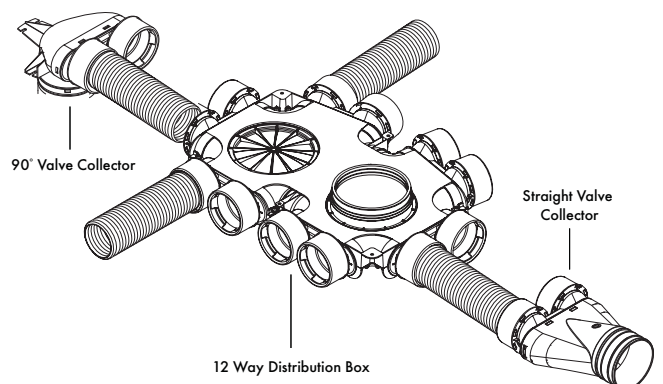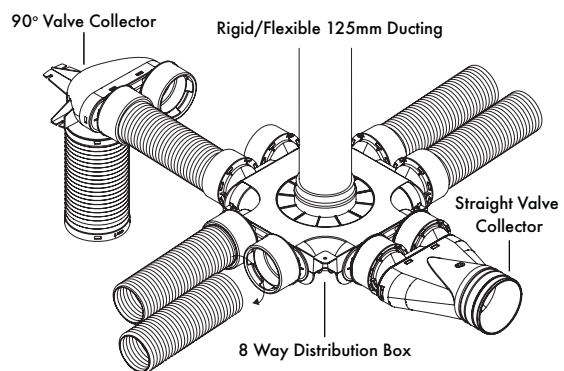| Duct Size	Stock Ref
90 ∅	472254
75 ∅	472260

Complete System Setup Examples

The distribution boxes can be mounted vertically on a wall or fixed horizontally onto a ceiling slab to achieve a solution tailored to your need. At a depth of just 90mm, the distribution boxes offer a considerably low-profile solution - they can then be combined with various components to suit on-site needs.

Semi-Rigid ducting is run from distribution boxes and ancillaries to respective rooms in the dwelling. Connecting the Semi-Rigid ducting to components is exceptionally straightforward to allow speedy installation - simply turn the ducting into the spigot until it clicks twice to achieve an airtight mechanical seal.

Rigid or flexible 125mm diameter ducting is then run from the MVHR unit to the distribution box.

90° Valve Collector · Rigid/Flexible 125mm Ducting · Straight Valve Collector · 8 Way Distribution Box

90° Valve Collector · Straight Valve Collector · 12 Way Distribution Box
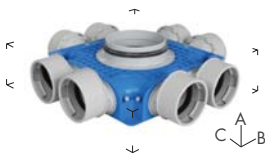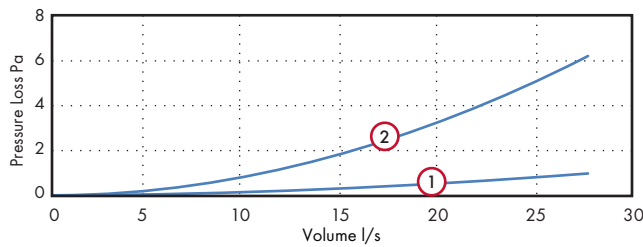
Models

90° Valve Collector

The 90° Valve Collector connects a section of 125mm diameter ducting and turns 90° into 2 spigots to connect to the semi rigid - ideal for dropping semi-rigid into ceiling diffusers.

Duct Size	Stock Ref
2xØ75 - Ø125mm	472255
2xØ90 - Ø125mm	472248

Dimensions (mm)

Stock Ref	Curve Ref	A	B	kg
472255	1	356	294	0.8
472248	2	376	300	0.9

#### Performance

Distribution Box

The low-profile distribution box runs a central spigot of diameter 125mm into a set of either 8 or 12 sub-spigots, depending on requirements. Available with either 75mm or 90mm semi-rigid spigots.

Model	Stock Ref
12xØ75 - Ø125mm	472256
8xØ75 - Ø125mm	472257
12xØ90 - Ø125mm	472250
8xØ90 - Ø125mm	472251

Dimensions (mm)

Stock Ref	Curve Ref	A	B	C	kg
472256	1	124	742	504	3.6
472257	2	124	467	467	2.2
472250	3	124	755	520	3.9
472251	4	124	479	479	2.3

Performance
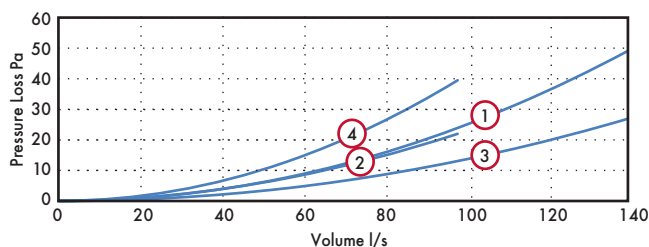
Straight Valve Collector

The straight valve collector takes 125mm ducting and turns it straight into 2 spigots to connect to semi-rigid.

Model	Stock Ref
2xØ75mm - Ø125mm	472261
2xØ90mm - Ø125mm	472262

Dimensions (mm)

| Stock Ref	A	B	C
472261	125	305	229
472262	123	311	229

Semi-Rigid Ducting

Suitable for installation in concrete ceilings, suspended ceilings, internal walls, risers or frames, the Semi-Rigid Ducting is double-walled providing optimum flexibility. With an antistatic and antibacterial coating, the internal surface of the Semi-Rigid Ducting is smooth to ensure minimal resistance to airflow. Normally flammable construction material class E, according to EN-13501-1.

Pipe Size	Stock Ref
75mmØ x 50m	406587
90mmØ x 50m	406588
75mmØ x 25m	474077
90mmØ x 25m	474078

Dimensions (mm)

Stock Ref	Curve Ref	O/I Ømm	Length m	Coil Ømm	Coil Height mm	kg
406587	1	75/64	50	1100	350	24.3
406588	2	90/78	50	1130	250	19.5
474077	1	75/64	25	1100	175	12.2
474078	2	90/78	25	1130	125	9.8

Performance
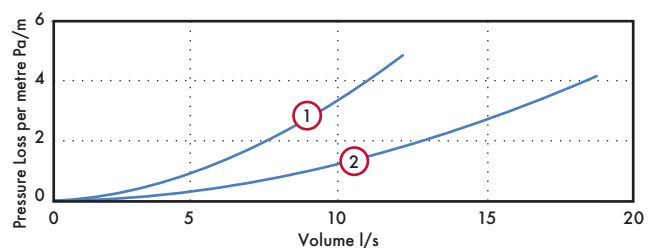
Internal Fit Wall Kit

- Ideal for high-rise applications
- Suitable for 100mm fans
- Quick & easy installation
- Extendable length
- Fits entirely from inside the property
- Reduces water ingress
- Includes low-resistance external grille
- Suitable as a passive air grille
- Covers external break-out
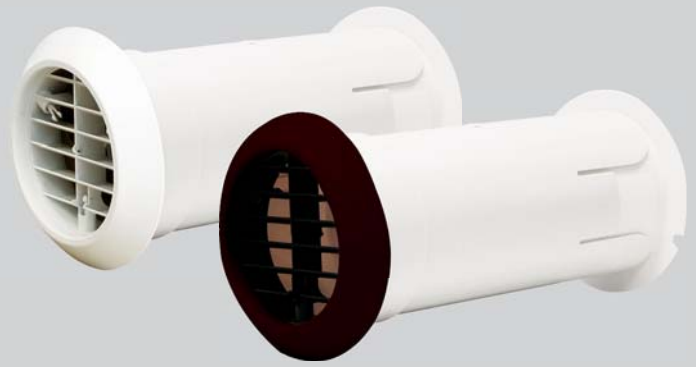
Internal Fit Wall Kit

The NEW Internal Fit Wall Kit is designed to simplify installation and improve the finish of 100mm through the wall installations, also providing an external grille and water ingress protection shroud.

High Rise Buildings

The Wall Kit is fully installed from inside the building, avoiding the need for scaffolding and significantly reducing the cost and complexity associated with these sites. After core-drilling a 117mm hole, or utilising an appropriate existing hole, the Kit simply pushes through from the inside of the building. Spring pins secure the external grille in position and the external shroud deploys around the grille covering up break-out from the external surface.

Installer Friendly

Quick and easy to install, the Internal Fit Wall Kit cuts down time on site when compared to traditional methods using flexi-duct. Installers no longer need to spend time fixing flexi-duct to fans and grilles using jubilee clips, or going outside to fit the grille. The tubes extend to accommodate wall thicknesses from 225mm up to 390mm and lock into position for a secure fit. The internal flange is also flexible enough to accommodate deviations in the internal surface finish.

Building Regulations

The external grille free area is greater than 90% of the area of the duct making it suitable for continuous running systems as well as for intermittent fans.
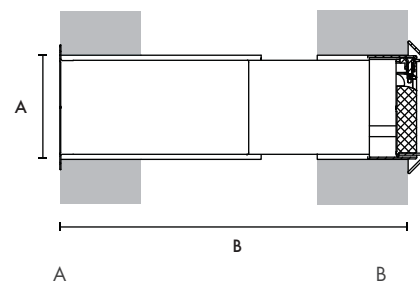
Backdraught Shutter

The Internal Fit Wall Kit has optional backdraught shutter models. Particularly useful with intermittent fans, the backdraught shutter will ensure no draughts and gusts come in to the home through the wall kit.

Models

Model	Stock Ref
White External Grille	472318
Brown External Grille	472319
White External Grille with Backdraught Shutter	474779
Brown External Grille with Backdraught Shutter	474780

Dimensions (mm)

A	B
117 Ø	225-390

Features

Rubber seal gives neat finish

Locking pins secure wall kit in place

Fixed external grille

Screw fixings to secure in place

Easy to use measurement guide for flexible installation depth

Integral backdraught shutter (BS models)
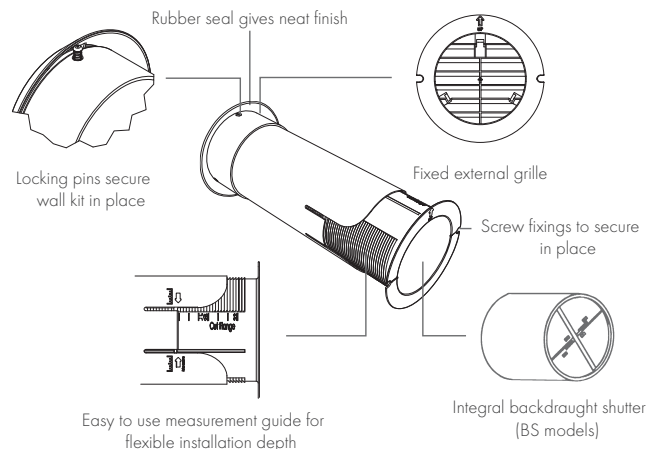
Low Resistance Inlet/Outlet Air Brick

- Provides over 90% free area of duct
- Easier to install than a double air brick
- Guide vanes for improved duct connection
- Optional first fix duct section

Available in five colours, this low resistance air brick has been designed to comply with the latest Building Regulations Approved Document F, which requires a ventilation outlet to achieve a minimum of 90% of the cross sectional area of the ductwork.

Installing a single air brick is much simpler than a double air brick and offers more versatility for locations.

Suitable for installation with round 100mm and 125mm diameter and rectangular 204 x 60mm ducting.

Attaching duct to the air brick is simplified by the use of guide vanes which help locate the duct onto the spigot.

A 500mm section of 204 x 60 duct is available for first fix which ensures that connections are accessible after completion of building works.

Five colour options ensure that the low resistance air brick will be a match for almost any application.
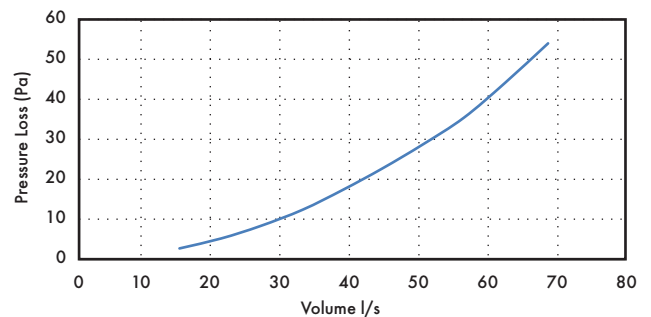
Models

Model	Stock Ref
White	449223
Brown	449224
Cotswold Stone	449225
Grey	449226
Terracotta	449227
1st Fix duct section 500 x 204 x 60	403255

Available Colours

White RAL 9003	Brown RAL 8017	Cotswold Stone RAL 1001	Grey RAL 7037	Terracotta RAL 8004

Performance Guide

Pressure (Pa)	Volume (m³/h)	Volume (l/s)
2.7	53.7	14.9
5.2	75.9	21.1
8.3	97.0	26.9
12.4	119.4	33.2
17.4	141.0	39.2
22.7	162.0	45.0
28.7	183.7	51.0
35.4	205.6	57.1
44.1	227.6	63.2
54.0	250.4	69.6

Dimensions (mm)
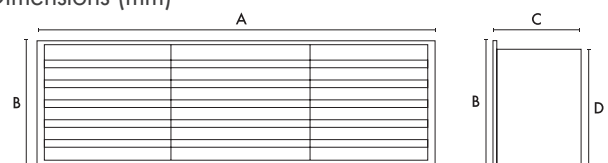
A	B	C	D
212	67	58	65

Ducting & Accessories

Flat Channel 1.5 Metre Length

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406870	Insulated 204 x 60*	160	304	1500	<1	<1	1.3	2.2	3.3	4.5	5.9	7.8
436617	Uninsulated 204 x 60	60	204	1500	<1	<1	1.3	2.2	3.3	4.5	5.9	7.8
436599	Uninsulated 110 x 54	54	110	1500	1.2	2.4	5.3	9.1	13.9	19.8	25.9	32

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
407343	Insulated 220 x 90*	190	320	1500	1.4	4.9	10.2
403025	Uninsulated 220 x 90	90	220	1500	1.4	4.9	10.2

Flat Channel Connector. F to F

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436623	204 x 60	64	212	100	<1	<1	<1	<1	<1	<1	1.2	1.5
436605	110 x 54	54	114	100	<1	<1	1.1	1.4	2.2	3.4	4.8	6.4

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
403026	220 x 90	95	224	52	<1	<1	<1

Channel Fixing Clip (Pack of 10)

		External Dimensions (mm)			Resistance (Pa) at flow rate		
Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
403030	220 x 90	97	44	19	N/A	N/A	N/A

Horizontal 90° Bend. F to F
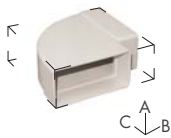
		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406879	Insulated 204 x 60*	160	360	360	<1	1.7	4.1	8.4	13	18	25	34
436620	Uninsulated 204 x 60	65	260	260	<1	1.7	4.1	8.4	13	18	25	34
436602	Uninsulated 110 x 54	60	152	152	2.3	9.9	21	38	64	93	124	162

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
407342	Insulated 220 x 90*	190	350	350	9	36	80
403028	Uninsulated 220 x 90	95	250	250	9	36	80

Horizontal 45° Bend. F to F
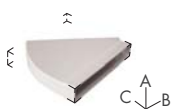
		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406876	Insulated 204 x 60*	160	340	360	<1	<1	1.2	2.1	3.8	6.1	9.2	13
249944	Uninsulated 204 x 60	65	240	260	<1	<1	1.2	2.1	3.8	6.1	9.2	13

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
449363	Uninsulated 220 x 90	95	240	200	5	20	46

*Minimum insulation wall thickness 25mm. Insulation Thermal Conductivity: 0.04 W/(m.K)
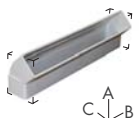
Horizontal T. F to F

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406883	Insulated 204 x 60*	160	410	355				vary on installation				
436551	Uninsulated 204 x 60	65	310	255				vary on installation				
436614	Uninsulated 110 x 54	60	185	150				vary on installation				

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
449365	Uninsulated 220 x 90	95	275	250		vary on installation	

Vertical 90° Bend. F to F

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406872	Insulated 204 x 60*	215	310	215	1.1	2.5	5.2	9.8	16.1	24	33.6	45
436621	Uninsulated 204 x 60	115	210	115	1.1	2.5	5.2	9.8	16.1	24	33.6	45
436603	Uninsulated 110 x 54	95	115	95	3.3	15.5	36	61	96	138	190	253

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
403029	Uninsulated 220 x 90	117	224	120	7	28	66

Vertical 45° Bend. F to F

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406871	Insulated 204 x 60*	200	310	215	<1	<1	1.3	2.5	4.4	6.9	10	13.3
445196	Uninsulated 204 x 60	100	210	115	<1	<1	1.3	2.5	4.4	6.9	10	13.3
441655	Uninsulated 110 x 54	115	115	70	1	2.4	6.6	12.9	23.1	35.1	48	64

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
449364	Uninsulated 220 x 90	110	225	115	6	27	65

Elbow Bend. 100mm to Rectangular. M to F

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436624	204 x 60	80	215	195	2.9	7.1	15.1	28	45.1	68.1	92.2	118
436607	110 x 54	90	115	140	3	8	17.7	33	49.9	74.5	101	137

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
403027	220 x 90	118	226	240	N/A	N/A	N/A

Elbow Bend. 125mm to Rectangular. M to F

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436625	204 x 60	80	215	195	3.1	5.9	12.2	25	43.6	62.2	86	111

Stock Ref	Duct Size	A	B	C	60 l/s	120 l/s	180 l/s
449361	220 x 90	118	226	240	N/A	N/A	N/A

*Minimum insulation wall thickness 25mm. Insulation Thermal Conductivity: 0.04 W/(m.K)

Ducting & Accessories

Elbow Bend. 150mm to Rectangular. M to F
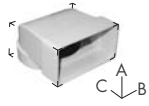
Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436626	204 x 60	80	215	195	2.8	4.9	11.6	21	31	41	53	67

Stock Ref	Duct Size	A	B	C	60 l/s		120 l/s			180 l/s	
449362	220 x 90	118	226	240	N/A		N/A			N/A	

Elbow Bend. 100mm to Rectangular. F to F

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436608	110 x 54	90	115	140	2.1	5.5	14.3	27.2	44.3	69	93	118

Flat Channel connector with Damper

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
400735	110 x 54	60	115	75	16	17.5	19.5	22	25.5	30.5	36	42

Drop down section F to F

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
442273	204 x 60	120	220	210	<1	<1	1.7	3.6	6.0	9.1	12.4	16.6

Single Air Brick Horizontal (System 60 Air Grille Adaptor is supplied with the Single Air Bricks)

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436610	110 x 54 (White)	65	210	85	3.2	7.8	20.9	39	65	96	128	176
436612	110 x 54 (Terracotta)	65	210	85	3.2	7.8	20.9	39	65	96	128	176
436611	110 x 54 (Brown)	65	210	85	3.2	7.8	20.9	39	65	96	128	176
436613	110 x 54 (Beige)	65	210	85	3.2	7.8	20.9	39	65	96	128	176

Single Air Grille Soldier

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
438594	204 x 60 (White)	210	65	15	3.3	10	20.6	40	63	92.8	128	168
468728	204 x 60 (Terracotta)	210	65	15	3.3	10	20.6	40	63	92.8	128	168
468730	204 x 60 (Brown)	210	65	15	3.3	10	20.6	40	63	92.8	128	168
468729	204 x 60 (Beige)	210	65	15	3.3	10	20.6	40	63	92.8	128	168

Double Air Brick

Stock Ref	Duct Size*	Colour	External Dimensions (mm)			Resistance (Pa) at flow rate							
			A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
438604		White	145	245	80	<1	1.6	4.3	8.7	13.9	21.1	27.5	37.4
438607	204 x 60 or 220 x 90	Terracotta	145	245	80	<1	1.6	4.3	8.7	13.9	21.1	27.5	37.4
438605		Brown	145	245	80	<1	1.6	4.3	8.7	13.9	21.1	27.5	37.4
438606		Beige	145	245	80	<1	1.6	4.3	8.7	13.9	21.1	27.5	37.4

*In conjuction with Double Air Brick Adaptor below

Double Air Brick Adaptor
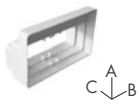
Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
438608	204 x 60	135	226	85	-	-	-	-	-	-	-	-
449367	220 x 90	135	226	85	-	-	-	-	-	-	-	-

Air Grille Adaptor
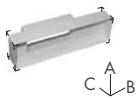
Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
436609	110 x 54	65	210	85	<1	1.2	2.5	4.7	7.8	11	14	18

Flexible Ducting

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
5109662	204 x 60	-	-	-	<1	<1	1.5	2.6	4.1	6.0	8.2	11.5
Stock Ref	Duct Size	A	B	C	60 l/s			120 l/s			180 l/s	
449366	220 x 90	-	-	-	N/A			N/A			N/A	

Louvred Grille with Flyscreen Fitting
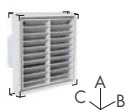
Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
400743	110 x 54	140	140	50	5.7	14.5	37	75	120	-	-	-

Round (M) 100mm to Rectangular (F/M) Adaptor

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
441654	M to F 204 x 60	140	210	215	1.0	1.96	3.2	4.9	6.7	8.7	11.2	14.5
400740	M to M 110 x 54	100	115	180	1.2	4.2	8.3	19.8	29.9	42	60	86

Ducting & Accessories

Round (F) 125mm to Rectangular (F) Adaptor

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
370127	204 x 60	140	210	213	<1	<1	1.5	2.8	4.5	6.7	9	11.5
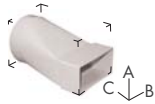
Round (F) 150mm to Rectangular (F) Adaptor

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate		
		A	B	C	60 l/s	120 l/s	180 l/s
403031	220 x 90	160	225	203	N/A	N/A	N/A
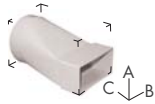
Short Round (M) 100mm to 110 x 54 (F) Adaptor

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
455035	110 x 54	60	110	105	1.2	4.3	8.4	20	30.2	43	62	88

Round 2m Ducting length Insulated/Uninsulated

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406873	Insulated 100 Ø*	200	200	2000	<1	<1	1.7	2.8	3.6	4.5	5.3	6.2
5108250	Uninsulated 100 Ø	100	100	2000	<1	<1	1.7	2.8	3.6	4.5	5.3	6.2
406874	Insulated 125 Ø*	225	225	2000	<1	<1	<1	1.3	1.8	2.4	3.1	3.8
434715#	Uninsulated 125 Ø	125	125	1500	<1	<1	<1	1.3	1.8	2.4	3.1	3.8
406875	Insulated 150 Ø*	265	265	2000	<1	<1	<1	<1	1.2	1.6	2	2.5
5108248	Uninsulated 150 Ø	150	150	2000	<1	<1	<1	<	1.2	1.6	2	2.5

#1.5 metres
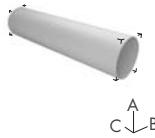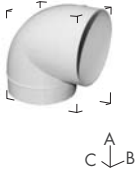
Equal Tee Insulated/Uninsulated MMM

Stock Ref	Duct Size	External Dimensions (mm)			Resistance (Pa) at flow rate							
		A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406884	Insulated 100 Ø*	290	210	235				vary on installation				
372007	Uninsulated 100 Ø	190	110	135				vary on installation				
406885	Insulated 125 Ø*	310	215	260				vary on installation				
428636	Uninsulated 125 Ø	210	115	160				vary on installation				
406886	Insulated 150 Ø*	335	245	285				vary on installation				
370237	Uninsulated 150 Ø	235	130	177				vary on installation				
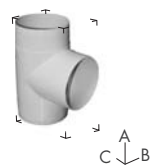
*Minimum insulation wall thickness 25mm. Insulation Thermal Conductivity: 0.04 W/(m.K)
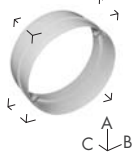
90° Bend Insulated/Uninsulated MM

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406880	Insulated 100 Ø*	230	200	200	2.8	5.5	11	20.3	33	45	60	79
372004	Uninsulated 100 Ø	130	100	100	2.8	5.5	11	20.3	33	45	60	79
406881	Insulated 125 Ø*	260	230	230	<1	1.8	5	8.2	11.8	18	26	35
427360	Uninsulated 125 Ø	160	130	130	<1	1.8	5	8.2	11.8	18	26	35
406882	Insulated 150 Ø*	290	255	255	<1	1.0	2.5	4.1	6.4	9.6	13.5	18
370295	Uninsulated 150 Ø	190	155	155	<1	1.0	2.5	4.1	6.4	9.6	13.5	18

45° Bend Insulated/Uninsulated MM

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
406877	Insulated 100 Ø*	280	200	230	<1	1.9	8.1	11.7	17.5	24.6	31.4	-
372005	Uninsulated 100 Ø	180	100	130	<1	1.9	8.1	11.7	17.5	24.6	31.4	-
406878	Insulated 125 Ø*	300	230	250	<1	<1	1.8	2.9	4.6	6.6	9	12.2
441657	Uninsulated 125 Ø	200	130	150	<1	<1	1.8	2.9	4.6	6.6	9	12.2

Connector MM

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
372006	100 Ø	100	60	-	-	-	-	-	-	-	-	-
428633	125 Ø	125	60	-	-	-	-	-	-	-	-	-
370299	150 Ø	150	60	-	-	-	-	-	-	-	-	-

Reducer

		External Dimensions (mm)			Resistance (Pa) at flow rate							
Stock Ref	Duct Size	A	B	C	8 l/s	13 l/s	21 l/s	29 l/s	37 l/s	45 l/s	53 l/s	61 l/s
VA54119	125 to 100	130	57	-	-	-	-	-	-	-	-	-
428632	150 to 125	155	57	-	-	-	-	-	-	-	-	-

*Minimum insulation wall thickness 25mm. Insulation Thermal Conductivity: 0.04 W/(m.K)

Ducting & Accessories

Fabric Woven PVC Flexible Ducting
Manufactured using fabric woven PVC with a wire helix. Used with single spigots and in multi-duct systems. Operating temperature -30°C to 70°C.

6 metre lengths

Duct Size	Stock Ref
100 Ø	427569
125 Ø	427570
150 Ø	370281

T-Series Flexible Ducting
PVC with wire helix. For use with T-Series.

6m lengths

Size	Duct Size	Stock Ref
Size 6	175 Ø	566607
Size 7	225 Ø	566609
Size 9	300 Ø	566612
Size 12	400 Ø	566616

Insulated Flexible Ducting
Insulated ducting should be used when duct passes through an unheated area. Minimises heat loss when used with heat recovery fans. Available in 6 diameters. An additional benefit is that thermally insulated duct offers some measure of acoustic attenuation.

10 metre lengths

Duct Dia	Stock Ref
100 Ø	561654
125 Ø	561655
150 Ø	561656

Duct Y Pieces
For dividing a ventilation system, providing ducting to multiple supply or extract grilles using only a single fan source.

2x Into	1x	Stock Ref
100 Ø	100 Ø	452081
100 Ø	150 Ø	452082
125 Ø	125 Ø	455211
125 Ø	150 Ø	455212
150 Ø	150 Ø	452083
150 Ø	200 Ø	452084
200 Ø	200 Ø	452085
200 Ø	250 Ø	452078
250 Ø	250 Ø	452076
250 Ø	300 Ø	452079

Acoustic Insulated Ducting
Multiple layer aluminium/polyester laminate with micro perforated flexible core to enhance acoustic performance. Core surrounded by 25mm fibreglass insulation with outer vapour barrier.

Duct Size	Length	Stock Ref
100 Ø	1m	443273
125 Ø	1.5m	443793
150 Ø	1m	443274

Reducer

Duct Size	Stock Ref
R125/100	370302
R150/100	370303
R150/125	370304
R200/150	370307
R250/200	370309
R300/100	370310
R300/200	370312

Circular Extract Diffusers

Manufactured from powder coated steel. Suitable for exhausting air and can be fitted directly to the duct or in the ceiling.

Duct Size	Stock Ref
100 Ø	10544100
125 Ø	10544125
150 Ø	10544150
200 Ø	10544200

Circular Supply Diffusers

Manufactured from powder coated steel. Suitable for supplying air and can be fitted directly to the duct or in the ceiling.

Duct Size	Stock Ref
100 Ø	10543100
125 Ø	10543125
150 Ø	10543150
200 Ø	10544200

Collar for Exhaust & Supply Diffusers

Duct Size	Stock Ref
100 Ø	371301

Acoustic Mat

486mm x 486mm x 25mm thick foam mat for use as a resilient mounting for wholehouse units.

Model	Stock Ref
ACM/House	370179

Galvanised Spiral Wound Ducting

Spiral Ductwork - 3m length

Duct Size	Stock Ref
100 Ø	400900
125 Ø	400901
150 Ø	400902
200 Ø	410922
250 Ø	410923
315 Ø	410924

Equal Tee

Duct Size	Stock Ref
100 Ø	400749
125 Ø	400750
150 Ø	400751
200 Ø	370238
250 Ø	370239
315 Ø	410925

90° Bend

Duct Size	Stock Ref
100 Ø	400752
125 Ø	400753
150 Ø	400754
200 Ø	370202
250 Ø	370203
315 Ø	410926

Female Coupler

Duct Size	Stock Ref
100 Ø	400755
125 Ø	400756
150 Ø	400757
200 Ø	410927
315 Ø	410929

Joining Piece

In sheet metal. For joining lengths of flexible ducting to give long lasting airtight connection.

Duct Size	Stock Ref
100 Ø	561804
125 Ø	561805
150 Ø	561806
200 Ø	561808
250 Ø	561810
315 Ø	561813

Rectangular Balancing Damper

Duct Size	Stock Ref
110 x 54	405156
204 x 60	403698
220 x 90	403699

Circular Balancing Damper

Duct Size	Stock Ref
100 Ø	400758
125 Ø	400759
150 Ø	400760
200 Ø	410930
250 Ø	410931
315 Ø	410932

Fire Stopping – Round and Flat Ducting

Vent-Axia provides a complete range of fire stopping products specifically tested with ventilation ducting. This versatile selection allows for stacking and parallel installation in certain circumstances, along with creative solutions for partition walls and slab mounting.

The table highlights the type of fire stopping required for most common applications.

	Minutes Protec-tion	Fire Valves		Round Fire Sleeve		
		100mm	125mm	100mm	125mm	150mm
130mm Stud Partition	30					
	60			407655	407656	407657
	120					
130mm Masonary	30					
	60			407655	407656	407657
	120					
140mm Masonary	30					
	60			407655	407656	407657
	120					
Ceilings	30					
	60	403431	403432			
	120					

	Minutes Protec-tion	Rectangular Fire Sleeve			Rectangular Fire Wrap	
		110 x 54	204 x 60	220 x 90	110 x 54	204 x 60
72mm Stud Partition	30					
	60	407658	407659	407660		
	120					
100mm Stud Partition	30					
	60	407658	407659	407660		
	120					
130mm Stud Partition	30					
	60	407658	407659	407660	404276	404274
	120					
130mm Masonary	30					
	60	407658	407659	407660	435137	435138
	120					
140mm Masonary	30					
	60	407658	407659	407660	435137	435138
	120					

Fire Test Assessment also covers multiple flat ducts to be installed in series / side by side, max. 3No., 30, 60 & 120 Minute Partitions, Single & Double Boards.
Note: For a copy of the Fire Certificates for the product(s) above, visit our webpage www.vent-axia.com/range/ventilation-fire-stopping.
Vent-Axia does not guarantee compliance with Building Regulations Part B, Fire Spread or other regulations that relate to fire planning. Suitability to comply with these regulations should be determined prior to installation and in conjunction with Building Control Officers. Compliance with the Regulations is specifically excluded from quotations and designs.

Fire Rated Diffusers

Duct Size	Extract Stock Ref	Supply Stock Ref
100 Ø	403431	475661
125 Ø	403432	475662
150 Ø	403433	475663
200 Ø	408828	475664

Round Fire Sleeve

Thickness: 10-15mm
Length: 280mm (180mm 407655)
CE Marked

Duct Size	Stock Ref
100 Ø	407655
125 Ø	407656
150 Ø	407657

Rectangular Fire Sleeve - 4 sided

Thickness: 10-15mm
Length: 180mm
CE Marked

Duct Size	Stock Ref
110 x 54	407658
204 x 60	407659
220 x 90	407660

Rectangular Fire Wrap

Duct Size	Stock Ref
204x60mm	435138

Pyrocheck

Duct Size	Stock Ref
4" Ø	CVT100
5" Ø	CVT130

100mm & 150mm Accessories

Wall Fitting Kit

A range of wall kits suitable for Vent-Axia range of 100 and 150mm fans. The kit can be installed into most walls using the telescopic liners supplied.

White

Model	Stock Ref
VA100	254102
Silhouette 125	455226
VA140/150	140902
Silhouette 150	140902

Brown

Model	Stock Ref
VA100	254100
VA140/150	140903
Silhouette 150	140903

Window Fitting Kit

For use in single or sealed double glazing and most materials up to 40mm thick.

White

Model	Stock Ref
VA100 (105Ø)	254101
VA100 (110Ø)	443234
Centra/Sil 100	442947
VA140/150	140901
Solo Pro	11461685

Air Grille

Louvre grille for external termination of 100mm diameter rigid ducting. Consists of wall mounting piece and grille with 2 fixing screws.

Colour:	White or Brown
Dimensions:	155 x 155 x 32mm
Material:	ABS plastic

Colour	Stock Ref
White	563511
Brown	563500

Termination Set

Used as a decorative inlet grille or soffit termination set in conjunction with 100mm or 125mm diameter ducting. Two fixing screws supplied to secure grille to the spigot through material up to 25mm thick. Dimension 155mm x155mm.

Colour:	White
Material:	ABS plastic

Stock Ref
563513

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Decoration Frame

A decoration frame that converts old Centrif to new Centrif Duo without the need to redecorate. The frame can be used with Quadra and Centrif Duo Plus.

The frame is simply installed using two wall fixing screws, allowing the fan to be mounted via it's standard mountings. Finished in a high moulded material plastic colour matched to the fan.

Color: White
Size: 386mm x 296 x 32 mm deep

Stock Ref
442551

External Terminations louvre Grilles with Spigot

Plastic louvre grilles with either 100mm or 150mm diameter spigots.

Duct Size	Model	Stock Ref
100 Ø	RD104TC Terracotta	370328
100 Ø	RD104BR Brown	370329
100 Ø	RD104WH White	370330

Duct Size	Model	Stock Ref
150 Ø	RD604TC Terracotta	370338
150 Ø	RD604BR Brown	370337
150 Ø	RD604WH White	370339

Quick Fit 100mm Airflow Shutter

Shutter with gravity flaps to protect against backdraught. The spigot connects to 100mm rigid ducting using quick fix grips provided.

Dimensions: 155 x 155 x 20mm
Material: Plastic

Colour	Stock Ref
White	563522
Brown	563542

100mm & 150mm Accessories

Quick Fit 100mm Grille

Terminates a rigid duct on an outside wall using the 'quick fix' side grips without the need for additional fixings.

Colour	Stock Ref
White	563521
Brown	563541

Vent Cowl

External termination for 110mm diameter rigid ducting through roofs and walls in exposed situations. Overall diameter 200mm. Not suitable for use with flexible ducting.

Material	Stock Ref
Grey PVCu	561403
White	457845

Quick Fix Termination

The quick fix termination is designed to be installed from inside the building to a nominal 117mm or 165mm diameter core-cut hole, saving time and cost. Four sealing rings ensures a weather tight fit to the wall external leaf. Effective length 370mm.

Duct Size	Stock Ref
100 Ø	563535
150 Ø	434656

Air Replacement Set

Bathroom and toilet ventilation is only effective when there is adequate air replacement into the room. This is often most effectively achieved by fitting a pair of air replacement grilles at low level in a door. Consists of a two piece telescopic set which fits unobtrusively on either side of the door panel.

Minimum fixing thickness:	30mm
Dimensions:	454 x 90mm
Hole size:	435 x 76mm
Material:	HIPS / High Impact Polystyrene
Free area:	16,600mm^2

Colour	Stock Ref
Brown	561400
Ivory	561401

Condensation Trap

Condensation trap, for fitting in vertical rigid PVCu pipe ducting. Must be used where pipe ducts pass through unheated roof voids. Fitted with 20mm pipe connection for running off condensate. Not suitable for use with flexible ducting.

Length:	85mm
Material:	Grey PVCu

Size	Stock Ref
110mm	563516
125mm	455191
150mm	455190

Wind Baffles

A range of 100mm and 150mm wind baffles. Cowled wall outlet with damper protected gravity grille including foam lined damper to reduce noise.

Available in white and brown they are ideal for exposed coastal applications, helping to prevent unwanted backdraughts.

100mm

Colour	Stock Ref
White	452094
Brown	452095

150mm

Colour	Stock Ref
White	452096
Brown	452097

Wind Baffle Kits

100mm wind baffle kit consisting of a telescopic wall tube and wind baffle. Available with either a white or brown wind baffle including foam lined damper to reduce noise.

Colour	Stock Ref
White	407382
Brown	407577

VA140/150 Window wind cowl

Wind cowl for exposed areas.

Stock Ref
455262

Commercial Range

Lo-Carbon T-Series

The UK's No. 1 Commercial Fan is available with a low energy DC motor providing up to 65% energy saving. The motor is designed to provide longer life, improved performance, lower running costs and maintain the T-Series rugged reliability. Vent-Axia have improved the way this product can be purchased for the refurbishment market. As well as being able to purchase it as you always have, you can also purchase it as a fan core plus optional application specific fitting kit, which gives you more flexibility in both stocking and installing the product. It also supports our lo-carbon drive to reduce waste and landfill.

Vent-Axia®

ACM 100-200

- Designed and manufactured in UK
- Three speed motor
- Timer versions available
- Removable motor core assembly
- Rotating motor chassis assembly
- IP44 rated
- Aesthetically pleasing with wipe clean polymer casing
- Sound data from independent testing
- Running speed selected on installation

Ducted Ventilation

Vent Axia has designed a complete range of energy efficient Mixed Flow In-Line fans that are now quieter, offer two and half times the pressure of conventional axial fans and are dimensionally more compact making them ideal for many ducted applications.

The ACM Mixed Flow In-Line fan can operate in both horizontal and vertical positions.

Motor

All motors have three speeds selectable on installation and are fitted with Standard Thermal Overload Protection (S.T.O.P.). Designed for ambient temperatures up to +50°C. All sizes with capacitor run motors. All sizes are Class II appliances. Supply voltage 220-240V/1/50Hz.

Installation

These units have a separate footplate for simple location mounting and detachable spigots for simple connection to ducting. The motor body chassis rotates to provide connection in acute spaces. Cleaning the product has also become simple as all parts can be removed without removing the ducting.

Controller

For optimum variable speed performance use a Vent-Axia 1.5 Amp electronic controller. Surface mounted providing variable speed control with an On/Off/sensor slider with indication light. There is an adjustable minimum speed setting. The controller has electrical connections for use with suitable external sensors. Cannot be used with timer models.

1.5 Amp Controller (Suitable for 100mm – 200mm models). Dimensions: 86 x 156 x 53mm (H x W x D).

Stock Ref
W300310

For flush fitting, a metal wall box accessory is available.
Stock Ref
400144

Hole for wall box: 80 x 150 x 150mm (H x W x D).

Models

Model	Stock Ref
ACM100	17104010
ACM100T	17104020
ACM125	17105010
ACM125T	17105020
ACM150	17106010
ACM150T	17106020
ACM200	17108010
ACM200T	17108020

Dimensions (mm)
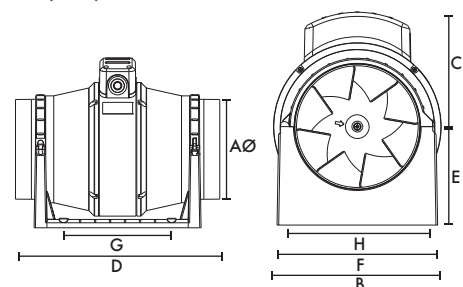
Size	100	125	150	200
AØ	97	122	147	199.5
B	178	178	200	223
C	124	124	138	146
D	298	259	350	300
E	96	96	118	130
F	168	168	192	195
G (fixing hole)	120	120	162	100
H (fixing hole)	153.5	153.5	178	180

Performance Guide
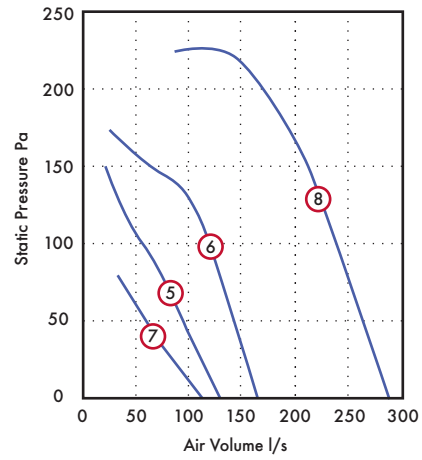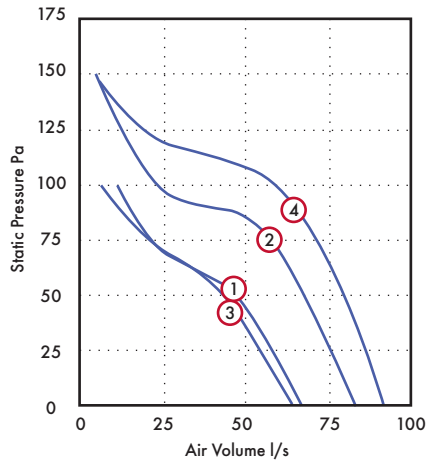
Dia.	Motor Phase	Speed	r.p.m	IP Rating	Curve Ref.	0	50	100	150	200	Motor kW	F.L.C Amps	dBA @ 3m
100	1	Low	1580	IP44	1	70	50	10			0.02	0.09	16
100	1	High	2200	IP44	2	80	70	20			0.02	0.1	22
125	1	Low	1450	IP44	3	60	40	10			0.03	0.1	17
125	1	High	2400	IP44	4	90	80	60			0.02	0.12	24
150	1	Low	1645	IP44	5	130	90	60			0.04	0.17	29
150	1	High	2350	IP44	6	160	140	120	60		0.05	0.21	36
200	1	Low	1845	IP44	7	110	60				0.08	0.48	26
200	1	High	2350	IP44	8	290	260	240	210	170	0.11	0.55	41

*Medium speed is not shown.

Sound Data

Dia.	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	Breakout High	32	36	41	39	37	37	28	22	22
100	Breakout Low	30	31	34	36	28	29	23	22	16
100	Inlet High	38	42	57	56	54	46	38	30	37
100	Inlet Low	35	40	49	49	47	37	28	24	30
100	Outlet High	36	41	52	52	53	44	37	28	34
100	Outlet Low	38	41	45	46	45	36	28	24	27
125	Breakout High	32	33	38	41	41	40	33	23	24
125	Breakout Low	27	33	30	39	30	29	24	22	17
125	Inlet High	36	47	53	58	55	53	47	39	39
125	Inlet Low	38	42	45	48	45	41	35	26	29
125	Outlet High	36	47	51	54	55	50	46	37	37
125	Outlet Low	33	41	45	45	44	38	33	25	26
150	Breakout High	26	28	41	45	48	54	41	29	36
150	Breakout Low	21	29	45	49	43	44	32	22	29
150	Inlet High	40	49	59	63	59	63	55	47	46
150	Inlet Low	38	46	52	57	52	54	46	37	38
150	Outlet High	36	48	54	60	58	61	54	46	44
150	Outlet Low	33	45	49	54	54	52	45	36	37
200	Breakout High	38	53	47	47	56	60	44	33	41
200	Breakout Low	26	46	40	34	30	26	18	21	26
200	Inlet High	46	52	54	60	61	63	60	49	47
200	Inlet Low	38	37	40	41	39	35	24	23	22
200	Outlet High	63	68	69	73	70	69	62	54	54
200	Outlet Low	53	54	52	52	48	47	39	28	33

ACM 250-315

- Available in two sizes
- Simple installation
- Supplied complete for installation
- Optimise fan performance by using an approved Vent-Axia controller
- Diagonal impeller with stator
- Galvanized metal housing
- Integrated thermal switch
- Includes a mounting bracket
- Designed to meet IP54

Ducted Ventilation

Vent Axia has designed a complete range of energy efficient Mixed Flow In-Line fans for use with rigid and flexible ducting.

In-line Mixed Flow fans offer two and half times the pressure of conventional axial fans and are dimensionally more compact making them ideal for many ducted applications.

The ACM Mixed Flow In-Line fan can operate in both horizontal and vertical positions and can be mounted to meet its optimum performance.

Motor

All motors are fitted with Standard Thermal Overload Protection (S.T.O.P.). Designed for ambient temperatures up to +50°C. All sizes with capacitor run motors. ACM 250 and 315 are Class I appliances. Supply voltage 220-240V/1/50Hz.

Models

Model	Stock Ref
ACM250	17110010
ACM315	17112010

ACM 250 Controller

For optimum performance use a Vent-Axia electronic controller. Surface mounted providing variable speed control with an On/Off/sensor slider with indication light. There is an adjustable minimum speed setting. The controller is radio suppressed to BS EN 55014 and electrical connections for use with suitable external sensors are provided.

1.5 Amp Controller – Suitable for 250mm model Dimensions: 86 x 156 x 53mm (H x W x D).

Model	Stock Ref
1.5A Electronic Controller	W300310

ACM315 Controller

Used in conjunction with speed controllable fans to provide 5 stepped speed without electronic motor 'hum'. Several fans can be connected to one transformer provided their combined load does not exceed the controller rating.

Single phase: 3.0 amp. Rotary switch giving On/Off and five speeds.

Output voltages at 240V/1PH/50Hz 0, 90, 115, 140, 175, 240 volts.

Neon indicator. Enclosures are protected to IP54.

Dimensions: 135 x 170 x 117mm (H x W x D).

Model	Stock Ref
3A Transformer Controller	10314103

Dimensions (mm)
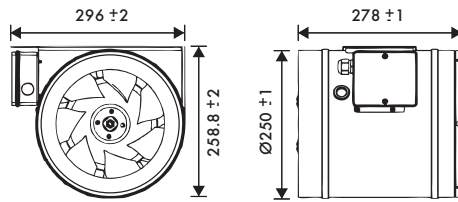
ACM250
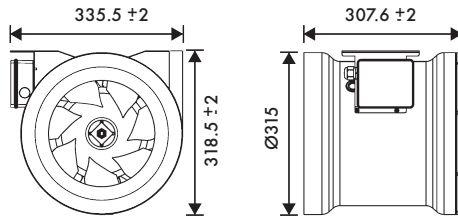
ACM315

Performance Guide

ACM250 - 315
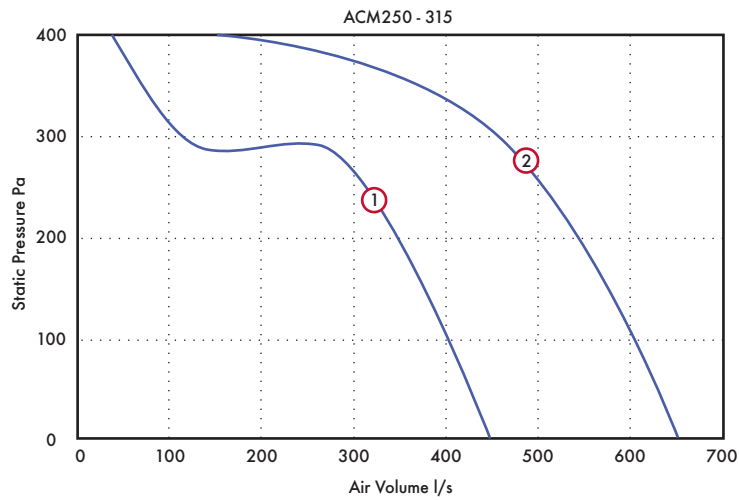
Dia.	Stock Ref.	Poles	r.p.m	IP Rating	Curve Ref.	0	100	200	300	400	S.C. Amps	F.L.C Amps	dBA @ 3m
250	17110010	2	2720	IP54	1	450	410	350	120	40	0.8	1	53
315	17112010	2	2840	IP54	2	650	610	540	460	150	1.2	1.6	56

l/s @ Pa

Sound Data

Dia.	Spectrum	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	Inlet	34	54	61	65	67	66	55	72
250	Outlet	39	64	68	71	70	66	55	78
250	Breakout	34	41	43	46	46	42	37	54
315	Inlet	45	60	66	68	69	67	56	75
315	Outlet	47	69	73	74	72	66	57	79
315	Breakout	38	41	46	50	49	46	41	58

Powerflow (ACP)

- Tough plastic in-line range in seven models
- 50-80mm long ribbed spigots
- Flame retardant casing
- All models speed controllable
- Fitted with Standard Thermal Overload Protection (S.T.O.P.)
- For the best performance from your fan, use a Vent-Axia controller
- IP44 Rated

Ducted Ventilation

Powerflow models provide a compact yet versatile range designed with the installer in mind, combining the acoustic benefits of a tough plastic casing with the pressure characteristics of a centrifugal fan.

A range of seven models available from 100 to 315mm dia. duct sizes. The 315mm dia. model has been specifically developed for use with rigid ductwork. Air volumes from 59l/s to 340l/s in free air and capable of pressure development up to 500 Pa.

Powerflow has 50-80mm long inlet and discharge spigots allowing easy installation and fixing. The adjustable mounting foot allows the terminal box to be rotated to any angle and allows plenty of space and adjustment for screw fixing. The robust fire retardant polymeric casing combined with internal guide vanes ensures optimum airflow management through the unit.

Electrical

Motors are 220-240V single phase 50Hz. Capacitor start and run. The terminal box is integral with the case moulding. All motors are fitted with Standard Thermal Overload Protection (S.T.O.P.).

Motor/Impeller

All models are fitted with an external rotor motor and backward curved impeller assembly for long life and reliability.

All sizes are IP44 according to BS EN 60529. Ball bearings are greased for life and designed to run at any angle. Insulation is Class 'B' (from -30˚C to +40˚C). Manufacture is controlled to BS EN ISO 9001.

Models

2 Pole In-Line Duct Fan - Single Phase.
Stock Ref
ACP10012
ACP12512
ACP15012
ACP16012
ACP20012
ACP25012
ACP31512

2.5A Electronic Controller

On/Off indication light. Infinitely variable speed control. Adjustable minimum speed setting and optional sensor mode. The controller is radio-suppressed to BS800 and rated at 2.5 amps.

Model	Stock Ref
2.5A Electronic Controller	W10303102M

Dimensions (mm)
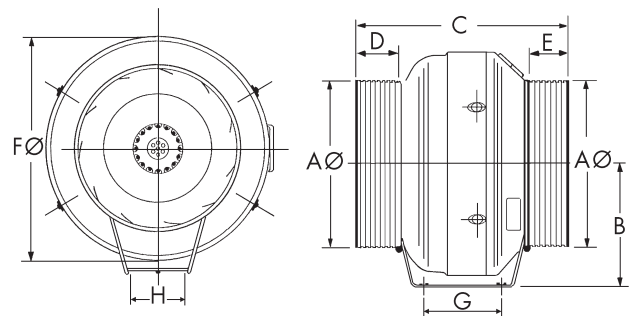
Dia	AØ	B	C	D	E	FØ	G	H	Weight
100	100	146	287	52	52	254	110	270*	2.2
125	125	146	287	60	60	254	110	270*	2.2
150	149	175	287	52	52	301	110	270*	3.1
160	160	175	287	52	52	301	110	270*	3.1
200	200	193	290	47	47	344	92	130	4.3
250	250	218	312	65	65	367	92	130	4.6
315	315	250	366	76	76	405	92	130	5.9

*Sizes 100, 125, 150 & 160 have a flat mounting foot

Performance Guide
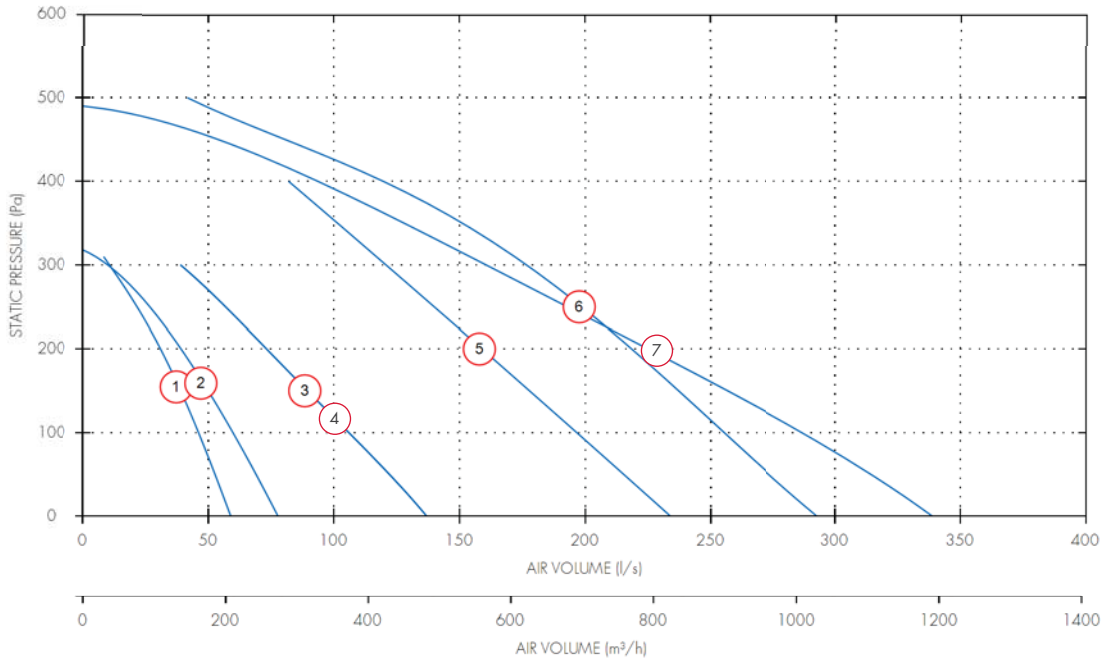
Dia.	Motor Phase	Stock Ref	r.p.m	IP Rating	Curve Ref.	0	100	200	300	400	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
								l/s at Pa						
100	1	ACP10012	2740	IP44	1	60	50	30	10		0.08	0.85	0.34	35
125	1	ACP12512	2410	IP44	2	80	60	40	10		0.08	0.85	0.34	35
150	1	ACP15012	2520	IP44	3	140	110	70	40		0.1	1.1	0.43	45
150	1	ACP16012	2520	IP44	4	140	110	70	40		0.1	1.1	0.43	45
200	1	ACP20012	2620	IP44	5	230	200	160	120		0.15	1.52	0.68	47
250	1	ACP25012	2720	IP44	6	290	260	220	180	120	0.19	1.6	0.77	48
315	1	ACP31512	2720	IP44	7	340	290	220	160	90	0.18	1.57	0.75	51

Sound Data

Dia.	Motor Phase	Stock Ref.	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	ACP10012	Inlet	81	84	75	68	61	52	46	40	51
100	1	ACP10012	Outlet	82	84	77	68	61	52	49	43	52
100	1	ACP10012	Breakout	52	48	57	53	53	48	40	38	36
125	1	ACP12512	Inlet	80	79	76	70	61	57	51	45	51
125	1	ACP12512	Outlet	82	80	76	71	61	54	51	43	52
125	1	ACP12512	Breakout	52	48	57	53	53	48	40	38	36
150	1	ACP15012	Inlet	79	84	84	76	69	65	61	52	58
150	1	ACP15012	Outlet	78	84	83	74	69	65	60	50	57
150	1	ACP15012	Breakout	59	62	66	62	62	58	51	43	45
150	1	ACP16012	Inlet	81	81	79	76	66	61	58	49	55
150	1	ACP16012	Outlet	80	82	81	73	67	62	57	49	55
150	1	ACP16012	Breakout	59	62	66	62	62	58	51	43	45
200	1	ACP20012	Inlet	80	79	74	76	67	65	66	60	55
200	1	ACP20012	Outlet	79	79	74	71	69	69	65	59	55
200	1	ACP20012	Breakout	54	70	67	66	62	59	53	43	47
250	1	ACP25012	Inlet	84	80	74	74	69	69	67	63	56
250	1	ACP25012	Outlet	75	79	73	72	72	73	68	64	58
250	1	ACP25012	Breakout	60	71	70	66	65	62	55	44	49
315	1	ACP31512	Inlet	84	80	74	74	69	69	67	63	56
315	1	ACP31512	Outlet	75	79	73	72	72	73	68	64	58
315	1	ACP31512	Breakout	72	71	73	71	66	63	55	45	52

Lo-Carbon T-Series Range Overview

- Wall, Window, Roof and panel mounting versions available
- Low Energy DC Motor
- Wired or Wireless control options
- Up to 70% energy saving
- Modular design, available as a complete unit or as a separate fitting kit and fan core for refurbishment

ErP Regulations

The introduction of the ErP regulations gave us the opportunity to review our product ranges and has enabled us to improve the way we stock and sell them. You can still buy the market leading T-Series in the same way you always have, as a complete product, however we have taken the opportunity to add a more flexible option if you need it. We have introduced a modular option for refurbishment situations where you may not want to replace the whole product.

For new build projects and complete building refits the market leading T-Series is unchanged and available as a complete unit generally supplied in one carton.

For refurbishment markets, supplying it as separate core and specific fitting kit gives more flexibility in both stocking and installing the product. This also gives the lowest overall cost to refurbish your fan system without changing wiring or controls, furthermore it also supports our Lo-Carbon drive to reduce waste and landfill.

Available as either Wired or Wireless control variants with controllers available, the Lo-Carbon T-series range offers the most flexible, efficient and controllable range of commercial fan systems.

Complete Product option

Complete product

Modular option

Fan Core

Fitting Kit
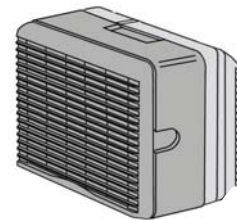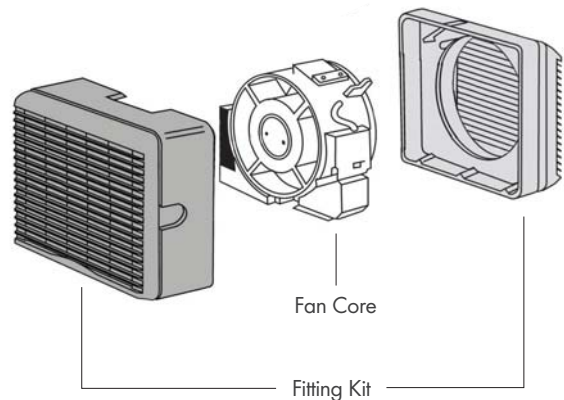
Lo-Carbon T-Series Complete Fan

Controller Type*	Size	Window Stock Ref	Wall Stock Ref	Roof Stock Ref	Panel Stock Ref
Wired	9"	456165	456166	456168	456167
Wired	12"	456173	456174	456176	456175
Wireless	9"	456169	456170	456172	456171
Wireless	12"	456177	456178	456180	456179

* Wired or Wireless refers to the controller type that can be utilised with the particular model.

Lo-Carbon T-Series Modular Option

Controller Type*	Size	Fan Core Stock Ref	Fitting Kit Options (excludes Fan Core)			
			Window Stock Ref	Wall Stock Ref	Roof Stock Ref	Panel Stock Ref
Wired	9"	472039	472047	472043	472055	472051
Wired	12"	472040	472048	472044	472056	472052
Wireless	9"	472041	472049	472045	472057	472053
Wireless	12"	472042	472050	472046	472058	472054

* Wired or Wireless refers to the controller type that can be utilised with the particular model.

Lo-Carbon T-Series Window Fan

- Reduces your carbon footprint
- Extract/intake model in 2 sizes: 9″ and 12″
- Long life Lo-Carbon motor lasts twice as long as conventional motors
- Up to 70% energy saving
- Wired or Wireless fan models available
- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

The Lo-Carbon T-Series Fan range utilises a low energy DC motor, developed to improve performance, lower running costs and maintain T-Series' rugged reliability.

Window Fan

The fitting kit is designed for installation through single or double glazing and material up to 32mm thick. Greater thicknesses can be accommodated using extended fixing rod sets. Alternatively, the Lo-Carbon T-Series range can be used in conjunction with Vent-Axia ventilation accessories in flexible and rigid ducting systems to suit individual requirements. It can also be mounted in a fixing plate on walls or above ceilings.

Instantaneous Shutter

With energy saving in mind, units are supplied complete with an integral instantaneous automatic louvre shutter concealed behind the interior grille. It operates on both extract and intake and at any angle of mounting.

The shutter is electronically controlled by an actuator with a damped action giving quiet operation during instant opening and closing. The interlocking edges of the shutter blades provide maximum back draught protection. When the fan is used with the Lo-Carbon T-Series controller, the shutter can be set open with the fan motor switched Off to provide natural ventilation without the security risk of an open window.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Models

Complete Fan

Model	Stock Ref
9″ Wired	456165
12″ Wired	456173
9″ Wireless	456169
12″ Wireless	456177

Fan Core (excludes Window Kit)

Model	Stock Ref
9" Wired	472039
12" Wired	472040
9" Wireless	472041
12" Wireless	472042

Window Kit (excludes Fan Core)

Model	Stock Ref
9" Wired	472047
12" Wired	472048
9" Wireless	472049
12" Wireless	472050

Accessory

Extended Fixing Rod set

Size	Stock Ref
9″	568104
12″	568106

Controllers

Models	Stock Ref
Wireless	455874
Wired	455873

Dimensions (mm)
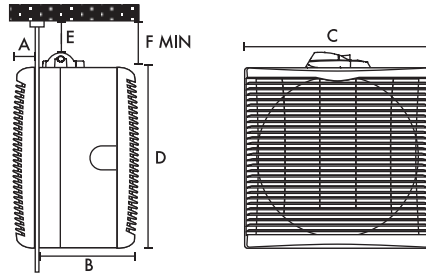
Size Dim.	9 in	12 in
A	39	41
B	150	177
C	304	381
D	302	378
E	19	19
F	54	54
Fixing hole Ø	260	337
Weight kg*	5.35	7.7

*Complete product. Controller (W x H x D) 97 x 99 x 32
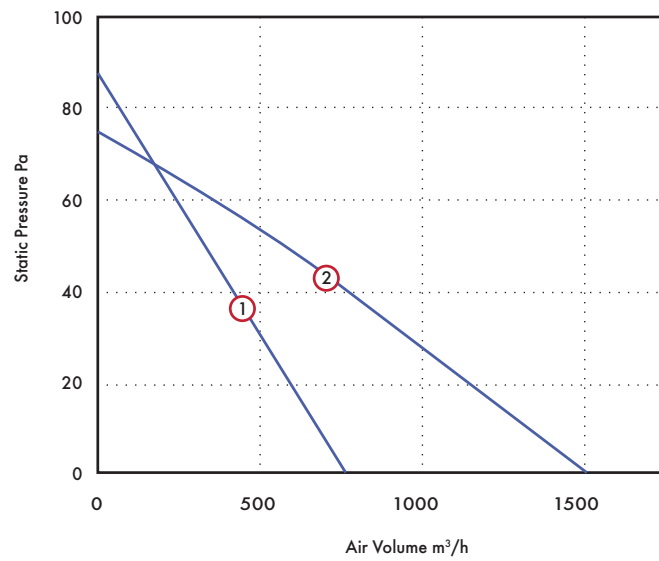
Performance Guide

Model	Curve	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
		low	medium	high	(high)	(med) @ 3m	@ 240V
Lo-Carbon 9" Window - Wireless/Wired	1	332 (90)	571 (160)	761 (210)	30.8	40	0.35
Lo-Carbon 12" Window - Wireless/Wired	2	660 (185)	1295 (360)	1550 (430)	68.6	46	0.73

Lo-Carbon T-Series Wall Fan

- Long life Lo-Carbon motor lasts twice as long as conventional motors
- Reduces your carbon footprint
- Extract/intake model in 2 sizes: 9″ and 12″
- Up to 70% energy saving
- Wired or Wireless fan models available
- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

The Lo-Carbon T-Series Fan range utilises a low energy DC motor, developed to improve performance, lower running costs and maintain T-Series' rugged reliability.

Wall Fan

Lo-Carbon T-Series wall models are designed to fit directly into double brick, solid and cavity walls. The two part telescopic liner accommodates wall thicknesses from 240 to 315mm. For thicker walls additional liner sections are available. Lo-Carbon T-Series wall models are provided with internal and external wall frames which fit flush with both faces of the wall.

Instantaneous Shutter

Lo-Carbon T-Series models are supplied complete with an integral instantaneous automatic louvre shutter which will operate on both intake and extract and at any angle of mounting.

When the fan is used with a Lo-Carbon T-Series controller, the shutter can be set open with the fan motor switched Off to provide natural ventilation without the security risk of an open window.

Electrical

Motor purpose-designed. Suitable for running at any angle. Quiet running. Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with self resetting Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50Hz.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Models

Complete Fan

Size	Stock Ref
9″ Wired	456166
12″ Wired	456174
9″ Wireless	456170
12″ Wireless	456178

Fan Core (excludes Wall Kit)

Size	Stock Ref
9" Wired	472039
12" Wired	472040
9" Wireless	472041
12" Wireless	472042

Wall Kit (excludes Fan Core)

Size	Stock Ref
9" Wired	472043
12" Wired	472044
9" Wireless	472045
12" Wireless	472046

Accessory

Additional Wall Liner Section

Size	Stock Ref
9″	460096
12″	460086

Controllers

Models	Stock Ref
Wireless	455874
Wired	455873

Dimensions (mm)

CENTRELINE OF 20MM DIA.
CONDUIT ENTRY

240 MIN - 315 MAX
BEFORE LININGS PART

CENTRELINE OF 20MM D
CONDUIT ENTRY

HOLE IN WALL C X D
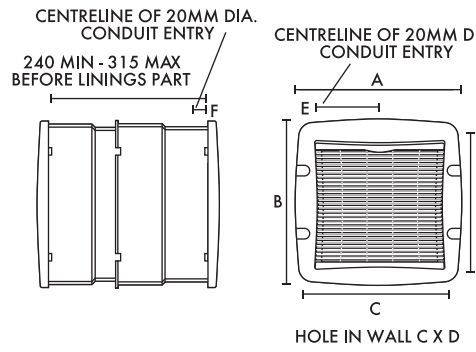
Size Dim.	9 in	12 in
A	391	470
B	388	467
C	365	442
D	375	450
E	143	182
F	25	25
Weight kg*	7.77	10.86

*Complete product. Controller (W x H x D) 97 x 99 x 32
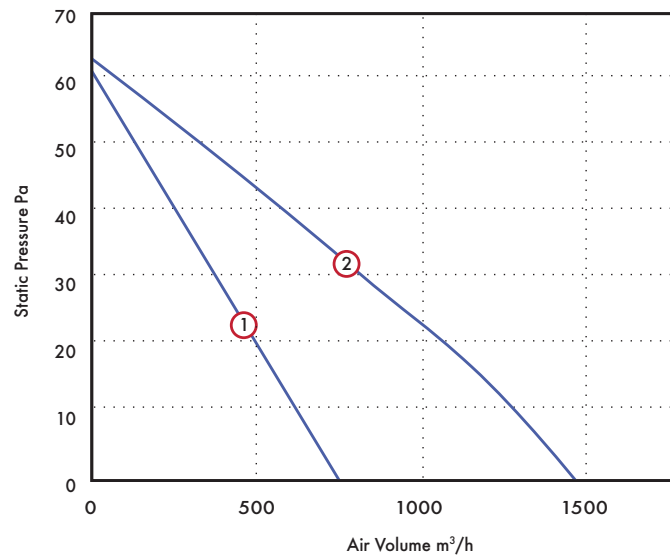
Performance Guide

Model	Curve	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
		low	medium	high	(high)	(med) @ 3m	@ 240V
Lo-Carbon 9" Wall - Wireless/Wired	1	326 (90)	562 (160)	732 (210)	27	39	0.31
Lo-Carbon 12" Wall - Wireless/Wired	2	660 (185)	1355 (360)	1650 (430)	68	48	0.70

Lo-Carbon T-Series Roof Fan

- Reduces your carbon footprint

- Extract / intake model in 2 sizes: 9″ and 12″

- Long life Lo-Carbon motor lasts twice as long as other conventional motors

- Up to 70% energy saving

- Wired or Wireless fan models available

- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

The Lo-Carbon T-Series Fan range utilises a low energy DC motor, developed to improve performance, lower running costs and maintain T-Series' rugged reliability.

Roof Fitting Kit

Designing ventilation systems with the unit mounted in a skylight or a flat roof is easy. With a low profile cowl, the Lo-Carbon T-Series Roof model is suitable for installation in horizontal, angled (max pitch 30deg) and vertical glass and for fixing plates in roofs. For vertical windows or walls in exposed areas and single and double glazing including most types of glass up to 32mm thick. Greater thicknesses can be accommodated using extended fixing rod sets. Both sizes of Vent-Axia roof plate assemblies can be fitted easily into flat roofs.

Instantaneous Shutter

With energy saving in mind, Lo-Carbon T-Series models are supplied complete with an integral, instantaneous, automatic louvre shutter concealed behind the interior grille.

It will operate on both intake and extract and at any angle of mounting. The shutter is electronically controlled by an actuator with a damped action giving quiet operation during instant opening and closing.

When the fan is used with a Lo-Carbon T-Series controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Electrical

Motor purpose-designed. Suitable for running at any angle. Quiet running, enclosed. Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with self resetting Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50Hz.

Models
Complete Fan

Model	Stock Ref
9″ Wired	456168
12″ Wired	456176
9″ Wireless	456172
12″ Wireless	456180

Fan Core (excludes Roof Kit)

Size	Stock Ref
9" Wired	472039
12" Wired	472040
9" Wireless	472041
12" Wireless	472042

Roof Kit (excludes Fan Core)

Size	Stock Ref
9" Wired	472055
12" Wired	472056
9" Wireless	472057
12" Wireless	472058

Controllers

Models	Stock Ref
Wireless	455874
Wired	455873

Dimensions (mm)
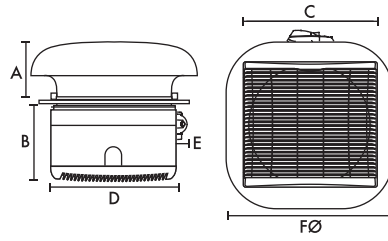
Size Dim.	9 in	12 in
A	136	171
B	150	177
C	304	381
D	302	378
E	54	54
FØ	400	500
Fixing Hole	260	337
Weight kg*	6.22	9.28

*Complete product. Controller (W x H x D) 97 x 99 x 32

Performance Graph
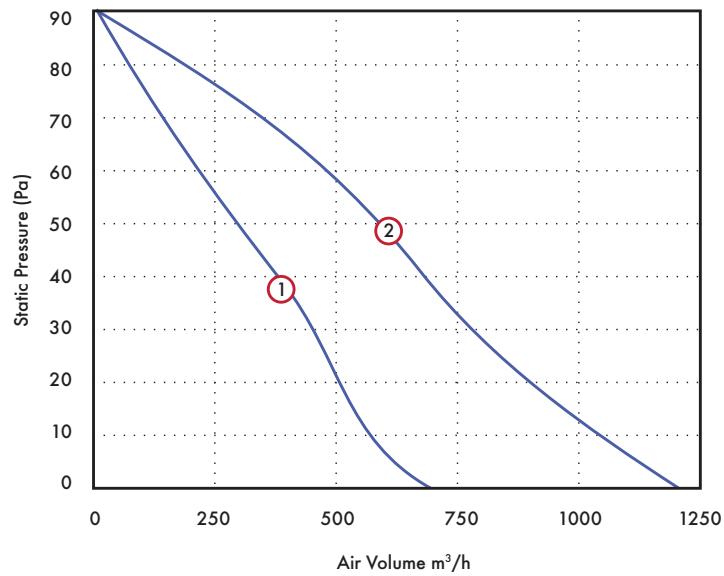
Air Volume m³/h

Model	Curve	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
		low	medium	high	(high)	(med) @ 3m	@ 240V
Lo-Carbon 9" Roof - Wireless/Wired	1	313 (85)	562 (155)	693 (190)	27	40	0.34
Lo-Carbon 12" Roof - Wireless/Wired	2	518 (143)	1017 (282)	1194 (330)	67	48	0.69

Lo-Carbon T-Series Panel Fan

- Reduces your carbon footprint
- Extract / intake model in 2 sizes: 9" and 12"
- Long life Lo-Carbon motor last twice as long as other conventional motors
- Up to 70% energy saving
- Wired or Wireless fan models available
- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

The Lo-Carbon T-Series Fan range utilises a low energy DC motor, developed to improve performance, lower running costs and maintain T-Series' rugged reliability.

Panel Fitting Kit

Lo-Carbon T-Series panel/ceiling models are suitable for mounting at any angle in internal partitions, ceilings, ducts and, with louvre grilles, through external walls. When installed only the louvre grille is visible.

Instantaneous Shutter

With energy saving in mind, Lo-Carbon T-Series models are supplied complete with an integral instantaneous automatic louvre shutter concealed behind the interior grille. With a Lo-Carbon T-Series Controller the fan will operate on both extract and intake, suitable for any angle of mounting. When the fan is used with a Lo-Carbon T-Series controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Wireless Control

Every Lo-Carbon T-Series Wireless FM Controller uses unique digital signals to ensure trouble free operation. The controller will transmit through walls and floors allowing complete flexibility of design to control fans up to 30m away.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Electrical

Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with self resetting Standard Thermal Overload Protection (S.T.O.P).

Supply voltage: 220-240V/1/50Hz.

Easy Cleaning

Integrated component design allows all parts to be dismantled for cleaning without the use of specialist tools.

Models

Complete Fan

Size	Stock Ref
9" Wired	456167
12" Wired	456175
9" Wireless	456171
12" Wireless	456179

Fan Core (excludes wired Panel Kit)

Size	Stock Ref
9" Wired	472039
12" Wired	472040
9" Wireless	472041
12" Wireless	472042

Panel Kit (excludes Fan Core)

Size	Stock Ref
9" Wired	472051
12" Wired	472052
9" Wireless	472053
12" Wireless	472054

Controllers

Models	Stock Ref
Wireless	455874
Wired	455873
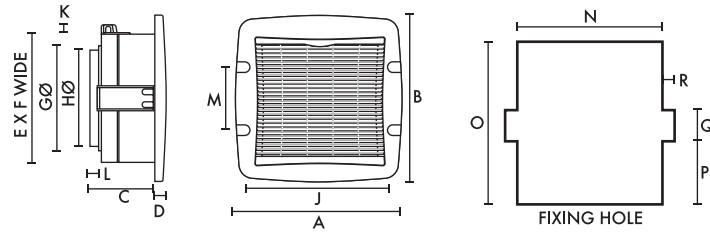
Dimensions (mm)

Size	9 in	12 in
A	391	470
B	388	467
C	129	152
D	39	41
E	302	378
F	304	381
GØ	255	334
HØ	247	325
Weight kg*: 9mm - 5.13, 12mm - 7.44		
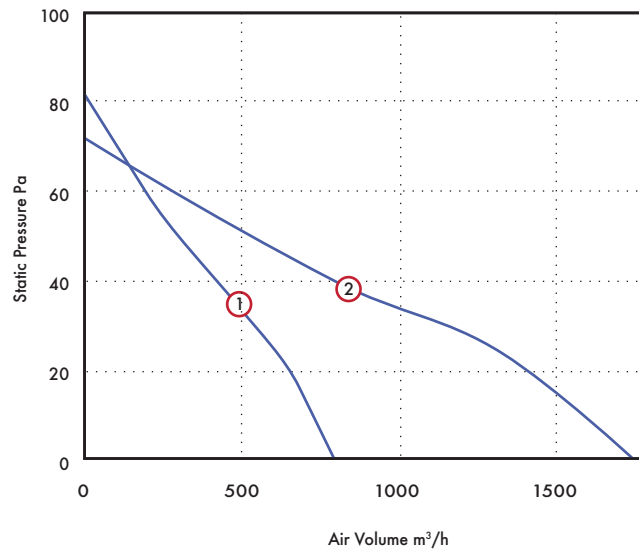
Size	9 in	12 in
J	345	422
K	19	19
L	22	22
M	180	180
N	309	386
O	326	402
P	126	164
Q	55	55

*Complete product. Controller (W x H x D) 97 x 99 x 32

Performance Guide

Model	Curve	Extract performance m³/h (l/s)			Watts (high)	Sound dB(A) (med) @ 3m	Amps @ 240V
		low	medium	high			
Lo-Carbon 9" Panel - Wireless/Wired	1	357 (100)	601 (166)	799 (221)	30	41	0.33
Lo-Carbon 12" Panel - Wireless/Wired	2	737 (205)	1487 (413)	1761 (490)	67	48	0.70

Traditional T-Series Range Overview

- Available as wall, window, panel, roof, inline or Darkroom models
- Available as a complete unit or modular fan core and fitting kit for refurbishments
- Flexible installation design
- Simple installation

ErP Regulations

The introduction of the ErP regulations gave us the opportunity to review our product ranges and has enabled us to improve the way we stock and sell them. You can still buy the market leading T-Series in the same way you always have, as a complete product, however we have taken the opportunity to add a more flexible option if you need it. We have introduced a modular option for refurbishment situations where you may not want to replace the whole product.

For new build projects and complete building refits the market leading T-Series is unchanged and available as a complete unit generally supplied in one carton.

For refurbishment markets, supplying as separate core and specific fitting kit gives more flexibility in both stocking and installing the product. This also gives the lowest overall cost to refurbish your fan system without changing wiring or controls, furthermore it also supports our Lo-Carbon drive to reduce waste and landfill.

Complete product option

Complete product

Modular option

Fan Core

Fitting Kit
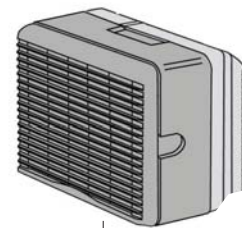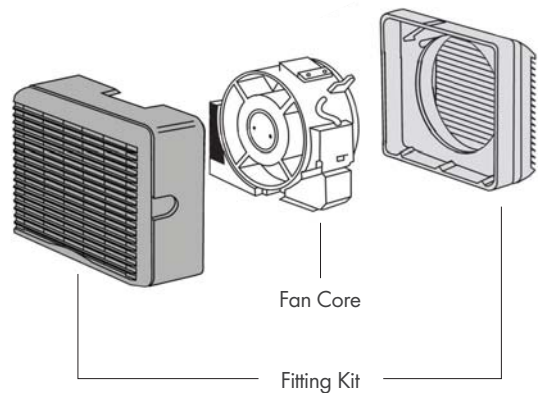
Traditional T-Series Complete Fan

Size	Window Stock Ref	Wall Stock Ref	Roof Stock Ref	Panel Stock Ref	Darkroom Stock Ref	In-line Stock Ref
6"	W161110	W161510	W161210	W161610	W161240	W161710
7"	W162110	W162510	W162210	W162610	W162240	N/A
9"	W163110	W163510	W163210	W163610	W163240	W163710
12"	W164110	W164510	W164210	W164610	W164240	W164710

Traditional T-Series Modular Option

Size	Fan Core Stock Ref	Fitting Kit Options (excludes Fan Core)					
		Window Stock Ref	Wall Stock Ref	Roof Stock Ref	Panel Stock Ref	Darkroom Stock Ref	In-line Stock Ref
6"	472012	472020	472016	472028	472024	472032	472036
7"	472013	472021	472017	472029	472025	472033	N/A
9"	472014	472022	472018	472030	472026	472034	472037
12"	472015	472023	472019	472031	472027	472035	472038

Traditional T-Series Window Fan

- Extract/intake fans in 4 sizes: 6″, 7″, 9″ and 12″
- Patented electronic shutter system ensures quiet trouble free operation
- To obtain the best from your fan, use the Ecotronic controller
- Shutter open/fan off mode
- Low sound levels
- Easy fit connector Top Socket, standard on all models
- Designed for single or double glazing up to 32mm thick

UK's No. 1 Commercial Fan
The T-Series fan range is fitted with a Vent-Axia M-Tech motor, developed to improve performance, lower running costs and maintain the T-Series' rugged reliability. A patented speed control pack is simply plugged in one of 3 positions to provide low, medium or boost speed matching the fan performance to the requirements of the installation.

Instantaneous Shutter
With energy saving in mind T-Series Fitting Kits are supplied complete with an integral instantaneous automatic louvre shutter concealed behind the interior grille. It operates on both extract and intake and at any angle of mounting.

When the fan is used with a T-Series or Ecotronic controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Top Socket
A connector Top Socket is standard on all T-Series fans allowing fast and trouble-free mains connection.

Easy Cleaning
Integrated component design allows all parts to be dismantled for cleaning without the use of specialist tools.

Electrical
Motor purpose-designed. Suitable for running at any angle. Quiet running. Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50Hz.

Window Kit
Designed for use in single or double glazing, most types of glass and materials up to 32mm thick. Greater thicknesses can be accommodated using Extended Fixing Rod Sets. Can also be mounted in a fixing plate or wall, in ducts or above ceilings.

Models
Complete Fan
Model	Stock Ref
TX6WW	W161110
TX7WW	W162110
TX9WW	W163110
TX12WW	W164110

Fan Core (excludes Fitting Kit)
Size	Stock Ref
TX6	472012
TX7	472013
TX9	472014
TX12	472015

Window Kits (excludes Fan Core)
Size	Stock Ref
TX6	472020
TX7	472021
TX9	472022
TX12	472023

Accessories
Extended Fitting Rod set
Size	Stock Ref
6/7/9″	568104
12″	568106

Controllers

Ecotronic Controller Surface Mounting
Stock Ref
W362320

T-Series Controller Surface Mounting
Stock Ref
W361119

Dimensions (mm)
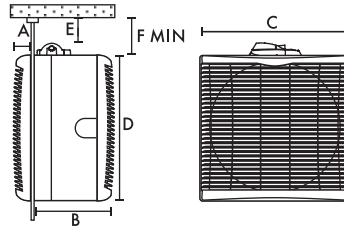
Size Dim.	6 in	7 in	9 in	12 in
A	31	31	39	41
B	130	130	150	177
C	226	265	304	381
D	220	258	302	378
E	19	19	19	19
F	54	54	54	54
Fixing hole Ø	184	222	260	337
Weight kg*	3.57	3.93	5.35	7.7

*Complete product.

Performance Guide

Model	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
	low	medium	high	(high)	(med) @ 3m	@ 240V
TX6 Window	245 (68)	315 (88)	360 (100)	30	41	0.24
TX7 Window	305 (85)	395 (110)	485 (135)	40	37	0.24
TX9 Window	465 (130)	685 (190)	795 (220)	85	43	0.42
TX12 Window	1095 (305)	1415 (393)	1615 (449)	105	48	0.51

Traditional T-Series Wall Fan

- Extract/intake model in 4 sizes:
  6", 7", 9" and 12"

- Patented electronic shutter system ensures quiet,
  trouble free operation

- For the very best from your fan use the
  Ecotronic controller

- Easy fit connector Top Socket, standard on
  all models

UK's No. 1 Commercial Fan

Behind the grille of the Vent-Axia T-Series Wall model is a range of high performance extract/intake fans designed to fit through most wall thicknesses using telescopic liners supplied.

T-Series also features a unique speed control pack which enables high, medium or low speed to be preset to suit room size or required duty.

T-Series controllers may be used with this model to obtain a choice of speeds, reversible airflow direction and automatic sensor operation. The Vent-Axia Ecotronic controller gives even greater running economy with its minimum speed setting and 'E' mode.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Shutter

TX models are supplied complete with an integral instantaneous automatic louvre shutter which will operate on both intake and extract and at any angle of mounting.

When the fan is used with a T-Series or Ecotronic controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Electrical

Motor purpose-designed. Suitable for running at any angle. Quiet running, enclosed. Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50Hz.

Wall Kits

Designed to fit into most double brick walls using the telescopic liners, supplied. Additional liners are available to accommodate exceptionally thick brick walls.

Models

Complete Fan

Model	Stock Ref
TX6WL	W161510
TX7WL	W162510
TX9WL	W163510
TX12WL	W164510

Fan Core (excludes Fitting Kit)

Size	Stock Ref
TX6	472012
TX7	472013
TX9	472014
TX12	472015

Wall Kits (excludes Fan Core)

Size	Stock Ref
TX6	472016
TX7	472017
TX9	472018
TX12	472019

Accessories

Additional Wall Liner Section

| Size	Stock Ref
TX6	460094
TX7	460095
TX9	460096
TX12	460086

Controllers

Ecotronic Controller Surface Mounting
Stock Ref
W362320

T-Series Controller Surface Mounting
Stock Ref
W361119

Dimensions (mm)

CENTRELINE OF 20MM DIA.
CONDUIT ENTRY

240 MIN - 315 MAX
BEFORE LININGS PART

CENTRELINE OF 20MM DI
CONDUIT ENTRY

HOLE IN WALL C X D
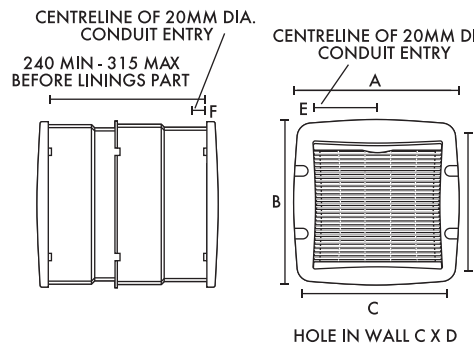
Size Dim.	6 in	7 in	9 in	12 in
A	310	352	391	470
B	303	345	388	467
C	290	330	365	442
D	290	330	375	450
E	104	124	143	182
F	25	25	25	25
Weight kg	5.54	6.13	7.77	10.86

*Complete product.

Performance Guide

	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
Model	low	medium	high	(high)	(med) @ 3m	@ 240V
TX6 Wall	270 (75)	350 (97)	395 (110)	40	43	0.24
TX7 Wall	335 (93)	435 (120)	530 (147)	40	39	0.24
TX9 Wall	515 (143)	755 (210)	870 (241)	85	43	0.42
TX12 Wall	1185 (329)	1530 (425)	1745 (485)	105	49	0.51

Traditional T-Series Roof Fan

- Extract/intake model in 4 sizes: 6″, 7″, 9″ and 12″
- Patented electronic shutter system ensures quiet, trouble free operation
- For the very best from your fan use the Ecotronic controller
- T-Series controllers and sensors save energy by only switching on the units when you want either manually or automatically
- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

With a low profile cowl, the T-Series Roof model is suitable for installation in horizontal, angled (max pitch 30deg) and vertical glass and for fixing plates in roofs. For vertical windows or walls in exposed areas and single or double glazing including most types of glass up to 32mm thick. Greater thicknesses can be accommodated using extended fixing rod sets. All four sizes of Vent-Axia roof plate assemblies can be fitted easily into flat roofs.

T-Series features a unique speed control pack which enables high, medium or low speed to be preset to suit room size or required duty. When used with a T-Series TSC controller, the speed control pack is removed from the T-Series fan and fitted into the 3-pin socket in the back of the controller. The Vent-Axia Ecotronic controller gives even greater running economy with its minimum speed setting and 'E' mode. When using the Ecotronic controller the speed control pack remains in the fan.

Shutter

With energy saving in mind, T-Series Fitting Kits are supplied complete with an integral instantaneous automatic louvre shutter concealed behind the interior grille. It will operate on both intake and extract and at any angle of mounting.

When the fan is used with a T-Series or Ecotronic controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Electrical

Motor purpose-designed. Suitable for running at any angle. Quiet running, enclosed. Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50 Hz.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Models
Complete Fan

Model	Stock Ref
TX6RF	W161210
TX7RF	W162210
TX9RF	W163210
TX12RF	W164210

Fan Core (excludes Fitting Kit)

Size	Stock Ref
TX6	472012
TX7	472013
TX9	472014
TX12	472015

Roof Kit (excludes Fan Core)

| Size	Stock Ref
TX6	472028
TX7	472029
TX9	472030
TX12	472031

Controllers

Ecotronic Controller Surface Mounting
Stock Ref
W362320

T-Series Controller Surface Mounting
Stock Ref
W361119

Dimensions (mm)
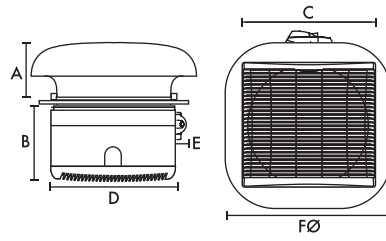
Size Dim.	6 in	7 in	9 in	12 in
A	100	136	136	171
B	130	130	150	177
C	226	265	304	381
D	220	258	302	378
E	54	54	54	54
F Ø	285	400	400	500
Fixing Hole Ø	184	222	260	337
Weight kg*	3.96	4.89	6.22	9.28

*Complete product.

Performance

Model	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
	low	medium	high	(high)	(med) @ 3m	@ 240V
TX6 Roof	195 (55)	250 (70)	290 (80)	30	41	0.24
TX7 Roof	305 (85)	395 (110)	485 (135)	40	37	0.24
TX9 Roof	465 (130)	685 (190)	795 (220)	85	43	0.42
TX12 Roof	1010 (280)	1305 (362)	1485 (412)	105	48	0.51

Traditional T-Series Panel/Ceiling Fan

- Extract/intake model in 4 sizes: 6", 7", 9" and 12"
- Colour: soft tone grey
- Patented electronic shutter system ensures quiet trouble-free operation
- For the very best from your fan use the Ecotronic controller
- East fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

Vent-Axia T-Series Panel/Ceiling models are suitable for mounting at any angle in internal partitions, ceilings, ducts and, with louvre grilles, through external walls. When installed only the louvre grille is visible. The range features a unique speed control pack which enables high, medium or low speed to be preset to suit a specific room size or required duty.

T-Series controllers may be used with this model to obtain a choice of speeds, reversible airflow direction and automatic sensor operation. When used with a controller, the speed control pack is removed from the T-Series fan and fitted into the 3-pin socket in the back of the controller. The Vent-Axia Ecotronic controller gives even greater running economy with its minimum speed setting on 'E' mode and infinitely variable speed control. For this controller the speed control pack remains in the fan.

Electrical

Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection (S.T.O.P).

Supply voltage: 220-240V/1/50Hz.

Top Socket

A connector Top Socket is standard on all T-Series fans allowing fast and trouble-free mains connection.

Shutter

With energy saving in mind, panel/ceiling kits are supplied complete with an integral instantaneous automatic louvre shutter concealed behind the interior grille. It will operate on both intake and extract and at any angle of mounting.

When the fan is used with a T-Series or Ecotronic controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Models

Complete Fan

Model	Stock Ref
TX6PL	W161610
TX7PL	W162610
TX9PL	W163610
TX12PL	W164610

Fan Core (excludes Fitting Kit)

Size	Stock Ref
TX6	472012
TX7	472013
TX9	472014
TX12	472015

Panel/Ceiling Kit (excludes Fan Core)

Size	Stock Ref
TX6	472024
TX7	472025
TX9	472026
TX12	472027

Controllers

Ecotronic Controller Surface Mounting
Stock Ref
W362320

T-Series Controller Surface Mounting
Stock Ref
W361119

Dimensions (mm)
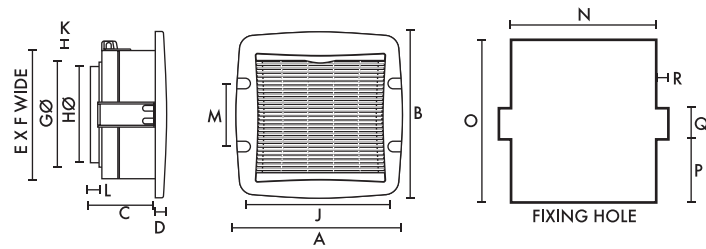
Size Dim.	6 in	7 in	9 in	12 in
A	310	352	391	470
B	303	345	388	467
C	117	117	129	152
D	32	32	39	41
E	220	258	302	378
F	226	265	304	381
GØ	180	218	255	334
HØ	171	210	247	325
J	267	306	345	422
K	19	19	19	19
L	22	22	22	22
M	180	180	180	180
N	231	270	309	386
O	244	282	326	402
P	85	104	126	164
Q	55	55	55	55
R	12	12	12	12
Weight kg*	3.50	3.82	5.13	7.44

*Complete product.

Performance Guide

Model	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
	low	medium	high	(high)	(med) @ 3m	@ 240V
TX6 Panel/Ceiling	295 (81)	380 (105)	435 (120)	30	41	0.24
TX7 Panel/Ceiling	365 (101)	480 (133)	585 (162)	40	37	0.24
TX9 Panel/Ceiling	565 (157)	830 (230)	960 (267)	85	43	0.42
TX12 Panel/Ceiling	1270 (353)	1640 (456)	1885 (524)	105	44	0.51

Traditional T-Series Darkroom Fan

- Extract/intake models in 4 sizes: 6", 7", 9" and 12"
- Specially designed to provide extract/intake ventilation in darkrooms, X-ray areas, etc
- Patented electronic shutter system ensures quiet, trouble free operation
- For the very best from your fan use the Ecotronic controller
- Integrated component design allows all parts to be dismantled for cleaning without the use of specialist tools
- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

A range designed for photographic, medical, dental and veterinarian applications - used also for opticians and other specialist applications. Most darkrooms need a minimum of ten air changes per hour for comfort and efficiency. For rooms containing heat producing equipment (eg: print glazers) a higher rate of air change may be desirable.

The Darkroom fitting kit has two cowls, the interior cowl being designed to give light protection. It can be installed in windows, partitions, external walls or roofs. Extended fixing rods for fixing thicknesses up to 370mm are supplied with the unit. Provision should be made for adequate air replacement through Vent-Axia non-vision grilles.

Shutter

With energy savings in mind Darkroom models are supplied complete with an integral instantaneous automatic louvre shutter concealed behind the interior cowl. Operates on intake and extract at any angle of mounting.

When used with a T-Series or Ecotronic controller, the shutter can be set open with the fan motor switched Off to provide natural ventilation without the security risk of an open window.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Electrical

Suitable for running at any angle. Quiet running, enclosed. Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage: 220-240V/1/50Hz.

Suitable for operation in ambient temperatures from -40°C to +50°C.

Models

Complete Fan

Model	Stock Ref
TX6DR	W161240
TX7DR	W162240
TX9DR	W163240
TX12DR	W164240

Fan Core (excludes Fitting Kit)

Size	Stock Ref
TX6	472012
TX7	472013
TX9	472014
TX12	472015

Darkroom Kit (excludes Fan Core)

Size	Stock Ref
TX6	472032
TX7	472033
TX9	472034
TX12	472035

Controllers

Ecotronic Controller Surface Mounting
Stock Ref
W362320

T-Series Controller Surface Mounting
Stock Ref
W361119

Dimensions (mm)
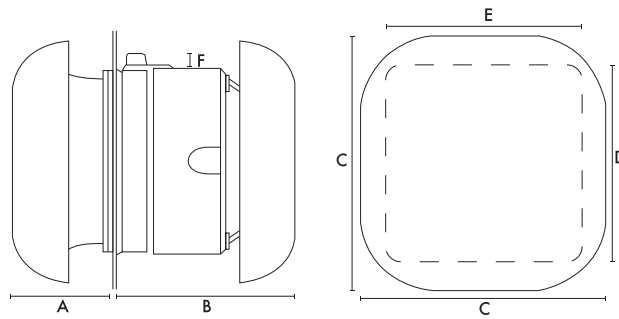
Size Dim.	6 in	7 in	9 in	12 in
A	100	136	136	171
B	196	206	229	308
C	285	400	400	500
D	220	258	302	378
E	226	265	304	381
F	19	19	19	19
Fixing Hole Ø	184	222	260	337
Weight kg*	4.13	5.33	6.60	10.05

*Complete product.

Performance Guide

Model	Extract performance m³/h (l/s)			Watts	Sound dB(A)	Amps
	low	medium	high	(high)	(med) @ 3m	@ 240V
TX6 Darkroom	200 (55)	240 (67)	265 (74)	30	43	0.24
TX7 Darkroom	330 (92)	415 (115)	530 (147)	40	42	0.24
TX9 Darkroom	455 (126)	630 (175)	725 (201)	85	45	0.42
TX12 Darkroom	870 (242)	1040 (289)	1130 (314)	100	42	0.51

Traditional T-Series In-Line Fan

- Extract/intake model in 3 sizes: 6", 9" and 12"
- Patented instantaneous electronic shutter system ensures quiet, trouble free operation
- For the best from your fan use the Ecotronic controller
- T-Series controllers and sensor save energy by only switching on the units when you want either manually or automatically
- Easy fit connector Top Socket, standard on all models

UK's No. 1 Commercial Fan

No other range of high performance in-line duct fans offers a combination of 3 impeller diameters, reversibility, low sound level, speed control and built-in electric shutter. T-Series features a unique speed control pack which enables high, medium or low speed to be preset to suit room size or required duty. Designed for use with rigid or flexible ducting, T-Series In-Line models can be plate mounted or fixed through partitions and in ceiling voids.

T-Series controllers may be used with this model to obtain a choice of speeds, extract/intake airflow direction and automatic sensor operation. The Vent-Axia Ecotronic controller gives even greater running economy with its minimum speed setting and 'E' mode.

Top Socket

A connector Top Socket is standard on all T-Series fans. Allowing fast and trouble-free mains connection.

Shutter

The shutter is electronically controlled by an actuator with a damped action giving quiet operation during instant opening and closing. The interlocking edges of the shutter blades provide maximum back draught protection.

When the fan is used with a T-Series or Ecotronic controller, the shutter can be set open with the fan motor switched off to provide natural ventilation without the security risk of an open window.

Ducts

Where ducts pass through an unheated roof void, the duct should be insulated. Horizontal ducts should fall away from the fan unit. In circumstances where an excessive amount of moisture is present, a condensation trap should be installed in the exhaust duct. The fan unit should be accessible for regular maintenance.

Electrical

Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50 Hz.

Models

Complete Fan

Model	Stock Ref
TX6IL	W161710
TX9IL	W163710
TX12IL	W164710

Fan Core (excludes Fitting Kit)

Model	Stock Ref
TX6	472012
TX9	472014
TX12	472015

In-line Kit (excludes Fan Core)

Model	Stock Ref
TX6	472036
TX9	472037
TX12	472038

For use with rigid and flexible ducting. Can be plate-mounted or fixed to partitions and in ceiling voids.

Controllers

Ecotronic Controller Surface Mounting
Stock Ref
W362320

T-Series Controller Surface Mounting
Stock Ref
W361119

Dimensions (mm)

Sizes 6 & 9
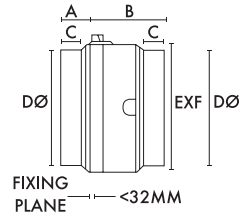
Size 12
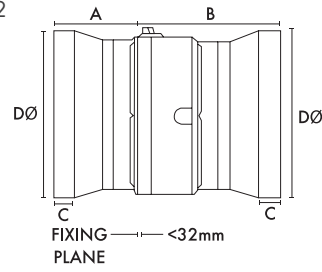
Size Dim.	6 in	9 in	12 in
A	75	71	200
B	175	183	337
C	45	41	45
DØ	175	300	400
E	220	302	378
F	226	304	381
Fixing Hole Ø	184	260	337
kg	4.5	8	11.5

Performance Guide

Model	Extract performance m³/h (l/s)			Watts (high)	Sound dB(A) (med) @ 3m	Amps @ 240V
	low	medium	high			
TX6 In-line	318 (88)	398 (110)	444 (123)	30	45	0.24
TX9 In-line	703 (195)	966 (268)	1050 (292)	85	47	0.42
TX12" In-line	1674 (465)	2000 (556)	2230 (620)	100	51	0.51

Super T-Series

- 4 impeller diameters 355, 400, 450, 500mm
- Complete with telescopic wall sleeve and shutter, ready for installation
- IP54 motor and terminal box
- Smart internal grille and external shutter with flange trim
- Super quiet operation
- For the very best performance from your fan, use the Vent-Axia 2.5 Amp electronic controller

Powerful Ventilation

Vent-Axia's Super T-Series 355, 400, 450 and 500mm fans provide efficient, quiet powerful ventilation with performances up to 4940m³/h. Tough heavy duty internal grilles and external weather shutters ensure longevity, performance and peace of mind.

Construction

The axial fan at the heart of the Super T range is based on an integrated impeller and internal rotor motor design which produces a very compact unit. A specially designed bellmouth inlet and mounting plate ensures an excellent performance to sound level ratio.

Electrical

Single phase 220-240V 50Hz. Capacitor start and run. An IP54 terminal box is supplied with all models with conduit entry from the side of the wall liner. All motors are fitted with Standard Thermal Overload Protection (S.T.O.P.), which should be wired via the controller.

Models

Super T - Gravity shutter

When installed, only the room side aluminium fascia grille is visible. The outside is finished with an external gravity shutter and frame.

Model	Stock Ref
ST355-16-WL	165510
ST400-16-WL	166510
ST450-16-WL	167510
ST500-16-WL	168510

Super T TX - Electric shutter

Super T TX extract or intake models with powerful, quiet, smooth-operation electric shutters.

Model	Stock Ref
STX355	165710
STX400	166710
STX450	167710
STX500	168710

Super T Filtered Air Input

Super T ARX and AR filtered passive air replacement input unit. Consisting of a wall liner with high capacity high disposable EU4 pleated filter which fits inside the wall liner.

ARX Models

With electronically controlled integral shutter AR Models - external louvre fixed blade.

Model	Stock Ref
Units with integral shutter	
STARX355	165810
STARX450	167810
Units with louvre fixed blades	
STAR355	165910
STAR450	167910

Filtered Kitchen Extract - Super T GF

Super T GF extract unit without internal grille, but with matching stainless steel filter housing and tray kit ready for assembly on site and 50mm stainless steel framed mesh grease filter with handles.

Model	Stock Ref
STGF355	165620
STGF400	166620

Accessories

Replacement Grease Filters

Super T replacement grease filters 50mm stainless steel mesh filter with handles. Supplied in packs of two.

Model	Stock Ref
355	452550
400	452551

Replacement Air Filters
High capacity EU4 pleated filter which fits inside wall liner. Supplied in packs of five.

Model	Stock Ref
355	452814
450	452815

Electronic 2.5A Controller
Provides variable motor speed control. On/Off with indication light. Infinitely variable speed slider control. Presettable minimum speed and sensor mode option: can be connected to a range of Vent-Axia sensors. Radio suppressed to BS 800. Includes electric shutter output.
Stock Ref
W10303102M

Dimensions (mm)
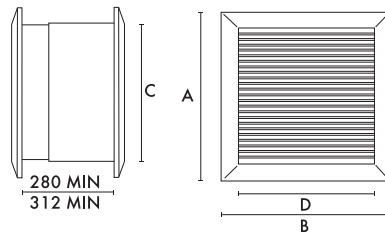
280 MIN
312 MIN
CxD SQ. HOLE THROUGH WALL

Impeller dia.	355	400	450	500
A	550	597	657	727
B	550	597	657	727
C	470	520	580	650
D	470	520	580	650
Weight kg	17	22	28	33

Performance Guide

Model	Extract Performance m³/h (l/s) F.I.D.	Watts	S.C. amps	F.L.C. amps	Sound dB(A) @ 3m
355-16	1800 (500)	130	1.38	0.6	40
400-16	2034 (565)	90	1.2	0.46	45
450-16	2561 (761)	100	1.4	0.48	48
500-16	4378 (1216)	360	3.6	1.6	51
355-14	2150 (597)	150	1.38	0.7	56
400-14	3500 (972)	190	1.45	0.84	59

Traditional Standard Range Overview

- Retro styled product
- Available as a fan core and fitting kit for refurbishment

ErP Regulations

The introduction of the ErP regulations has given us the opportunity to review our product ranges and has enabled us to improve the way we stock and sell them.

You can still buy the Standard Range in the same way you always have, as a complete product, however we have taken the opportunity to add a more flexible option if you need it. We have introduced a modular option for refurbishment situations where you may not want to replace the whole product. The Standard Range can also be supplied as a Fan Core or specific fitting kit, this gives you more flexibility in both stocking and installing the product. It also supports our Lo-Carbon drive to reduce waste and landfill.

There are two variants of Core assembly, the Window/Roof Core and the Panel / Wall Core.

The Window / Roof core are the circular fitting assemblies and consists of all internal components. The fitting kit consists of the externally mounted components (eg cowl or grill).

The Wall and Panel core assemblies are square and contains the wiring loom for connecting to the relevant fixing kit (if required). The Wall fitting kit consists of the external grill and the wall mounting sleeve. The panel fan has no separate fixing kit.

Modular option

Fitting Kit   Fan Core
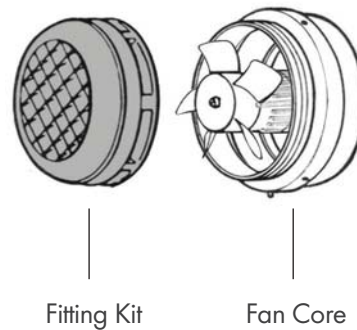
Complete product option

Complete Product
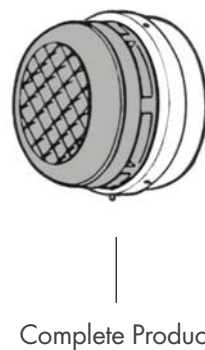
Traditional Standard Window & Roof Range

Size	Window Complete Fan Stock Ref	Roof Complete Fan Stock Ref	Window/Roof Fan Core Stock Ref	Fitting Kit Options (excludes Fan Core)	
				Window Stock Ref	Roof Stock Ref
6"	131310	131410	472226	472230	472234
7"	132310	132410	472227	472231	472235
9"	133310	133410	472228	472232	472236
12"	134310	134410	472229	472233	472237

Traditional Standard Wall & Panel Range

Size	Wall Fan Complete Fan Stock Ref	Wall Fan Core Stock Ref	Wall Fitting Kit (excludes Fan Core) Stock Ref	Size	Panel Fan Complete Stock Ref
6"	131510	472222	472274	6"	472442
7"	132510	472223	472275	7"	472443
9"	133510	472224	472276	9"	472444
12"	134510	472225	472277	12"	472445

Traditional Standard Window Fan

- Extract / intake model in 4 sizes: 6", 7", 9" and 12"
- IPX4 Rated
- Colour: White
- Manufactured in weather-resistant polymeric materials
- For the best performance from your fan, use an Ecotronic controller
- Suitable for glass or panels up to 10mm thick

Classic Retro-Style Ventilation

This ever popular range of extract/intake fans continues to satisfy the most demanding requirements for efficient ventilation. The Vent-Axia Standard Range fitting kit unit is supplied without a shutter. The shutter is available as an accessory, which can be easily fitted within the unit.

Standard Range Window Fans and Fitting Kits are suitable for most forms of single glazing or can be wall mounted in a Vent-Axia fixing plate. Vent-Axia's patented spigot and ring method of fixing ensures easy installation and a weather proof joint. The simple integrated component design makes installation and servicing easy.

Fan Core Motor

Purpose designed enclosed motor. Suitable for running at any angle. Quiet running.

Supply voltage 220-240V/1/50 Hz. Suitable for operation in ambient temperatures from -40° to +50°C. Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Shutter Type SD/R

The extract/intake shutter fits inside the Vent-Axia unit and closes against unwanted back draughts. It can be fitted at the same time as the unit or at a later date if required.

Airflow operated for extract use, cord operated lock for intake use. For all models mounted in vertical surfaces only.

Controller

The Ecotronic controller is recommended for use with this model to provide full function control of the fan plus the option of sensor mode using a selection of electro-mechanical switches to provide automatic switching of the fan.

Alternatively, single speed extract is achieved using a normal On/Off switch.

Easy Cleaning

Integrated component design allows all parts to be dismantled for cleaning without the use of specialist tools.

Protective Grilles

Where Standard Range units are installed in low positions, finger guards provide extra protection to VDE, DIN 31001.

Models

Complete Fan

Size	Stock Ref
S6WW	131310
S7WW	132310
S9WW	133310
S12WW	134310

Fan Core (excludes Window Kit)

Size	Stock Ref
6"	472226
7"	472227
9"	472228
12"	472229

Window Kit (excludes Fan Core)

Size	Stock Ref
6"	472230
7"	472231
9"	472232
12"	472233

Accessories

Shutters

Size	Stock Ref
S6SD/R	231710
S7SD/R	232710
S9SD/R	233710
S12SD/R	234710

Fan & Fitting Kit Dimensions (mm)
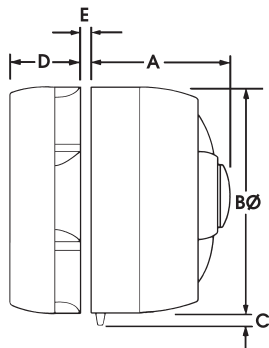
Size	6 in	7 in	9 in	12 in
A	140	147	166	201
B Ø	216	254	295	381
C	21	21	21	21
D	83	83	92	105
E (max)	10	10	10	13
Fixing hole Ø	184	222	260	337
Weight kg*	2.9	3.2	4.6	7.0

*Fan Core and Fitting Kit combined weight

Performance

Model	Extract Performance m³/h (l/s) F.I.D.	Watts MAX.	Sound dB(A) @ 3m	Amps @ 240V
S6WW	285 (79)	32	35	0.16
S7WW	425 (118)	34	31	0.16
S9WW	710 (197)	53	39	0.24
S12WW	1560 (433)	84	42	0.36

Traditional Standard Roof Fan

- Extract model in 4 sizes: 6", 7", 9" and 12"
- IPX4 Rated
- Colour: White
- Wide range of sensors available
- Manufactured in weather-resistant polymeric materials
- For the best performance from your fan, use an Ecotronic controller

Classic Retro-Styled Ventilation

A versatile and robust range of roof extract fans designed to satisfy the requirements of efficient ventilation in commercial and industrial applications. The simple, proven design of Standard Range makes installation and routine cleaning easy.

Featuring a low profile cowl, the unit is ready for fitting into horizontal, angled and vertical glass, fixing plates on roofs and in vertical windows or walls in exposed areas. With Vent-Axia roof plate assemblies, all four sizes can be fitted easily into flat roofs. Suitable for roof installation plus window and wall installation in exposed areas eg: coastal positions. Vent-Axia's spigot and ring method of fixing ensures easy installation and a weather proof joint. We recommend the use of sealing compound under the upper part of the unit when fitted in roofs.

Fan Core Motor

Purpose designed enclosed motor. Suitable for running at any angle. Quiet running, continuous rated motor with sealed for life ball bearings.

Suitable for operation in ambient temperatures from -40°C to +50°C. Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Supply voltage 220-240V/1/50Hz.

All Standard Range roof models are designed to fit directly into horizontal and sloping windows including wired cast, up to 10mm thick.

In solid roofs, install using a roof plate assembly and, if required, an eggcrate grille in the ceiling below. A suitable sealing compound should be used between the glass/roof plate and the exterior seal.

Models

Complete Fan

Size	Stock Ref
S6RF	131410
S7RF	132410
S9RF	133410
S12RF	134410

Fan Core (excludes Roof Kit)

Size	Stock Ref
6"	472226
7"	472227
9"	472228
12"	472229

Roof Kit (excludes Fan Core)

Size	Stock Ref
6"	472234
7"	472235
9"	472236
12"	472237

Fan & Fitting Kit Dimensions (mm)
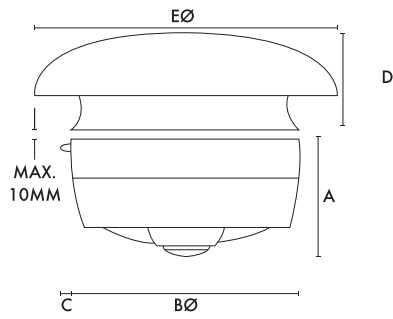
Size	6 in	7 in	9 in	12 in
A	140	147	166	201
B Ø	216	254	295	381
C	21	21	21	21
D	95	108	121	146
E Ø	267	330	394	508
Fixing hole Ø	184	222	260	337
Weight kg*	3.2	3.9	5.5	8.5

*Fan Core and Fitting Kit combined weight

Performance

Model	Extract Performance m³/h (l/s) F.I.D.	Watts MAX.	Sound dB(A) @ 3m	Amps @ 240V
S6RF	240 (67)	32	36	0.16
S7RF	350 (97)	34	31	0.16
S9RF	625 (174)	53	39	0.24
S12RF	1130 (314)	84	42	0.36

Traditional Standard Wall Fan

- Extract/intake models in 4 sizes: 6", 7", 9" and 12"
- IPX4 Rated
- White fascia, wall sleeve and black external weather louvre
- Optional shutter available
- Manufactured in weather-resistant polymeric materials
- For the best performance from your fan, use an Ecotronic controller

Classic Retro-Styled Ventilation

The proven Standard Range Wall Fans and Fitting Kits are designed to fit flush into most double brick walls using the rigid wall liner supplied. Provision is made within the liner for conduit entry. When installed, only the ivory fascia is visible on the internal wall face. The external weather louvre fits flush to the outside. A shutter is available as an accessory which can be easily fitted within the unit.

On new building work the installation and wiring of the wall liner can be completed prior to the final installation of the unit and controller. Fully shrouded connectors on the fascia automatically connect the wiring to the motor when fitted to the wall liner.

Fan Core Motor

The motor is purpose-designed. Suitable for running at any angle. Quiet running, enclosed, sealed for life ball bearings.

Supply voltage: 220-240V/1/50Hz.

Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection (S.T.O.P.).

Shutter

Type SD/R

The extract/intake shutter fits inside the Vent-Axia unit and closes against unwanted back draughts. It can be fitted at the same time as the unit or at a later date if required. Airflow operated for extract use, cord operated lock for intake use.

Controller

The Ecotronic controller is recommended for use with this model to give full function control of the fan including auto mode using an electro-mechanical sensor from Vent-Axia's sensor range. Alternatively, single speed extract is achieved using a normal On/Off switch.

Models

Complete Fan

Size	Stock Ref
S6WL	131510
S7WL	132510
S9WL	133510
S12WL	134510

Fan Core (excludes Wall Kit)

Size	Stock Ref
6"	472222
7"	472223
9"	472224
12"	472225

Wall Kit (excludes Fan Core)

Size	Stock Ref
6"	472274
7"	472275
9"	472276
12"	472277

Accessories

Shutters

Size	Stock Ref
S6SD/R	231710
S7SD/R	232710
S9SD/R	233710
S12SD/R	234710

Fitting Kit Dimensions (mm)
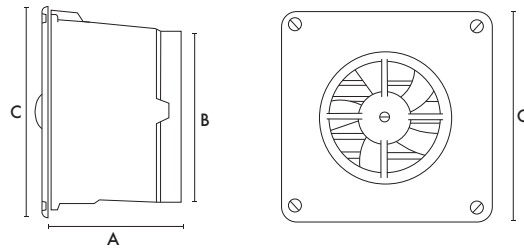
Size	6 in	7 in	9 in	12 in
A	279	279	279	279
B	203	279	279	356
C	279	362	362	448
Fixing hole Ø	235	311	311	400
Weight kg*	4.1	5.7	6.7	10.1

*Fan Core and Fitting Kit combined weight

Performance

Model	Extract Performance m³/h (l/s) F.I.D.	Watts MAX.	Sound dB(A) @ 3m	Amps @ 240V
S6WL	340 (94)	32	39	0.16
S7WL	544 (151)	34	35	0.16
S9WL	856 (238)	53	43	0.24
S12WL	1767 (491)	84	46	0.36

Please note that the Standard Range Panel model is not suitable for fitting within an existing Standard Range Wall fitting kit. Please use the correct Standard range Wall Core assembly.

Traditional Standard Panel Fan

- Extract / intake model in 4 sizes: 6", 7", 9" and 12"
- IPX4 Rated
- Built-in shutter available
- Colour: White Fascia
- Pre-wired lead for easy installation
- Manufactured in weather-resistant polymeric materials
- For the best performance from your fan, use a Ecotronic controller
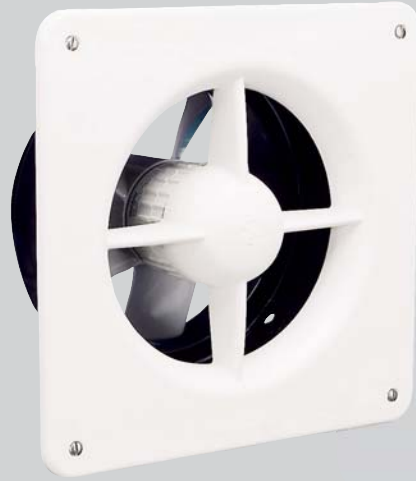
Classic Retro-Styled Ventilation

A versatile range of extract/intake fans designed to satisfy the most demanding requirements of efficient ventilation. Available in four sizes, the Standard Range Panel Fan is supplied without a shutter for vertical installations. The shutter is available as an accessory which can be easily fitted within the unit.

Suitable for mounting at any angle, this range may be installed in internal partitions, ceilings, ducts, and (with external louvres) through external walls.

The outer spigot may be connected directly to flexible ducting and other Vent-Axia ventilation accessories to suit individual applications. When installed, only the white fascia is visible.

Shutter
Type SD/R

The vertical extract/intake shutter fits inside the Vent-Axia unit and closes against unwanted back draughts. It can be fitted at the same time as the unit or at a later date if required.

Airflow operated for extract use, cord operated for intake use.

For all models mounted in vertical surfaces.

Motor

Purpose-designed enclosed ball bearing motor. Suitable for running at any angle. Quiet running.

Supply voltage 220-240V/1/50 Hz.

Suitable for operation in ambient temperatures from -40°C to +50°C.

Fitted with Standard Thermal Overload Protection. (S.T.O.P.).

Controller

The Ecotronic Controller is recommended for use with this model to provide full function control of the fan plus the option of sensor mode using a selection of electro-mechanical switches to provide automatic switching of the fan. Alternatively, single speed extract is achieved using a normal On/Off switch.

Model

Size	Stock Ref
S6PL	131610
S7PL	132610
S9PL	133610
S12PL	134610

Accessories
Shutters

Size	Stock Ref
S6SD/R	231710
S7SD/R	232710
S9SD/R	233710
S12SD/R	234710

Dimensions (mm)
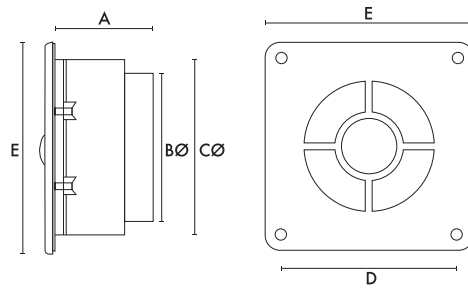
Size	6 in	7 in	9 in	12 in
A	127	137	156	197
BØ	171	210	248	324
CØ	219	250	302	387
D	226	311	311	397
E	254	337	337	419
Fixing Hole Ø	254	337	337	419
Weight kg	2.5	3.0	3.5	5.8

Performance

Model	Extract Performance m³/h (l/s) F.I.D.	Watts MAX.	Sound dB(A) @ 3m	Amps @ 240V
S6/PL	354 (98)	32	41	0.16
S7/PL	561 (156)	34	37	0.16
S9/PL	927 (258)	53	45	0.24
S12/PL	1910 (531)	84	48	0.36

Please note that the Standard Range Panel model is not suitable for fitting within an existing Standard Range Wall fitting kit. Please use the correct Standard range Wall Core assembly.

Hygiene

Vent-Axia has been at the forefront of technical innovation for over 75 years and we understand that hand dryer hygiene is essential in our daily lifestyles. We have an extensive hand dryer range suitable for use in many locations, from pubs and restaurants to hotels, schools, service stations and retail centres.

Each of our hand dryer products is powerful yet quiet and all our models come in sleek, elegant designs to blend well into any kitchen, bathroom or WC location. From the powerful fast-speed JetDry Plus to the classic Vent-Axia Dryline+, our hand dryer products are all designed with energy efficiency firmly in mind, saving you as much as 70% of the equivalent cost of paper towels.

For any situation where hygiene, convenience, economy and safety are all key considerations, you can trust Vent-Axia's hand dryer range to deliver the solutions you need.

Jet Dry® Plus
The Jet Dry Plus features a 99.9% HEPA filter and UV sterilization for use in areas where good hygiene is vital.

Fast Dry Hand Dryers

Jet Dry® Plus

Automatic double sided high speed jet hand dryer.

- 99.9% HEPA Filter
- UV Sterilisation
- 10 second dry time
- LED indicator
- Removable drip tray
- Lo-Carbon DC Motor, 750W - 2050W
- Ambient Temperature Response Element
- Air speed 95m/s
- Antibacterial coating
- Heater Element 900 - 1300W, adjustable/On/Off
- 700 x 300 x 225mm (H x W x D)
- Weight 9.5kg
- IPX4 Rated
- Sound level: 75dB(A) at 1m
- GS approved
- Cable entry bottom right

Models	Stock Ref
Silver	409117
White	409118

Lo-Carbon eTempest

Automatic hand dryer for fast drying applications.

- 10 second drying time
- Automatically senses work surfaces to avoid nuisance running
- Insulation Earthed Class 1
- Cover: Steel 1.2 mm thick, epoxy coated
- 180 x 250 x 138.5mm (H x W x D)
- Weight: 3.8Kg
- Heater element 500 Watts, adjustable/On/Off
- Unique blue dry zone indicator
- Infrared automatic operation
- Rated at 500kW - 1.2 kW at 230V
- Airflow 113m³/h
- 60 seconds auto shut off
- IPX1 Rated
- Motor: Max 30,000rpm brushed motor
- Soft start
- GS Approved
- Cable entry bottom left

Stock Ref

444956

Tempest® - Reduced Sound

Automatic no-touch hand dryer for heavy duty applications.

- 10 second drying time
- Automatically senses work surfaces to avoid nuisance running
- Unique blue dry zone indicator
- Cover: Steel. Finish: Polished or satin stainless steel
- Insulation Earthed Class 1
- 277 x 201 x 175mm (H x W x D)
- Weight 6.6kg (packaged)
- Airflow 116m³/h
- Rated at 500W - 1.6kW at 230V
- Heater Element 450 - 900W, adjustable/On/Off
- Infrared automatic operation
- 60 second auto shut off
- IP23 Rated
- Motor speed adjustable
- Motor: Max 18,000rpm brushed motor
- Soft start
- Sound Level: reduced to 72dB(A) at 1m
- GS Approved
- Cable entry bottom left

Models	Stock Ref
Satin Stainless	439464
Polished Stainless	439463
White	437231
Filter Assembly Pack	444959
Filter Replacement 2 pack	444960

Hand Dryers

Ultradry® SX
Automatic 'no-touch', vandal resistant hand and face dryer for offices, shops, restaurants, pubs, clubs and hospitals.
- Cover: LM24 pressure die cast aluminium
- Finish: Epoxy/polyester powder coating
- Motor: 5,500rpm, suppressed brushed motor
- Insulation Earthed Class 1
- 264 x 275 x 177mm (H x W x D)
- Weight: 6.0kg (6.6kg packed)
- Sound level: 79 dB(A) at 1m
- Rated at: 2.4kW at 230V
- 28 second drying time
- BEAB Approved
- IP24 Rated
- Cable entry bottom right

Stock Ref
20101800SX

Powerdry® SX
Push button operated hand and face dryer for heavy duty applications in public lavatories, factories, railway stations and schools, etc.
- Cover: LM24 pressure die cast aluminium Finish: Epoxy/polyester powder coating
- Motor: 5,500rpm, suppressed brushed motor
- Insulation: Earthed, Class I
- 264 x 275 x 177mm (H x W x D)
- Weight: 6.0kg (6.6kg packed)
- Sound level: 79 dB(A) at 1m
- Rated at: 2.4kW at 230V
- 28 second drying time
- BEAB Approved
- Supply voltage:220-240V/1/50-60Hz
- IP24 Rated
- Cable entry bottom right

Stock Ref
20101600SX

Dryline +
Automatic 'no-touch' operation compact hand dryer. Suitable for smaller office washrooms, kitchens and clinics.
- Cover: ABS.
- Motor: 2450rpm shaded pole induction
- Double insulated appliance
- BEAB approved
- 280 x 275 x 143mm (H x W x D)
- Weight: 2.97kg (3.3kg packed)
- Sound level: 46 dB(A) at 3m
- Rated at: 1.7kW at 230V
- 36 second drying time
- Supply voltage: 220-240V/1/50Hz
- IPX1 Rated
- Cable entry bottom right

Stock Ref
453915
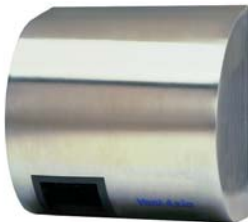
Ultradry® SX Stainless Steel
Automatic 'no-touch' hand dryer specially designed for high performance hand drying in food preparation areas and hospital applications and eminently suitable for prestige installations.
- Cover: Satin polished stainless steel
- Motor: 5,500rpm, suppressed brushed motor
- Insulation Earthed Class 1
- 264 x 275 x 177mm (H x W x D)
- Weight: 6.0kg (6.6kg packed)
- Sound level: 79 dB(A) at 1m
- Rated at: 2.4kW at 230V
- 28 second drying time
- BEAB Approved
- IP24 Rated
- Cable entry bottom right

Stock Ref
20101840SX

Prepdry-Stainless Steel
Designed for food preparation areas and hospital applications where the highest levels of hygiene have to be observed. Automatic 'no-touch' hand dryer.
- Cover: Satin polished stainless steel
- Motor: External Rotor Brushless Motor 2700 rpm
- Insulation Earthed Class 1
- 280 x 270 x 148mm (H x W x D)
- Weight: 4.0kg (4.5kg packed)
- Sound level: 65 dB(A) at 1m
- Rated at: 2.0 kW at 240V
- 31 second drying time
- Supply voltage: 220-240V/1/50Hz
- BEAB Approved
- IP24 Rated
- Cable entry bottom right

Stock Ref
20101440

Professional E®
Automatic 'no-touch' hand dryer for smaller office washrooms, kitchens and clinics.
- Cover and base: High gloss, fire retardant ABS/polycarbonate alloy
- Motor: 2700rpm external rotor, brushless motor
- Double insulated appliance
- 262 x 261 x 141mm (H x W x D)
- Weight: 3.09kg (3.52kg packed)
- Sound level: 65 dB(A) at 1m
- Rated at: 2.0 kW at 240V
- 31 second drying time
- BEAB Approved
- Supply voltage: 220-240V/1/50Hz
- IP24 Rated
- Cable entry bottom right

Stock Ref
20101402

Hand Dryers

Turbodry® White Auto

Automatic hand & face dryer for heavy duty applications where a robust secure design is required.

- Cover: Steel.
- Finish porcelain enamel coating
- Insulation Earthed Class 1
- 248 x 284 x 202mm (H x W x D)
- Motor: 5,500rpm brushed motor
- Weight 7.5kg
- Sound level 70 dB(A) @1m
- Rated at 2.4kW @ 230 V
- 26 second drying time
- GS Approved
- Unique blue dry zone indicator
- IP23 Rated
- Cable entry bottom left

Stock Ref
435427

Turbodry® White Manual

Push button hand & face dryer for heavy duty applications where a robust secure design is required.

- Cover: Steel.
- Finish: porcelain enamel coating
- Insulation Earthed Class 1
- 248 x 284 x 202mm (H x W x D)
- Motor: 5,500rpm brushed motor
- Weight 7.5kg
- Sound level 70 dB(A) @1m
- Rated at 2.4kW @ 230 V
- 26 second drying time
- GS Approved
- Unique blue dry zone indicator
- IP23 Rated
- Cable entry bottom left

Stock Ref
435424

Turbodry® Steel Auto

Automatic hand & face dryer for heavy duty applications where a robust secure design is required.

- Cover: Steel.
- Finish: Polished Stainless Steel
- Insulation Earthed Class 1
- 248 x 284 x 202mm (H x W x D)
- Motor: 5,500rpm brushed motor
- Weight 7.5kg
- Sound level 70 dB(A) @1m
- Rated at 2.4kW @ 230 V
- 26 second drying time
- GS Approved
- Unique blue dry zone indicator
- IP23 Rated
- Cable entry bottom left

Stock Ref
435430

Easy Dry Range

An economical ABS or Metal covered automatic dryer, designed for use in applications where good performance linked with price sensitivity is of paramount importance.

- 2500 - 4200rpm induction motor
- Insulation Earthed Class 1
- 225 x 275 x 160mm (H x W x D)
- Weight: ABS Models - 3.3kg (3.65kg packed), Metal Models - 4.7kg (5.5kg packed)
- Sound levels: 54 dB(A) at 1m
- Rated: 1.0kW, 1.25kW or 2kW at 240V
- 30 seconds drying time
- Supply voltage: 220-240V/1/50Hz
- GS Approved
- IP22 Rated
- Cable entry bottom right

Models	RPM	Stock Ref
1.0kW ABS	2500	427935
1.25kW ABS	2500	436297
1.25kW+Metal	2500	431515
2.0kW+Metal	4200	427936

Insect Killers

Portable Insect Killer
- High efficiency long life (50,000 hrs) LED bulbs for attracting insects
- ABS fire proof plastic for high safety
- Micro switch for high safety
- Extract fan for high efficiency
- Includes brush for cleaning and maintenance
- Approved to EN60335-2-59 CE/GS/ROHS
- Weight: 0.7kg
- Coverage: 50m^2
- Watts: 5.5W

Model	Stock Ref
Portable Insect Killer	446877

IK50
- Durable ABS fire proof plastic on side panels
- Large removable collection tray for easy cleaning
- High quality aluminium, easy to clean. Crack, fade, scratch and oil resistant
- Fully protected outer mesh
- Energy efficient UV-A lamp
- Free standing, suspend or hang from wall
- Approved to EN60335-2-59 CE/GS/ROHS/REACH/PAH(TUV)
- Weight: 1.83kg
- Coverage: 50m^2
- Watts: 2x 8W

Model	Stock Ref
IK50	446878
Spare Bulb	446937

IK80
- Durable ABS fire proof plastic on side panels
- Large removable collection tray for easy cleaning
- High quality aluminium, crack, fade, scratch and oil resistant
- Fully protected outer mesh
- Energy efficient UV-A lamp
- Free standing, suspend or hang from wall
- Approved to EN60335-2 59 CE/GS/ROHS/REACH/PAH(TUV)
- Weight: 2.6kg
- Coverage: 80m^2
- Watts: 2x 10W

Model	Stock Ref
IK80	446879
Spare Bulb	446938

IK150
- Durable ABS fire proof plastic on side panels
- Large removable collection tray for easy cleaning
- High quality aluminium, easy to clean. Crack, fade, scratch and oil resistant
- Fully protected outer mesh
- Energy efficient UV-A lamp
- Free standing, suspend or hang from wall
- Approved to EN60335-2 59 CE/GS/ROHS/REACH/PAH(TUV)
- Weight: 3.60kg
- Coverage: 150m^2
- Watts: 2x 20W

Model	Stock Ref
IK150	446880
Spare Bulb	446939

Cooling

Vent-Axia offers a range of cooling products for both fixed and portable applications. Products such as Hi-Line Plus are ideal for warehouse or office environments with high interior ceilings. For emergency or occasional use, our portable air con units and fans are idea.

Hi-Line Plus
For use in a variety of commercial and industrial applications, the Hi-Line Plus provides effective and positive air movement to improve the working environment.

Vent-Axia

Jupiter De-Stratification Unit

- Available in two sizes
- Speed controllable
- High velocity fans
- Supplied with a grey coated finish - other colours available to special order
- Available with built-in thermostat

Air Movement Fans

The Vent-Axia Jupiter range of de-stratification units is based on direct drive axial fans, housed in a neat and sturdy casing complete with eyebolts for suspension from chains or steel wires. Ideal for applications where the proposed mounting height requires higher velocity fans or where open bladed ceiling fans are considered unsuitable. Jupiter fans can be used in stores, warehouses, factories, workshops, as well as many other industrial applications. The unit provides effective and positive air movement to improve the working environment, particularly during summer months. In addition Jupiter fans can be used during the winter to re-circulate hot air from ceilings and roofs down to living and working areas.

Electrical

Supply voltage 220-240V/1/50Hz. Direct drive axials with speed controllable motors. The motor hub and impeller are statically and dynamically balanced for smooth operation and optimum performance. Class F insulation, suitable for operating in atmospheres of up to 95% RH and ambient temperature of up to +60°C.

General Installation

For cooling effect, circulation of air is required in any given area. As a guide, mount Jupiter fans 4.5-6m apart, in tropical climates 3m apart. Fans should be mounted so that they do not interfere with lighting installations in any way. Mount fans away from walls or pillars where possible to avoid obstruction of airflow.

Heat Saving

Heat savings are largely dependent on the difference between the roof level and the working level temperatures, the ventilation rate and the geographical position.

Models

Model	Stock Ref
NJUP315	457485
NJUP315CTS	457486
NJUP400	457487
NJUP400CTS	457488

Accessories

Model	Stock Ref
Speed Controller	RTRE20
ThermoSwitch	563502
Suspension Pack	457490

Dimensions (mm)
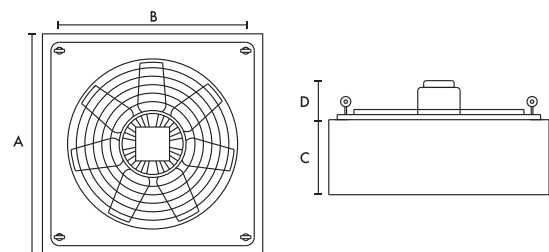
Size	A	B	C	D	Weight
315	500	380	200	84	11 kg
400	620	490	200	93	16 kg

Performance

Models	Duty CFM	m³/s	Speed RPM	dB(A) @3M	220/240V/50Hz/1Ph kW	FLC	SC	Max Mounting Height Feet	Metres
NJUP315/CTS	1290	0.610	1380	45	0.15	0.70	2.50	44	13.4
NJUP400/CTS	3000	1.415	1320	51	0.35	1.60	5.50	72	22.0

Hi-Line Plus Ceiling Sweep Fans

- Suitable for winter de-stratification applications or summer cooling
- Three sweep diameters: 900mm, 1200mm, and 1400mm
- Two down rod lengths included
- Easy to install
- Quiet running
- Can be installed for either upward or downward airflow
- Reversible electronic controller available

De-stratification Fans

Hi-Line Plus ceiling fans can be used in offices, stores, shops, foyers, schools, hospitals, kitchens, restaurants and many industrial applications such as warehouses, factories, tanneries and workshops. Hi-Line Plus fans will provide effective and positive air movement to improve the working environment particularly during summer months. In addition, Hi-Line Plus fans can be used during winter months to re-circulate hot air from ceiling areas down to living and working areas thus helping to conserve energy.

An infinitely variable speed controller is available for use with one or a combination of models up to 5 units. Alternatively, Hi-Line Plus fans may be wired directly to a normal On/Off switch. For maximum benefit, good ventilation is vital, we advise that Hi-Line Plus fans are used in conjunction with Vent-Axia T-Series or Standard Range ventilation units.

Hi-Line Plus blades are produced from sheet steel and individually weighed to produce matched sets.

Motor

The motor is totally enclosed, capacitor start and run. Suitable for temperatures up to +40°C. Supply Voltage 220-240V/1/50Hz.

Down Rods

The Hi-Line Plus fans include both a long and short down rod packaged as standard. The total drop length of the short down rod including motor is 360mm. The total drop length of the long down rod including motor is 610mm.

Models

Model	Stock Ref
HL 90	428049
HL 120	428050
HL 140	428051

Ceiling Fan Controller

SAC5 Reversible Controller
The Vent-Axia ceiling fan controller adds extra flexibility to all Hi-Line Plus installations. Fan speeds can be selected to suit varying conditions. This is of particular benefit where mounting height is low. The controller is designed to be used with a single fan or up to 5 Hi-Line fans.

The controller is infinitely variable, has solid state components, an insulated spindle, white cover plate and can be flush or surface mounted. Suitable for commercial environments.

Hi-Line Plus fans should be used only with a Vent-Axia ceiling fan controller or an On/Off switch. Supply Voltage 220-240V/1/50Hz.

Model	Stock Ref
Controller	428238

For completely silent running we recommend the use of a 5 step transformer. Suitable for up to 9 ceiling sweep fans.

Model	Stock Ref
5 Step Transformer	10314103

Performance

	Sweep		Air Displacement	Max.	Amps	
Model	Dia. mm	Colour	m^3/h	Watts	@240V	RPM
HL 90	900	White	8100	41	0.176	335
HL 120	1200	White	12600	52	0.235	315
HL 140	1400	White	15000	65	0.285	295

Weight approximately 7kg.

Portable Air Conditioner

- Environmentally friendly, R410A refrigerant
- Does not require specialist installation
- Built-in 24 hour timer
- Effective cooling for homes and offices
- Double insulated cable with moulded UK plug

Compact Cooling

The Portable Air Conditioning unit from Vent-Axia provides mobile air-conditioning or dehumidifying anywhere, anytime. Simply plug in and switch On. Perfect for domestic and light commercial use such as offices, shops and reception areas where permanently installed air conditioning systems may be too inflexible and expensive.

Model

3 in 1 Portable Air Conditioner

The 3 in 1 unit is a self contained floor standing portable air conditioner which does not require a separate outdoor unit or specialist installation.

- 3 in 1 - choose from cooling, dehumidifying and fan only options
- 16°C-30°C temperature setting
- 24 hour timer
- Micro-processor control
- R410A CFC free refrigerant
- 12,000 btu/h cooling
- Double insulated cable with moulded UK plug

Stock Ref
448919

Specifications

Model	3 in 1
Cooling capacity kW (btu/hr)	3.46 (12,000)
Dehumidification - litres/hr	0.95
Condensate disposal	Tank or Hose
Power input - Watts	1340
Power supply - via 13 Amp plug & socket	230V, 1ph, 50Hz
Dimensions - (HxWxD) mm	765 x 345 x 300
Flexible hose length - mm/diameter - mm	1500/150
Refrigerant	R410A

Vent-Axia Cooling

12" Wall Fan

Quiet motor operation, 3 speeds with oscillation and free neck. Ideal for wall fixing, 8 hour On/Off timer. Infra-red remote control sensor, double insulated cable with moulded UK plug.

Stock Ref
427583

Box Fan

Quiet motor operation, floor standing model, 3 speed options. 360° louvre rotating air circulation, upward or downward tilt adjustment. Double insulated cable with moulded UK plug.

Stock Ref
427584

Electric Heating

Vent-Axia heating is ideal for residential or commercial applications. So whether it's a bedroom or hallway, office or shop, we can provide the solution.

The simplicity of installing electric heating, particularly in high rise apartments means it is the natural choice for your project.

Comfort heating products with innovative zone control features provide energy savings for the occupier without compromising comfort in the home, coupled with low capital outlay they offer a cost effective solution for installer and occupier.

With a slim, stylish design our Opal Aluminium Radiator range offers households attractive, energy efficient comfort. Featuring an advanced digitally controlled thermostat, the Opal range gives you one of the most cost effective and energy efficient electric heating systems available.

Vent-Axia®

Bluethermal Underfloor Heating Mat

- Energy efficient
- Maintenance free
- Zone controllable
- Easy to install adhesive mats
- Offers design freedom by removing radiators
- 100W/m² & 150W/m² options available
- 2.5m cold lead cable
- Controller & insulation board available
- 10 Years warranty
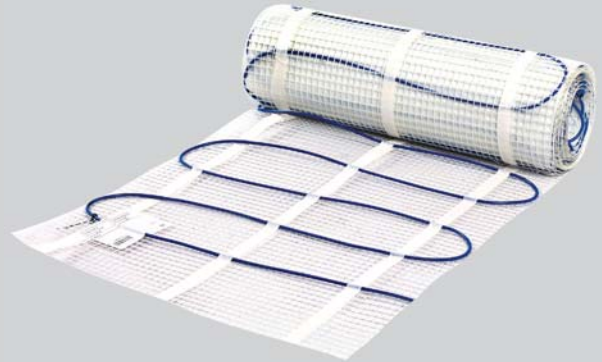
Bluethermal Mat Thin Twin Conductor Heating Mat
Renovating with Heating Mats

Minimum floor thickness can be important in renovation processes in order to avoid extra work on doors and thresholds. For these projects our Bluethermal® Mat range is the ideal product. The heating mat consists of a thin twin conductor heating cable attached to an adhesive flexible glass fibre net. The thin heating cable has a total thickness of only 4mm, is delivered with a 2.5m cold lead and has a width of 0.5m.

The 100W/m² mat can be installed on any type of levelled and stable sub floor, and can also be used under parquet or other wooden floor coverings. The 150W/m² must be installed on a non-combustible levelled and stable sub floor. With all our products we recommend the use of our Bluethermal® Thermostatic Controller thermostat with a temperature limiting function.

10 year Warranty

Vent-Axia offers a 2 year standard warranty on underfloor heating and their components from the date of purchase. A 10 year extended warranty is also available upon completing the 'Warranty Form' found in the Fitting and Wiring Instructions.

Construction:

- Solid resistance wires
- FEP insulation
- Solid copper earth wire
- Fibre-glass net
- PVC outer jacket
- Aluminium sheath
- Cable thickness is 4mm
- Mat width 0.5m (19.7")

Technical Data:

- Area load 100W or 150W/m² (9.3 or 14.0W/sq.ft.)
- Loads from 100W to 1800W
- Max. continuously operating temperature outer jacket: 65°C
- Tolerance on conductor resistance: -5 / + 10 %
- Rated voltage: 230V

Installation Detail
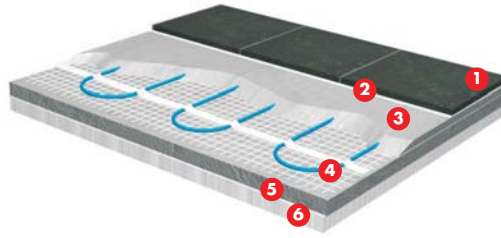
1. Floor covering
2. Tile adhesive
3. Recommended screed depth 10-30mm
4. Bluethermal® Mat 4mm
5. Insulation board
6. Stable and levelled sub-floor

Performance Guide

Stock Ref	Model	Mat Area m²	Output W	Dimensions m W	Dimensions m L	Element Nom. Resistance Ω
446175	VAUFHM 100	1.0	100	0.5	2	529.0
446176	VAUFHM 100	1.5	150	0.5	3	352.7
446177	VAUFHM 100	2.0	200	0.5	4	264.5
446178	VAUFHM 100	2.5	250	0.5	5	211.6
446179	VAUFHM 100	3.0	300	0.5	6	176.3
446180	VAUFHM 100/HS	3.5	350	0.5	7	151.1
446181	VAUFHM 100/HS	4.0	400	0.5	8	132.3
446182	VAUFHM 100/HS	5.0	500	0.5	10	105.8
446183	VAUFHM 100/HS	6.0	600	0.5	12	88.2
446184	VAUFHM 100/HS	7.0	700	0.5	14	75.6
446185	VAUFHM 100/HS	8.0	800	0.5	16	66.1
446186	VAUFHM 100/HS	10.0	1000	0.5	20	52.9
446187	VAUFHM 100/HS	12.0	1200	0.5	24	44.1
446188	VAUFHM 150	1.0	150	0.5	2	352.7
446189	VAUFHM 150	1.5	225	0.5	3	235.1
446190	VAUFHM 150	2.0	300	0.5	4	176.3
446191	VAUFHM 150/HS	2.5	375	0.5	5	141.1
446192	VAUFHM 150/HS	3.0	450	0.5	6	117.6
446193	VAUFHM 150/HS	3.5	525	0.5	7	100.8
446194	VAUFHM 150/HS	4.0	600	0.5	8	88.2
446195	VAUFHM 150/HS	5.0	750	0.5	10	70.5
446196	VAUFHM 150/HS	6.0	900	0.5	12	58.8
446197	VAUFHM 150/HS	7.0	1050	0.5	14	50.4
446198	VAUFHM 150/HS	8.0	1200	0.5	16	44.1
446199	VAUFHM 150/HS	10.0	1500	0.5	20	35.3
446200	VAUFHM 150/HS	12.0	1800	0.5	24	29.4

*HS = hidden splice   The mats are equipped with a 2.5m cold lead

Convection Heating and Underfloor Heating Comparison

21ºC Air Temperature
18ºC Perceived Temperature
15ºC Surface Temperature

Heating with Convection

19ºC Air Temperature
19ºC Perceived Temperature
24ºC Surface Temperature

Heating with Underfloor Heating
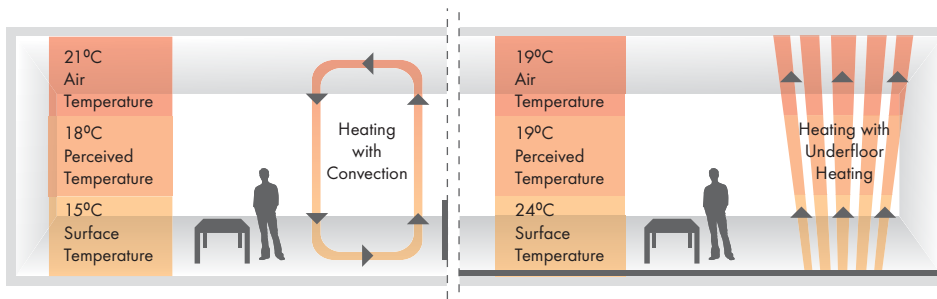
Bluethermal Underfloor Heating Cable

- Energy efficient
- Maintenance free
- Zone controllable
- Allows for application in tight areas
- Offers design freedom by removing radiators
- 100W/m² & 150W/m² options available
- 2.5m cold lead cable
- Controller & insulation board available
- 10 Years warranty

Bluethermal Cable Twin Conductor Cable For Direct Heating Renovation with Heating Cables

When renovating with our Bluethermal® Cable range, apply the cable to a non-combustible subfloor (minimum thickness 5mm) and take into consideration the placement of permanent installations such as showers, baths, toilets, cupboards etc. Place the end seal away from potentially wet areas of the floor. See 'Installation Example' on the next page detailing the placement of a free laid heating cable. Note that the cable is not crossing or touching itself, this is to provide the best possible heat conductivity to the surroundings of the cable.

The heating cable is embedded in a screed/concrete with low overall construction height. After drying and hardening, a moisture barrier/membrane can be put on top of the screed/concrete before the floor covering is installed.

10 year Warranty

Vent-Axia offers a 2 year standard warranty on underfloor heating and their components from the date of purchase. A 10 year extended warranty is also available upon completing the 'Warranty Form' found in the Fitting and Wiring Instructions.

Construction:
- Solid resistance wire
- XLPE insulation
- Tinned copper drain wire
- Aluminium screen
- PVC outer jacket
- Cable thickness is 7mm

Technical Data:
- Series resistance, element values from 300W to 3300W
- Linear load: 17W/m (5.2W/ft)
- UV resistant
- Max. cont. operating temperature outer jacket: 65°C (149°F)
- Min. bending radius: 5 x cable diameter
- Tolerance on conductor resistance: - 5 / + 10 %
- Highest system voltage: 300/500V
- Rated voltage: 230V

Installation Detail
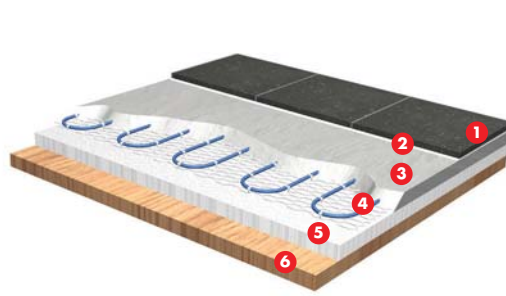
1 Floor covering

2 Tile adhesive

3 Recommended screed depth 40-60mm

4 Bluethermal® Cable 7mm

5 Insulation board

6 5-10mm stable and levelled subfloor

Performance Guide

Stock Ref	Model	Load @ 230V W	Element Length m	Element Length ft	Element Nom Resistance Ω	Outer Diameter mm
446201	VAUFHC	300	17.6	58	176.30	7
446202	VAUFHC	400	23.5	77	132.30	7
446203	VAUFHC	500	29.3	96	105.80	7
446204	VAUFHC	600	35.2	115	88.20	7
446205	VAUFHC	700	41.0	135	75.60	7
446206	VAUFHC	840	49.7	162	63.00	7
446207	VAUFHC	1000	58.3	191	52.90	7
446208	VAUFHC	1250	72.4	237	42.30	7
446209	VAUFHC	1370	80.8	265	38.60	7
446210	VAUFHC	1700	100.0	328	31.10	7
446211	VAUFHC	2100	123.7	405	25.20	7
446212	VAUFHC	2600	154.5	507	20.30	7
446213	VAUFHC	3300	194.0	615	16.00	7

The cables are equipped with a 2.3m cold lead

Convection Heating and Underfloor Heating Comparison

21ºC Air Temperature

18ºC Perceived Temperature

15ºC Surface Temperature

Heating with Convection

19ºC Air Temperature

19ºC Perceived Temperature

24ºC Surface Temperature

Heating with Underfloor Heating
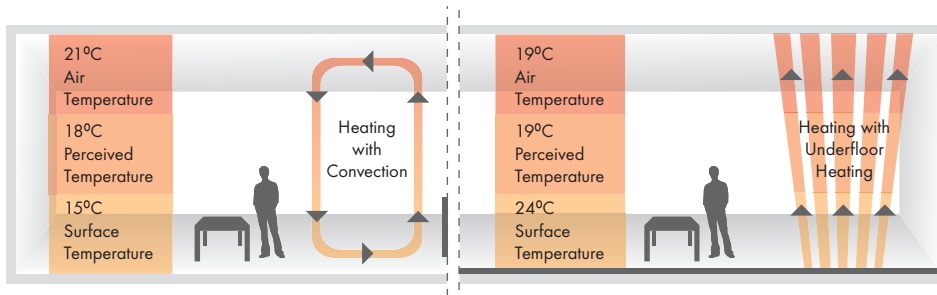
Installation Example
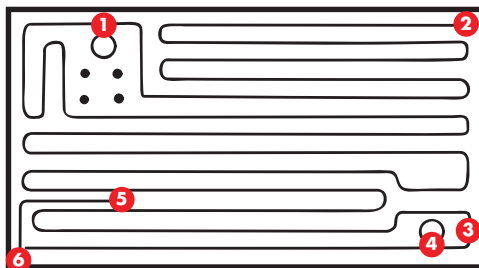
1 Cable laid behind the toilet to dry up condensation

2 End seal preferably placed in a dry zone of the floor

3 Put some distance between drain and cable to avoid excessive dryness of gully and odour problems

4 Drain/gully

5 Floor sensor

6 Transition between heating cable and cold end attachment

Bluethermal Thermostatic Controller

- Large screen with blue backlighting
- 4-event programme or constant temperature control
- Clock: 12 hours (am/pm) / 24 hours
- Day display: Monday - Sunday
- Celsius or fahrenheit display selection
- Frost protection setting
- 5 - 40°C working range (default)

Applications

Precise and accurate temperature control is important to fully achieve the advantages of underfloor heating, without using more electric energy than necessary.

The use of heating mats and cables in combination with an accurate thermostat can provide an energy efficient and comfortable floor heating solution for most modern buildings.

Specifications

- Accuracy: +0.5°C / 1°F
- Maximum load: 16A or 3.2kW
- Power supply: 230V
- Dimensions: 86 x 86 x 13mm (WxHxD)
- IP24 rated

Model	Stock Ref
VAUFHTC	446174

Splicing Kit

In the unlikely event that you need to repair your heating cables, this kit provides you with the necessary joints to get your systems back running.

Model	Stock Ref
VAUFHS	446214

Recommended Application Guide

				Model	
Application	Output Min W/m²	Output Max W/m²	VAUFHM 100	VAUFHM 150	VAUFHC
Entrance/Hall	80	150	X		X
Entrance/Porch	120	150		X	X
Hall/Corridor	80	100	X		X
Living Room	70	100	X		X
Kitchen	70	100	X		X
WC	120	150		X	X
Utility Room	120	150		X	X
Bedroom	70	100	X		X
Bathroom	120	150		X	X
Office	80	100	X		X
Storage Room	80	100	X		X
Shop	80	100	X		X
Workshop	80	100	X		X

Bluethermal Insulation Boards

- Increases the efficiency of any Underfloor Heating system
- Variety of sizes to suit any project
- Minimizes downwards heat loss
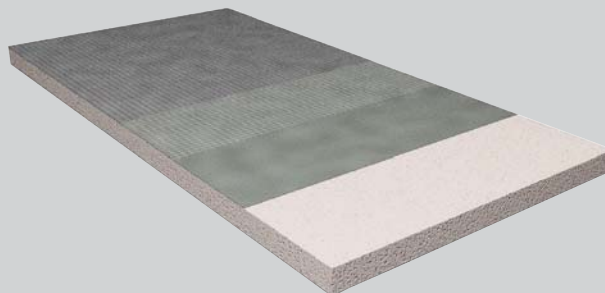
Applications

Our insulation boards limit the downward heat loss within the system directing the heat to where you need it.

Vent-Axia underfloor heating insulation boards are recommended for use with our products to increase the efficiency and minimise the warm up time of the system, saving both energy and money. They are available from 6mm to 70mm thick.

Fixing to Wooden Floors

By Adhesive - The boards must be laid onto a level floor, with a suitable flexible rapid set cementitious tile adhesive – solvent based or ready mixed adhesives MUST NOT be used.

By Mechanical Fixing - The boards (other than 6mm boards) can be installed with mechanical fixings only to flat and level timber floors using approximately 12 fixings per 1200mm x 600mm board, with suitable screws and a 35mm fixing washer under the head. Fixing kits are available as detailed in the table to the right.

Fixing to Concrete Floors

A suitable flexible rapid set cementitious tile adhesive should be used – solvent based adhesives or ready mixed adhesives MUST NOT be used.

Vent-Axia Underfloor Heating Insulation Boards

Stock Ref	Model	Thickness mm	Number of boards per box	Pack coverage m²	U-Value W/m²/K
447267	VAUFHIB6	6	8	5.76	4.5
447268	VAUFHIB10	10	6	4.32	2.7
447269	VAUFHIB12	12.5	6	4.32	2.16
447270	VAUFHIB20	20	6	4.32	1.35
447271	VAUFHIB30	30	4	2.88	0.9
447272	VAUFHIB40	40	3	2.16	0.67
447273	VAUFHIB50	50	2	1.44	0.54
447274	VAUFHIB60	60	2	1.44	0.45
447275	VAUFHIB70	70	2	1.44	0.39

Vent-Axia Underfloor Heating Insulation Board Accessories

Stock Ref	Model	Type	To be used with insulation board	Size
447277	VAUFHIB10S	Screws *	VAUFHIB6-12	25mm (L)
447278	VAUFHIB20S	Screws *	VAUFHIB20	35mm (L)
447279	VAUFHIB30S	Screws *	VAUFHIB30	45mm (L)
447280	VAUFHIB40S	Screws *	VAUFHIB40	60mm (L)
447281	VAUFHIB50S	Screws *	VAUFHIB50	65mm (L)
447282	VAUFHIB60S	Screws *	VAUFHIB60	75mm (L)
447283	VAUFHIBW	Washers *	All	35mmØ
447276	VAUFHIBT	Tape	All	100mm (W) x 50m roll (L)

* (50 per pack)

NEW Heated Towel Rails

- New and improved IP55 rated
- Plug and vent included
- Five year leakage warranty
- One year manufacturer's guarantee
- Heating element included
- Stylish designs
- Steel construction with high quality white and chrome finishes
- Production is carried out using latest technology resulting in absolute consistency in quality
- Complete fitting set supplied

Range Options

Vent-Axia Heated Towel Rails quickly warm and dry towels. Their presence on the wall also adds to the overall style, temperature and comfort of the room.

This comprehensive range of white and chrome towel rails offers 10 different models across the flat, curved and designer ranges. The range offers sizes from 500 x 600mm to 500 x 1500mm available in four heat outputs of 100, 150, 250 and 400W matched to the size of the rail.

Advantages of Towel Rails

Adequately heating your bathroom using a Vent Axia towel rail not only leaves your towels warm and dry, but helps regulate temperature to the rest of the room decreasing the chances of mould and condensation.

Product Selection

Sizing the correct towel rail can be made easy by using our online heating tool available on the website www.vent-axia.com/heating-guide

Style and Comfort

With the Vent Axia range of towel rails you will find a towel rail to suite all applications and sizes. Every towel rail uses thermally regulated heating elements and a mixture of high inertia fluid to order to maintain even heat distribution around the entire rail.

Specification

| Stock Ref | Model | Description | Finish | Dimensions mm | | Output |
				W	H	W
476254	VATR150F		Chrome	700	400	150
476255	VATR250F-W		White	1100	500	250
476256	VATR250F	Flat	Chrome	1100	500	250
476257	VATR400F		Chrome	1500	500	400

| Stock Ref | Model | Description | Finish | Dimensions mm | | Output |
				W	H	W
476258	VATR250C		Chrome	1100	500	250
476259	VATR400C	Curved	Chrome	1500	500	400

| Stock Ref | Model | Description | Finish | Dimensions mm | | Output |
				W	H	W
476260	VATR250-FR		Chrome	1000	500	250
476261	VATR150-FR	Flat Railed	Chrome	700	400	150

| Stock Ref | Model | Description | Finish | Dimensions mm | | Output |
				W	H	W
476262	Varma	Designer	Chrome	1200	500	250

| Stock Ref | Model | Description | Finish | Dimensions mm | | Output |
				W	H	W
479263	Torr	Designer	Chrome	1200	500	250

Radiant Heaters

- Economical and easy to install
- Silent in operation
- No yearly maintenance cost
- Shortwave IR halogen lamp
- One second heat up time
- Precision heating directed where you need it
- Up to 5000 hours element life span
- IP65 rated (VARO model)

Profile

Our radiant heating product range gives the flexibility to deal with large and small unheated spaces which would be uneconomical to heat using traditional space heating.

Areas such as bars, restaurants, terraces, delivery areas, warehouses and churches are some examples where our radiant heating products will provide an economical heating solution.

Radiant heat and its advantages

The heat we feel from the sun is called radiant heat and is part of the electromagnetic spectrum called infrared. Ultra violet and visible light also belong to the same family.

Visible light is the easiest part of this spectrum to understand, light travels in a straight line from the source, is unaffected by air and is invisible until it hits a surface. Shadows are a good example of this and are the absence of light.

Infrared rays behave in the same way, we cannot see them but we can feel them as warmth. A good example of this is the effect created when you move from the shade into the sun, although the temperature is the same, the perceived temperature when in direct sunlight is much higher. This phenomenon makes sunbathing possible during winter holidays.
There are three categories of infrared; short wave (IR A), medium wave (IR B) and long wave (IR C), the shorter the wave length the easier it travels through the air.

The advantage when using short wave infrared heating is that the rays cut through the air and are not affected by air movement and only transmits its energy when it collides with a solid object. The rays also travel in a straight line so can be directed where you need it, ideal in locations which feature high ceilings, have high air change rates or are outside.

Convection Heating and Radiant Heating Comparison

21ºC Air Temperature

18ºC Perceived Temperature

15ºC Surface Temperature

Heating with Convection

15ºC Air Temperature

18ºC Perceived Temperature

21ºC Surface Temperature

Heating with the Radiant Effect
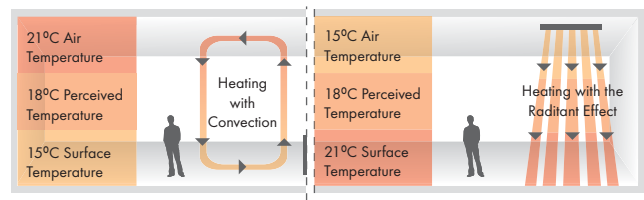
Wave Infrared comparison

	Short Wave Infrared	Medium Wave Infrared	Long Wave Infrared
Typical source	IR Halogen Lamp	Quartz Heat Source	Resistance
Materials	Tungsten Filament welded in a quartz tube	Filament in compound of Fe-Cr-Al in a quartz tube	Filament in compound of Fe-Cr-Al in a steel tube
Radiant efficiency	92%	60%	40%
Switch on/off times	1 second	30 second	5 minutes

Radiant Heater Range

Model	Stock Ref
VARO 1800	447600

Model	Stock Ref
VARI 2000	447602

Model	Stock Ref
VARI 4000	447603

Model	Stock Ref
VARI 6000	447604

Dimensions (mm)

FRONT

SIDE

TOP
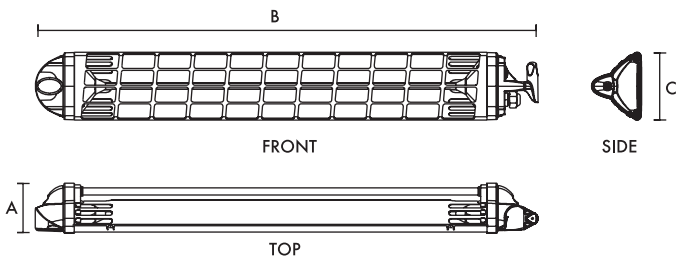
Stock Ref	A	B	C
447600	83	836	112

FRONT

SIDE

TOP
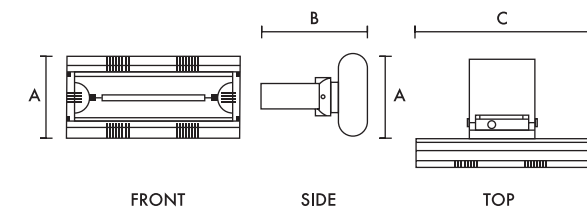
Stock Ref	A	B	C
447602	235	313	486
447603	376	313	496
447604	515	313	496

Technical Details

Stock Ref	Model	Weight kg	Voltage rating	Bulb	Luminous spectrum	Accessories	Output W	Amps	Heating range m^2	Replacement elements
447600	VARO 1800	1.0	230V ~ 50-60Hz	gold x1	IR-A	wall bracket	1800	8	8-10	VARO 447606
447602	VARI 2000	2.2	220-240V - 50-60Hz	gold x1	IR-A	wall bracket	2000	9	9-12	VARI 447605
447603	VARI 4000	3.0	220-240V - 50-60Hz	gold x1	IR-A	wall bracket	4000	18	12-16	VARI 447605
447604	VARI 6000	3.8	380-415V - 50-60Hz	gold x1	IR-A	wall bracket	6000	27	16-20	VARI 447605

Opal Aluminium Radiators

- Aluminium block with innovative curved elements
- Digitally controlled thermostat
- Dynamic fluid with high thermal inertia
- Temperature setting; Comfort, Economy, Anti-Freeze
- Seven pre-set heating schedules, including two programmable options
- Outputs from 500W - 1500W
- Safety thermal regulator
- Supplied with wall mounting brackets and 0.7m power cable
- IP24 Rated
- Safe, clean and easy to operate
- All radiators are powder coated externally in white (RAL 9016)

Applications

The Vent-Axia Opal range of Aluminium Radiators offers a slim stylish design with advanced digital thermostatic control giving you one of the most cost effective and energy efficient electric heating systems you can have.

Popular with specifiers, contractors and home owners, the Opal range is ideal for new build and refurbishment.

Available in five sizes, our range provides a solution for any size room with outputs from 500W - 1500W.

All of the Opal Aluminium Radiators controllers are fully programmable offering closer management of energy control with resultant costs savings. This can be measured with the on-board energy monitor allowing you to see how much energy you are using to heat your room. All standard units come with all the features and controls you would expect to see on an advanced heating system.

Energy Saving Electronic Control

Accurate, fast acting control is essential for reducing temperature overrun and minimising energy consumption.

The silent operating electronic thermostat is accurate to +/- 0.5°C and acts quickly to maintain consistent temperature levels.
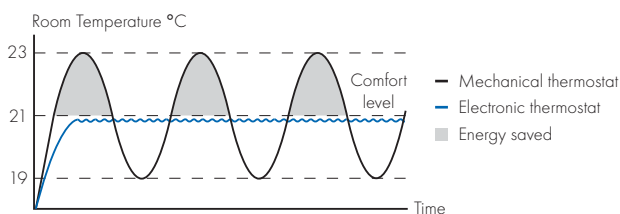
Seven Pre-set Lifestyle Heat Schedules

The heater is pre-programmed with seven heating plans, with two of them being adjustable to meet your own needs. The five pre-set programmes are adapted to most heating situations. The seven plans are described in the table on the right.

Heating schedule PLnF is pre-programmed for when you are away from your home for a long period of time and would like to protect it against freezing. The green economy LED will flash.

Heating schedule PLUE is designed for weekends. With this plan the heater is pre-programmed to work from Monday to Thursday in the antifreeze position. From Friday through to Sunday you can configure the programme according to your own needs.

Should the pre-set schedules not meet your heating requirements, the PLCF heating plan enables you to create your own heating schedule.
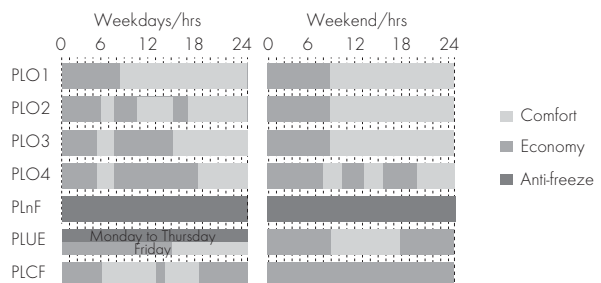
Specification

| Stock Ref | Model | Weight kg | Dimensions (mm) | | | Output | |
			H	W	D	W	Amps
448469	VAAR500 500W	11	584	460	96	500	2.3
448470	VAAR750 750W	15	584	620	96	750	3.4
448471	VAAR1000 1000W	19	584	780	96	1000	4.5
448472	VAAR1250 1250W	23	584	940	96	1250	5.7
448473	VAAR1500 1500W	27	584	1100	96	1500	6.8

Optimax Plus Panel Heater

- Integral adjustable thermostat
- Optional integral timer model
- Frost protection setting of 5°C
- BEAB approved
- Unique quick fix wall bracket
- Colour RAL 9001
- Ideal complement to storage heaters
- Brackets for panel included
- IP24 rated

Comfort Heating

Our Optimax Plus Panel Heaters are perfect for smaller rooms such as bedrooms, studies, conservatories and loft conversions.

Vent-Axia's Panel Heaters offer a wide range of heat outputs from 750W to 2000W and every model is available with or without a timer. Vent-Axia Panel Heaters look as good as they perform. Stylish and slim, they occupy minimal wall space and are finished in an attractive white finish.

Vent-Axia Panel Heaters are wall mounted and connected to the permanent electrical supply via a fused connection switched outlet. Vent-Axia Panel Heaters are supplied with mounting brackets and one metre of cable connected to the bottom right hand side of the unit.

Adjustable Thermostat

All Vent-Axia Panel Heaters have a built-in adjustable thermostat offering a full temperature range, including a frost protection setting of 5°C.

For maximum safety there is a thermal cut-out on all models to prevent overheating should the outlet grille be accidentally covered.

Specification

Stock Ref	Model	Output kW	Weight kg
439034 / 439038	VAPH 075/T	0.75	6.2
439035 / 439039	VAPH 125/T	1.25	6.6
439036 / 439040	VAPH 150/T	1.5	6.6
439037 / 439041	VAPH 200/T	2	8.0

220-240V-50Hz. BEAB Approved.

Dimensions (mm)
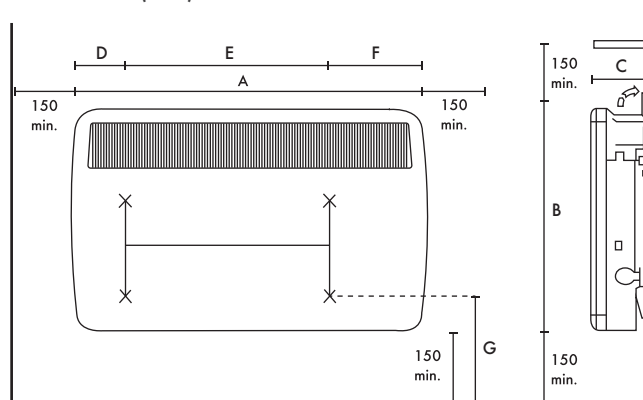
Stock Ref	A	B	C	D	E	F	G
439034 / 439038	620	430	108	118	288	214	255
439035 / 439039	690	430	108	118	358	214	255
439036 / 439040	690	430	108	118	358	214	255
439037 / 439041	860	430	108	118	528	214	255

Models

Manual and Timer versions available.

Model	Stock Ref
VAPH 075	439034
VAPH 075T	439038
VAPH 125	439035
VAPH 125T	439039
VAPH 150	439036
VAPH 150T	439040
VAPH 200	439037
VAPH 200T	439041

Optimax Plus Combination Storage Heater

- Optimised charge period offers 15% energy saving
- Reduced installation times
- Conveniently mounted controls
- Range of three heat outputs
- Colour RAL 9001
- IP20 rated
- BEAB approved

Comfort Heating

Vent-Axia Combination Storage Heaters take advantage of low tariff night-time electricity in the same way as our domestic storage heaters.

They combine the benefit of a domestic storage heater and a convector heater in one casing. The storage heater offers comfortable heat around the clock taking advantage of low tariff electricity.

The convector heater can be switched on at any time to offer additional heat when required, or used outside the normal heating season for instant heating.

Combination Heaters require a permanent power supply for immediate convection heating when required. The storage heater section has a separate off-peak supply.

Ease of Installation

Features such as snap-on feet, simple wall fixings and quick assembly mean that new installations or replacement of existing units are completed with minimum disruption. The cable entry is located at the back of the unit on the bottom right hand side.

All models incorporate an ambient thermostat which optimises the charge to suit room conditions, typically saving an additional 15% in energy costs.

Vent-Axia Combination Heaters are slim, compact and aesthetically pleasing. Their attractive neutral finish blends in with a variety of decors.

The controls are conveniently positioned on top of the heater for ease of use. Once the optimum settings are selected, no further adjustment is necessary. A separate convector heater On/Off switch is situated on the side of the casing together with a thermostat for temperature control.

Models

Combination Heaters

Model	Stock Ref
VACSH 12A	438919
VACSH 18A	438920
VACSH 24A	438921

Dimensions (mm)
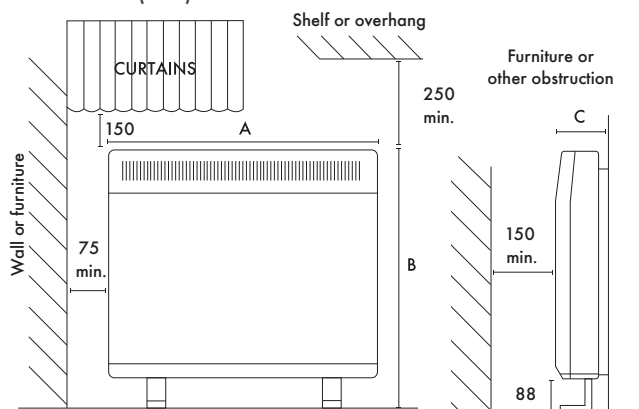
Stock Ref	A	B	C
438919	540	730	185
438920	765	730	185
438921	990	730	185

Specification

Stock Ref	Model	Input kW	Output kW	Weight kg	Number of bricks
438919	VACSH 12A	1.70	1	79	8
438920	VACSH 18A	2.55	1.5	116	12
438921	VACSH 24A	3.40	2	152	16

220-240V-50Hz. BEAB Approved.

Optimax Plus Storage Heater

- Perfect for offices and homes
- Optimised charge period offers 15% energy saving
- Reduced installation times
- Conveniently mounted controls
- Range of four heat outputs
- Colour RAL 9001
- IP20 rated

Comfort Heating

Vent-Axia Storage Heaters are often an economic alternative for new build or in existing properties, particularly where no other fuel source is available.

Vent-Axia Storage Heaters are simple to install, economical to run and virtually maintenance free. Ideal for use in living rooms, hallways and landings.

The range can be installed in bathrooms outside Zone 2, provided that the installation complies with IEE regulations.

Vent-Axia Storage Heaters offer comfortable warmth around the clock taking advantage of low-tariff electricity.

Ease of Installation

Simple to install wall fixings and quick assembly mean that new installations or replacement of existing units are completed with minimum disruption. The cable entry is located at the back of the unit on the bottom right hand side.

The automatic Optimax Plus storage heaters incorporate an ambient thermostat which optimises the charge to suit room conditions, typically saving an additional 15% in energy costs.

Vent-Axia storage heaters are slim, compact and aesthetically pleasing. Their attractive neutral finish blends in with furnishings.

The controls are conveniently positioned on top of the storage heater for ease of use. Once the optimum settings are selected, no further adjustment is necessary.

Models

Model	Stock Ref
VASH 6A	438673
VASH 12A	439359
VASH 18A	439360
VASH 24A	439361

Dimensions (mm)
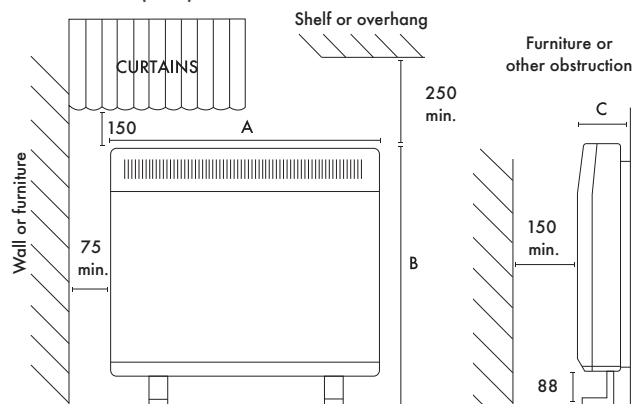
Stock Ref	A	B	C
438673	332	700	170
439359	560	700	170
439360	788	700	170
439361	1016	700	170

Specification		Input	Weight	Number
Stock Ref	Model	kW	kg	of bricks
438673	VASH 6A	0.85	41	4
439359	VASH 12A	1.70	77	8
439360	VASH 18A	2.55	110	12
439361	VASH 24A	3.40	145	16

220-240V-50Hz.

Plinth Heaters

- Ideal for where wall space is at a premium
- Finishes: Stainless steel, Brown or White
- Optional thermostatic control 5-30°C
- Can be used with remote switch
- Two heat settings 1kW & 2kW
- Fan only mode

Vent-Axia Plinth Heaters are designed for use in kitchens and bedrooms. They fit neatly into most types of fitted furniture, fascias, display units and false walls.

When installed in a corner with an adjacent cupboard to the right, a distance of at least 150mm must be maintained between the right hand end of the heater and the front of the adjacent cupboard door.

Vent-Axia Plinth Heaters are supplied with 1.5m of 1mm² 3 core cable, terminating on the right hand side of the unit.

Models

Thermostatic Models

Model	Stock Ref
VAPL2TC-S	459115
VAPL2TC-W	459116
VAPL2TC-B	459117

Remote Switch

Model	Stock Ref
VARSU	436494

Dimensions (mm)

320

165

Top

500

97

Front
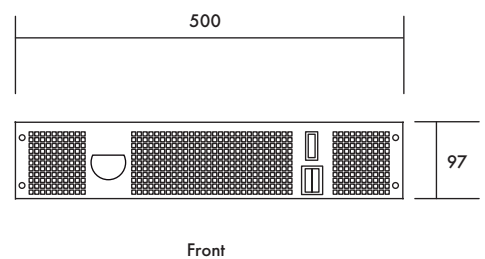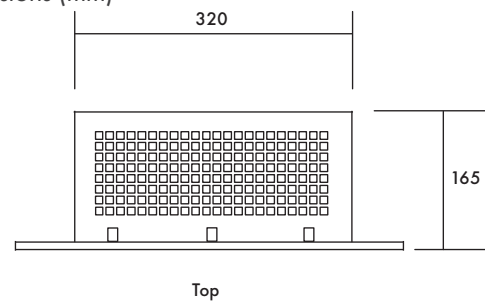
Weight:	3kg
Cut Out (WxH):	470x85mm

Warm Air Curtains

- Integral switching for faster installation
- Three heat settings and fan only mode
- Models to suit single and double doorways
- Suitable for use as a high level fan heater
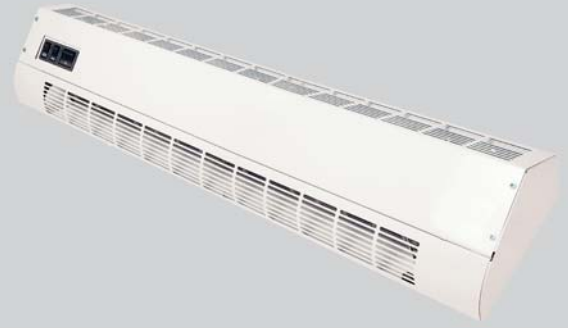
Vent-Axia Warmair Curtains provide a heated downflow of warm air in doorways of commercial premises such as shops, offices and schools.

The robust outer case is made from painted steel with an off white epoxy finish. Accommodating varying door widths is easily achieved by installing Warmair units 'side by side'.

Vent-Axia Warmair Curtains are supplied with 0.75m of 3 core cable, and mounting brackets.

Three Warmair models are available offering heat outputs plus fan only setting:

Warmair 3 - 3 kW, 2 kW, 1 kW
Warmair 4.5 - 4.5 kW, 3 kW, 1.5 kW
Warmair 6 - 6kW,3 kW, 3 kW

Models

Warm Air Curtains

Model	Stock Ref
Warmair 3	456343
Warmair 4.5	456344
Warmair 6	456345

Remote Switch

Remote Switch unit to control Warmair units. Switch allows for fan only & three heat settings.

Model	Stock Ref
VARSU	436494

Specification

Model	Rating kW	Dimensions mm W	H	D	Weight kg
Warmair 3	3.0	650	103	210	6.1
Warmair 4.5	4.5	650	103	210	6.5
Warmair 6	6.0	900	103	210	8.7

220-240V-50Hz. BEAB Approved.

Downflow Heater

- Stylish compact design
- Two heat settings, 1kW and 2kW
- Pullcord operation
- Overheat protection
- Fan only option
- IP23 rated

The IP23 rated Downflow Heater operates via a pullcord and is suitable for use within Zone 2 of the bathroom. The Downflow Heater has two heat settings; 1kW/2kW plus a fan only option and is designed to be permanently wall mounted for use with an AC electrical supply.

Function	Indication
Off	0
Fan Only	✿
Fan + Heat Setting 1	1
Fan + Heat Setting 2	2

For maximum safety the heater includes a thermal cut-out feature to prevent overheating.

Models

Model	Stock Ref
VADH2	455834

Specification

Model	Rating kW	Dimensions mm W	H	D	Weight kg
VADH 2	2	240	255	135	2

220-240V-50Hz.

Portable Heaters

- Silent operation
- Ideal for use where occasional heating is required
- Thermostatic control
- Safety thermal cutout
- BEAB Approval (Convector Heater)

Convector Heater

The Vent-Axia Convector Heater is ideal for use in any domestic or commercial room where extra or occasional heating is required. The heater is suitable for use in the home, offices, shops and workshops, but is not recommended for use in bathrooms.

Both standard and timer versions offer three heat outputs; 0.75kW, 1.25kW & 2kW and are both thermostatically controlled.

The Vent-Axia Convector Heater is lightweight, portable and is supplied with a cable and plug. Stylish and versatile, the heater may be wall mounted or installed as a floor standing unit using the feet included. This gives the benefit of moving the heater to an area where you want, when you want.

For maximum safety the heater includes a thermal cut-out feature to prevent overheating.

Timer Control

The 24 Hour timer control offers On or Off setting selection in 15 minute time segments. Set the pins on the easy to use timer dial and the heater will operate automatically during the selected times.

Model

Convector Heater

Model	Stock Ref
VACH2-TC Standard	426250
VACH2T-TC Timer	474633

Specification

	Rating	Dimensions mm			Weight
Model	kW	W	H	D	kg
VACH2TC	2	530	370	110	2.3

220-240V-50Hz. BEAB Approved

Portable Fan Heater

The Vent-Axia Portable Fan Heater is a floor standing heater with three settings; fan only, 1kW and 2kW outputs. Variable thermostat. The unit comes complete with a 13amp plug.

Model

Portable Fan Heater

Model	Stock Ref
VAFH2TC	426715

Specification

	Rating	Dimensions mm			Weight
Model	kW	W	H	D	kg
VAFH2TC	2	265	130	275	1.5

Accessories & Controllers

For ventilation systems to be truly efficient it is important for them to operate only when needed. Our range of Sentinel demand ventilation systems along with our controls and sensors help respond to the exact ventilation requirements of a room at any one time. Providing airflow only when it is required and at the level that it is required ensures that only the energy that is needed is used; no more, no less.

Approved Document L recognises the value that controls can offer and you will find Vent-Axia offer a range of solutions to ensure that you can maximise the benefit of automation wherever you chose to use it.

Vent-Axia®
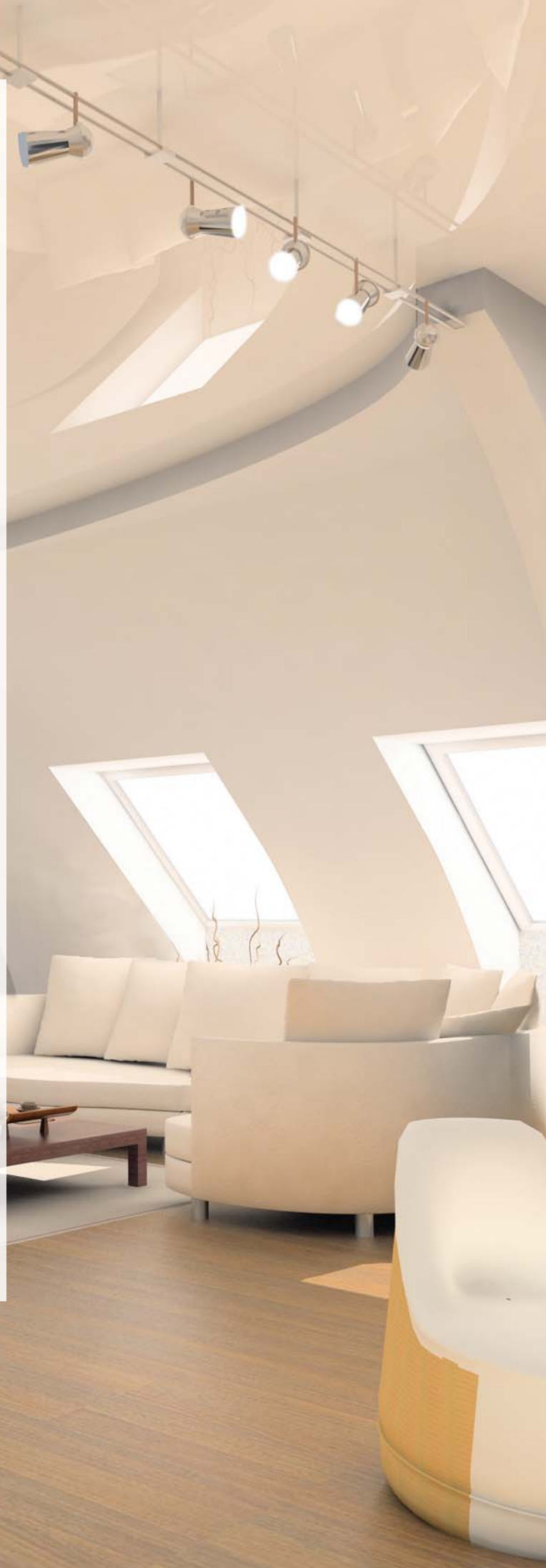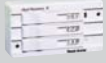
Controllers & Sensors

Ecotronic Controller Surface Mounting

An electronic controller for use with all Traditional T-Series and Standard Range models to give extract/intake and speed variation. For groups of units of any one size up to a total of 400 Watts. Do not mix T-Series with Standard Range. Where a controller is used with T-Series, 5-core flexible cable is required.

- 'E' running position for optimum efficiency.
- Finger-tip sliders.
- Infinitely variable speed control.
- Double pole On/Off switching.
- Extract/intake airflow direction.
- Neon indicator.
- Sensor mode for use with suitable electromechanical switches, eg. ThermoSwitch, HumidiSwitch to give automatic fan operation.
- Adjustable minimum speed setting.
- Knockouts for recessed wiring.
- Ambient operating temperature range 0°C to +40°C.
- Dimensions: 86 x 156 x 53mm (H x W x D).
- Supply voltage 220-240V/1/50Hz.
- Maximum load: Ecotronic - 400 Watts.
- Designed to meet IP20.
- BEAB Approved.

Stock Ref
W362320

Flush Fitting Box
Stock Ref
400144

T-Series® Controller Surface Mounting

A single unit controller for use with all Traditional T-Series ventilating units. With knockouts for recessed wiring. Where a controller is used with T-Series, 5-core flexible cable is required.

- 3-speed operation. High, medium or low.
- Finger-tip sliders.
- Double pole On/Off switching.
- Extract/intake airflow direction.
- Sensor mode for use with suitable electromechanical switches, eg. ThermoSwitch, HumidiSwitch to give automatic fan operation.
- Unique shutter open/ fan Off setting.
- Neon indicator.
- Knockouts for recessed wiring.
- Ambient operating temperature range 0°C to +40°C.
- Dimensions: 86 x 156 x 53mm (H x W x D).
- Supply voltage 220-240V/1/50Hz.
- Designed to meet IP20.
- BEAB approved.

Stock Ref
W361119

Flush Fitting Box
Stock Ref
400144

TimeSpan® Controller

Adjustable timer with overrun facility for fans ventilating WCs and other small rooms.

For use with any Vent-Axia fan within maximum rating below. The fan is switched On with the light and keeps running for a pre-set period after the light is switched Off.

- Fits to any single gang box.
- Adjustable time delay 5-25 minutes.
- Ambient operating temperature range 0°C to + 40°C.
- Maximum load 250W inductive.
- BEAB Approved.
- Dimensions: 87 x 87 x 33mm (H x W x D).
- Supply voltage 220-240V/1/50Hz.
- Will fit single gang box for surface mounting.

Stock Ref
563519

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Registered design numbers: 1 030 207 Surface Mounting Controller, 1 030 208 Flush Fitting Controller. Patented Remote Speed Control Circuit. European Patent number EP 0180311.

Manufacturers of some fluorescent/low energy lighting systems indicate that these can interfere with other electronic/timing circuits. For reliable operation of these circuits we recommend therefore that a tungsten filament light is used.

Air Quality Sensor

Automatically reacts to the depletion of air quality, sensing unpleasant smells and toilet odours to regulate mechanically ventilated areas such as cinemas, pubs, clubs, restaurants, kitchens, toilets and conference rooms. This is not a CO_2 sensor.

The sensor switches the fan On when the air quality declines below an adjustable preset level. This is registered by the ceramic sensing head which is self-cleaning, a process which occurs every time the unit is triggered. When the atmosphere has returned to normal, the fan will continue to run for a pre-set period (adjustable between 1-25 minutes) and then switch Off.

The air quality sensor should not be used for the detection of combustible gases and is not designed for use as a smoke detector in an alarm system.

For use with various Vent-Axia fans within maximum rating below.

The Air Quality Sensor is also able to switch between trickle and boost speed on the appropriate ventilation units.
- Ambient operating temperature range 0°C to +50°C.
- Dimensions:
  87 x 157 x 47mm (H x W x D).
- Maximum switched load:
  2A inductive at 240V.
- Sensor consumption: 25mA at 240V.
- Supply voltage 240V/1/50Hz.

Stock Ref
563506

Electronic 1.5A Controller

Surface mounted, providing infinitely variable speed control and features an On/Off/sensor slider with neon indicator. There is an adjustable minimum speed setting. The controller is radio suppressed to BS EN 55014 and electrical connections for use with suitable external sensors are provided.

86 x 156 x 53mm (H x W x D).

Hole for wall box:
80x150x150mm (H x W x D).

Stock Ref
W300310

For flush fitting a metal wall box accessory is available.
Flush fitting box
Stock Ref
400144

Ambient Response Humidity Sensor

A self programming electronic On/Off wall mounted humidity sensor which reacts to any rapid increase in humidity and temperature by switching a Vent-Axia fan 'On' for rapid removal of moisture laden air in domestic bathrooms and kitchens. Can be wired into controller 'Auto' mode connections. Night time relative humidity increment setback feature suppresses nuisance tripping when the humidity level gradually rises as the temperature falls.

- Pullcord override and neon indicator.
- Changeover relay switch.
- Operating range: 30%-90%RH.
- Ambient operating temperature +5°C to +40°C.
- Dimensions:
  87 x 87 x 33mm (H x W x D).
- Will fit single gang box for surface mounting.

Stock Ref
563550 240VAC 50Hz

European Patent No: 2298057

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Ambient Response SELV 12 Humidity Sensor

12V Safety Extra Low Voltage version for use with VA100 SELV, Solo SELV, LuminAir SELV and HR100 SELV range.

The latest self programming electronic On/Off wall mounted humidity sensor which reacts to any rapid increase in humidity and temperature by switching a Vent-Axia fan 'On' for rapid removal of moisture laden air in domestic bathrooms and kitchens. Can be wired into controller 'Auto' mode connections. Night time relative humidity increment setback feature suppresses nuisance tripping when the humidity level gradually rises as the temperature falls.

- Pullcord override and neon indicator.
- Changeover relay switch.
- Operating range: 30%-90%RH.
- Ambient operating temperature +5°C to +40°C.
- Dimensions:
  87 x 87 x 33mm (H x W x D).
- Will fit single gang box for surface mounting.

Stock Ref
563551 12VAC 50Hz

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Lo-Carbon Ambient Response Humidity Sensor

Designed specifically for the Lo-Carbon product range. This self programming electronic On/Off wall mounted humidity sensor reacts to any rapid increase in humidity and temperature by switching a Vent-Axia fan 'On' for rapid removal of moisture laden air in domestic bathrooms and kitchens. Night time relative humidity increment setback feature suppresses nuisance tripping when the humidity level gradually rises as the temperature falls.

- Pullcord override and neon indicator.
- Changeover relay switch.
- Operating range: 30%-90%RH.
- Ambient operating temperature +5°C to +40°C.
- Dimensions:
  87 x 87 x 33mm (H x W x D).
- Will fit single gang box for surface mounting.

Stock Ref
563552 12VDC

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

All of these Sensors can be wired for either On/Off or Trickle/Boost operation.

Ecotronic Humidity Sensor
Surface Mounting

An adjustable set point, solid state On/Off sensor. A pullcord provides manual override, indicated by lamp. Adjustable from 65 to 90% relative humidity. Can be wired into controller 'Auto' mode connections. Incorporates changeover switch to select low/high speed.

- Setting range 65% - 90%RH.
- Maximum switching load 1 Amp inductive.
- Pullcord override indicated by lamp.
- Ambient operating temperature 0°C to +40°C.
- Dimensions: 87 x 87 x 33mm. (H x W x D).
- Supply voltage 220-240V/1/50Hz.

Stock Ref
563532

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Ecotronic® SELV 12 Humidity Sensor

12V Safety Extra Low Voltage version for use with VA100 SELV, Solo SELV, and LuminAir SELV range. Incorporates changeover switch to select low/high speed.

Although suitable for siting within reach of a shower or bath we recommend this model is located out of the spray zone of a bath or shower.

- Setting range 65% - 90%RH.
- Maximum switching load 5.6A @ 12V AC.
- Pullcord override indicated by lamp.
- Ambient operating temperature 0°C to +40°C.
- Dimensions: 87 x 87 x 33mm (H x W x D).
- Supply voltage 12V AC.

Stock Ref
563531

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Vent-Axia HumidiSwitch

Operates Vent-Axia ventilating units on either a rise or a fall in humidity to control the damaging effects of condensation.

- Concealed adjustment.
- Setting range 20% to 80% RH.
- Ambient operating temperature 0°C to +50°C.
- Dimensions: 82 x 132 x 40mm (H x W x D).
- Rating 2A (1A inductive).
- Switching range 120-240V.
- Designed for use with controllers with 'Auto' mode facility.
- Single pole changeover contacts.

Stock Ref
563501

The Ecotronic and Ecotronic SELV 12 Sensor can be wired for either On/Off or Trickle/Boost operation.

Controllers & Sensors

7 Day TimeSwitch

For applications where regular switching is required at fixed periods or at different times on different days of the week, eg: offices, shops, pubs and restaurants.

The 7-day TimeSwitch gives twelve On or Off positions per day and can be set for 7 days. The cycle will repeat until changed.

- Analogue clock display and integral time switches for ease of setting.
- Manual override.
- Removable clear plastic cover protects TimeSwitch face.
- Volt free changeover contacts.
- Time base: 7 days.
- Shortest switching time: 2 hours.
- Maximum load: 16amp resistive (8amp inductive).
- Ambient operating temperature range -20°C to +85°C.
- Dimensions: 104 x 74 x 52mm (H x W x D).
- Supply voltage 220-240V/1/50Hz.

Stock Ref
563515

Vent-Axia ThermoSwitch

Automatically switches On fans on either a rise or fall in air temperature. The ThermoSwitch can be used with all Vent-Axia fans (via switch gear if appropriate) for the removal of warm air from buildings. It can also be used to switch On Hi-Line ceiling fans for summer cooling and to move high level warm air down to the working level during winter.

- Setting range: +6°C to +30°C.
- Two internal range limit/locking rings are included to allow setting within a limited temperature range or locking at a fixed t/o point.
- IP20 rated.
- Sealed sensing mechanism.
- Snap-action, single pole, changeover contacts.
- Mounting direct on surface only.
- Electrical connection to screw type terminals with rear or side cable entry.
- Dimensions: 80 x 104 x 36mm (H x W x D).
- Contact rating: 1.5 amp (inductive).
- 16 amps (resistive).
- Maximum voltage 250V.

Stock Ref
563502

Guardian Personnel Detector (PIR Sensor)

Suitable for controlling a range of Vent-Axia fans. Continuously monitors an area and activates when a moving body is detected.

- Supplied complete with wall mounting bracket.
- Adjustable timer overrun (5 seconds to 20 minutes).
- Supplied with lens to provide 15m (max) range, 200° detection area.
- Designed to meet IP55.
- Ambient operating temperature range -20°C to +50°C.
- Maximum load: 10 amp resistive (5 amp inductive).
- Suitable for use with fluorescent lighting up to 500W.
- Internal/External use.
- Supply voltage 220-240V/1/50Hz.

Stock Ref
563548

7 day Time Switch & Thermoswitch can be wired for either On/Off or Trickle/Boost operation.

Vent-Axia Visionex PIR

A wall or ceiling mounted movement detector for use with any domestic Vent-Axia mains voltage product. Also suitable for use with Vent-Axia T-Series controllers on 'Auto' setting and ITC controllers on sensor mode. Visionex PIR can be wired for either On/Off or Trickle/Boost operation.

- Fits any UK single gang mounting box.

- Adjustable timer overrun (5-25 minutes).

- Range of detection up to 10 metres.

- Designed to meet IP43.

- Ambient operating temperature range 0°C to +50°C.

- Maximum load: 2.5 amps/600W inductive. Not suitable for use with lighting.

- Internal use only.

- No switched live required for internal rooms and WCs.

- Double insulated.

- Volt-free contacts.

- Supply voltage 220-240V/1/50Hz.

Stock Ref
459623

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Vent-Axia Visionex SELV 12 PIR

A wall or ceiling mounted movement detector for use with any domestic Vent-Axia SELV 12 product.

- Fits any UK single gang mounting box.

- Adjustable timer overrun (5-25 minutes).

- Range of detection up to 10 metres.

- Designed to meet IP43.

- Ambient operating temperature range 0°C to +50°C.

- Maximum load: 5.6 amps inductive @ 12V.

- Internal use only.

- No switched live required for internal rooms and WCs.

- Class III product.

- Volt-free contacts.

- Supply voltage 12V/1/50Hz.

Stock Ref
459624

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

3 Pole Isolator

Isolates Live, Neutral and Switched Live for integral timer fans. 6 amp, 3 pole isolator complying to the 3mm contact separation requirement for routine maintenance repair.

Stock Ref
563518

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Controllers & Sensors

Fan Speed Adjuster

5 step speed adjuster for domestic kitchen extract fans, that can reduce the speed to 40% of its maximum performance.

91mm x 176mm x 85mm (WxHxD).

Stock Ref
458153

5 Step Auto Controller

Used in conjunction with speed controllable fans to provide 5 stepped speed without electronic motor 'hum'. Several fans can be connected to one transformer provided their combined load does not exceed the controller rating.

Single phase: 3.5 , 6.0 and 7.5 amp. Rotary switch giving On/Off and five speeds.
Output voltages at 240V/1PH/50Hz 0, 90, 115, 140, 175, 240 volts.
Neon indicator. Enclosures are protected to IP54.

Dimensions	Stock Ref
230 x 168 x 118	10314103
230 x 168 x 118	10314105
284 x 240 x 132	10314107

Additional ratings and three phase units are available - see page 452 of the Vent-Axia Specification Range brochure Issue 11.

Ventwise Controller

The award winning Ventwise controller has been designed to fully automate a ventilation system. The unit can be used on intermittent or continuous systems, switching a fan between Off and On or from trickle to boost speed. The controller saves energy by only switching when cooking is taking place or condensation is being generated. The current sensor detects when the power supply to an oven or hob is switched on. The temperature sensor detects the rise in temperature in the hot feed to a bath or shower. Suitable for 240V single phase, the Ventwise is capable of switching 2 amps or 500 Watts. Ideal for student accommodation, social and sheltered housing, the Ventwise maintains indoor air quality without the need for manual switching.

160mm x 85mm x 45mm (WxHxD).

Controller 3 sensor inputs
Stock Ref
435960

Controller 6 sensor inputs
Stock Ref
446409

Current Sensors
6m cable
Stock Ref
435956

12m cable
Stock Ref
435957

Temperature Sensors
6m cable
Stock Ref
435958

12m cable
Stock Ref
435959

Remote Delay Timer

A remote delay timer for use with all domestic products gives the option of offering a 2 minute delay before the fan starts. Once the fan has started the overrun timer is adjustable between 5-25 minutes.
Stock Ref
457986

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

Isolator Relay Controller

Allows fan unit to be isolated from other mains circuit when used with TIM2, Trickle/boost switch or light switch control.
Stock Ref
442030

Surface Mounting Box
A surface mounting back box is available.
Stock Ref
410020

150VA Transformer

Surface Mounting Transformer with six voltage selections for trickle settings to match dwelling volume. Provides Boost/Trickle ventilation when used with humidity sensors or a manual switch.

95 x 225 x 75mm (H x W x D).

Stock Ref
563538

Normal Boost Switch

A single gang switch to boost from high to low speeds on all heat recovery systems.
85 x 85 x 10mm (H x W x D).
Stock Ref
455213

VCON6

A double gang switch to boost from high to low speeds.
85 x 145 x 10mm (H x W x D).
Stock Ref
370356

Normal Boost Purge Switch

A single gang switch to operate between normal, boost and purge speeds.
85 x 85 x 10mm (H x W x D).
Stock Ref
5108454

Momentary Push Switch

Compatible with the Sentinel Kinetic range, the momentary switch boosts the unit for 30 minutes.
85 x 85 x 10mm (H x W x D).
Stock Ref
448929

LED Indicator

Compatible with the Sentinel Kinetic range, the LED indicator illuminates when the MVHR unit requires a filter check or if the unit has a fault. Supplied with 15 metres of cable.
85 x 85 x 10mm (H x W x D).
Stock Ref
448356

Normal Boost Switch - Stainless Steel

A single gang switch to operate normal/boost functions on MVHR systems. Brushed stainless steel finish.
90 x 90 x 18 (H x W x D).
Stock Ref
437320

Normal Boost Switch with Light Indicator

A single gang switch with LED illumination when in the Boost condition.
85 x 85 x 10mm (H x W x D).
Stock Ref
449060

Summer Mode Switch

Suitable for Integra, HR200V and HR300RW6, the Summer Mode Switch isolates the intake fan to give an Extract-Only mode.
Stock Ref
409999

2-Way Switch and Neons

A double gang switch to boost from high to low speeds on all heat recovery systems, incorporating neon lights to indicate speed settings. Suitable changeover relay required. 85 x 145 x 10mm (H x W x D).

Stock Ref
459746

3 Speed Controller

A three position rotary control which enables the unit to be manually switched from permanent trickle ventilation to either medium or boost speed.
85 x 85 x 25mm (H x W x D).
85 x 85 x 37mm (H x W x D): with rotary switch.
Stock Ref
563533

TIM2 Overrun Timer

The TIM2 is a remote mounting electronic overrun timer with a relay output. 2 Amp indication load maximum. Adjustable overrun 2-30 mins. Ideal for where fans are to be controlled in conjunction with a lighting circuit or activated by remote sensors.
76 x 76 x 41mm. (H x W x D).
Stock Ref
370346

HR500 Controller

Suitable for use with HR500 MVHR units. Surface mounting. On/Off remote sensor mode. Heat exchange, single fan extract or twin fan extract modes. Infinitely variable speed. Minimum speed setting.
Stock Ref
W14301010

Ventilation Accessories
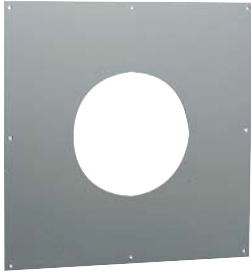
Fixing Plates

A single plate available in 300mm and 450mm square modular sizes for permanent fixing on walls or for use with other modular components.

Manufactured in high impact recyclable thermoplastic.

Unit Size	Stock Ref
6″	561136
7″	561137
9″	561139
12″	561142

Size 6/7
300mm□module

405mm□overall

'A' Ø

Size 9/12
450mm□ module

560mm□overall
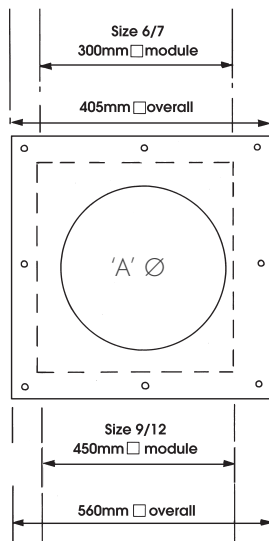
Vent-Axia fixing plate

Unit size	'A' Ø	Module Size
6″	184mm	300mm □
7″	222mm	300mm □
9″	260mm	450mm □
12″	337mm	450mm □

T-Series Adaptor Kits

Used for T-Series Window models in secondary double glazing, Roof models in secondary double glazing in exposed areas, Roof models through roofs and Darkroom models installed through either roof or walls. Adaptor kits allow units to be installed on two surfaces.

T-Series Adaptor kits consist of two Mounting plates with weather-tight seals and a set of fixing screws.

Unit Size	Stock Ref
6″	W561031
7″	W561032
9″	W561033
12″	W561034
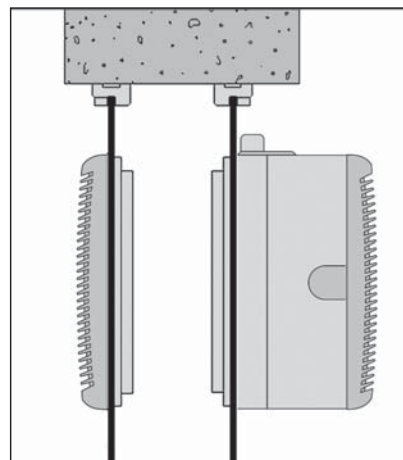
T-Series Extended Fixing Rod Sets

For use with T-Series Window and Roof models fitted through walls. Consists of a set of rods which are cut to suit the wall thickness.

Maximum thickness of wall 370mm.

Rod thread 3.5mm.

Unit Size	Stock Ref
6″, 7″ & 9″	568104
12″	568106
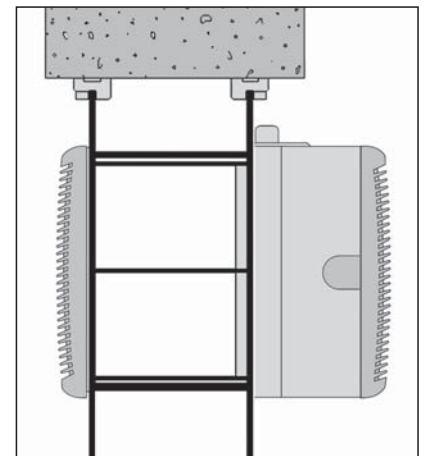
Wall Liner Section

Designed for T-Series units installed in walls thicker than 315mm, each liner section provides a maximum extension of 150mm. Wall liner section can also form a frame for Panel models in walls.

T-Series Wall Liners

Unit Size	Stock Ref
6"	460094
7"	460095
9"	460096
12"	460086

Mounting Boxes

A flanged sleeve in 300mm and 450mm square modular sizes used as an interconnecting sleeve between other modular accessories.

Mounting boxes will accept the depth of a unit and can be mounted in conjunction with a Fixing plate and Eggcrate grille for ventilation through ceilings.

Duct length 200mm.

Unit Size	Stock Ref
6"/7"	560236
9"/12"	560239

Unit Size	Mounting box modular size
6"/7"	300mm ☐
9"/12"	450mm ☐

Joining Bolt Set

Set of 8 nuts, bolts and washers.

Stock Ref
563000
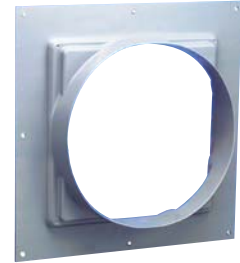
Single Spigots

Single spigots in 300mm and 450mm square modular sizes. Used to connect Flexible ducting to Mounting boxes and other modular accessories or can be fixed directly to walls.

Manufactured in flame retardant high impact thermoplastic.

Unit Size	Nom Dia	Stock Ref
6"	175mm(B)	560637
6"/7"	225mm(B)	560639
7"	250mm(A)	560640
9"	300mm(A)	560642
9"	300mm(B)	566142
12"	400mm(B)	566146

Vent-Axia single spigot		
Unit Size	'A' Ø	Module Size
6"	B 175mm	300mm
6"	B 225mm	300mm
7"	B 225mm	300mm
7"	A 250mm	300mm
9"	A 300mm	300mm
9"	B 300mm	450mm
12"	B 400mm	450mm

Ventilation Accessories

Multi-Spigot Plates

Available with 2, 3, 4 or 5 circular spigots of 100mm diameter. Multi-spigot plates are used in conjunction with 100mm Flexible ducting and other modular accessories to ventilate several small areas especially internal WCs. For use with Size 6 units only. Manufactured in flame retardant high impact recyclable thermoplastic.

Available in 300mm square modular size.

Description	Stock Ref
2-3-4 Spigots	560734
5 Spigots	560735

Cone Connectors

Used in conjunction with a Size 6 *Standard Range Panel model to reduce the outlet spigot (175mm Ø) to 100mm Ø flexible or rigid ducting.

The Cone connector is 280mm long and incorporates a splitter for improved performance. Manufactured in flame retardant, high impact thermoplastic. Colour: Grey.

Unit Size	Stock Ref
6"	560936

*Not for use with T-Series Range.
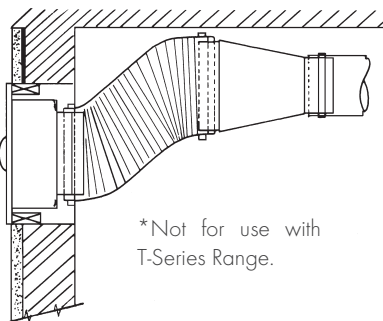
T-Series Direct Mount Spigots

Used to connect Flexible ducting directly to the inlet side of all T-Series models and the outlet side of T-Series Window models.

Manufactured in flame-retardant high impact recyclable thermoplastic.

Unit Size	Stock Ref
6" All models	560501
7" All models	560502
9" WW/RF	560503
9" WL/PL	560504
12" All models	560505

Size 6   Size 7   Size 9 Window/Roof

175mmØ   225mmØ   300mmØ

Size 9 Wall/Panel   Size 12

300mmØ   400mmØ
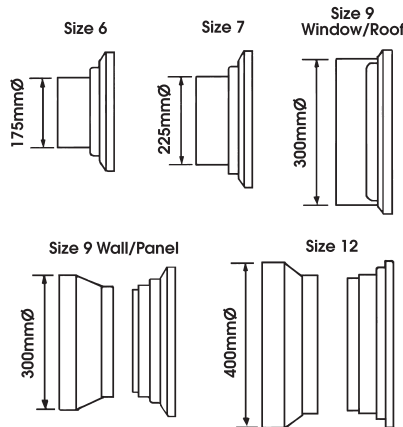
T-Series Darkroom Cowl Assembly

For use with all T-Series fans for Darkroom applications. Designed to give light protection.

Can also be used in other light sensitive areas such as medical, dental and veterinarian applications.

Unit Size	Stock Ref
6"	460585
7"	460586
9"	460587
12"	460588
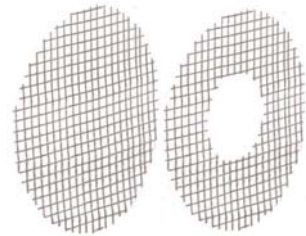
Standard Range Protective Grilles

Where Standard Range units are installed in low positions, finger guards provide extra protection to VDE, DIN 31001.

Standard Range internal grille (all models)

Unit Size	Stock Ref
6"	563106
7"	563107
9"	563109
12"	563112

Standard Range external grille (window models)

Unit Size	Stock Ref
6"	563406
7"	563407
9"	563409
12"	563412

Plenum Boxes

The Plenum box allows square grilles and diffusers to connect to circular duct. Each box size has a two diameter circular spigot for maximum versatility. The box is deep enough to accommodate both a double deflection grille and opposed blade damper.

Manufactured in flame retardant high impact recyclable thermoplastic.

Size	Stock Ref	Nom. Ø
200mm	560601	125/150mm
250mm	560602	150/175mm
300mm	560603	200/225mm
300mm	560604	250/300mm
450mm	560605	315/400mm
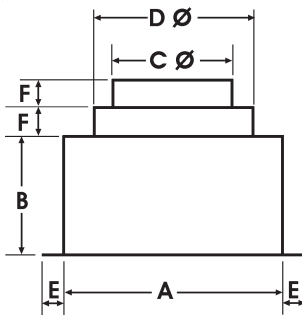
Dimensions (mm)

Stock Ref.	A	B	CØ	DØ	E	F
560601	200	130	125	150	25	25
560602	250	130	150	175	25	25
560603	300	130	200	225	25	25
560604	300	130	250	300	25	25
560605	450	130	315	400	25	25

Single Deflection Grilles

Single deflection grilles are suitable for either side wall or exposed duct applications.

The Single deflection grille has a single row of blades which permit up to 45° deflection of the air in one plane.

Satin silver finish.

Size 6/7 fits 300mm square modular size and size 9/12 fits 450mm square modular size.

Module size	Stock Ref
200mm sq	561370
250mm sq	561371
300mm sq	561372
450mm sq	561373

Double Deflection Grilles

Double deflection grilles are suitable for supply air for either side wall or exposed duct applications.

The Double deflection grille has two rows of blades set at 90° apart which permit up to 45° deflection of the air in two planes.

Satin silver finish.

Size 6/7 fits 300mm square modular size and size 9/12 fits 450mm square modular size.

Module size	Stock Ref
200mm sq	561380
250mm sq	561381
300mm sq	561382
450mm sq	561383

Ventilation Accessories

Eggcrate Grilles

Eggcrate grilles can be used for air replacement or air extract purposes.

Used underneath Roof plate assemblies with Roof models, underneath single spigots in ceilings, underneath mounting boxes and on the inside faces of walls that have units in fixed and removable wall plates on the outside of the wall.

Comprising a 13mm square by 13mm deep mesh eggcrate core housed in a frame which has a satin silver or white finish.

Size 6/7 fits 300mm square modular size and size 9/12 fits 450mm square modular size.

Size 6/7 - 785cm^2 free area
Size 9/12 - 1810cm^2 free area

200mm Sq - 340 cm^2
250mm Sq - 530 cm^2

Satin finish.

Module size	Stock Ref
200mm sq	561303
250mm sq	561305
300mm sq	561301
450mm sq	561302

White finish.

Module size	Stock Ref
125mm sq	560846
200mm sq	560847
250mm sq	560848
300mm sq	560849
450mm sq	560850

Opposed Blade Dampers

Opposed blade dampers are used to regulate air flow through all Vent-Axia grilles and diffusers. Key operated.

This action ensures that the downstream airflow is non-directional when the damper is in the partially closed position. Opposed blade dampers have aluminium blades and the frame is left in natural mill finish.

Can be used in conjunction with Eggcrate, Single deflection and Double deflection grilles.

Size 6/7 fits 300mm square modular size and size 9/12 fits 450mm square modular size.

Module size	Stock Ref
200mm sq	561341
250mm sq	561342
300mm sq	561343
450mm sq	561344

Filtered Inlet Grille

For ceiling, panel or glass mounting. Consists of a size 6 grille, washable filter, adaptor kit and a stepped spigot to suit 100, 125 or 150mm diameter ducting.

Grille size: 226mm x 220mm
Spigot depth: 100mm
Fixing hole diameter: 184mm

Stock Ref
W563536

4-Way Diffusers

Manufactured in polypropylene plastic. Four diffuser cassettes can be set for downward or 45° discharge in any of sixteen directional combinations.
Colour: Ivory

Neck Size	Stock Ref
225mm	10546230
300mm	10546300
350mm	10546350

Neck Adaptor

Used to connect Flexible ducting directly to 4-way diffusers. Integral volume control damper for duct sizes up to 300mm.

Diffuser Duct Size	4-Way Neck Size	Stock Ref
150mm Ø	225mm	10547150
200mm Ø	225mm	10547200
250mm Ø	300mm	10547250
300mm Ø	350mm	10547300

Window/Wall/Ceiling Termination Sets

Used to terminate Flexible ducting at windows. Can be used with the Extended fixing rod set or Fixing plates for termination at walls. Used with Flexible ducting and Worm drive clips.

Consists of a Direct mount spigot, Adaptor kit, Window grille and all screws.

Unit Size	Spigot DiaØ	Stock Ref
6"	175mm	W560151
7"	225mm	W560152
9"	300mm	W560153
12"	400mm	W560154

Other sizes

Spigot DiaØ	Stock Ref
100/125/150mm	W10554150
200mm	W10554200
250mm	W10554250
315mm	W10554315
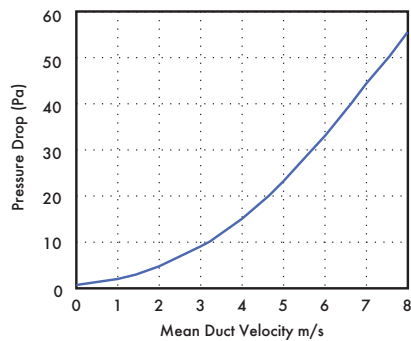
Air Replacement Non-Vision Grilles

Satin finish
Non-vision grilles consist of a single row of overlapping chevron vanes. Used as transfer grilles for doors or partitions, the overlapping vanes prevent through-vision.

Module size	Stock Ref
300mm sq	561311
450mm sq	561312

Black finish
In addition to preventing through-vision the black finish also limits light transference. Use two grilles back to back for darkroom applications.

Module size	Stock Ref
300mm sq	561321
450mm sq	561322

Roof Termination Sets

Used to terminate Flexible ducting at roofs. Consists of: Direct mount spigot, Adaptor kit, Roof cowl, Deflector and all screws. Can be used with Roof Plate Assemblies for installation on flat roofs.

T-series units

Size	Spigot Ø	Stock Ref
6"	175mm	560161
7"	225mm	560162
9"	300mm	560163
12"	400mm	560164

Vent-Axia roof termination

Diameter	Stock Ref
100/125/150mm	10555150
200mm	10555200
250mm	10555250
315mm	10555315
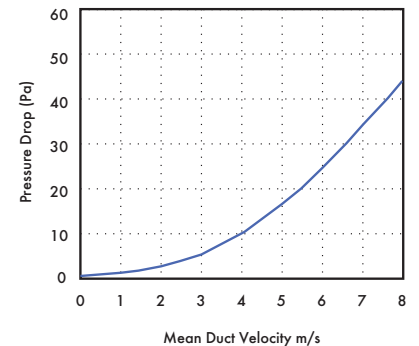
Ventilation Accessories

Air Replacement Non-Vision Door Grilles with Matching Flanges

Non-vision grilles consist of a single row of overlapping chevron vanes to prevent through-vision, supplied with matching flanges. The grille is fitted to one side of the door with the matching flange on the other side.

Suitable for door thicknesses of 19-49mm.

Available in Silver or Brown finish, in two sizes, 600 x 150 and 600 x 300mm.

Satin finish

Size	Stock Ref
600 x 150mm	561390
600 x 300mm	561391

Brown finish

Size	Stock Ref
600 x 150mm	560900
600 x 300mm	560901

Heavy Duty T-Series Wall Grilles

Tough aluminum construction for accesible public areas. Fits T-Series wall models in place of existing external grille. Finish T-Series grey.

Size	Stock Ref
6″	452725
7″	452726
9″	452727
12″	452728

External Louvres Mill

Weather resistant external louvres are suitable for air intake or discharge and for use with ducting on external walls.

The narrow blade construction has a 38mm pitch set at 45° with a depth of 41mm and an integral rain lip.

Standard 32mm wide undrilled outer flanges in aluminium have fully welded mitre corners as standard.

Size 6/7 fits 300mm square modular size and size 9/12 fits 450mm square modular size.

Size 6/7 - 345cm^2 free area
Size 9/12 - 824cm^2 free area

Satin finish

Size	Stock Ref
225mm sq	561350
300mm sq	561351
400mm sq	561355
450mm sq	561352

Brown finish

Size	Stock Ref
225mm sq	560910
300mm sq	560911
400mm sq	560912
450mm sq	560913

Louvre Grilles

Louvre grilles can be used for air replacement, for extract purposes and as an external louvre. Available in four sizes, the assembly fits over rather than into the aperture making it especially useful where there are space restrictions within the duct.

Manufactured in thermoplastic. Choice of three colours: White, Brown and Grey.

Size 6	- 190cm^2 free area
Size 7	- 335cm^2 free area
Size 9	- 415cm^2 free area
Size 12	- 705cm^2 free area

Grille Dimensions (mm)

Size	w x h
6″	= 310 x 303
7″	= 352 x 345
9″	= 391 x 388
12″	= 470 x 467

The grilles and surrounds are moulded in ABS plastic to tone in with building materials, therefore an equivalent BS or RAL colour reference cannot be given.

Unit Size	Colour	Stock Ref
6″	Grey	W561431
6″	Brown	561411
6″	White	561421
7″	Grey	W561432
7″	Brown	561412
7″	White	561422
9″	Grey	W561433
9″	Brown	561413
9″	White	561423
12″	Grey	W561434
12″	Brown	561414
12″	White	561424

Roof Plate Assemblies

Vent-Axia roof plate assemblies are manufactured in high impact recyclable thermoplastic. They consist of a strong one piece moulded plate with extended sides to assist flashing and weather protection. A separate sub-frame is provided for permanent fixing to the roof kerb. The Vent-Axia Roof model is then fitted to the plate using a suitable sealing compound between the Cowl and plate, ensuring a weather-tight seal.

Size	Stock Ref
6"	560136
7"	560137
9"	560139
12"	560142
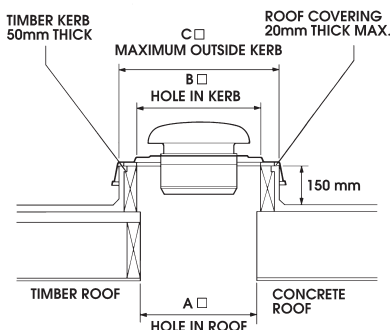
Size	A	B	C
6"	300mm	335mm	465mm
7"	300mm	335mm	465mm
9"	450mm	490mm	615mm
12"	450mm	490mm	615mm

In addition to the size 6, 7, 9 & 12 Roof Termination Sets, the Roof Plate Assemblies can also be used with the following Roof Terminations part numbers.

10555150 use size 6 Roof Plate Assembly
10555200 use size 7 Roof Plate Assembly
10555250 use size 9 Roof Plate Assembly
10555315 use size 12 Roof Plate Assembly

Joining Pieces

Used to join lengths of flexible ducting to give a long-lasting airtight connection.

Duct Size	Stock Ref
100mm Ø	561804
125mm Ø	561805
150mm Ø	561806
175mm Ø	561807
200mm Ø	561808
225mm Ø	561809
250mm Ø	561810
300mm Ø	561812
315mm Ø	561813
400mm Ø	561816

Worm Drive Clips

Stainless steel tightening band with quick-fix screwed ends for securing flexible ducting.

Max. Ø	Stock Ref
110mm	561704
215mm	561707
270mm	561710
380mm	561715
525mm	561720
660mm	561726

Standard Range Adaptor Kits

Used for Standard Range Window models in secondary double glazing, Roof models in secondary double glazing in exposed areas and Roof models through roofs.

Adaptor kits allow units to be installed on two surfaces and consist of an additional shroud and gasket, locking ring and seal. The shroud and gasket fit to the outside part of the unit, the locking ring and seal going to the inside part.

Fitting through holes in both Fixing Plates or glass, Vent-Axia's spigot and ring method of fixing allows simple installation separately to both parts.

Colour: Ivory.

Unit size	Stock Ref
6"	561011
7"	561012
9"	561013
12"	561014

Roof Units
Industrial

Roof Units from Vent-Axia

The Roof Units™ name has long been associated with high quality ventilation products at affordable prices. With ERP compliance assured you can be certain of high quality ventilation products meeting the exacting demands of today.

The extensive Roof Units™ product range includes the Euroseries™ Axial plate, short cased & roof fans, as well as inline centrifugal extract fans and twin fans. When matched with the Roof Units™ and Vent-Axia ranges of controllers, flexible ducting and other accessories you can be certain of fulfilling the complete installation from one supplier.

Characterised by design excellence, Roof Units™ fans are purpose designed to deliver controllable outputs of up to 15m³/s, plus the right balance of airflow, pressure development, quietness and energy efficiency for every type of project.

The Euroseries™ range of Axial bladed fans cover plate, short cased & roof variants, all fully speed controllable, incorporating modern high efficiency external rotor motors with single piece die-cast aluminium rotor/impellers offering smoother running & giving longer reliable service life.

Vent-Axia

Energy Recovery Range

- 2 model sizes covering 500 to 1500m³/hr
- 90% efficient aluminium energy recovery cell
- High performance EC/DC motors
- Compact low profile unit (360mm high)
- Internal or External mounting as standard
- Robust aluminium cell construction
- Simple control functionality

Construction

The unit is manufactured with a frameless construction and incorporates single skinned Aluzinc panels with a highly thermal and acoustically efficient internal insulating foam. The unit is suitable for internal or external mounting as standard.

The unit is constructed with removable top and bottom access panels allowing full maintenance access.

The removable panels provide access to the following:
- Supply or extract fan
- Supply or extract filter (when fitted)
- Heat exchanger
- Frost heater (when fitted)

A separate side section access is provided for wiring termination and set-up/ commissioning. The user control interface therein is within a separate viewing and access panel allowing commissioning without the need to access to the wiring section. This controller can be demounted for remote installation if required.

Construction

The frameless single skinned construction, with Aluzinc panels internally lined with a 90kg/m³ high efficiency acoustic and thermally insulating foam (fire retardant to BS476 part 7 class1 and part 6 class O), minimises noise and thermal breakout from the casing. Aluzinc construction allows for the units to be mounted either internally or externally as standard (IPX4). An optional inlet cowl is available for external applications if required.

The casing is designed to be as compact as possible for concealed false ceiling applications with access panels on both top and bottom as standard for ease of access and maintenance.

Performance and Sound

Extensively tested in accordance with BS 848 part 1 and 2, the published dB(A) figures are free field sound pressure levels with spherical propagation at reference level of $2x10^{-5}$ Pa. The inlet and outlet sound power level spectra figures are dB with a reference of 10^{-12} Watts.

Motor and impeller

All units contain a pair of Class 1 EC/DC external rotor motors with backward curved impellers carefully selected for maximum performance coupled with minimum sound and power consumption, fully compliant with the requirements for ERP 2015. The assembly is balanced to DIN ISO 1940 grade 6.3. Bearings are greased for life for maintenance free operation coupled with long service life for added peace of mind.

Electrical supply is 230V, 50Hz single phase.

Energy Recovery Cell

The ERV range includes an Aluminium counter flow plate heat exchanger offering higher efficiencies of up to 90%.

By utilising Aluminium heat exchangers the Vent-Axia ERV range of units can be installed in most environments including those with high humidity without the need to regularly maintain or replace the heat exchanger cell. The Aluminium cells are designed to be maintenance free (other than basic cleaning in situ) and to last the life of the unit.

Internal Unit Functionality

Flow Imbalance

The supply and extract flows on the standard unit can be offset by up to 20% to give an imbalanced flow as required.

Summer Bypass

The Standard ERV Hi-Box include as standard a Summer Bypass facility and integral controls to control its operation. The damper operates on both the Heat Recovery route and Bypass route enabling a full 100% bypass maximising the energy recovery benefits of free cooling when available.

Frost Protection

Integral to the standard unit is a 2 stage 2kW electric heater providing frost protection. The control for the inbuilt heaters is fully integrated and automatic ensuring the heat recovery cell does not freeze up under very low ambient conditions. The frost protection system will switch in each of the two stages as required when the ambient temperature falls below 0°C.

Condense Drain

All versions are fitted with a gravity condensation drain. An optional condensation drain pump is available for mounting in the condensation pipework external to the unit, includes float switch.

Filters

The ERV standard unit includes a G4 replaceable synthetic filter as standard.

Control

The Standard ERV unit comes complete with an integral controller providing manual variable speed control and the ability to control the summer bypass and frost protection functions. This allows the unit to be set to the customer requirements for continuous operation. The controller is fitted to the unit but can be remotely mounted on site if required. An integral time clock also provides for scheduling of the run for the unit. A boost facility can be manually selected via the unit controller. The controller LCD display shows the hours run and filter life information during operation and is fitted as standard to the unit although this can be remotely mounted on site.

Models

Stock Ref
ERV1000HIS
ERV1500HIS

Accessories

Model	Stock Ref
Filter G4 (ERV1000)	445851
Filter G4 (ERV1500)	447251
Weathercowl (ERV1000)	445832
Weathercowl (ERV1500)	446591

Dimensions (mm)

ERV 1000
250mm dia.
spigots
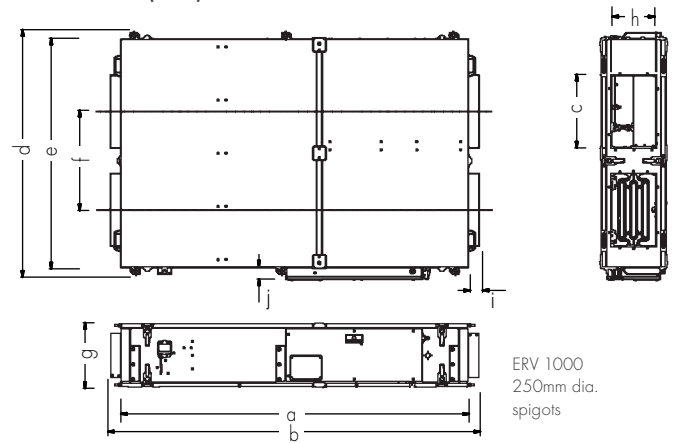
Model	A	B	C	D	E	F	G	H	I	J
ERV 1000	1800	1920	-	940	900	450	352	250Ø	60	65
ERV 1500	1900	2020	400	1290	1250	583	350	250	60	65

ERV Comparison Table

	Totus² Range	ERV-HIBox Standard
Model / Stock Reference	All	ERV1000HIS ERV1500HIS
HR Cell 90%	✔	✔
Aluzinc Acoustic Casing	✔	✔
EC/DC Motors	✔	✔
Condensate Drain	Pumped	Gravity
Condensate Pump	✔	Option
Filter G4	✔	✔
Control Functionality	Sentinel Demand Ventilation control	Manual speed control and basic HR control
Bypass inc Actuator	✔	✔
Electric Frost Heater	✔	✔
Wall Controller	✔	✔
Isolator Switch	✔	✔
BMS Control	✔	x
External Damper Control	✔	x
Proportional Sensors Control	✔	x
Constant Pressure Control	✔	x
Weathercowl (ERV1000)	Option 445832	Option 445832
Weathercowl (ERV1500)	Option 446591	Option 446591

Note: Part numbers shown as option are available at extra cost and are supplied loose

Performance Guide

ERV1000HIS
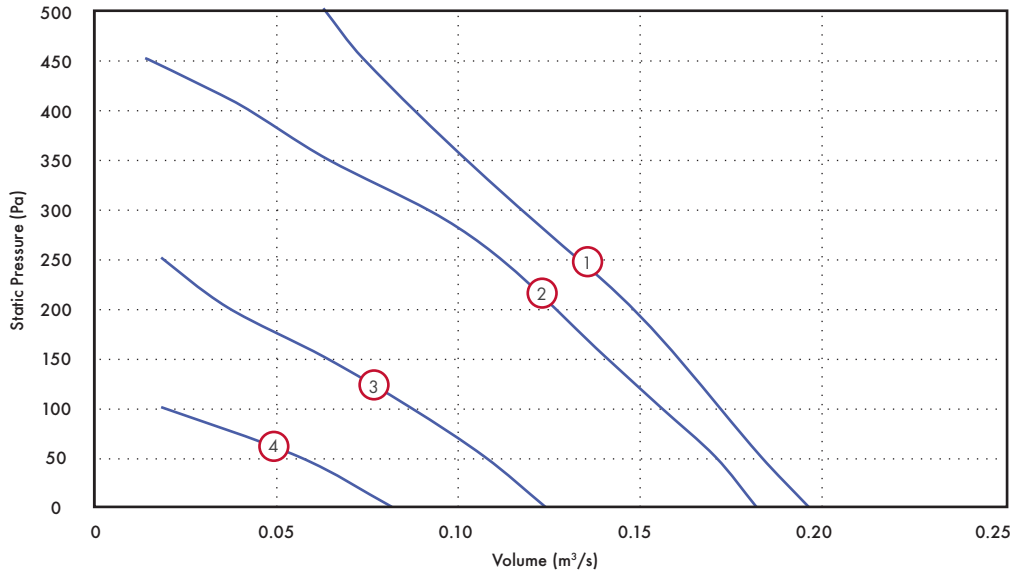
Stock Ref	Curve	Speed	Airflow, m³/s @ Pa											Supply	F.L.C Amps
			0	50	100	150	200	250	300	350	400	450	500		
ERV1000HIS	①	Max Supply	0.20	0.18	0.17	0.16	0.15	0.13	0.12	0.10	0.09	0.07	0.06	230V/1/50Hz	3.0
		SFP	1.71	1.84	1.98	2.14	2.32	2.53	2.86	3.28	3.81	4.71	5.67		
	②	Balanced 100%	0.18	0.17	0.16	0.14	0.13	0.11	0.09	0.07	0.04	0.01			2.5
		SFP	1.44	1.55	1.70	1.87	2.02	2.27	2.58	3.00	3.60	3.66			
	③	Balanced 80%	0.12	0.11	0.09	0.06	0.04	0.02							1.0
		SFP	0.89	1.03	1.21	1.51	2.04	2.51							
	④	Balanced 40%	0.08	0.06	0.02										0.5
		SFP	0.57	0.80	1.64										

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Stock Ref	Speed	Test Mode	63	125	250	500	1K	2K	4K	8K	dB(A) @ 3m
ERV1000HIS	Max Supply	External	58	65	69	54	53	54	48	46	35
		Room side	55	59	55	50	49	53	37	36	
		Breakout	59	59	61	50	46	49	36	34	
	Balanced 85%	External	58	63	69	54	53	52	45	45	34
		Room side	53	58	55	46	48	50	34	34	
		Breakout	57	58	59	47	45	47	34	33	
	Balanced 65%	External	54	58	64	49	47	42	35	36	28
		Room side	49	53	53	39	40	38	26	29	
		Breakout	54	54	55	41	38	36	27	30	
	Balanced 35%	External	47	52	48	39	37	30	26	29	22
		Room side	48	48	38	33	31	27	22	28	
		Breakout	48	51	39	35	31	28	26	29	

Performance Guide

ERV1500HIS
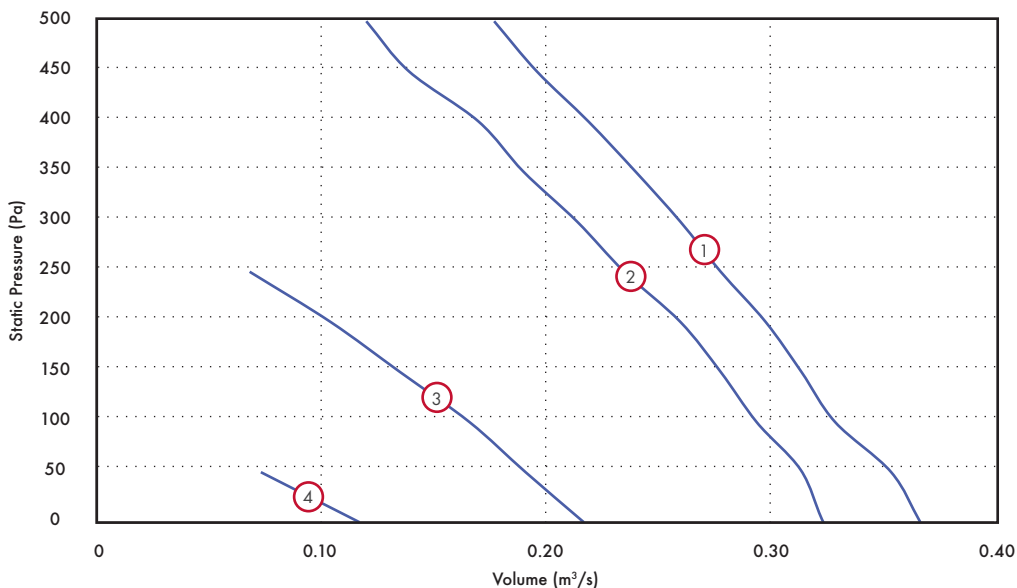
Stock Ref	Curve	Speed						Airflow, m³/s @ Pa						Supply	F.L.C Amps
			0	50	100	150	200	250	300	350	400	450	500		
ERV1500HIS	①	Max Supply	0.37	0.35	0.33	0.31	0.30	0.28	0.26	0.24	0.22	0.20	0.18	230V/1/50Hz	3.0
		SFP	1.71	1.77	1.91	2.01	2.10	2.26	2.40	2.58	2.79	3.05	3.31		
	②	Balanced 100%	0.32	0.31	0.29	0.28	0.26	0.24	0.21	0.19	0.17	0.14	0.12		2.5
		SFP	1.37	1.60	1.71	1.81	1.93	2.11	2.29	2.54	2.79	3.29	3.71		
	③	Balanced 80%	0.22	0.19	0.17	0.14	0.10	0.07							1.0
		SFP	0.91	1.04	1.19	1.43	1.78	2.56							
	④	Balanced 40%	0.12	0.07											0.5
		SFP	0.62	0.97											

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Stock Ref	Speed	Test Mode	63	125	250	500	1K	2K	4K	8K	dB(A) @ 3m
ERV1500HIS	Max Supply	External	66	70	75	60	57	52	50	45	41
		Room side	61	62	65	54	52	46	42	41	
		Breakout	65	68	69	54	49	45	40	40	
	Balanced 85%	External	64	68	72	57	53	49	45	42	37
		Room side	58	61	60	52	49	43	38	39	
		Breakout	62	66	64	51	46	43	38	39	
	Balanced 65%	External	59	64	57	46	45	40	35	32	29
		Room side	54	56	48	42	40	34	30	31	
		Breakout	59	62	50	41	38	34	29	30	
	Balanced 35%	External	58	53	46	37	37	29	25	29	22
		Room side	49	46	40	33	32	25	23	30	
		Breakout	52	52	41	32	30	27	25	31	

EuroSeries (ESP)

- Die cast aluminium impellers
- Fully speed controllable
- Air Volumes up to 13.89m³/s
- Sizes 315 to 1000 dia protected to IP54
- Operating Temperatures from -40°C up to +70°C Motor
- Insulation Class F
- Thermal overload for motor protection
- Reversible - Supply or Extract
- Tough epoxy paint finish
- Quality Assurance to BS EN ISO 9001:1994
- Performance tested to ISO 5801

The EuroSeries ESP axial blade plate fans, feature a single shot die cast aluminium blade and external rotor motor design.

The EuroSeries ESP range is available in eleven sizes with the extract performances up to 13.89m³/s, with pressure characteristics of up 300Pa. All units are designed for speed controllable.

Impellers

All sizes shall be supplied with cast aluminium impellers, ensuring performance when working against outdoor conditions and abrasive airflow. Where fans are reversible for Intake a -30% drop in performance can be expected.

Motors

External rotor motors are specially designed and styled for this range of fan. Ball bearings shall be greased for life. Rotors are dynamically balanced to ISO 1940. Sizes 315-1000mm, motors are protected to IP54, against dust and moisture complying with BS EN 60529:1992. They shall be ribbed aluminium body castings for efficient cooling. Motor insulation is Class 'F' (from -40°C to +70°C).

Electrical

Single phase 220-240V 50Hz. Capacitor start and run. Three phase 380-415V 50Hz. An IP54 terminal box shall be supplied with 20mm and PGII entry. All motors shall be fitted with thermal overload protection which should be wired into all controller circuits and into starter contactors. Models are available with either 2,4,6 or 8 pole motors.

Terminal Box

Terminal Box to IP54 as standard, protected against dust water from any angle allowing outside applications.

Performance

The fan performance, shall be in accordance with tests to BS848 Part 1 1980.

Sound Levels

Fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985. Published dB(A) figures are free field sound pressure levels at 3m with spherical propogation at a reference level of 2×10^{-5} Pa (20 micro-Pascal). The sound power level spectra figures are dB with reference level of 10^{-12} Watts (1 pico-watt). To ensure minimum noise levels during speed control, an auto transformer speed control is recommended.

Accessories

A full range of accessories:
- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. Starters & Overloads
- Discharge Guards
- Louvre Shutters

Dimensions (mm)
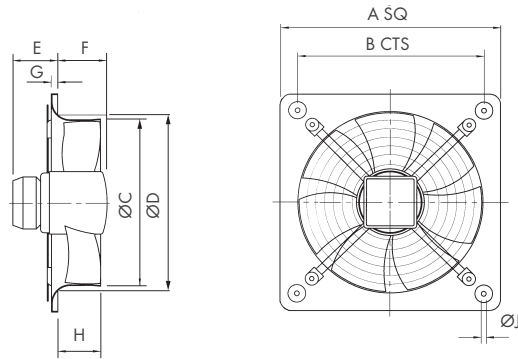
Dia	A	B	ØC	ØD	E	F	G	H	ØJ	Kg
250	370	320	256.5	264.5	84	80	6	80	9	3.4
315	430	380	320	328	84	84	19	70	9	6.3
355	485	435	367	372	86	97	21	75	9	7.3
400	540	490	412	420	93	100	12	88	9	10.2
450	575	535	463	480	86	139	14	96	11	15.8
500	655	615	517	528	84	141	16	104	11	17.3
560	725	675	568	589	81	142.5	16	119	11	24
630	805	750	643	664	82	142.5	20	130	11	45
710	850	810	720	763	37	176.5	20	150	14.5	31
800	970	910	804	869	34	244	17	193	14.5	38
1000	1170	1110	1009	1067	40	284	20	200	14.5	84

Performance Guide

250 to 315 dia. - 1 Phase - 2 & 4 Pole
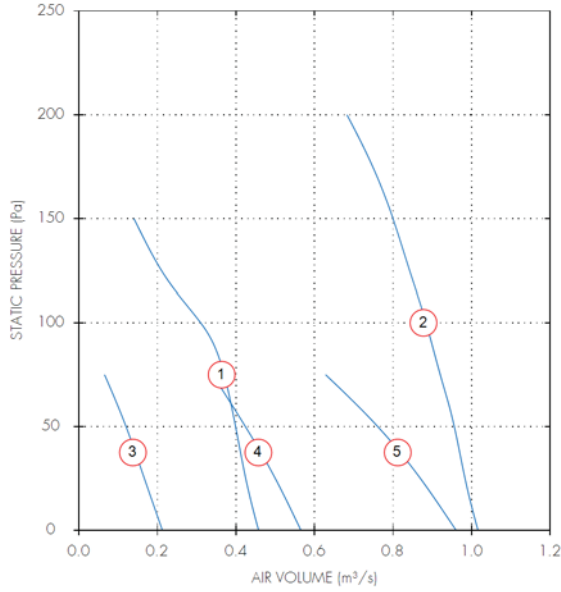
250 to 315 dia. - 3 Phase - 2 & 4 Pole
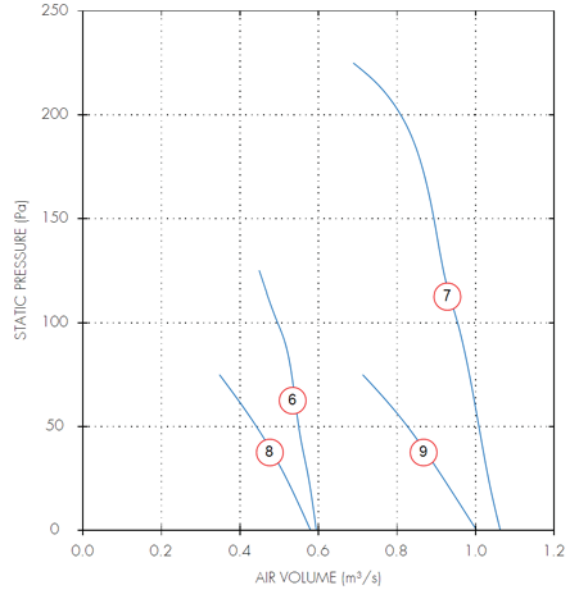
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa					Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
							0	50	100	150	200				
250	1	ESP25012	2	2440	IP44	1	0.46	0.4	0.31	0.14		0.12	1.15	0.54	59
315	1	ESP31512	2	2690	IP54	2	1.02	0.96	0.88	0.8	0.68	0.56	7.2	2.4	64
250	1	ESP25014	4	1340	IP44	3	0.21	0.12				0.04	0.3	0.16	44
315	1	ESP31514	4	1300	IP54	4	0.57	0.42				0.15	1.38	0.7	50
355	1	ESP35514	4	1330	IP54	5	0.96	0.76				0.19	1.45	0.84	53
250	3	ESP25032	2	2700	IP44	6	0.59	0.55	0.5			0.2	3.5	0.87	61
315	3	ESP31532	2	2800	IP54	7	1.06	1.01	0.95	0.89	0.81	0.48	5	0.9	60
315	3	ESP31534	4	1390	IP54	8	0.58	0.44				0.11	2.1	0.27	46
355	3	ESP35534	4	1370	IP54	9	1	0.83				0.17	1.35	0.37	49

For fans wired to reverse run, duty reduced by 30%. ESP25012, ESP31512 and ESP25014 not suitable for reverse airflow.

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	1	ESP25012	2	Inlet	69	70	76	76	70	70	67	59	57
250	1	ESP25012	2	Outlet	69	70	76	76	70	70	67	59	57
315	1	ESP31512	2	Inlet	69	73	79	74	74	76	73	66	61
315	1	ESP31512	2	Outlet	69	73	79	74	74	76	73	66	61
250	1	ESP25014	4	Inlet	70	72	63	58	54	52	45	35	41
250	1	ESP25014	4	Outlet	70	72	63	58	54	52	45	35	41
315	1	ESP31514	4	Inlet	70	68	66	61	60	62	58	51	47
315	1	ESP31514	4	Outlet	70	68	66	61	60	62	58	51	47
355	1	ESP35514	4	Inlet	65	70	67	65	64	64	62	55	50
355	1	ESP35514	4	Outlet	65	70	67	65	64	64	62	55	50
250	3	ESP25032	2	Inlet	7	64	76	80	74	70	66	60	59
250	3	ESP25032	2	Outlet	7	64	76	80	74	70	66	60	59
315	3	ESP31532	2	Inlet	71	72	83	80	78	79	75	67	64
315	3	ESP31532	2	Outlet	71	72	83	80	78	79	75	67	64
315	3	ESP31534	4	Inlet	64	67	69	63	62	60	58	53	47
315	3	ESP31534	4	Outlet	64	67	69	63	62	60	58	53	47
355	3	ESP35534	4	Inlet	58	73	63	64	64	65	64	58	50
355	3	ESP35534	4	Outlet	58	73	63	64	64	65	64	58	50

Performance Guide

400 to 630 dia. - 1 Phase - 4 Pole
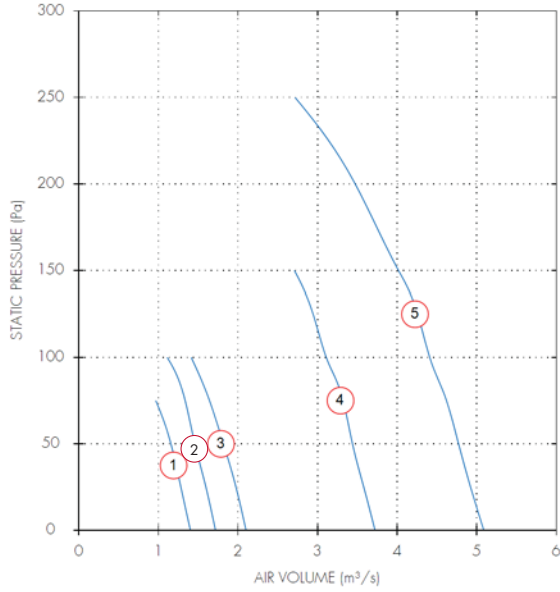
400 to 560 dia. - 3 Phase - 4 Pole
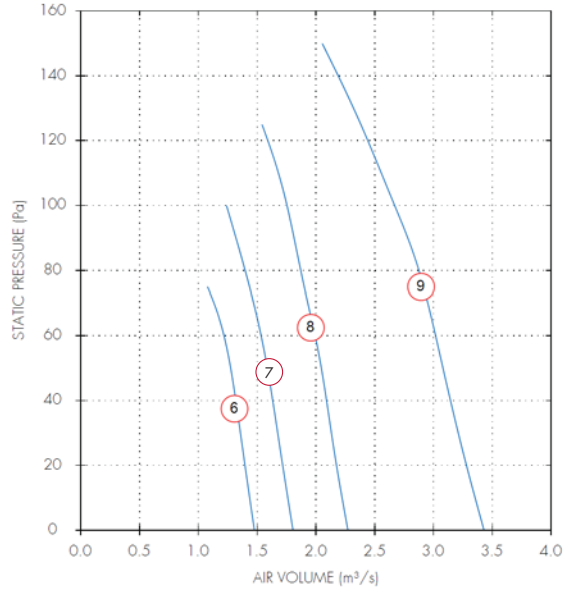
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa						Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
							0	50	100	150	200	250				
400	1	ESP40014	4	1350	IP54	1	1.4	1.16					0.29	2.4	1.45	56
450	1	ESP45014	4	1370	IP54	2	1.72	1.46	1.11				0.36	3.6	1.6	61
500	1	ESP50014	4	1290	IP54	3	2.1	1.82	1.41				0.51	4.3	2.3	55
560	1	ESP56014	4	1320	IP54	4	3.72	3.44	3.11	2.71			1.35	9.3	6	63
630	1	ESP63014	4	1320	IP54	5	5.09	4.77	4.41	4.02	3.47	2.72	2.2	28	9.9	70
400	3	ESP40034	4	1350	IP54	6	1.48	1.27					0.26	2.1	0.56	51
450	3	ESP45034	4	1380	IP54	7	1.8	1.59	1.24				0.36	2.6	0.8	56
500	3	ESP50034	4	1380	IP54	8	2.27	2.05	1.75				0.55	4.2	1.05	58
560	3	ESP56034	4	1220	IP54	9	3.43	3.08	2.67	2.05			1.25	7.7	2.2	70

For fans wired to reverse run, duty reduced by 30%.

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
400	1	ESP40014	4	Inlet	70	72	67	66	65	65	64	56	51
400	1	ESP40014	4	Outlet	70	72	67	66	65	65	64	56	51
450	1	ESP45014	4	Inlet	69	76	73	72	70	71	70	62	57
450	1	ESP45014	4	Outlet	69	76	73	72	70	71	70	62	57
500	1	ESP50014	4	Inlet	65	75	69	70	70	71	69	62	56
500	1	ESP50014	4	Outlet	65	75	69	70	70	71	69	62	56
630	1	ESP63014	4	Inlet	82	86	79	79	80	78	75	70	64
630	1	ESP63014	4	Outlet	82	86	79	79	80	78	75	70	64
400	3	ESP40034	4	Inlet	62	73	65	65	67	69	67	60	53
400	3	ESP40034	4	Outlet	62	73	65	65	67	69	67	60	53
450	3	ESP45034	4	Inlet	65	82	75	76	73	72	69	62	58
450	3	ESP45034	4	Outlet	65	82	75	76	73	72	69	62	58
500	3	ESP50034	4	Inlet	67	71	69	72	70	71	68	61	56
500	3	ESP50034	4	Outlet	67	71	69	72	70	71	68	61	56
560	3	ESP56034	4	Inlet	85	79	77	76	76	75	72	66	61
560	3	ESP56034	4	Outlet	85	79	77	76	76	75	72	66	61

Performance Guide
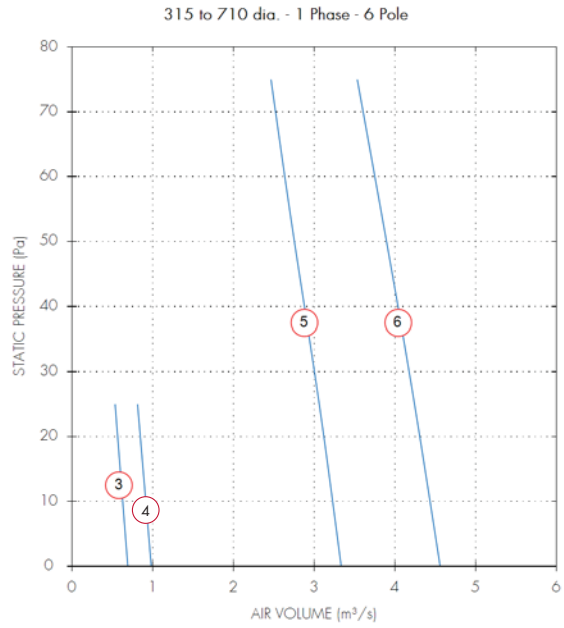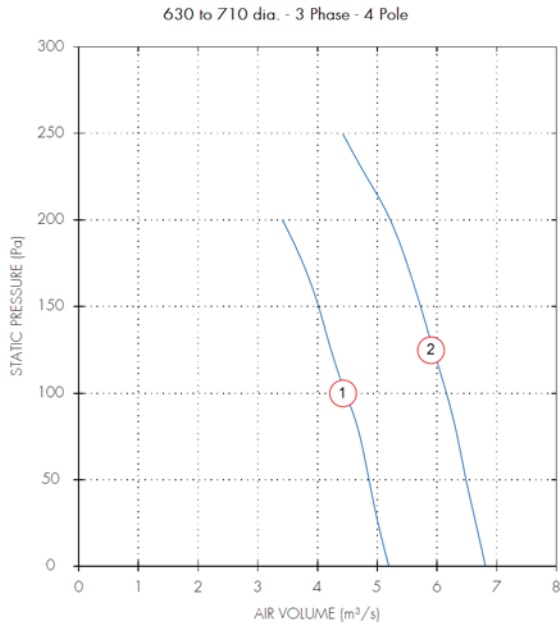
630 to 710 dia. - 3 Phase - 4 Pole

315 to 710 dia. - 1 Phase - 6 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa							Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
							0	25	50	100	150	200	250				
630	3	ESP63034	4	1360	IP54	1	5.19	5.01	4.86	4.47	4.02	3.41		1.9	17	3.2	64
710	3	ESP71034	4	1290	IP54	2	6.81	6.65	6.49	6.16	5.72	5.22	4.42	2.9	20	5.3	72
355	1	ESP35516	6	950	IP54	3	0.69	0.53						0.09	1.2	0.46	44
400	1	ESP40016	6	940	IP54	4	0.98	0.81						0.1	1.4	0.48	45
630	1	ESP63016	6	880	IP54	5	3.33	3.06	2.75					0.6	5.3	2.7	57
710	1	ESP71016	6	850	IP54	6	4.56	4.24	3.89					0.89	8	4.1	60

For fans wired to reverse run, duty reduced by 30%.

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
630	3	ESP63034	4	Inlet	71	88	82	83	82	81	78	72	67
630	3	ESP63034	4	Outlet	71	88	82	83	82	81	78	72	67
710	3	ESP71034	4	Inlet	80	87	86	88	89	86	83	79	72
710	3	ESP71034	4	Outlet	80	87	86	88	89	86	83	79	72
355	1	ESP35516	6	Inlet	59	59	60	57	56	57	55	46	42
355	1	ESP35516	6	Outlet	59	59	60	57	56	57	55	46	42
400	1	ESP40016	6	Inlet	76	74	70	65	63	58	52	44	48
400	1	ESP40016	6	Outlet	76	74	70	65	63	58	52	44	48
630	1	ESP63016	6	Inlet	88	85	81	77	76	70	64	58	60
630	1	ESP63016	6	Outlet	88	85	81	77	76	70	64	58	60
710	1	ESP71016	6	Inlet	83	83	84	80	78	74	70	72	63
710	1	ESP71016	6	Outlet	83	83	84	80	78	74	70	72	63

Performance Guide

315 to 400 dia. - 3 Phase - 6 Pole
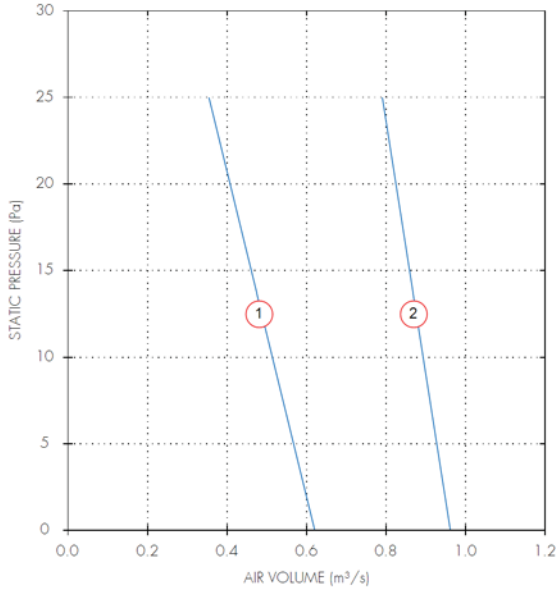
450 to 630 dia. - 3 Phase - 6 Pole
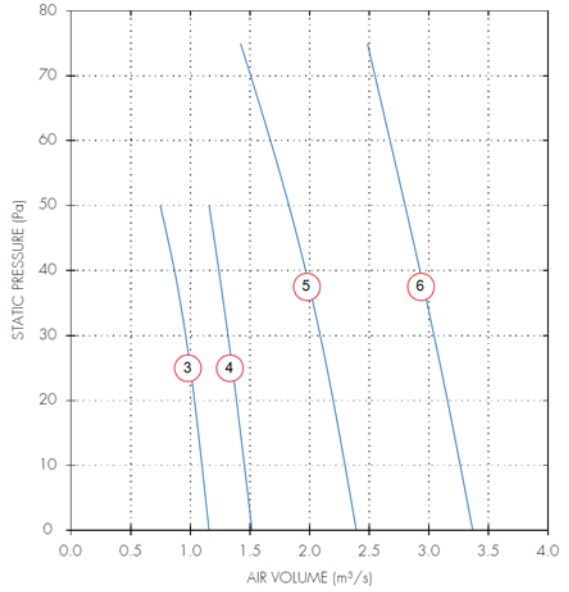
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa 0	25	50	75	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
355	3	ESP35536	6	910	IP54	1	0.62	0.35			0.09	0.5	0.25	45
400	3	ESP40036	6	920	IP54	2	0.96	0.79			0.11	0.9	0.28	50
450	3	ESP45036	6	890	IP54	3	1.16	1	0.75		0.12	1	0.28	51
500	3	ESP50036	6	900	IP54	4	1.52	1.35	1.16		0.23	1.5	0.56	56
560	3	ESP56036	6	860	IP54	5	2.39	2.14	1.83	1.42	0.36	1.75	0.74	56
630	3	ESP63036	6	890	IP54	6	3.37	3.1	2.8	2.48	0.59	3.6	1.3	59

For fans wired to reverse run, duty reduced by 30%.

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
355	3	ESP35536	6	Inlet	60	61	60	56	56	56	54	46	42
355	3	ESP35536	6	Outlet	60	61	60	56	56	56	54	46	42
400	3	ESP40036	6	Inlet	60	60	62	59	60	60	58	50	45
400	3	ESP40036	6	Outlet	60	60	62	59	60	60	58	50	45
450	3	ESP45036	6	Inlet	63	72	66	63	63	62	59	48	48
450	3	ESP45036	6	Outlet	63	72	66	63	63	62	59	48	48
500	3	ESP50036	6	Inlet	78	73	68	67	68	66	59	51	52
500	3	ESP50036	6	Outlet	78	73	68	67	68	66	59	51	52
560	3	ESP56036	6	Inlet	67	72	72	68	68	68	65	57	53
560	3	ESP56036	6	Outlet	67	72	72	68	68	68	65	57	53
630	3	ESP63036	6	Inlet	67	78	76	74	73	72	77	59	60
630	3	ESP63036	6	Outlet	67	78	76	74	73	72	77	59	60

Performance Guide
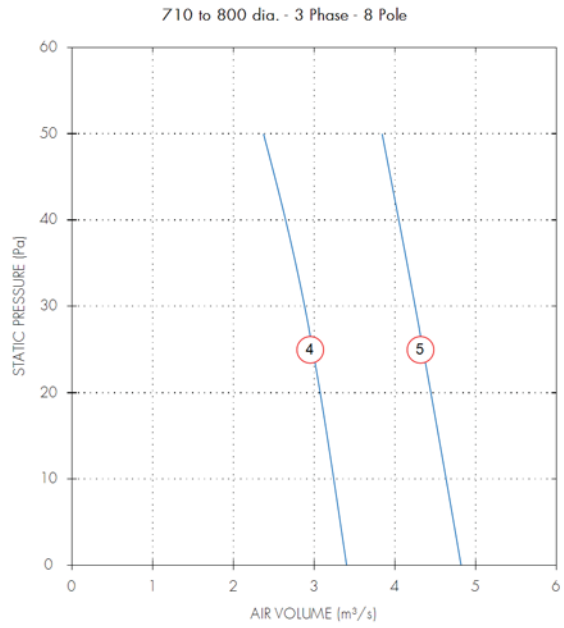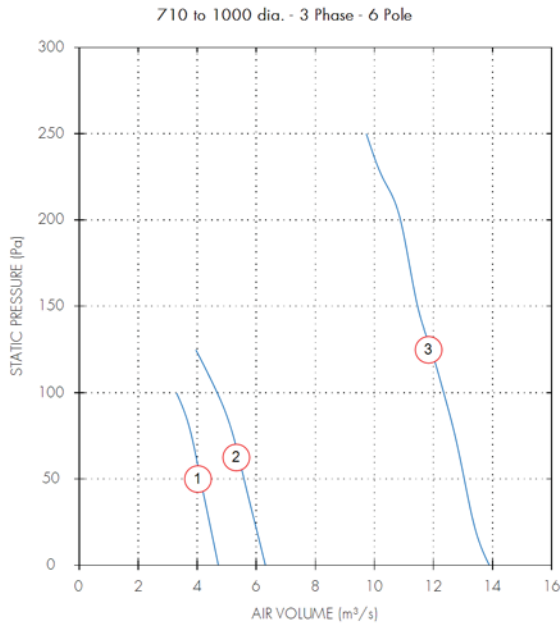
710 to 1000 dia. - 3 Phase - 6 Pole

710 to 800 dia. - 3 Phase - 8 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	50	100	m³/s @ Pa 150	200	250	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
710	3	ESP71036	6	860	IP54	1	4.71	4.11	3.29				1.1	7.7	2.2	62
800	3	ESP80036	6	900	IP54	2	6.3	5.58	4.67				1.4	9.8	2.7	64
1000	3	ESP100036	6	935	IP54	3	13.89	13.04	12.35	11.46	10.88	9.72	5.5	67	10.5	77
710	3	ESP71038	8	630	IP54	4	3.4	2.37					0.43	3.3	1.1	55
800	3	ESP80038	8	670	IP54	5	4.82	3.84					0.69	5	1.75	58

For fans wired to reverse run, duty reduced by 30%.

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
710	3	ESP71036	6	Inlet	80	77	78	75	76	75	70	64	60
710	3	ESP71036	6	Outlet	80	77	78	75	76	75	70	64	60
800	3	ESP80036	6	Inlet	73	83	79	75	75	77	74	64	62
800	3	ESP80036	6	Outlet	73	83	79	75	75	77	74	64	62
1000	3	ESP100036	6	Inlet	80	90	90	91	90	86	85	79	74
1000	3	ESP100036	6	Outlet	80	90	90	91	90	86	85	79	74
710	3	ESP71038	8	Inlet	75	75	73	71	72	70	64	57	56
710	3	ESP71038	8	Outlet	75	75	73	71	72	70	64	57	56
800	3	ESP80038	8	Inlet	75	75	73	71	72	70	64	57	56
800	3	ESP80038	8	Outlet	75	75	73	71	72	70	64	57	56

Models & Accessories

Fan Stock Ref	Speed Controllers Elect 1ph Stock Ref	Auto Transfor. Stock Ref	Starter Stock Ref	Overload Stock Ref	Fan Stock Ref	Speed Controller Auto Transfor. Stock Ref	Starter Stock Ref	Overload Stock Ref
1 Phase - 2 Pole					**3 Phase - 2 Pole**			
ESP25012	SP5001	SPM5020	444744	444699	ESP25032	RDTK10	444747	444699
ESP31512	SP5025	SPM5035	444744	444701	ESP31532	RDTK20	444747	444700
					ESP35532	RDTK40	444747	444702
1 Phase - 4 Pole					**3 Phase - 4 Pole**			
ESP25014	SP5001	SPM5020	444744	444696				
ESP31514	SP5001	SPM5020	444744	444699	ESP31534	RDTK10	444747	444697
ESP35514	SP5001	SPM5020	444744	444699	ESP35534	RDTK10	444747	444698
ESP40014	SP5025	SPM5020	444744	444701	ESP40034	RDTK10	444747	444699
ESP45014	SP5025	SPM5035	444744	444701	ESP45034	RDTK10	444747	444699
ESP50014	SP5025	SPM5035	444744	444702	ESP50034	RDTK20	444747	444700
ESP56014	SP5010	SPM5075	444744	444704	ESP56034	RDTK40	444747	444701
ESP63014	-	SPM5140	444744	444706	ESP63034	RDTK40	444747	444702
					ESP71034	RDTK70	444747	444703
1 Phase - 6 Pole					**3 Phase - 6 Pole**			
ESP35516	SP5001	SPM5020	444744	444698	ESP35536	RDTK10	444747	444697
ESP40016	SP5001	SPM5020	444744	444699	ESP40036	RDTK10	444747	444697
					ESP45036	RDTK10	444747	444697
					ESP50036	RDTK10	444747	444699
					ESP56036	RDTK10	444747	444699
ESP63016	SP5050	SPM5035	444744	444702	ESP63036	RDTK20	444747	444700
ESP71016	SP5050	SPM5060	444744	444703	ESP71036	RDTK40	444747	444702
					ESP80036	RDTK40	444747	444702
					ESP100036*	-	444748	444706
					3 Phase - 8 Pole			
					ESP71038	RDTK20	444747	444700
					ESP80038	RDTK20	444747	444701

*Not suitable for voltage speed control. Inverter speed control with sine filters only.

Size	Roof Cowl Assembly Stock Ref	Louvre Shutter Stock Ref	Impeller Discharge Side Guard Stock Ref	Imp. Disch. Guard when used with LS shutter Stock Ref
250	RCZ300	LS250	10502325	10502375
315	RCZ300	LS315	10502325	10502375
355	RCZ300	LS350	10502375	10502450
400	RCZ400	LS400	10502450	10502525
450	RCZ400	LS450	10502525	10502630
500	RCZ500	LS500	10502525	10502630
560	RCZ500	LS560	10502630	10502630
630	RCZ630	LS630	10502630	10502800
710	RCZ630	LS710	10502800	10502800
800	RCZ800	LS800	10502800	105021000
1000	RCZ1000	LS1000	105021000	-

Note: - The Standard roof cowl colour is BS 00A 05 (Goose Wing Grey), for all special B.S. or RAL colours contact Vent-Axia.
- When speed control is required a 5 step auto transformer speed controller is recommended, to ensure low noise levels.
- All 3 phase models are suitable for frequency inverter speed control.
- Vent-Axia only recommends using Inverters with integral Sine Filters for reliable operation.

EuroSeries (ESC)

- External rotor motors
- Die cast aluminium impellers
- Fully speed controllable
- Air Volumes up to 13.89m³/s
- Sizes 250 to 1000 protected to IP54
- Operating Temperatures from -40°C up to +70°C
- Motor Insulation Class F
- HOT SPOT Protection
- Reversible for supply or extract
- Tough epoxy paint finish
- Quality Assurance to BS EN ISO 9001:1994
- Performance tested to BS848 Part 1 1980

The EuroSeries ESC Short Cased axial blade fans, feature a single shot die cast aluminium blade & external rotor motor design.

The EuroSeries ESC range is available in eleven sizes with the extract performances up to 13.89m³/s, with pressure characteristics of up 300Pa. All units are designed for & fully speed controllable.

Impellers
All sizes shall be supplied with cast aluminium impellers, ensuring performance when working against outdoor conditions and abrasive airflow.

Motors
External rotor motors are specially designed and styled for this range of fan. Ball bearings shall be greased for life. Rotors are dynamically balanced to ISO 1940. Sizes 315-1000mm, motors are protected to IP54, against dust and moisture complying with BS EN 60529:1992. They shall be ribbed aluminium body castings for efficient cooling. Motor insluation is Class 'F' (from -40°C to +70°C).

Electrical
Single phase 220-240V 50Hz. Capacitor start and run. Three phase 380-415V 50Hz. An IP54 terminal box shall be supplied with most models with 20mm and PGII entry. All motors shall be fitted with thermal overload Protection which should be wired into all controller circuits and into starter contactors. Models are available with either 2,4, 6 & 8 pole motors.

Terminal Box
Terminal Box to IP54 as standard, protected against dust water from any angle allowing outside applications.

Performance
The fan performance, shall be in accordance with tests to BS848 Part 1 1980.

Sound Levels
Fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985. Published dB(A) figures are free field sound pressure levels at 3m with spherical propogation at a reference level of 2×10^{-5} Pa (20 micro-Pascal). The sound power level spectra figures are dB with reference level of 10^{-12} Watts (1 pico-watt). To ensure minimum noise levels during speed control, an auto transformer speed control is recommended.
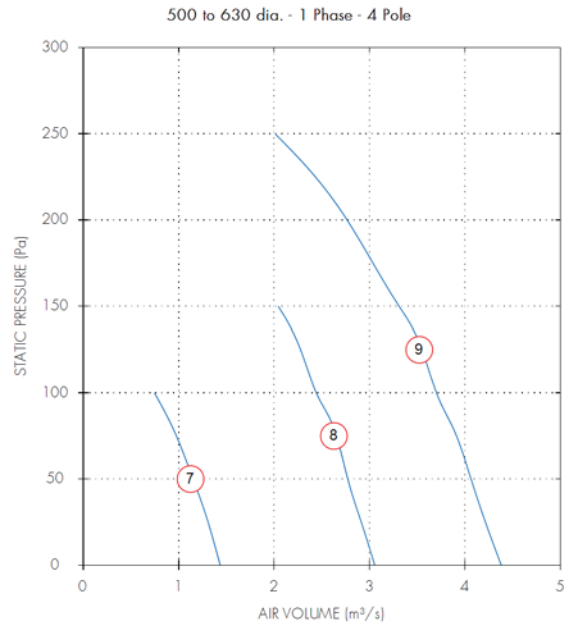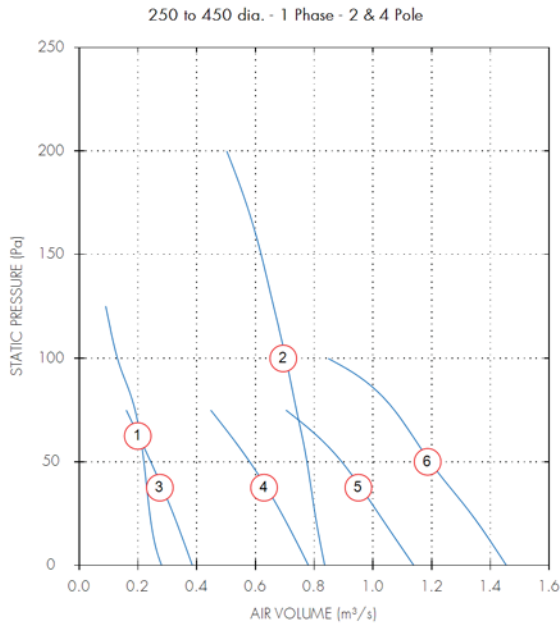
Accessories
A full range of accessories:
- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. Starters & Overloads
- Ancillary Packs (comprising:- 4 AVM's, 2 mounting feet, 2 matching flanges, 2 flexible connectors + clips)
- Wire Guards
- Attenuators
- Mounting Feet
- Matching Flanges
- Anti Vibration Mounts
- Louvre Shutters

Dimensions (mm)

Number of holes
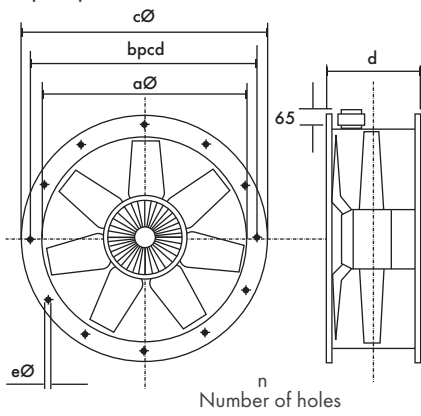
Dia	Øa	Øb	Øc	d	Øe	n	kg
250	254	286	306	110	7	8	5
315	316.5	356	382	135	9.5	8	6.1
355	356	395	421	135	9.5	8	7.1
400	400	438	466	155	9.5	12	8.1
450	451	487	515	160	9.5	12	13.4
500	503	541	567	166	9.5	12	15.7
560	559	605	635	210	11.5	16	20.1
630	634	674	707	220	11.5	16	44
710	711	751	785	260	11.5	16	31
800	797	837	871	280	11.5	24	39
1000	1001	1043	1080	330	11.5	24	73

Mounting Feet
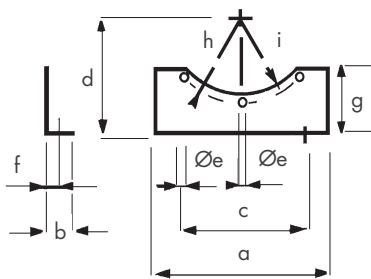
Stock Ref	a	b	c	d	Øe	f	g	h	i
MFZ315	315	40	265	200	10	20	71	178	166
MFZ355	350	40	300	225	10	20	81.5	198	186
MFZ400	250	40	220	250	10	20	78	219	205
MFZ450	275	40	240	275	10	20	82	244	230
MFZ500	315	50	280	315	1	25	100	271	255
MFZ560	355	50	320	355	12	25	97	303	285
MFZ630	400	50	360	400	12	25	109	337	320
MFZ710	465	50	415	450	12	25	119	376	362
MFZ800	458	50	420	518	12	25	176	419	405

Anti Vibration Mountings
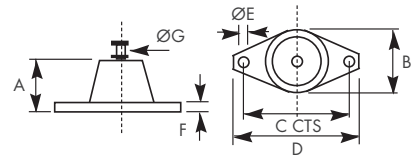
Stock Ref	A	B	C	D	ØE	F	ØG
68MP033G	27	37	54	67	7	3	M8

Coupling Flanges
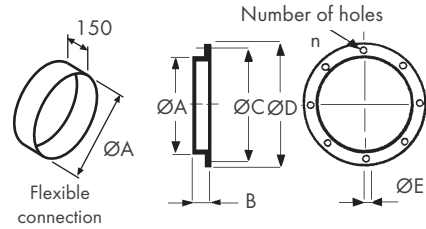
Stock Ref	ØA	B	ØC	ØD	ØE	n	Flexible Connection
CFZ315	313	40	356	382	10	8	FCZ315
CFZ355	353	40	395	421	10	8	FCZ355
CFZ400	398	45	438	466	10	12	FCZ400
CFZ450	448	45	487	515	10	12	FCZ450
CFZ500	498	45	541	567	10	12	FCZ500
CFZ560	558	45	605	635	12	16	FCZ560
CFZ630	628	45	674	707	12	16	FCZ630
CFZ710	708	50	751	785	12	16	FCZ710
CFZ800	798	50	837	871	12	24	FCZ800
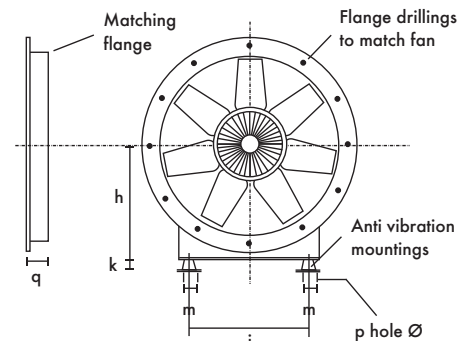
Unit size	h	i	k†	m	pØ	q
315	200	265	27	54	7	40
355	225	300	27	54	7	40
400	250	220	27	54	7	45
450	275	240	27	54	7	45
500	315	280	27	54	7	45
560	355	320	27	54	7	45
630	400	360	27	54	7	45
710	450	415	27	54	7	50
800	518	420	27	54	7	50

Performance Guide
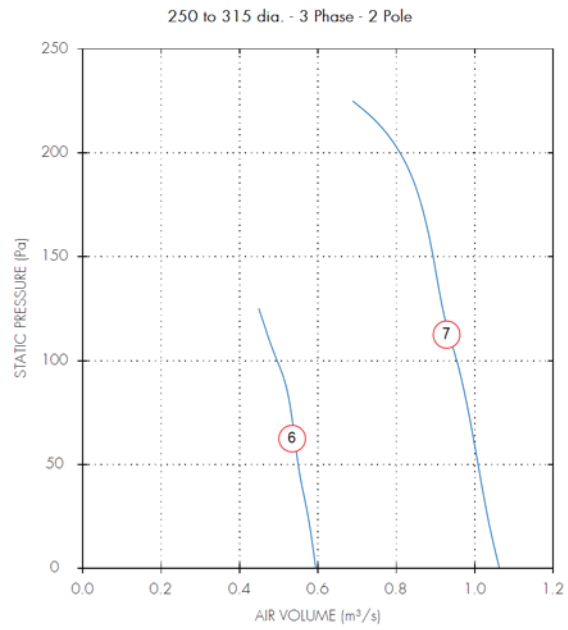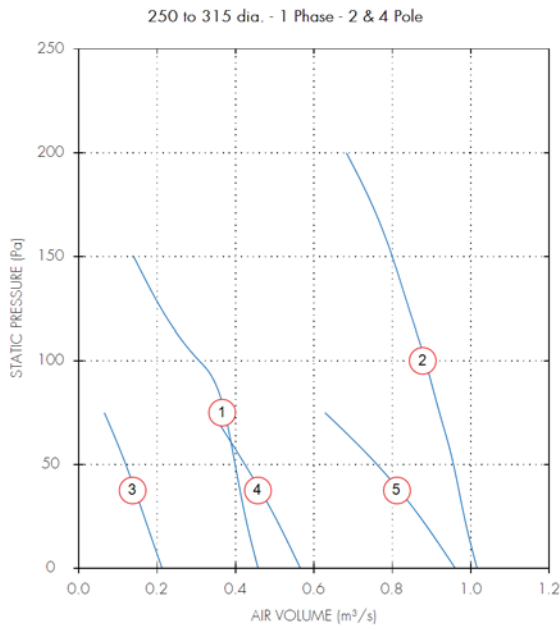
250 to 315 dia. - 1 Phase - 2 & 4 Pole

250 to 315 dia. - 3 Phase - 2 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	50	m³/s @ Pa 100	150	200	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
250	1	ESC25012	2	2440	IP44	1	0.46	0.4	0.31	0.14		0.12	1.15	0.54	59
315	1	ESC31512	2	2690	IP54	2	1.02	0.96	0.88	0.8	0.68	0.56	7.2	2.4	64
250	1	ESC25014	4	1340	IP44	3	0.21	0.12				0.04	0.3	0.16	44
315	1	ESC31514	4	1300	IP54	4	0.57	0.42				0.15	1.38	0.7	50
355	1	ESC35514	4	1330	IP54	5	0.96	0.76				0.19	1.45	0.84	53
250	3	ESC25032	2	2700	IP44	6	0.59	0.55	0.5			0.2	3.5	0.87	61
315	3	ESC31532	2	2800	IP54	7	1.06	1.01	0.95	0.89	0.81	0.48	5	0.9	60

For Fans wired to reverse run, duty reduced by 30%
ESC25012, ESC31512 and ESC25014 not suitable for reverse airflow

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	1	ESC25012	2	Inlet	69	70	76	76	70	70	67	59	57
250	1	ESC25012	2	Outlet	69	70	76	76	70	70	67	59	57
315	1	ESC31512	2	Inlet	69	73	79	74	74	76	73	66	61
315	1	ESC31512	2	Outlet	69	73	79	74	74	76	73	66	61
250	1	ESC25014	4	Inlet	70	72	63	58	54	52	45	35	41
250	1	ESC25014	4	Outlet	70	72	63	58	54	52	45	35	41
315	1	ESC31514	4	Inlet	70	68	66	61	60	62	58	51	47
315	1	ESC31514	4	Outlet	70	68	66	61	60	62	58	51	47
355	1	ESC35514	4	Inlet	65	70	67	65	64	64	62	55	50
355	1	ESC35514	4	Outlet	65	70	67	65	64	64	62	55	50
250	3	ESC25032	2	Inlet	69	70	75	79	74	70	66	60	59
250	3	ESC25032	2	Outlet	70	75	79	74	70	66	60	60	56
315	3	ESC31532	2	Inlet	71	72	83	80	78	79	75	67	64
315	3	ESC31532	2	Outlet	71	72	83	80	78	79	75	67	64

Performance Guide

400 to 630 dia. - 1 Phase - 4 Pole
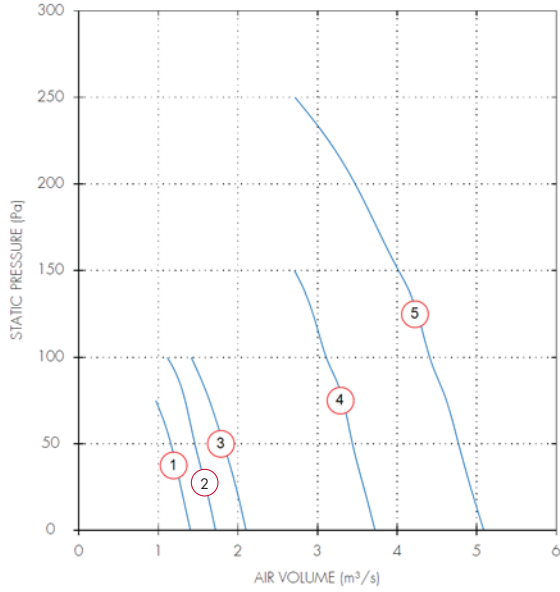
315 to 450 dia. - 3 Phase - 4 Pole
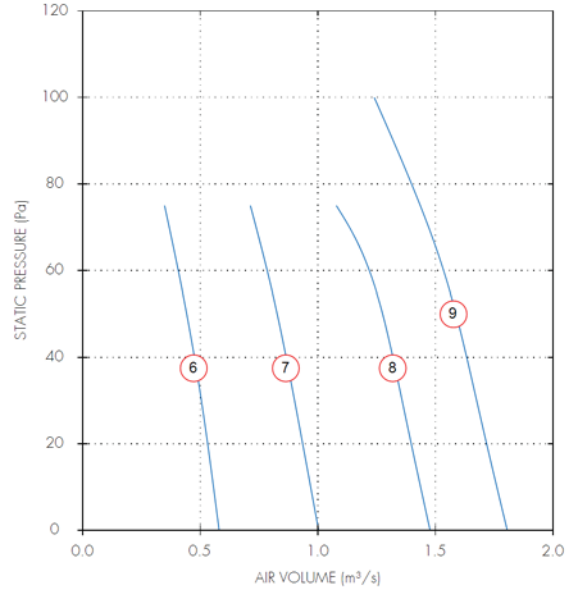
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	50	100	150	200	250	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
									m³/s @ Pa							
400	1	ESC40014	4	1350	IP54	1	1.4	1.16					0.29	2.4	1.45	56
450	1	ESC45014	4	1370	IP54	2	1.72	1.46	1.11				0.36	3.6	1.6	61
500	1	ESC50014	4	1290	IP54	3	2.1	1.82	1.41				0.51	4.3	2.3	55
560	1	ESC56014	4	1320	IP54	4	3.72	3.44	3.11	2.71			1.4	9.3	6	63
630	1	ESC63014	4	1320	IP54	5	5.09	4.77	4.41	4.02	3.47	2.72	2.2	28	9.9	70
315	3	ESC31534	4	1390	IP54	6	0.58	0.44					0.11	2.1	0.27	46
355	3	ESC35534	4	1370	IP54	7	1	0.83					0.17	1.35	0.37	49
400	3	ESC40034	4	1350	IP54	8	1.48	1.27					0.26	2.1	0.56	51
450	3	ESC45034	4	1380	IP54	9	1.8	1.59	1.24				0.36	2.6	0.8	56

For Fans wired to reverse run, duty reduced by 30%

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

$$\text{Sound Power Level Spectra dB (ref } 10^{-12} \text{ Watts)}$$

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
400	1	ESC40014	4	Inlet	70	72	67	66	65	65	64	56	51
400	1	ESC40014	4	Outlet	70	72	67	66	65	65	64	56	51
450	1	ESC45014	4	Inlet	69	76	73	72	70	71	70	62	57
450	1	ESC45014	4	Outlet	69	76	73	72	70	71	70	62	57
500	1	ESC50014	4	Inlet	65	75	69	70	70	71	69	62	56
500	1	ESC50014	4	Outlet	65	75	69	70	70	71	69	62	56
560	1	ESC56014	4	Inlet	100	90	89	84	82	79	75	68	67
560	1	ESC56014	4	Outlet	100	90	89	84	82	79	75	68	67
630	1	ESC63014	4	Inlet	82	86	79	79	80	78	75	70	64
630	1	ESC63014	4	Outlet	82	86	79	79	80	78	75	70	64
315	3	ESC31534	4	Inlet	64	67	69	63	62	60	58	53	47
315	3	ESC31534	4	Outlet	64	67	69	63	62	60	58	53	47
355	3	ESC35534	4	Inlet	58	73	63	64	64	65	64	58	50
355	3	ESC35534	4	Outlet	58	73	63	64	64	65	64	58	50
400	3	ESC40034	4	Inlet	62	73	65	65	67	69	67	60	53
400	3	ESC40034	4	Outlet	62	73	65	65	67	69	67	60	53
450	3	ESC45034	4	Inlet	65	82	75	76	73	72	69	62	58
450	3	ESC45034	4	Outlet	65	82	75	76	73	72	69	62	58

Performance Guide
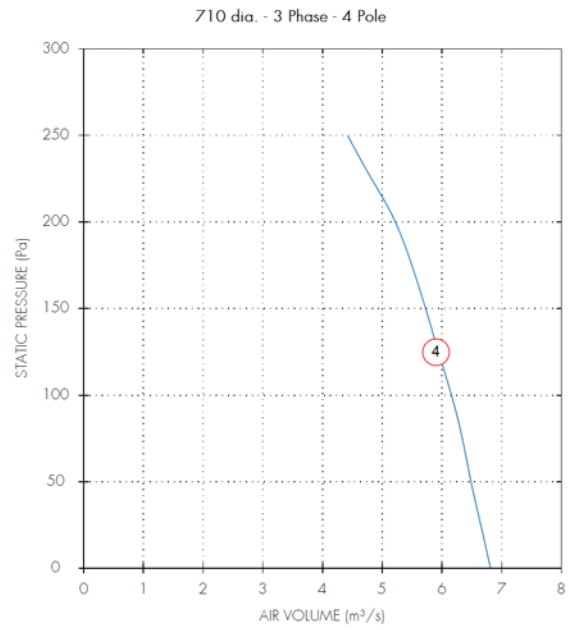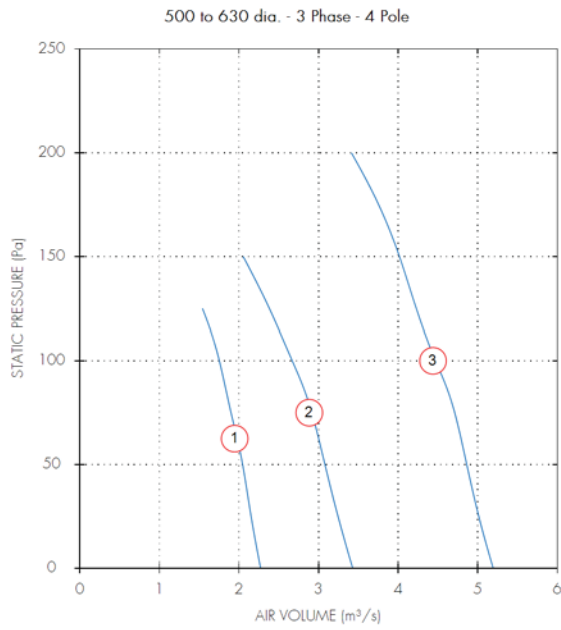
500 to 630 dia. - 3 Phase - 4 Pole

710 dia. - 3 Phase - 4 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa 0	50	100	150	200	250	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
500	3	ESC50034	4	1380	IP54	1	2.27	2.05	1.75				0.55	4.2	1.05	58
560	3	ESC56034	4	1220	IP54	2	3.43	3.08	2.67	2.05			1.25	7.7	2.2	70
630	3	ESC63034	4	1360	IP54	3	5.19	4.86	4.47	4.02	3.41		1.9	14	3.2	64
710	3	ESC71034	4	1290	IP54	4	6.81	6.49	6.16	5.72	5.22	4.42	2.9	19	5.3	72

For Fans wired to reverse run, duty reduced by 30%

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
500	3	ESC50034	4	Inlet	67	71	69	72	70	71	68	61	56
500	3	ESC50034	4	Outlet	67	71	69	72	70	71	68	61	56
560	3	ESC56034	4	Inlet	85	79	77	76	76	75	72	66	61
560	3	ESC56034	4	Outlet	85	79	77	76	76	75	72	66	61
630	3	ESC63034	4	Inlet	71	88	82	83	82	81	78	72	67
630	3	ESC63034	4	Outlet	71	88	82	83	82	81	78	72	67
710	3	ESC71034	4	Inlet	80	87	86	88	89	86	83	79	72
710	3	ESC71034	4	Outlet	80	87	86	88	89	86	83	79	72
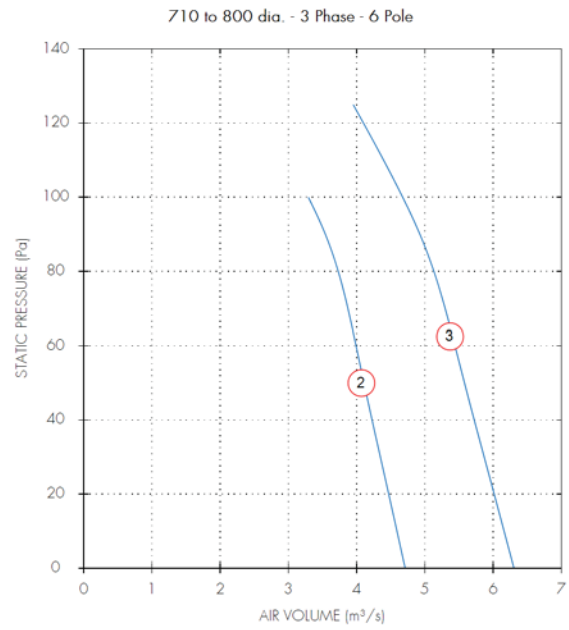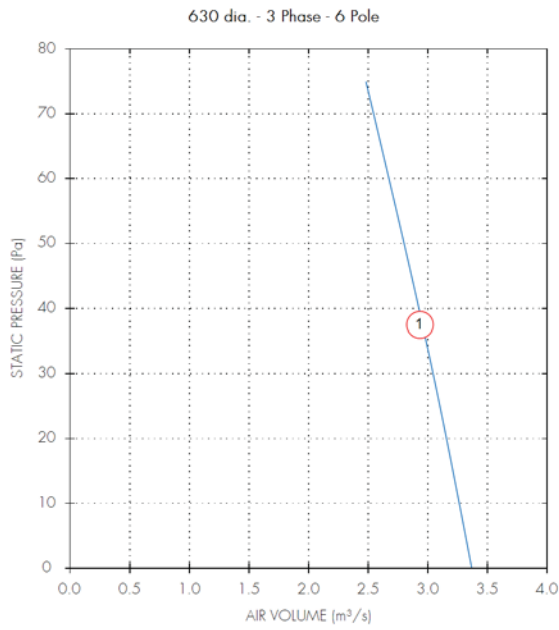
Performance Guide

630 dia. - 3 Phase - 6 Pole

710 to 800 dia. - 3 Phase - 6 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa						Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
							0	25	50	75	100	125				
630	3	ESC63036	6	890	IP54	1	3.37	3.1	2.8	2.48			0.59	3.6	1.3	59
710	3	ESC71036	6	860	IP54	2	4.71	4.41	4.11	3.8	3.29		1.1	7.7	2.2	62
800	3	ESC80036	6	900	IP54	3	6.3	5.94	5.58	5.22	4.67	3.95	1.4	9.8	2.7	64

For Fans wired to reverse run, duty reduced by 30%

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
630	3	ESC63036	6	Inlet	67	78	76	74	73	72	77	59	60
630	3	ESC63036	6	Outlet	67	78	76	74	73	72	77	59	60
710	3	ESC71036	6	Inlet	80	77	78	75	76	75	70	64	60
710	3	ESC71036	6	Outlet	80	77	78	75	76	75	70	64	60
800	3	ESC80036	6	Inlet	75	75	73	71	72	70	64	57	56
800	3	ESC80036	6	Outlet	75	75	73	71	72	70	64	57	56

Models & Accessories

Fan Stock Ref	Electronic Stock Ref	Speed Controller Auto Transfor. Stock Ref	Starter Stock Ref	Overload Stock Ref	Fan Stock Ref	Speed Controller Auto Transfor. Stock Ref
1 Phase 2 Pole					**3 Phase 2 Pole**	
ESC25012	SP5001	SPM5020	444744	444699	ESC25032	RDTK10
ESC31512	SP5025	SPM5035	444744	444701	ESC31532	RDTK10
1 Phase 4 Pole					**3 Phase 4 Pole**	
ESC25014	SP5001	SPM5020	444744	444696		
ESC31514	SP5001	SPM5020	444744	444699	ESC31534	RDTK10
ESC35514	SP5001	SPM5020	444744	444699	ESC35534	RDTK10
ESC40014	SP5025	SPM5020	444744	444701	ESC40034	RDTK10
ESC45014	SP5025	SPM5035	444744	444701	ESC45034	RDTK10
ESC50014	SP5025	SPM5035	444744	444702	ESC50034	RDTK20
ESC56014	SP5010	SPM5075	444744	444704	ESC56034	RDTK40
ESC63014	-	SPM5140	444744	444706	ESC63034	RDTK40
					ESC71034	RDTK70
					3 Phase 6 Pole	
					ESC63036	RDTK20
					ESC71036	RDTK40
					ESC80036	RDTK40
					ESC100036*	-

*Not suitable for voltage speed control. Inverter speed control with Sine Filters only.

Size	1D Long - No Pod Stock Ref	1D Long - With Pod Stock Ref	2D Long - No Pod Stock Ref	2D Long - With Pod Stock Ref
250	ACZ2501D	-	ACZ2502D	-
315	ACZ3151D	ACZ3151DP	ACZ3152D	ACZ3152DP
355	ACZ3551D	ACZ3551DP	ACZ3552D	ACZ3552DP
400	ACZ4001D	ACZ4001DP	ACZ4002D	ACZ4002DP
450	ACZ4501D	ACZ4501DP	ACZ4502D	ACZ4502DP
500	ACZ5001D	ACZ5001DP	ACZ5002D	ACZ5002DP
560	ACZ5601D	ACZ5601DP	ACZ5602D	ACZ5602DP
630	ACZ6301D	ACZ6301DP	ACZ6302D	ACZ6302DP
710	ACZ7101D	ACZ7101DP	ACZ7102D	ACZ7102DP
800	ACZ8001D	ACZ8001DP	ACZ8002D	ACZ8002DP

Starter	Overload	Ancillary Packs	Mounting Feet (pair)	Matching Flanges (each)	Wire Guards (each)	Anti-Vibration Mounts (set of 4)
Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
444747	444699	APZ250	MFZ250	CFZ250	WGZ250	68MP033G
444747	444700	APZ315	MFZ315	CFZ315	WGZ315	68MP033G
		APZ250	MFZ250	CFZ250	WGZ250	68MP033G
444747	444697	APZ315	MFZ315	CFZ315	WGZ315	68MP033G
444747	444698	APZ355	MFZ355	CFZ355	WGZ355	68MP033G
444747	444699	APZ400	MFZ400	CFZ400	WGZ400	68MP033G
444747	444699	APZ450	MFZ450	CFZ450	WGZ450	68MP033G
444747	444700	APZ500	MFZ500	CFZ500	WGZ500	68MP033G
444747	444701	APZ560	MFZ560	CFZ560	WGZ560	68MP033G
444747	444702	APZ630	MFZ630	CFZ630	WGZ630	68MP033G
444747	444703	APZ710	MFZ710	CFZ710	WGZ710	68MP033G
444747	444700	APZ630	MFZ630	CFZ630	WGZ630	68MP033G
444747	444702	APZ710	MFZ710	CFZ710	WGZ710	68MP033G
444747	444702	APZ800	MFZ800	CFZ800	WGZ800	68MP033G

Note: - The Standard roof cowl colour is BS 00A 05 (Goose Wing Grey) for all special B.S. or RAL colours contact Vent-Axia.
- When speed control is required a 5 step auto transformer speed controller is recommended, to ensure low noise levels.
- All 3 phase models are suitable for frequency inverter speed control.
- Vent-Axia only recommends using Inverters with integral Sine Filters for reliable operation.

EuroSeries (ESR)

- Cowl & base moulded from recyclable polymeric material
- All sizes resistant to UV light
- Sizes 315 to 1000 dia are protected to IP54
- Optional backdraught shutters and bird guard (250-630mm)
- All models speed controllable
- Motor Insulation Class F, -40°C to +70°C operating temperature
- Reversible for supply or extract units
- Thermal overload for motor protection
- Performance tested to BS848 part 1 1980
- Designed for Data Centre and Warehouse cooling

A range of extract axial blade industrial roof fans incorporating the Euroseries ESP axial plate fan, featuring a single shot die cast aluminium blade & external rotor motor design.

Cowl and roof mounting base are moulded from specially formulated recyclable polymeric materials, which are high impact resistant and provide a rigid profile against strong winds and resistance to UV light. Standard colour BS00A05

EuroSeries ESR units shall be suitable for for flat or inclined roofs (max. angle 30°) and are designed for either kerb or purlin box mounting.

The EuroSeries ESR range is available in eleven sizes with the extract performances up to 10.88m³/s, with pressure characteristics of up 300Pa. All units are designed for & fully speed controllable.

Air Operated Shutters & Bird Guards
The shutters shall fit beneath the cowl using fitting provided. Shutters should not be used when the fan performance is below 30% of maximum and the hinge should point up the roof incline.

The standard shutters for sizes 800 & 1000mm must not be used with 4 & 6 pole unit. Please enquire for special metal shutters.
Bird Guards are manufactured to fit neatly between the roof cowl and the base.

Impellers
All sizes shall be supplied with cast aluminium impellers, ensuring performance when working against outdoor conditions and abrasive airflow. All fans are reversible for Intake (-30% performance). Backdraught shutters should not be used when operated as an intake fan.

Motors
External rotor motors are specially designed and styled for this range of fan. Ball bearings shall be greased for life. Rotors are dynamically balanced to ISO 1940. Sizes 315-1000mm, motors are protected to IP54, against dust and moisture complying with BS EN 60529:1992. They shall be ribbed aluminium body castings for efficient cooling. Motor insluation is Class 'F' (from -40°C to +70°C).

Electrical
Single phase 220-240V 50Hz. Capacitor start and run. Three phase 380-415V 50Hz. An IP54 terminal box shall be supplied with most models with 20mm and PGII entry. All motors shall be fitted with thermal overload protection which should be wired into all controller circuits and into starter contactors. Models are available with either 2,4, 6 & 8 pole motors.

Terminal Box
Are to IP54, as standard, protected against dust water from any angle allowing outside applications.

Performance
The fan performance, shall be in accordance with tests to BS848 Part 1 1980.

Sound Levels
Fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985. Published dB(A) figures are free field sound pressure levels at 3m with spherical propogation at a reference level of 2 x 10-5 Pa (20 micro-Pascal). The sound power level spectra figures are dB with reference level of 10-12 Watts (1 pico-watt). To ensure minimum noise levels during speed control, an auto transformer speed control is recommended.

Fan Dimensions (mm)

Kerb detail
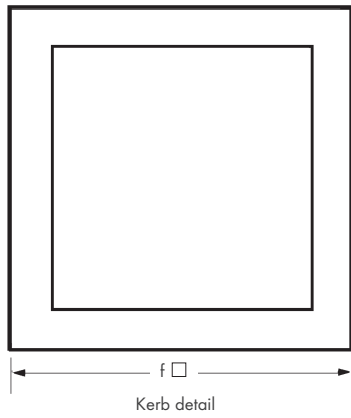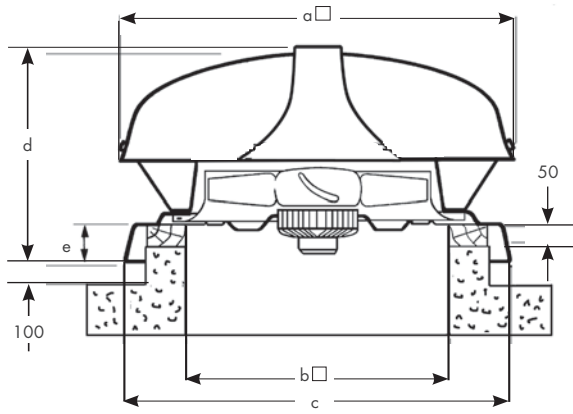
Size	a	b	c	d	e	f	kg Max
250	700	475	737	411	97	675	13.25
315	700	475	737	411	97	675	16.3
355	700	475	737	411	97	675	16.3
400	800	575	830	466	97	775	18.4
450	800	575	830	466	97	775	20.3
500	950	715	1000	579	100	915	35.5
560	950	715	1000	579	100	915	35.5
630	1230	840	1100	731	105	1040	62
710	1230	840	1100	731	105	1040	62
800	1420	870	1190	731	105	1070	78
1000	1680	1070	1455	795	131	1270	134

Purlin Box (mm)
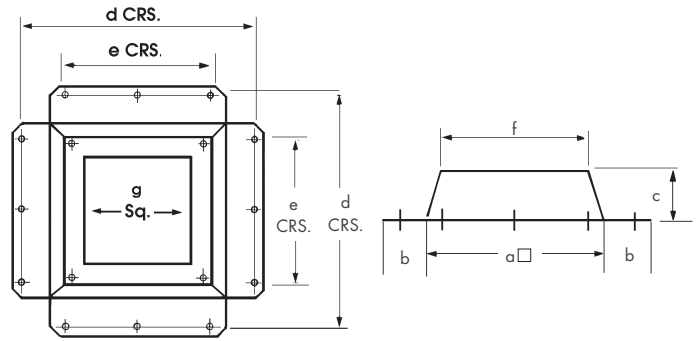
Size	a	b	c	d	e	f □	g □
250	625	90	240	765	400	590	460
315	625	90	240	765	400	590	460
355	625	90	240	765	400	590	460
400	725	90	240	865	500	705	565
450	725	90	240	865	500	705	565
500	890	70	250	990	650	850	640
560	890	70	250	990	650	870	700
630	1030	75	250	1140	760	985	775
710	1030	75	250	1140	760	985	840
800	980	37	267	1016	406	980	880
1000	1180	76	279	1294	508	1180	1080

Performance Guide

250 to 450 dia. - 1 Phase - 2 & 4 Pole

500 to 630 dia. - 1 Phase - 4 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	50	100	m³/s @ Pa 150	200	250	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
250	1	ESR25012	2	2440	IP44	1	0.28	0.22	0.13				0.12	1.15	0.54	59
315	1	ESR31512	2	2690	IP54	2	0.84	0.78	0.7	0.62	0.5		0.56	7.2	2.4	64
315	1	ESR31514	4	1300	IP54	3	0.38	0.24					0.15	1.38	0.7	50
355	1	ESR35514	4	1330	IP54	4	0.78	0.58					0.19	1.45	0.84	53
400	1	ESR40014	4	1350	IP54	5	1.14	0.89					0.29	2.4	1.45	56
450	1	ESR45014	4	1370	IP54	6	1.45	1.19	0.85				0.36	3.6	1.6	61
500	1	ESR50014	4	1290	IP54	7	1.43	1.15	0.75				0.51	4.3	2.3	55
560	1	ESR56014	4	1320	IP54	8	3.05	2.77	2.44	2.04			1.35	21	6	63
630	1	ESR63014	4	1320	IP54	9	4.38	4.06	3.7	3.31	2.76	2.01	2.2	28	9.9	70

ESR25012, ESR31512 & ESR25014 not suitable for reverse airflow.

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	1	ESR25012	2	Inlet	69	70	76	76	70	70	67	59	57
250	1	ESR25012	2	Outlet	69	70	76	76	70	70	67	59	57
315	1	ESR31512	2	Inlet	69	73	79	74	74	76	73	66	61
315	1	ESR31512	2	Outlet	69	73	79	74	74	76	73	66	61
315	1	ESR31514	4	Inlet	70	68	66	61	60	62	58	51	47
315	1	ESR31514	4	Outlet	70	68	66	61	60	62	58	51	47
355	1	ESR35514	4	Inlet	65	70	67	65	64	64	62	55	50
355	1	ESR35514	4	Outlet	65	70	67	65	64	64	62	55	50
400	1	ESR40014	4	Inlet	70	72	67	66	65	65	64	56	51
400	1	ESR40014	4	Outlet	70	72	67	66	65	65	64	56	51
450	1	ESR45014	4	Inlet	69	76	73	72	70	71	70	62	57
450	1	ESR45014	4	Outlet	69	76	73	72	70	71	70	62	57
500	1	ESR50014	4	Inlet	65	75	69	70	70	71	69	62	56
500	1	ESR50014	4	Outlet	65	75	69	70	70	71	69	62	56
560	1	ESR56014	4	Inlet	100	90	89	84	82	79	75	68	67
560	1	ESR56014	4	Outlet	100	90	89	84	82	79	75	68	67
630	1	ESR63014	4	Inlet	82	86	79	79	80	78	75	70	64
630	1	ESR63014	4	Outlet	82	86	79	79	80	78	75	70	64

Performance Guide

250 to 450 dia. - 3 Phase - 2 & 4 Pole
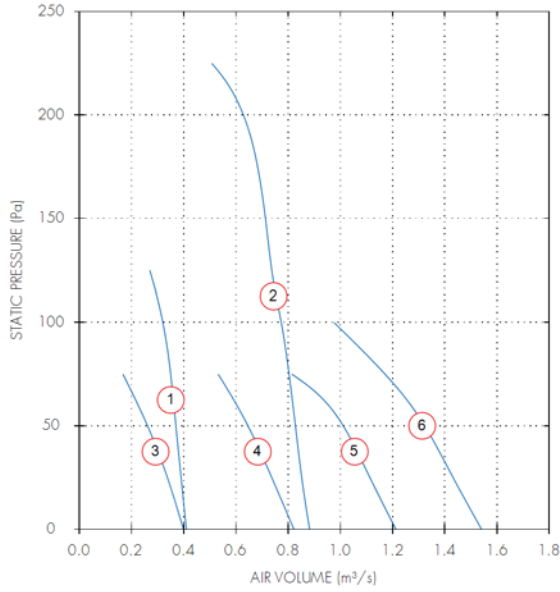
500 to 710 dia. - 3 Phase - 4 Pole
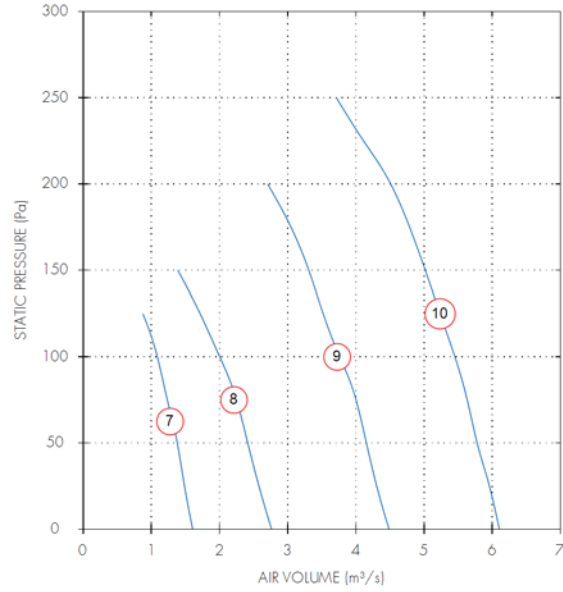
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa						Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
							0	50	100	150	200	250				
250	3	ESR25032	2	2700	IP44	1	0.41	0.37	0.32				0.2	3.5	0.87	61
315	3	ESR31532	2	2800	IP54	2	0.88	0.83	0.77	0.71	0.63		0.48	5	0.9	60
315	3	ESR31534	4	1390	IP54	3	0.4	0.26					0.11	2.1	0.27	46
355	3	ESR35534	4	1370	IP54	4	0.82	0.65					0.17	1.35	0.37	49
400	3	ESR40034	4	1350	IP54	5	1.21	1.01					0.26	2.1	0.56	51
450	3	ESR45034	4	1380	IP54	6	1.54	1.32	0.98				0.36	2.6	0.8	56
500	3	ESR50034	4	1380	IP54	7	1.6	1.38	1.09				0.55	3.7	1.05	58
560	3	ESR56034	4	1220	IP54	8	2.76	2.41	2	1.39			1.25	7.7	2.2	70
630	3	ESR63034	4	1360	IP54	9	4.49	4.15	3.76	3.31	2.7		1.9	14	3.2	64
710	3	ESR71034	4	1290	IP54	10	6.1	5.78	5.45	5.02	4.51	3.71	2.9	19	5.3	72

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	3	ESR25032	2	Inlet	69	70	75	79	74	70	66	60	59
250	3	ESR25032	2	Outlet	69	70	75	79	74	70	66	60	59
315	3	ESR31532	2	Inlet	71	72	83	80	78	79	75	67	64
315	3	ESR31532	2	Outlet	71	72	83	80	78	79	75	67	64
315	3	ESR31534	4	Inlet	64	67	69	63	62	60	58	53	47
315	3	ESR31534	4	Outlet	64	67	69	63	62	60	58	53	47
355	3	ESR35534	4	Inlet	58	73	63	64	64	65	64	58	50
355	3	ESR35534	4	Outlet	58	73	63	64	64	65	64	58	50
400	3	ESR40034	4	Inlet	62	73	65	65	67	69	67	60	53
400	3	ESR40034	4	Outlet	62	73	65	65	67	69	67	60	53
450	3	ESR45034	4	Inlet	65	82	75	76	73	72	69	62	58
450	3	ESR45034	4	Outlet	65	82	75	76	73	72	69	62	58
500	3	ESR50034	4	Inlet	67	71	69	72	70	71	68	61	56
500	3	ESR50034	4	Outlet	67	71	69	72	70	71	68	61	56
560	3	ESR56034	4	Inlet	85	79	77	76	76	75	72	66	61
560	3	ESR56034	4	Outlet	85	79	77	76	76	75	72	66	61
630	3	ESR63034	4	Inlet	71	88	82	83	82	81	78	72	67
630	3	ESR63034	4	Outlet	71	88	82	83	82	81	78	72	67
710	3	ESR71034	4	Inlet	80	87	86	88	89	86	83	79	72
710	3	ESR71034	4	Outlet	80	87	86	88	89	86	83	79	72

Performance Guide

315 to 710 dia. - 1 Phase - 6 Pole
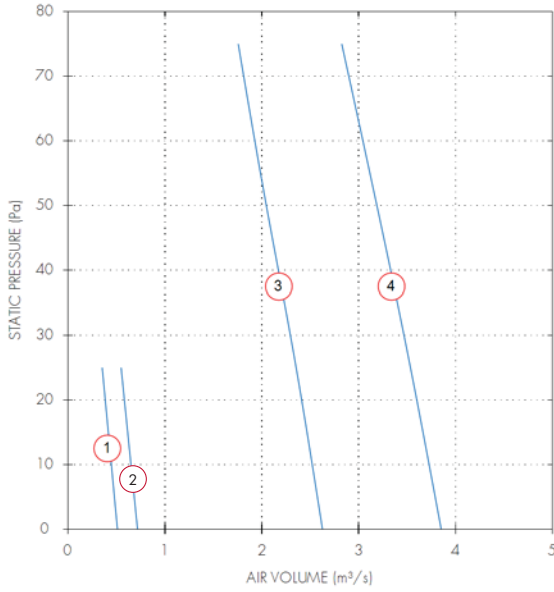
315 to 500 dia. - 3 Phase - 6 Pole
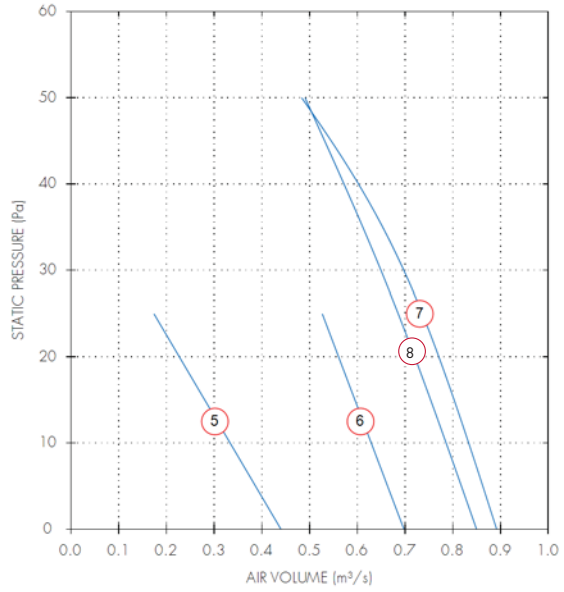
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	25	50	75	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
								m³/s @ Pa						
355	1	ESR35516	6	950	IP54	1	0.51	0.35			0.09	1.2	0.46	44
400	1	ESR40016	6	940	IP54	2	0.72	0.55			0.13	1.4	0.6	45
630	1	ESR63016	6	880	IP54	3	2.63	2.35	2.05	1.76	0.6	5.3	2.7	57
710	1	ESR71016	6	850	IP54	4	3.85	3.53	3.19	2.82	0.89	8	4.1	60
355	3	ESR35536	6	910	IP54	5	0.44	0.17			0.09	0.5	0.25	45
400	3	ESR40036	6	920	IP54	6	0.7	0.53			0.11	0.9	0.28	50
450	3	ESR45036	6	890	IP54	7	0.89	0.74	0.48		0.12	1	0.28	51
500	3	ESR50036	6	900	IP54	8	0.85	0.69	0.49		0.23	1.5	0.56	56

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
355	1	ESR35516	6	Inlet	59	59	60	57	56	57	55	46	42
355	1	ESR35516	6	Outlet	59	59	60	57	56	57	55	46	42
400	1	ESR40016	6	Inlet	76	74	70	65	63	58	52	44	48
400	1	ESR40016	6	Outlet	76	74	70	65	63	58	52	44	48
630	1	ESR63016	6	Inlet	88	85	81	77	76	70	64	58	60
630	1	ESR63016	6	Outlet	88	85	81	77	76	70	64	58	60
710	1	ESR71016	6	Inlet	83	83	84	80	78	74	70	72	63
710	1	ESR71016	6	Outlet	83	83	84	80	78	74	70	72	63
355	3	ESR35536	6	Inlet	60	61	60	56	56	56	54	46	42
355	3	ESR35536	6	Outlet	60	61	60	56	56	56	54	46	42
400	3	ESR40036	6	Inlet	60	60	62	59	60	60	58	50	45
400	3	ESR40036	6	Outlet	60	60	62	59	60	60	58	50	45
450	3	ESR45036	6	Inlet	63	72	66	63	63	62	59	48	48
450	3	ESR45036	6	Outlet	63	72	66	63	63	62	59	48	48
500	3	ESR50036	6	Inlet	78	73	68	67	68	66	59	51	52
500	3	ESR50036	6	Outlet	78	73	68	67	68	66	59	51	52

Performance Guide

560 to 1000 dia. - 3 Phase - 6 Pole
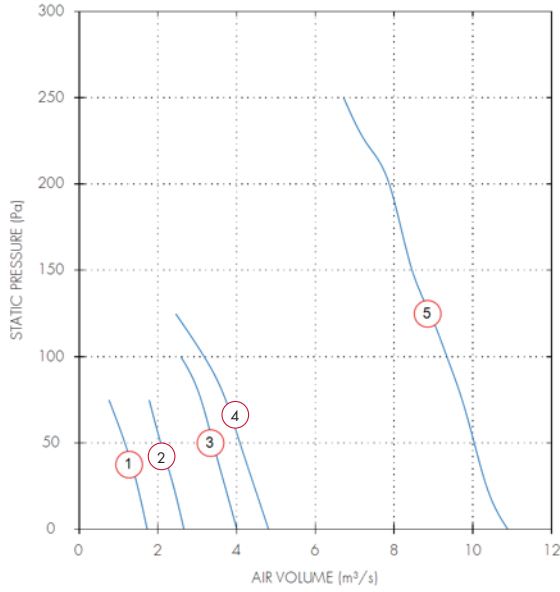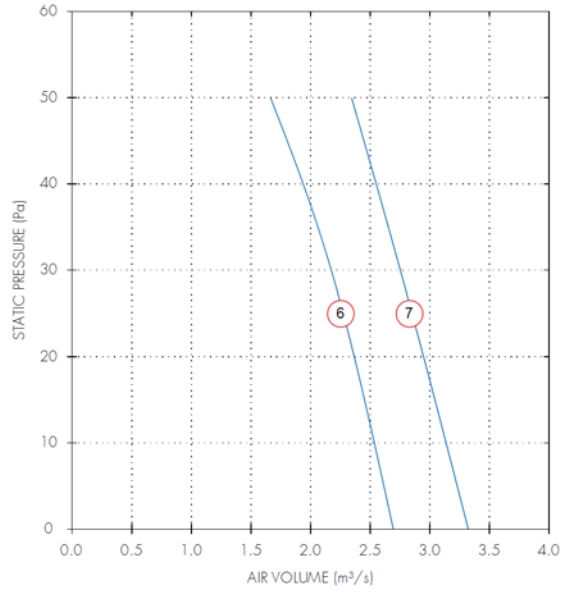
710 to 800 dia. - 3 Phase - 8 Pole

Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	50	m³/s @ Pa 100	150	200	250	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
560	3	ESR56036	6	860	IP54	1	1.72	1.16					0.36	1.75	0.74	56
630	3	ESR63036	6	890	IP54	2	2.66	2.07					0.59	3.6	1.3	59
710	3	ESR71036	6	860	IP54	3	4	3.4	2.58				1.1	7.7	2.2	62
800	3	ESR80036	6	900	IP54	4	4.81	4.08	3.18				1.4	7.7	2.2	64
1000	3	ESR100036	6	935	IP54	5	10.88	10.04	9.34	8.45	7.87	6.72	5.5	67	10.5	77
710	3	ESR71038	8	630	IP54	6	2.69	1.66					0.43	3.3	1.1	55
800	3	ESR80038	8	670	IP54	7	3.32	2.34					0.69	5	1.75	58

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
560	3	ESR56036	6	Inlet	67	72	72	68	68	68	65	57	53
560	3	ESR56036	6	Outlet	67	72	72	68	68	68	65	57	53
630	3	ESR63036	6	Inlet	67	78	76	74	73	72	77	59	60
630	3	ESR63036	6	Outlet	67	78	76	74	73	72	77	59	60
710	3	ESR71036	6	Inlet	80	77	78	75	76	75	70	64	60
710	3	ESR71036	6	Outlet	80	77	78	75	76	75	70	64	60
800	3	ESR80036	6	Inlet	73	83	79	75	75	77	74	64	62
800	3	ESR80036	6	Outlet	73	83	79	75	75	77	74	64	62
1000	3	ESR100036	6	Inlet	80	90	90	91	90	86	85	79	74
1000	3	ESR100036	6	Outlet	80	90	90	91	90	86	85	79	74
710	3	ESR71038	8	Inlet	75	75	73	71	72	70	64	57	56
710	3	ESR71038	8	Outlet	75	75	73	71	72	70	64	57	56
800	3	ESR80038	8	Inlet	75	75	73	71	72	70	64	57	56
800	3	ESR80038	8	Outlet	75	75	73	71	72	70	64	57	56

Models & Accessories

	Speed Controllers				
	Electronic	Auto	Starter	Overload	
Fan	1ph	Transfor 1ph	1 phase	Stock	Fan
Stock Ref	Stock Ref	Stock Ref	Ref	Ref	Stock Ref
1 Phase - 2 Pole					**3 Phase - 2 Pole**
ESR25012	SP5001	SPM5020	444744	444699	ESR25032
ESR31512	SP5025	SPM5035	444744	444701	ESR31532
1 Phase - 4 Pole					**3 Phase - 4 Pole**
ESR25014	SP5001	SPM5020	444744	444696	
ESR31514	SP5001	SPM5020	444744	444699	ESR31534
ESR35514	SP5001	SPM5020	444744	444699	ESR35534
ESR40014	SP5025	SPM5020	444744	444701	ESR40034
ESR45014	SP5025	SPM5020	444744	444701	ESR45034
ESR50014	SP5025	SPM5035	444744	444702	ESR50034
ESR56014	SP5010	SPM5075	444744	444704	ESR56034
ESR63014		SPM5140	444744	444706	ESR63034
					ESR71034
1 Phase - 6 Pole					**3 Phase - 6 Pole**
ESR35516	SP5001	SPM5020	444744	444698	ESR35536
ESR40016	SP5001	SPM5020	444744	444699	ESR40036
					ESR50036
					ESR56036
ESR63016	SP5050	SPM5035	444744	444702	ESR63036
ESR71016	SP5050	SPM5060	444744	444703	ESR71036
					ESR80036
					ESR100036*
					3 Phase - 6 Pole
					ESR63038
					ESR71038
					ESR80038

*Not suitable for voltage speed control. Inverter speed control with sine filters only.

	Roof Cowl Assembly	Drop in Curb Attenuator		
	ONLY (No Fan)	(600mm)	(900mm)	(1200mm)
Model Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
ESR250	-	RAZ300600	RAZ300900	-
ESR315 & 355	RCZ300	RAZ300600	RAZ300900	RAZ3001200
ESR400 & 450	RCZ400	RAZ400600	RAZ400900	RAZ4001200
ESR500 & 560	RCZ500	RAZ500600	RAZ500900	RAZ5001200
ESR630	RCZ630	RAZ600600	RAZ600900	RAZ6001200
ESR710	RCZ630	RAZ600600	RAZ600900	RAZ6001200
ESR800	RCZ800			
ESR1000	RCZ1000			

Speed Controllers

Auto Transfor 3ph Stock Ref	Starter 3 phase Stock Ref	Overload Stock Ref	Shutters Stock Ref	Birdguard Stock Ref	Adaptor Units (Purlin Box) Stock Ref
RDTK10	444747	444699	RSZ300	BGZ300	PBZ300
RDTK10	444747	444700	RSZ300	BGZ300	PBZ300
			RSZ300	BGZ300	PBZ300
RDTK10	444747	444697	RSZ300	BGZ300	PBZ300
RDTK10	444747	444698	RSZ300	BGZ300	PBZ300
RDTK10	444747	444699	RSZ400	BGZ400	PBZ400
RDTK10	444747	444699	RSZ400	BGZ400	PBZ400
RDTK20	444747	444700	RSZ500	BGZ500	PBZ500
RDTK40	444747	444701	RSZ500	BGZ500	PBZ560
RDTK40	444747	444702	RSZ630	BGZ630	PBZ630
RDTK70	444747	444703	RSZ630	BGZ630	PBZ710
RDTK10	444747	444697	RSZ300	BGZ300	PBZ300
RDTK10	444747	444697	RSZ400	BGZ400	PBZ400
RDTK10	444747	444699	RSZ500	BGZ500	PBZ500
RDTK10	444747	444699	RSZ500	BGZ500	PBZ560
RDTK20	444747	444700	RSZ630	BGZ630	PBZ630
RDTK40	444747	444702	RSZ630	BGZ630	PBZ710
RDTK40	444747	444702	-	INCL	PBZ800
-	444748	444706	-	INCL	PBZ1000
RDTK10	444747	444699	RSZ630	BGZ630	PBZ630
RDTK20	444747	444700	RSZ630	BGZ630	PBZ710
RDTK20	444747	444701	-	INCL	PBZ800

Note: - The Standard roof cowl colour is BS 00A 05 (Goose Wing Grey) for all special B.S. or RAL colours contact Vent-Axia.
- When speed control is required a 5 step auto transformer speed controller is recommended, to ensure low noise levels.
- All 3 phase models are suitable for frequency inverter speed control.
- Vent-Axia only recommend using Inverters with integral Sine Filters for reliable operation.

Quiet Pack (QP)

- 'O' Class rated acoustically treated casing, ensuring minimum duct and breakout noise levels
- Air volumes up to 1.59m³/s
- Suitable for external pressures up to 500Pa
- Designed to suit duct diameters from 100 to 500mm
- Operating Temperatures from -15°C up to +40°C
- Speed Controllable
- Quality Assurance to BS EN ISO 9001:1994
- Performance tested to BS848 Part 1 1980

The Quiet Pack in-line acoustic fans shall be as supplied from Roof Units, designed around a high performance centrifugal impeller, offering a highly efficient, quiet and compact in-line acoustic fan.

The Quiet Pack fan range is manufactured from prime quality galvanised sheet steel, ensuring a robust in-line fan for those tough site conditions.

Quiet Pack casings are suitable for internal mounting and internally treated with an 'O' class rated acoustic foam, which offers the benefits of excellent low level duct bound and breakout sound levels, in addition self extinguishing properties, zero burn rate, resistant to ignition, and no toxic fumes.

Quiet Pack fans are suitable for circular ducting ranging in sizes 100, 125, 150, 160, 200, 250, 315, 400 and 500mm, with air volumes from 0.016m³/s to 1.8m³/s and pressure development of up to 500Pa.

The casing are specially designed to allow the unit to be mounted via drop rods or anti vibration mounts, ensuring a quick and easy solution to installation of the Quiet Pack in-line acoustic fans. All manufacturing progressed of the Quiet Pack fan units are computer designed and controlled to BS EN ISO 9001 Standards.

Impellers
The motor and backward curved impeller shall be factory matched, statically and dynamically balanced on precision machines, to DIN ISO 1940 Grade 6.3, to give quiet, vibration free running.

Motors
Motor insulation Class B, suitable for operating temperatures from -15°C to +40°C and atmospheres up to 95% RH.

All sizes are ideally suitable for speed control by electronic or voltage reduction. Vent-Axia would recommend that a voltage reduction Auto Transformer speed controller is used with all Quiet Pack units to ensure minimum noise levels during speed control and to eliminate any possibility of harmonic noise levels which may occur when using electronic speed controllers at lower speeds.

Performance
The fan performance, shall be in accordance with tests to BS848 Part 1 1980, with the fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985.

Quality Assurance
Design and manufacture shall be in accordance with the standard for quality management systems BS EN ISO 9001:1994.

Accessories
A full range of accessories are available with the Fan Box range of fans such as:

- Auto Transformer Speed Controllers
- Electronic Speed Controllers
- D.O.L. Starters
- Standard, Acoustic & Thermal Flexible Ducting
- Pre-Panel or Secondary Bag Filters
- Electric Heater Batteries
- Backdraught Shutters
- In-Line Attenuators
- Wall & Roof Terminals
- Fast Clamps

Dimensions (mm)

Side   Front   Top
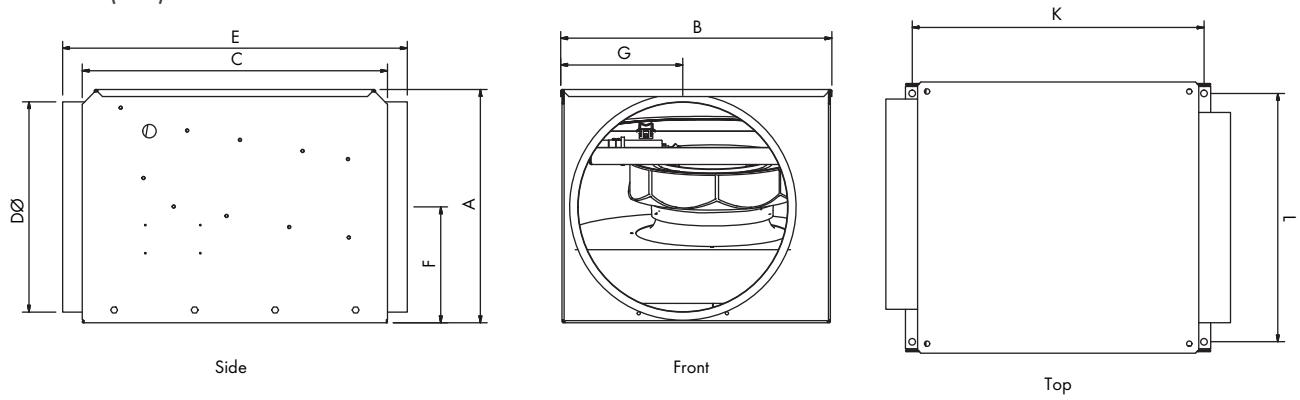
Stock Ref	A	B	C	ØD	E	F	G	K	L
QP100C	190	310	400	100	460	94	111	380	275
QP125C	190	310	400	125	460	94	111	380	275
QP150C	190	310	400	150	460	94	111	380	275
QP160C	190	310	400	160	460	94	111	380	275
QP200C	285	364	455	200	515	141	127	435	330
QP250C	285	364	455	250	515	141	127	435	330
QP315C	456	572	730	315	792	227	243	710	540
QP400C	456	572	730	400	792	227	243	710	540
QP500C	575	769	918	500	1006	286	326	898	735

Anti Vibration Mountings
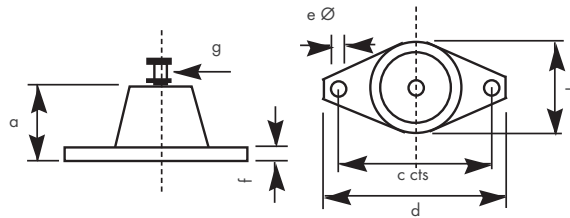
Stock Ref	a	b	c	d	eØ	f	g
68MP033G	27	37	54	67	7	3	M8

Performance Guide

100 to 250 dia.	315 to 500 dia.
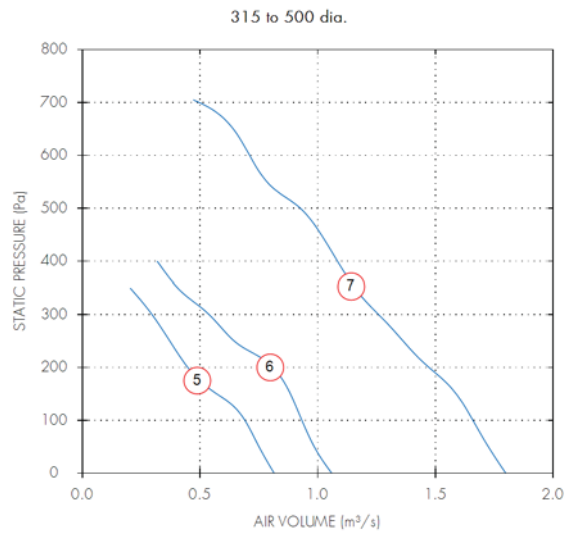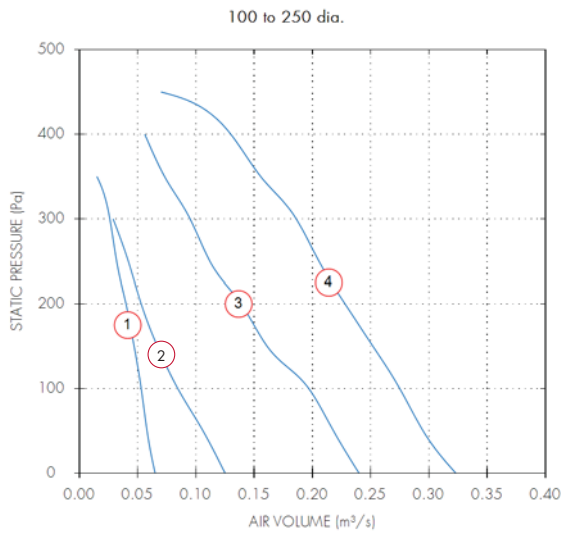
Dia.	Motor Phase	Stock Ref	r.p.m	Curve Ref.	m³/s @ Pa					Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
					0	100	200	300	400				
100	1	QP100C	2350	1	0.06	0.05	0.04	0.03		0.05	0.37	0.23	32
125	1	QP125C	2350	1	0.07	0.05	0.04	0.02		0.05	0.37	0.23	33
150	1	QP150C	2350	2	0.12	0.08	0.05	0.03		0.05	0.37	0.23	33
160	1	QP160C	2350	2	0.12	0.08	0.05	0.03		0.05	0.37	0.23	33
200	1	QP200C	2700	3	0.24	0.2	0.14	0.09	0.06	0.09	0.85	0.38	36
250	1	QP250C	2500	4	0.32	0.27	0.23	0.19	0.13	0.16	1.25	0.68	36
315	1	QP315C	1330	5	0.81	0.69	0.45	0.3		0.27	2.2	1.18	38
400	1	QP400C	1340	6	1.06	0.93	0.81	0.54	0.32	0.47	5.9	2.33	39
500	1	QP500C	1330	7	1.8	1.66	1.47	1.26	1.08	0.73	6.27	3.21	47

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

$$\text{Sound Power Level Spectra dB (ref } 10^{-12} \text{ Watts)}$$

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	QP100C	Inlet	53	59	68	58	50	45	34	33	41
100	1	QP100C	Outlet	54	57	63	59	60	54	49	42	43
100	1	QP100C	Breakout	48	52	59	49	41	39	31	32	32
125	1	QP125C	Inlet	51	65	73	62	51	46	36	36	45
125	1	QP125C	Outlet	52	62	67	64	62	55	52	45	46
125	1	QP125C	Breakout	51	53	60	49	41	40	33	33	33
150	1	QP150C	Inlet	54	60	70	59	52	46	38	36	42
150	1	QP150C	Outlet	56	58	63	58	59	56	49	43	43
150	1	QP150C	Breakout	50	55	60	50	43	38	31	32	33
160	1	QP160C	Inlet	54	60	70	59	52	46	38	36	42
160	1	QP160C	Outlet	56	58	63	58	59	56	49	43	43
160	1	QP160C	Breakout	50	55	60	50	43	38	31	32	33
200	1	QP200C	Inlet	60	65	63	68	58	55	54	46	46
200	1	QP200C	Outlet	60	63	68	72	68	67	62	53	53
200	1	QP200C	Breakout	54	58	60	57	46	41	35	34	36
250	1	QP250C	Inlet	64	74	72	67	57	55	56	53	48
250	1	QP250C	Outlet	64	74	75	69	70	71	65	64	56
250	1	QP250C	Breakout	52	57	68	52	44	40	36	38	39
315	1	QP315C	Inlet	66	78	68	60	52	49	42	40	45
315	1	QP315C	Outlet	67	75	77	71	69	62	56	49	53
315	1	QP315C	Breakout	54	70	63	53	47	41	35	34	38
400	1	QP400C	Inlet	73	82	79	68	62	55	50	49	52
400	1	QP400C	Outlet	72	78	78	75	74	66	58	53	57
400	1	QP400C	Breakout	57	71	63	56	51	46	39	35	39
500	1	QP500C	Inlet	77	85	78	71	64	62	54	52	54
500	1	QP500C	Outlet	74	83	82	78	77	72	64	58	61
500	1	QP500C	Breakout	68	81	72	63	56	49	42	41	48

Models & Accessories

| Fan Stock Ref | Speed Controller | | Starter Stock Ref | Overload Stock Ref | Anti Vibration Mounts (set of 4) Stock Ref |
	Electronic Stock Ref	Auto Transfor.			
QP100C	SP5001	SPM5020	444744	444699	68MP033G
QP125C	SP5001	SPM5020	444744	444699	68MP033G
QP150C	SP5001	SPM5020	444744	444699	68MP033G
QP160C	SP5001	SPM5020	444744	444699	68MP033G
QP200C	SP5001	SPM5020	444744	444699	68MP033G
QP250C	SP5001	SPM5020	444744	444699	68MP033G
QP315C	SP5025	SPM5035	444744	444699	68MP033G
QP400C	SP5050	SPM5035	444744	444699	68MP033G
QP500C	SP5050	SPM5060	444744	444171	68MP033G

Fan Stock Ref	Electric Heaters Stock Ref	Panel Filters Stock Ref	Bag Filters Stock Ref
QP100C	10531100T1	QPF100A	QPFB100A
QP125C	10531125T1	QPF125A	QPFB125A
QP150C	10531150T1	QPF150A	QPFB150A
QP160C	-	QPF160A	QPFB160A
QP205C	10531200T1	QPF200A	QPFB200A
QP250C	10531250T1	QPF250A	QPFB250A
QP315C	10531315T1	QPF315A	QPFB315A
QP400C	1053400T3	QPF400A	QPFB400A
QP500C	1053500T3	QPF500A	QPFB500A

| Fan Stock Ref | In-line Attenuators | | | | Wall Terminal Stock Ref |
	300mm Stock Ref	600mm Stock Ref	900mm Stock Ref	1200mm Stock Ref	
QP100C	83010030	83010060	83010090	-	SA100/280
QP125C	83012030	83012060	83012090	-	SA125/280
QP150C	83015030	83015060	83015090	-	SA150/280
QP160C	83016030	83016060	83016090	-	SA150/280
QP205C	-	83020060	83020090	83020120	SA200/280
QP250C	-	83025060	83025090	83025120	SA250/280
QP315C	-	83031060	83031090	83031120	SA315/280
QP400C	-	83040060	83040090	83040120	QSA400/280
QP500C	-	83050060	83050090	83050120	-

Quiet Pack Twin Fan (QPTW)

- Air volumes up to 1.35m³/s
- Suitable for external pressures up to 450Pa
- Designed to suit duct diameters from 100 to 500mm
- Operating temperatures up to 40°C
- Speed controllable
- Quality assurance to BS EN ISO 9001:1994
- Performance tested to BS848 Part 1 1980

The Quiet Pack Twin in-line fans shall be as supplied from Roof Units, designed around a high performance centrifugal impeller, offering a highly efficient, quiet and compact twin in-line acoustic fan.

The Quiet Pack Twin fan range is manufactured from prime quality galvanised sheet steel, ensuring a robust twin in-line fan for those tough site conditions.

Casings are suitable for internal mounting only and internally treated with an 'O' class rated acoustic foam, which offers the benefits of excellent low level duct bound and breakout sound levels, in addition self extinguishing properties, zero burn rate, resistant to ignition, and no toxic fumes.

Quiet Pack Twin fans are suitable for circular ducting ranging in sizes 100, 125, 150, 160, 200, 250, 315, 400 and 500mm, with air volumes up to 1.35m³/s and pressure development of up to 450Pa.

They are specially designed to allow the unit to be mounted via drop rods or anti vibration mounts, ensuring a quick and easy solution to installation with all units fitted with backdraught shutters to prevent air flow returning back through the system during shutdown periods.

Impellers
The motor and backward curved impeller is factory matched, statically and dynamically balanced on precision machines, to ISO 1940 Grade 6.3., to give quiet, vibration free running.

Motors
Motor insulation Class B, suitable for operating temperatures from -15°C up to +40°C and atmospheres up to 95% RH.

All sizes are suitable for speed control by electronic or voltage reduction. Vent-Axia would recommend that a voltage reduction Auto Transformer speed controller is used with all units to ensure minimum noise levels during speed control and to eliminate any possibility of harmonic noise levels which may occur when using electronic speed controllers at lower speeds.

Performance
The fan performance, shall be in accordance with tests to BS848 Part 1 1980, with the fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985.

Quality Assurance
Design and manufacture shall be in accordance with the standard for quality management systems BS EN ISO 9001:1994.

Accessories
A full range of accessories are available to compliment the range of fans such as:

- Manual/Auto Changeover Twin Fan Controllers
- Auto Transformer Speed Controllers
- Electronic Speed Controllers
- D.O.L. Starters
- Standard, Acoustic & Thermal Flexible Ducting
- In-Line Attenuators
- Wall & Roof Terminals
- Fast Clamps

ACOB1A Twin Fan Controller

- Manual or auto changeover facilities
- 2 to 24 hour adjustable duty sharing
- Diagnostic program facility on start up
- Suitable for 1 phase twin fan units up to 8 amps
- Can be wired in conjunction with speed controllers
- Volt free contacts fitted as standard
- Neon failure indicators

Specification
Supply Voltage: 230 to 240V/1ph/50Hz.
Maximum Current Capacity: 0.1 to 8.0 amps.
Operating temperature: 0°C to -+40°C.

IP rating: IP40.
Fuse Size: T rated 15 amp glass fuse (5x20mm).

Models
Stock Ref
ACOB1A

Dimensions (mm)
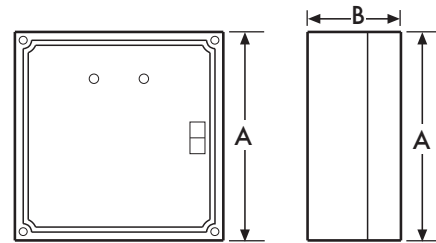
Size	A	B	Kg
ACOB1A	125	56	0.28

Dimensions (mm)
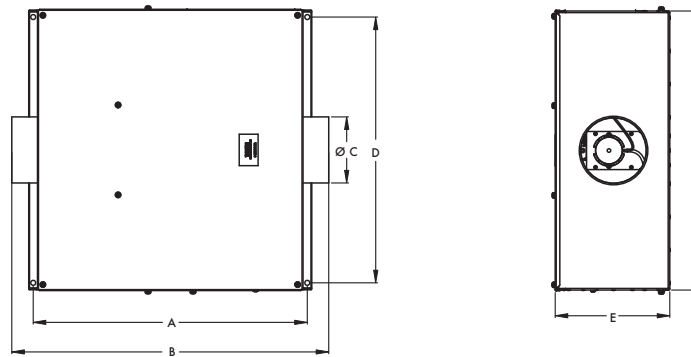
Stock Ref	A	B	ØC	D	E	F	Weight Kg
QPTW100C	610	705	100	591	256	622	26
QPTW125C	610	705	125	591	256	622	26
QPTW150C	610	705	150	591	256	622	26
QPTW200C	801	896	200	703	343	734	39
QPTW250C	925	1020	250	798	354	829	48
QPTW315C	1255	1353	315	1145	536	1176	88
QPTW400C	1255	1353	400	1145	536	1176	90
QPTW500C	1492	1590	500	1533	675	1564	175

(Duct Diameter mm header spans columns ØC–F)

Anti Vibration Mountings
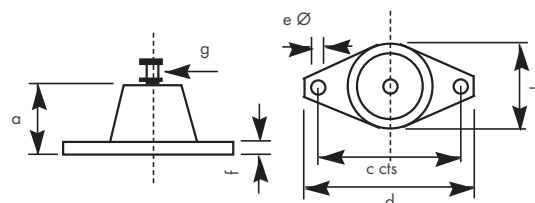
Stock ref	a	b	c	d	eØ	f	g
68MP033G	27	37	54	67	7	3	M8

Performance Guide
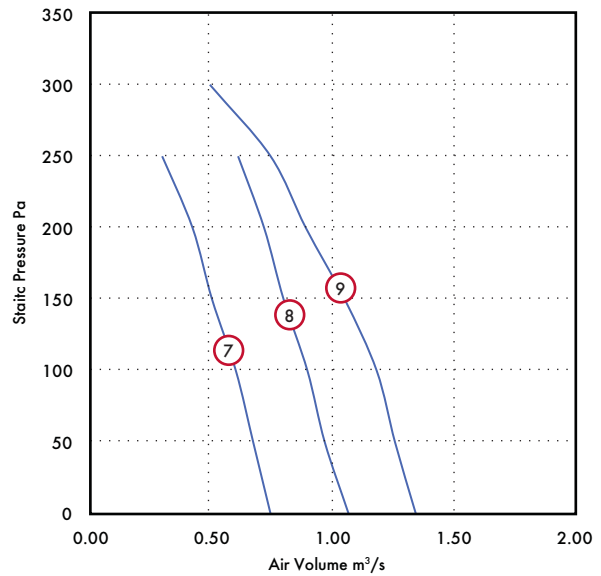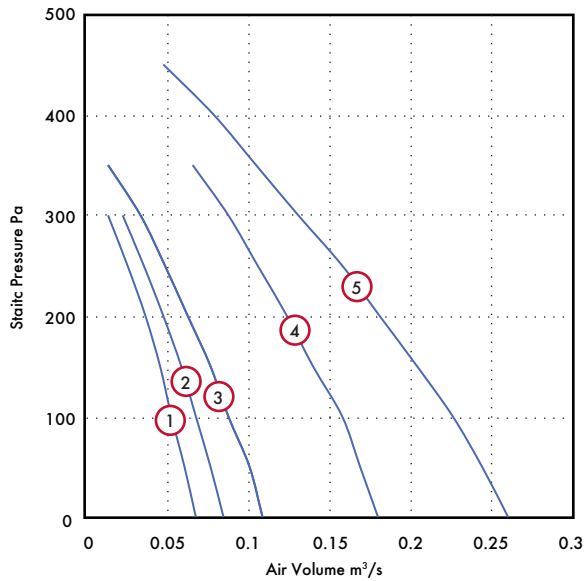
Stock Ref	rpm	Phase	Curve Ref	Duty m³/s @ Pa										Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
				0	50	100	150	200	250	300	350	400	450				
QPTW100C	2450	1	1	0.068	0.061	0.053	0.046	0.037	0.026	0.014				0.05	0.37	0.23	32
QPTW125C	2450	1	2	0.085	0.077	0.068	0.059	0.048	0.036	0.023				0.05	0.37	0.23	33
QPTW150C	2450	1	3	0.109	0.101	0.088	0.077	0.063	0.049	0.034	0.014			0.05	0.37	0.23	33
QPTW160C	2700	1	3	0.109	0.101	0.088	0.077	0.063	0.049	0.034	0.014			0.05	0.37	0.23	33
QPTW200C	2400	1	4	0.180	0.169	0.158	0.140	0.124	0.106	0.088	0.066			0.09	0.85	0.38	36
QPTW250C	2550	1	5	0.260	0.244	0.226	0.204	0.181	0.158	0.131	0.105	0.079	0.048	0.16	1.25	0.68	36
QPTW315C	1330	1	6	0.747	0.675	0.603	0.504	0.423	0.297					0.27	2.2	1.18	38
QPTW400C	1340	1	7	1.071	0.972	0.9	0.801	0.72	0.612					0.47	5.9	2.33	39
QPTW500C	1330	1	8	1.35	1.263	1.187	1.054	0.890	0.747	0.495				0.73	6.27	3.21	47

FLC = Full Load Current   SC = Starting Current

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	QPTW100C	Inlet	53	59	68	58	50	45	34	33	41
100	1	QPTW100C	Outlet	54	57	63	59	60	54	49	42	43
100	1	QPTW100C	Breakout	48	52	59	49	41	39	31	32	32
125	1	QPTW125C	Inlet	51	65	73	62	51	46	36	36	45
125	1	QPTW125C	Outlet	52	62	67	64	62	55	52	45	46
125	1	QPTW125C	Breakout	51	53	60	49	41	40	33	33	33
150	1	QPTW150C	Inlet	54	60	70	59	52	46	38	36	42
150	1	QPTW150C	Outlet	56	58	63	58	59	56	49	43	43
150	1	QPTW150C	Breakout	50	55	60	50	43	38	31	32	33
160	1	QPTW160C	Inlet	54	60	70	59	52	46	38	36	42
160	1	QPTW160C	Outlet	56	58	63	58	59	56	49	43	43
160	1	QPTW160C	Breakout	50	55	60	50	43	38	31	32	33
200	1	QPTW200C	Inlet	60	65	63	68	58	55	54	46	46
200	1	QPTW200C	Outlet	60	63	68	72	68	67	62	53	53
200	1	QPTW200C	Breakout	54	58	60	57	46	41	35	34	36
250	1	QPTW250C	Inlet	64	74	72	67	57	55	56	53	48
250	1	QPTW250C	Outlet	64	74	75	69	70	71	65	64	56
250	1	QPTW250C	Breakout	52	57	68	52	44	40	36	38	39
315	1	QPTW315C	Inlet	66	78	68	60	52	49	42	40	45
315	1	QPTW315C	Outlet	67	75	77	71	69	62	56	49	53
315	1	QPTW315C	Breakout	54	70	63	53	47	41	35	34	38
400	1	QPTW400C	Inlet	73	82	79	68	62	55	50	49	52
400	1	QPTW400C	Outlet	72	78	78	75	74	66	58	53	57
400	1	QPTW400C	Breakout	57	71	63	56	51	46	39	35	39
500	1	QPTW500C	Inlet	77	85	78	71	64	62	54	52	54
500	1	QPTW500C	Outlet	74	83	82	78	77	72	64	58	61
500	1	QPTW500C	Breakout	68	81	72	63	56	49	42	41	48

Models & Accessories

| Fan Stock Ref | Auto Changeover Controller Stock Ref | Speed Controller | |
		Electronic 1ph Stock Ref	Auto Transformer Stock Ref
QPTW100C	ACOB1A	SP5001	SPM5020
QPTW125C	ACOB1A	SP5001	SPM5020
QPTW150C	ACOB1A	SP5001	SPM5020
QPTW160C	ACOB1A	SP5001	SPM5020
QPTW200C	ACOB1A	SP5001	SPM5020
QPTW250C	ACOB1A	SP5025	SPM5035
QPTW315C	ACOB1A	SP5050	SPM5060
QPTW400C	ACOB1A	SP5050	SPM5060
QPTW500C	ACOB1A	SP5050	SPM5060

| Fan Stock Ref | In-line Attenuators | | | |
	300mm Stock Ref	600mm Stock Ref	900mm Stock Ref	1200mm Stock Ref
QPTW100C	83010030	83010060	83010090	-
QPTW125C	83012030	83012060	83012090	-
QPTW150C	83015030	83015060	83015090	-
QPTW160C		83016060	83016090	-
QPTW200C	-	83020060	83020090	83020120
QPTW250C	-	83025060	83025090	83025120
QPTW315C	-	83031060	83031090	83031120
QPTW400C	-	-	83040090	83040120
QPTW500C	-	-	83050090	83050120

Fan Stock Ref	Anti Vibration Mounts Stock Ref	Intumescent Fire Dampers Stock Ref	Wall Terminal Stock Ref	Roof Terminal Stock Ref
QPTW100C	68MP033G	CVT100	SA100/280	WRC100
QPTW125C	68MP033G	CVT130	SA125/280	WB160
QPTW150C	68MP033G	CVT150	SA150/280	WB160
QPTW160C	68MP033G	-	SA150/280	WB200
QPTW200C	68MP033G	CVT200	SA200/280	WB200
QPTW250C	68MP033G	CVT250	SA250/280	WB200
QPTW315C	68MP033G	CVT300	SA315/280	RCZ300
QPTW400C	68MP033G	-	QSA400/280	RCZ400
QPTW500C	68MP133G	-	-	RCZ500

NEW Slimpak EC Box Fan (SLP EC)

- Ultra slim and compact
- Energy efficient EC/DC motor
- Backward curved impeller
- Acoustically treated 'O' class rated
- 'Eco Flow' computer modelled design
- Integral commissioning potentiometer
- Optional external speed control input
- Matching ancillaries

The New range of Slimpak EC single in-line box fans incorporate an energy efficient EC motor and basic commissioning controls to offer an energy efficient basic fan system.

Manufactured from Galvanised sheet the Slimpak (SLP EC) fan units are internally treated with an 'O' class rated, BS476 part 6 & 7, acoustic foam, which offers the benefits of high sound absorption and good thermal insulation properties, in addition to self extinguishing properties and resistance to ignition.

The casing includes an inclined inlet and bellmouth entry which directs the incoming air to the impeller with minimal turbulence. The result is better air management through the unit, less noise, higher efficiency and an increased performance.

The housing is designed to be as compact as possible for ceiling or plantroom applications with integral mounting points to allow quick and easy installation.

Motor / Impellers

All SLP EC units feature an energy efficient, Class 1, EC/DC external rotor motor and backward curved impeller assembly specifically chosen for performance and non-overloading characteristics. The assembly is dynamically balanced to DIN ISO 1940 Grade 6.3, duct size 500mm rated IP54, all other sizes, IP44 according to BS EN 60529. Ball bearings are greased for life. Insulation is Class 'B' (from -25°C to +60°C). All models incorporate internal electronic overload protection and soft start function.

Control

Every SLP EC unit is fitted with a purpose designed integral commissioning controller giving the ability to set the exact duty required at commissioning. Alternatively the integral potentiometer can be bypassed to allow remote speed control via an external 0-10V potentiometer. Low voltage control wiring is kept separate from the mains wiring.

Electrical

Motors are single phase 230V +/- 10% / 50/60Hz / 1ph (size 100-400mm) or 400V +/- 10% / 50/60Hz / 3ph (size 500mm).

Performance/Sound

Extensively tested to BS848 parts 1 & 2. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at reference level of 2 x 10-5 Pa. The inlet/outlet sound power level spectra figures are dB with a reference of 10–12 watts.

Quality Assurance

Design and manufacture are in accordance with the standard for quality management systems BS EN ISO 9001:1994.

Accessories

A full range of accessories are available with the Slimpak EC range of fans such as:

- Remote potentiometer speed controller
- Two speed trickle boost controller
- Pre & secondary filter cassettes
- Electric heater batteries
- Backdraught shutters
- In-line attenuators

Dimensions (mm)

MAINS CABLE ENTRY

AIR FLOW

Ø11
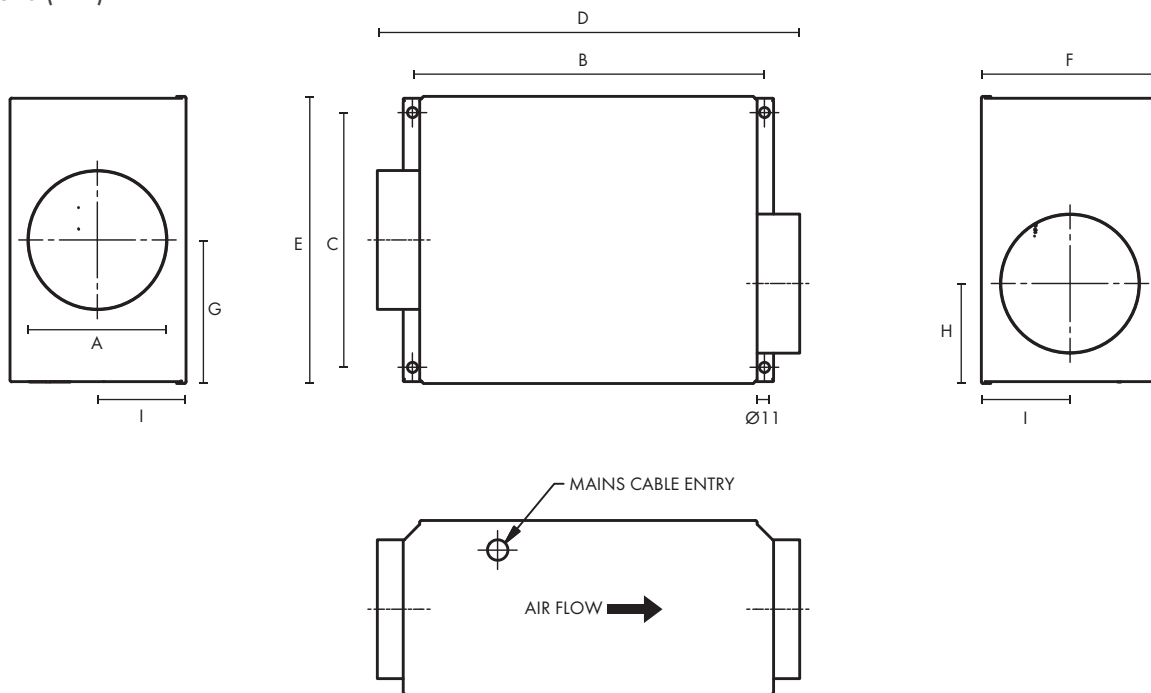
Stock Ref	A	B	C	D	E	F	G	H	I	kg
SLP100EC	100	380	275	456	310	192	155	108	96	7.5
SLP125EC	125	380	275	456	310	192	155	108	96	7.5
SLP150EC	150	380	275	456	310	192	155	108	96	7.5
SLP200EC	200	435	330	511	364	287	182	122	143	12
SLP250EC	250	435	330	511	364	287	182	122	143	13
SLP315EC	315	710	540	785	572	460	286	243	230	33
SLP400EC	400	710	540	785	572	460	286	243	230	36
SLP500EC	500	898	735	975	770	577	385	326	286	58

Performance Guide

Dia.	Motor Phase	Stock Ref	IP Rating	Curve Ref.		0	100	200	300	400	500	600	700	S.C. Amps	F.L.C Amps	dBA @ 3m
									m³/s @ Pa							
100	1	SLP100EC	IPX2	1	m³/s	0.13	0.11	0.09	0.07	0.05	0.03			0.72	0.72	36
					kW	0.08	0.08	0.08	0.08	0.08	0.08					
					W/l/s	0.64	0.76	0.92	1.15	1.54	2.69					
125	1	SLP125EC	IPX2	2	m³/s	0.16	0.14	0.11	0.09	0.07	0.04			0.72	0.72	37
					kW	0.08	0.08	0.08	0.08	0.08	0.08					
					W/l/s	0.50	0.58	0.72	0.92	1.24	1.95					
150	1	SLP150EC	IPX2	3	m³/s	0.17	0.15	0.12	0.10	0.07	0.04			0.74	0.74	39
					kW	0.08	0.08	0.08	0.08	0.08	0.08					
					W/l/s	0.46	0.54	0.66	0.85	1.17	1.94					
200	1	SLP200EC	IPX2	4	m³/s	0.28	0.25	0.21	0.18	0.14	0.11	0.07	0.02	0.72	0.72	42
					kW	0.15	0.16	0.17	0.17	0.17	0.17	0.17	0.16			
					W/l/s	0.55	0.66	0.78	0.94	1.17	1.57	2.47	8.21			

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	SLP100EC	Inlet	57	62	68	71	58	52	47	41	48
			Outlet	57	63	71	72	66	62	55	48	51
			Breakout	64	63	60	55	47	46	44	38	36
125	1	SLP125EC	Inlet	58	69	70	70	60	56	48	42	48
			Outlet	58	70	71	73	70	67	60	52	54
			Breakout	62	58	59	57	52	46	37	33	37
150	1	SLP150EC	Inlet	59	68	72	76	64	58	51	48	53
			Outlet	59	70	74	76	71	70	64	58	57
			Breakout	62	61	59	60	54	49	43	37	39
200	1	SLP200EC	Inlet	68	71	72	77	70	63	61	57	56
			Outlet	70	72	69	80	76	76	72	65	62
			Breakout	63	69	66	60	53	51	50	50	42

Performance Guide

Static Pressure Pa (y-axis: 0, 100, 200, 300, 400, 500, 600, 700, 800)
Air Volume m³/s (x-axis: 0.0, 0.25, 0.5, 0.75, 0.1, 0.125, 0.15, 0.175, 0.2)
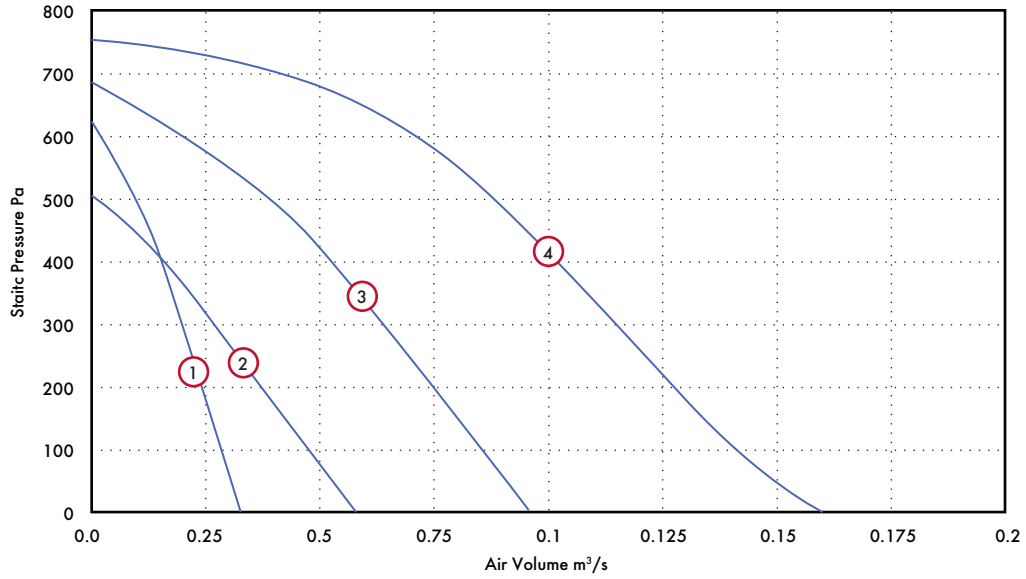
Dia.	Motor Phase	Stock Ref	IP Rating	Curve Ref.		m³/s @ Pa								S.C. Amps	F.L.C Amps	dBA @ 3m
						0	100	200	300	400	500	600	700			
250	1	SLP250EC	IPX2	1	m³/s	0.33	0.28	0.24	0.19	0.15	0.09	0.01		1.38	1.38	42
					kW	0.12	0.14	0.14	0.15	0.14	0.13	0.11				
					W/l/s	0.38	0.48	0.61	0.76	0.99	1.47	7.31				
315	1	SLP315EC	IPX2	2	m³/s	0.57	0.48	0.37	0.26	0.15				1.36	1.36	44
					kW	0.15	0.16	0.16	0.16	0.16						
					W/l/s	0.27	0.34	0.44	0.62	1.07						
400	1	SLP400EC	IPX2	3	m³/s	0.95	0.85	0.75	0.64	0.52	0.38	0.20		2.47	2.47	48
					kW	0.40	0.42	0.44	0.44	0.44	0.42	0.36				
					W/l/s	0.42	0.49	0.58	0.69	0.84	1.09	1.83				
500	3	SLP500EC	IPX2	4	m³/s	1.60	1.41	1.27	1.15	1.02	0.88	0.71	0.41	2.1	2.1	49
					kW	0.74	0.74	0.79	0.84	0.88	0.89	0.85	0.66			
					W/l/s	0.46	0.53	0.62	0.73	0.86	1.01	1.20	1.60			

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	1	SLP250EC	Inlet	68	71	72	80	68	62	59	56	57
			Outlet	68	71	70	78	75	75	68	63	60
			Breakout	61	63	62	62	55	54	52	45	42
315	1	SLP315EC	Inlet	67	78	79	66	61	58	53	45	52
			Outlet	66	78	78	73	70	68	63	55	56
			Breakout	62	69	69	56	53	47	43	36	42
400	1	SLP400EC	Inlet	78	83	87	73	69	66	61	54	59
			Outlet	78	85	92	80	79	75	69	61	66
			Breakout	67	73	76	63	58	50	44	40	48
500	3	SLP500EC	Inlet	77	86	83	77	68	64	58	53	58
			Outlet	78	87	84	83	79	73	69	61	64
			Breakout	70	79	75	66	61	52	47	43	49

Models & Accessories

Fan Stock Ref	Remote Speed Control Stock Ref	Trickle/Boost Controller Stock Ref
SLP100EC	10520602	475775
SLP125EC	10520602	475775
SLP150EC	10520602	475775
SLP200EC	10520602	475775
SLP250EC	10520602	475775
SLP315EC	10520602	475775
SLP400EC	10520602	475775
SLP500EC	10520602	475775

Size	Backdraught Shutter Stock Ref	Fast Clamp Stock Ref	Anti-Vibration Mounts (set of 4) Stock Ref
100	10542100	10540100	68MP033G
125	10542125	10540125	68MP033G
150	10542150	10540150	68MP033G
200	10542200	10540200	68MP033G
250	10542250	10540250	68MP033G
315	10542315	10540315	68MP033G
400	10542400	10540400	68MP033G
500	-	-	68MP033G

| Size | Duct Attenuator | | | |
	300mm Stock Ref	600mm Stock Ref	900mm Stock Ref	1200mm Stock Ref
100	10534100	10535100	10536100	-
125	10534125	10535125	10536125	-
150	10534150	10535150	10536150	-
200	-	10535200	10536200	10537200
250	-	10535250	10536250	10537250
315	-	10535315	10536315	10537315
400	-	10535400	10536400	10537400
500	-	-	10536500	-

Models & Accessories

Size	Duct Air Heater Stock Ref	Filter Cassette Stock Ref	Bag Filter Cassette Stock Ref	Flexible Connections Stock Ref
100	10531100T1	10532100	10533100	FLX100
125	10531125T1	10532125	10533125	FLX125
150	10531150T1	10532150	10533150	FLX150
200	10531200T1	10532200	10533200	FLX200
250	10531250T1	10532250	10533250	FLX250
315	10531315T1 10531315T3	10532315	10533315	FLX315
400	10531400T3	10532400	10533400	FLX400
500	10531500T3	10532500A	10533500	FLX500

NEW Slimpak EC Box Fan (SLPT EC)

- Compact low profile design
- Duct Sizes 100 – 500mm
- Performance - Airflow 0.01 to 1.2m³/s, Pressure up to 650Pa
- Latest energy saving EC/DC motors
- Internal mounting IPX2
- Manufactured controlled to BS EN ISO 9001
- Performance tested to BS848 Part 1 & 2

The new range of Slimpak EC twin in-line duct fans incorporate energy efficient EC motors and basic commissioning controls to offer an energy efficient twin extract fan system.

Manufactured from prime quality galvanised sheet steel the Slimpak (SLPT EC) twin fan units are internally treated with an 'O' class rated, BS476 part 6 & 7, acoustic foam, which offers the benefits of high sound absorption, good thermal insulation properties in addition to self extinguishing properties and resistant to ignition.

The housing is designed to be as compact as possible for concealed false ceiling applications yet is suitable for ceiling or floor mounting, non-return dampers can be easily rotated on site to suit the application.

Motor / Impellers
All SLPT EC units feature a low energy, Class 1, EC/DC external rotor motor and backward curved impeller assembly specifically chosen for performance and non-overloading characteristics. The assembly is dynamically balanced to DIN ISO 1940 Grade 6.3, duct size 500mm rated IP54, all other sizes, IP44 according to BS EN 60529. Ball bearings are greased for life. Insulation is Class 'B' (from -25°C to +60°C).
All models incorporate internal electronic overload protection and soft start function.

Electrical
Every SLPT EC unit is fitted with a purpose designed common integral commissioning controller giving the ability to set the exact duty required at commissioning. Alternatively the integral potentiometer can be bypassed to allow remote speed control via an external 0-10V potentiometer. Low voltage wiring is kept separate from the mains wiring.

Electrical
Motors are single phase 230V +/- 10% / 50/60Hz / 1ph (size 100-400mm) or 400V +/- 10% / 50/60Hz / 3ph (size 500mm), (4 wire systems only).

Performance/Sound
Extensively tested to BS848 parts 1 & 2. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at reference level of 2x10-5 Pa. The inlet/outlet sound power level spectra figures are dB with a reference of 10–12 watts.

Quality Assurance
Design and manufacture are in accordance with the standard for quality management systems BS EN ISO 9001:1994.

Accessories
A full range of accessories are available with the Slimpak EC range of fans such as:
- Auto changeover controller designed for EC motors
- Two speed trickle boost controller
- Pre & secondary filter cassettes
- Electric heater batteries
- Backdraught shutters
- In-line attenuators

Dimensions (mm)
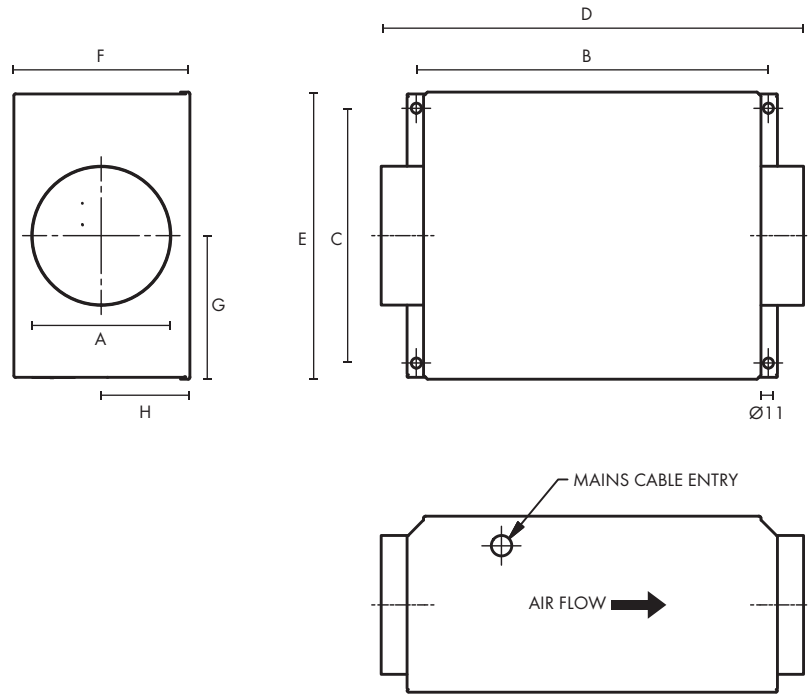
Stock Ref	A	B	C	D	E	F	G	H	kg
SLPT100EC	100	610	591	705	622	256	311	128	26
SLPT125EC	125	610	591	705	622	256	311	128	26
SLPT150EC	150	610	591	705	622	256	311	128	26
SLPT200EC	200	801	703	896	734	343	367	172	39
SLPT250EC	250	925	798	1020	829	354	415	177	48
SLPT315EC	315	1255	1145	1353	1176	536	588	268	88
SLPT400EC	400	1255	1145	1353	1176	536	588	268	90
SLPT500EC	500	1492	1533	1590	1564	675	782	338	175

Performance Guide
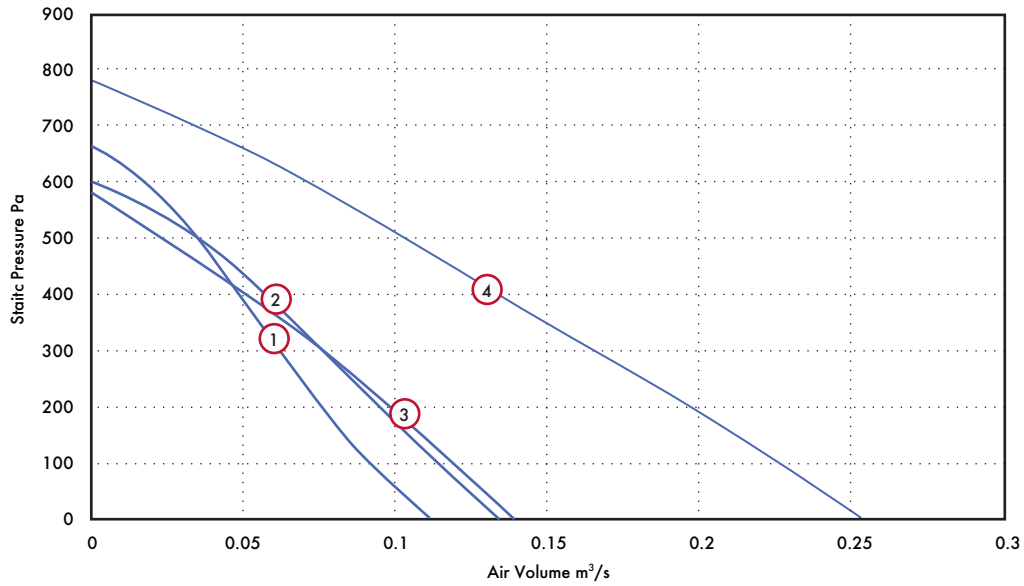
	Motor						m³/s @ Pa								S.C.	F.L.C	dBA @
Dia.	Phase	Stock Ref	IP Rating	Curve Ref.		0	100	200	300	400	500	600	700		Amps	Amps	3m
100	1	SLPT100EC	IP44	1	m³/s	0.11	0.09	0.08	0.06	0.05	0.04	0.02			0.69	0.69	36
					kW	0.08	0.08	0.08	0.08	0.08	0.08	0.08					
					W/l/s	0.74	0.89	1.09	1.34	1.70	2.35	4.40					
125	1	SLPT125EC	IP44	2	m³/s	0.13	0.11	0.09	0.08	0.06	0.03				0.72	0.72	39
					kW	0.08	0.08	0.08	0.08	0.08	0.08						
					W/l/s	0.61	0.72	0.87	1.08	1.42	2.24						
150	1	SLPT150EC	IP44	3	m³/s	0.14	0.12	0.10	0.08	0.05	0.02				0.71	0.71	39
					kW	0.08	0.08	0.08	0.08	0.08	0.08						
					W/l/s	0.58	0.70	0.84	1.07	1.54	3.09						
200	1	SLPT200EC	IP44	4	m³/s	0.25	0.23	0.20	0.17	0.13	0.10	0.07	0.04		1.4	1.4	42
					kW	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.16				
					W/l/s	0.63	0.72	0.84	1.01	1.26	1.64	2.34	4.37				

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	SLPT100EC	Inlet	55	63	56	53	49	45	38	34	35
			Outlet	53	65	59	58	54	55	48	39	40
			Breakout	65	69	61	50	42	40	37	36	36
125	1	SLPT125EC	Inlet	52	66	66	56	51	47	38	39	40
			Outlet	54	69	64	61	57	57	52	43	43
			Breakout	59	72	64	52	41	36	35	36	39
150	1	SLPT150EC	Inlet	58	66	66	59	50	46	39	36	40
			Outlet	60	71	67	64	61	61	55	49	47
			Breakout	60	63	62	59	51	47	42	41	39
200	1	SLPT200EC	Inlet	58	70	63	68	62	55	51	49	47
			Outlet	68	75	65	80	67	67	64	60	58
			Breakout	67	69	64	63	51	45	38	40	42

Performance Guide
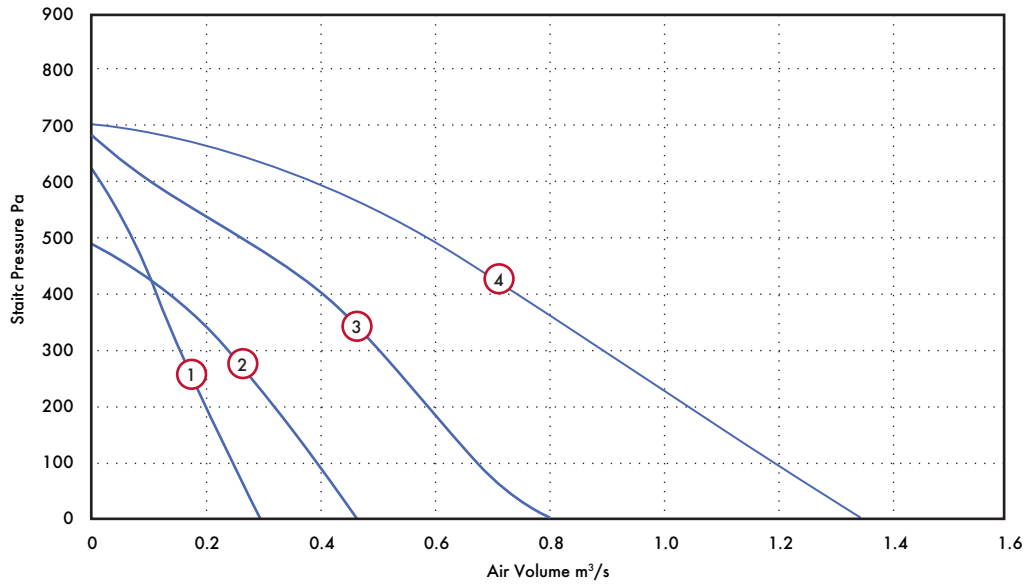
m³/s @ Pa

Dia.	Motor Phase	Stock Ref	IP Rating	Curve Ref.		0	100	200	300	400	500	600	S.C. Amps	F.L.C Amps	dBA @ 3m
250	1	SLPT250EC	IP44	1	m³/s	0.30	0.25	0.20	0.15	0.11	0.07	0.01	1.4	1.4	39
					kW	0.14	0.14	0.14	0.14	0.14	0.14	0.12			
					W/l/s	0.47	0.58	0.69	0.88	1.25	2.13	17.44			
315	1	SLPT315EC	IP44	2	m³/s	0.46	0.39	0.32	0.24	0.14			1.4	1.4	43
					kW	0.14	0.14	0.15	0.15	0.15					
					W/l/s	0.30	0.36	0.46	0.63	1.06					
400	1	SLPT400EC	IP44	3	m³/s	0.80	0.68	0.59	0.50	0.40	0.27	0.10	2.86	2.86	48
					kW	0.39	0.38	0.37	0.36	0.37	0.39	0.39			
					W/l/s	0.49	0.56	0.63	0.73	0.92	1.46	3.90			
500	3	SLPT500EC	IP54	4	m³/s	1.34	1.19	1.04	0.90	0.75	0.59	0.39	2.1	2.1	46
					kW	0.60	0.64	0.67	0.68	0.70	0.71	0.71			
					W/l/s	0.45	0.54	0.64	0.76	0.94	1.22	1.83			

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
250	1	SLPT250EC	Inlet	64	68	61	69	60	50	50	47	47
			Outlet	63	69	62	78	66	67	61	57	56
			Breakout	61	64	61	60	49	42	36	35	39
315	1	SLPT315EC	Inlet	63	74	65	59	52	46	43	40	42
			Outlet	66	76	68	69	63	61	53	45	49
			Breakout	66	72	71	51	44	38	36	32	43
400	1	SLPT400EC	Inlet	73	82	73	66	62	53	50	45	50
			Outlet	75	85	78	77	73	69	63	55	58
			Breakout	78	77	75	61	55	48	46	41	48
500	3	SLPT500EC	Inlet	69	80	74	70	61	55	51	51	50
			Outlet	78	78	82	78	70	65	60	54	58
			Breakout	74	79	69	62	54	46	40	41	46

Models & Accessories

Fan Stock Ref	Trickle/Boost Controller Stock Ref	EC Fan Changeover Controller Stock Ref
SLPT100EC	475775	476367
SLPT125EC	475775	476367
SLPT150EC	475775	476367
SLPT200EC	475775	476367
SLPT250EC	475775	476367
SLPT315EC	475775	476367
SLPT400EC	475775	476367
SLPT500EC	475775	476367

Size	Backdraught Shutter Stock Ref	Fast Clamp Stock Ref	Anti-Vibration Mounts (set of 4) Stock Ref
100	10542100	10540100	68MP033G
125	10542125	10540125	68MP033G
150	10542150	10540150	68MP033G
200	10542200	10540200	68MP033G
250	10542250	10540250	68MP033G
315	10542315	10540315	68MP033G
400	10542400	10540400	68MP033G
500	-	-	68MP033G

	Duct Attenuator			
Size	300mm Stock Ref	600mm Stock Ref	900mm Stock Ref	1200mm Stock Ref
100	10534100	10535100	10536100	-
125	10534125	10535125	10536125	-
150	10534150	10535150	10536150	-
200	-	10535200	10536200	10537200
250	-	10535250	10536250	10537250
315	-	10535315	10536315	10537315
400	-	10535400	10536400	10537400
500	-	-	10536500	-

Models & Accessories

Size	Duct Air Heater Stock Ref	Filter Cassette Stock Ref	Bag Filter Cassette Stock Ref	Flexible Connections Stock Ref
100	10531100T1	10532100	10533100	FLX100
125	10531125T1	10532125	10533125	FLX125
150	10531150T1	10532150	10533150	FLX150
200	10531200T1	10532200	10533200	FLX200
250	10531250T1	10532250	10533250	FLX250
315	10531315T1 10531315T3	10532315	10533315	FLX315
400	10531400T3	10532400	10533400	FLX400
500	10531500T3	10532500A	10533500	FLX500

Slimpak (SLP)

- Ultra slim and compact
- Acoustically treated 'O' class rated
- 'Eco Flow' computer modelled design
- Latest external rotor motor
- Fully speed controllable
- Matching ancillaries

The Slimpak in-line acoustic fans shall be as supplied from Roof Units. Manufactured from prime quality galvanised sheet steel, ensuring a robust in-line fan for those tough site conditions. Slimpak shall be internally treated with an 'O' class rated acoustic foam, which offers the benefits of excellent low level duct bound and breakout sound levels, in addition self extinguishing properties, zero burn role, resistant to ignition, and no toxic fumes.

Slimpak fans are to be suitable for circular ducting ranging in sizes 100, 125, 150, 200, 250 and 315mm with air volumes from 0.075m³/s to 0.380m³/s and pressure development of up to 550Pa.

The casing shall be specially designed to allow the unit to be mounted quickly and easily. All manufacturing progressed of the Slimpak fan units are computer designed and controlled to BS EN ISO 9001 Standards.

Impellers

The backward curved centrifugal impellers shall be aerodynamically designed, utilising computer technology combining the impeller with the external rotor motor. The motor and impeller shall be factory matched, statically and dynamically balanced on precision machines, to DIN ISO1940 Grade 6.3, to give quiet, vibration free running. The aerodynamic blades and motor housing shall be manufactured from prime quality galvanised sheet steel.

Motors

All sizes from 100 to 315 shall be protected to IP44 in accordance with BS EN 60529:1992. With motor insulation Class B, suitable for operating temperatures from -15°C and atmospheres up to 95% RH. The range shall incorporate maintenance free external rotor motors, fitted with sealed for life ball bearings.

All sizes are ideally suitable for speed control by electronic or voltage reduction. Vent-Axia would recommend that a voltage reduction Auto Transformer speed controller is used with all Slimpak units to ensure

minimum noise levels during speed control and to eliminate any possibility of harmonic noise levels which occur when using electronic speed controllers at lower levels.

Terminal Box

An IP54 terminal box shall be supplied with all models with 20mm cable gland entry.

Performance

The fan performance, shall be in accordance with tests to BS848 Part 1 1980, with the fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985.

Quality Assurance

Design and manufacture shall be in accordance with the standard for quality management systems BS EN ISO 9001:1994.

Accessories

A full range of accessories are available with the Slimpak range of fans such as:

- Auto Transformer Speed Controllers
- Electronic Speed Controllers
- D.O.L. Starters
- Pre & Secondary Filter Cassettes
- Electric Heater Batteries
- Backdraught Shutters
- In-Line Attenuators
- Wall & Roof Terminals
- Fast Clamps

Dimensions (mm)

Plan

A

B

AIRFLOW DØ

E

C

DØ

Elevation
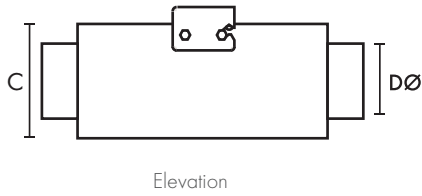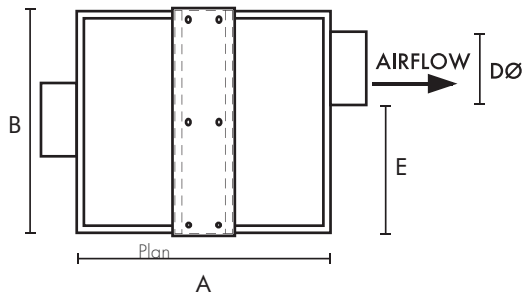
Fan Stock Ref	A	B	C	DØ	E	Weight kg
SLP100	360	306	160	100	178	8
SLP125	360	306	160	125	165	8
SLP150	360	306	180	150	140	9
SLP200	415	360	285	200	140	13
SLP250	415	360	285	250	90	15
SLP315	450	400	350	315	65	17

Mounting bracket (mm)

A

12MM X 6MM FOAM GASKET

Plan

C CTS   C CTS

6 HOLES Ø 5.5MM

Elevation
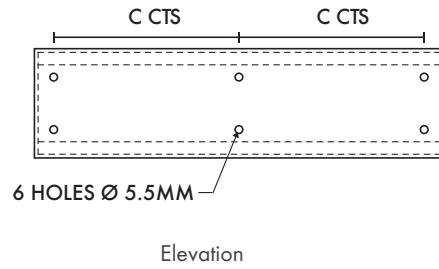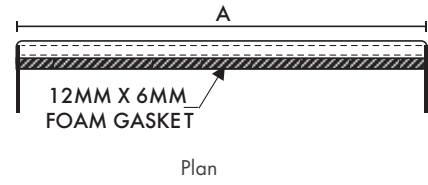
Fan Stock Ref	A	B	C
SLP100	306	80	138
SLP125	306	80	138
SLP150	306	80	138
SLP200	360	130	165
SLP250	360	130	165
SLP315	400	180	184.5

Performance Guide
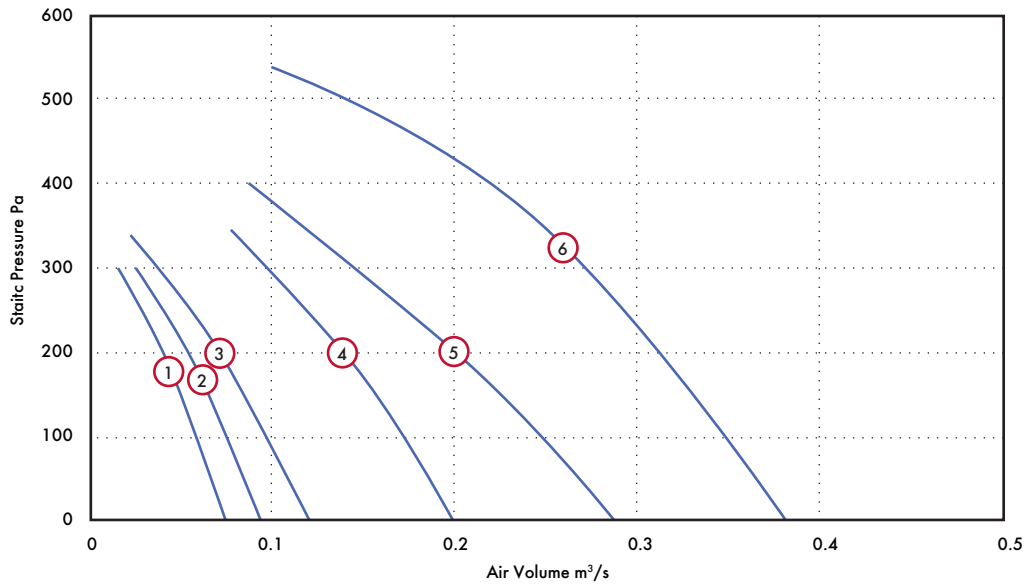
Static Pressure Pa vs Air Volume m³/s — curves 1 through 6

Dia.	Motor Phase	Stock Ref	r.p.m	IP Rating	Curve Ref.	m³/s @ Pa 0	100	200	300	400	500	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
100	1	SLP100	2450	IP44	1	0.08	0.06	0.04	0.02			0.06	1.04	0.26	30
125	1	SLP125	2450	IP44	2	0.09	0.08	0.05	0.02			0.06	1.04	0.26	31
150	1	SLP150	2450	IP44	3	0.12	0.1	0.07	0.04			0.06	1.04	0.26	41
200	1	SLP200	2700	IP44	4	0.2	0.17	0.14	0.1			0.12	1.92	0.48	39
250	1	SLP250	2400	IP44	5	0.29	0.25	0.2	0.15	0.09		0.21	3.6	0.9	43
315	1	SLP315	2550	IP44	6	0.38	0.35	0.31	0.27	0.22	0.14	0.27	4.6	1.15	45

Sound Power Level Spectra dB (ref 10^{-12} Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	SLP100	Inlet	60	63	56	62	51	48	43	40	40
100	1	SLP100	Outlet	61	65	57	58	56	54	50	43	41
100	1	SLP100	Breakout	51	52	53	51	42	38	34	30	30
125	1	SLP125	Inlet	55	59	58	64	53	49	42	39	42
125	1	SLP125	Outlet	59	61	59	61	59	58	54	45	44
125	1	SLP125	Breakout	52	54	54	52	43	38	34	30	31
150	1	SLP150	Inlet	52	58	57	64	55	52	47	42	42
150	1	SLP150	Outlet	58	60	60	63	60	59	55	47	45
150	1	SLP150	Breakout	52	53	53	52	43	38	34	30	31
200	1	SLP200	Inlet	65	68	72	64	56	51	52	47	46
200	1	SLP200	Outlet	60	66	68	71	66	65	65	58	52
200	1	SLP200	Breakout	58	65	65	59	48	43	38	35	39
250	1	SLP250	Inlet	74	76	75	68	58	57	55	48	50
250	1	SLP250	Outlet	62	72	74	73	72	69	68	59	56
250	1	SLP250	Breakout	61	70	68	63	54	47	43	32	43
315	1	SLP315	Inlet	71	75	74	70	70	66	63	58	54
315	1	SLP315	Outlet	62	70	76	78	72	71	70	63	59
315	1	SLP315	Breakout	61	69	70	64	58	52	46	37	45

Models & Accessories

| Fan | Speed Controller | | Starter | Overload | Electric Heaters |
| | Electronic | Auto Transfor. | | | |
Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
SLP100	SP5001	SPM5020	444744	444699	10531100T1
SLP125	SP5001	SPM5020	444744	444699	10531125T1
SLP150	SP5001	SPM5020	444744	444699	10531150T1
SLP200	SP5001	SPM5020	444744	444699	10531200T1
SLP250	SP5001	SPM5020	444744	444700	10531250T1
SLP315	SP5001	SPM5020	444744	444702	10531315T1

| Fan | Attenuators | | Wall Terminal |
| | Inlet | Discharge | |
Stock Ref	Stock Ref	Stock Ref	Stock Ref
SLP100	SLSI100/1	SLSD100/1	SA100/280
SLP125	SLSI125/1	SLSD125/1	SA125/280
SLP150	SLSI150/1	SLSD150/1	SA150/280
SLP200	SLSI200/1	SLSD200/1	SA200/280
SLP250	SLSI250/1	SLSD250/1	SA250/280
SLP315	SLSI315/1	SLSD315/1	SA315/280

| Fan | Roof Terminal | Louvre Shutter | Flexible Connections | Panel Filters | Back Draught Shutters |
Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
SLP100	WRC100	LS250	FLX100	SLPF100	BDS100
SLP125	WB160C	LS250	FLX125	SLPF125	BDS125
SLP150	WB160C	LS315	FLX150	SLPF150	BDS150
SLP200	WB200C	LS315	FLX200	SLPF200	BDS200
SLP250	WB200C	LS315	FLX250	SLPF250	BDS250
SLP315	RCZ300	LS400	FLX315	SLPF315	BDS315

Slimpak (SLPT)

- Motor Insulation Class B, protected to IP44
- All units suitable for speed control
- Quality Assurance to BS EN ISO 9001:1994
- Performance tested to BS848 Part 1 1980
- Units suitable as a run & standby extract fan
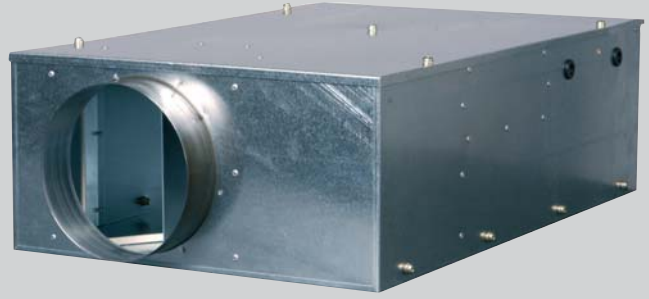
The Slimpak range of streamline twin fan units, which have been designed to allow the unit to be installed as a Run & Standby extract fan.

Slimpak housings are manufactured from prime quality galvanised sheet steel with circular inlet and outlet spigot connections. To ensure minimum noise levels the units casing is treated with an acoustic lining, Class O rated which offers self extinguishing, zero burn rate, resists ignition and no toxic fume properties.

Each unit incorporates a back draught shutter to prevent air recirculation via the standby fan and to ensure easy access for cleaning and maintenance purposes a full sized access panel is provided to both fans.

Designed and developed to provide one of the most powerful and compact twins in the market, available in three sizes 200, 250 and 315mm dia, with extract performance ranging from 0.116m³/s up to 0.400m³/s (417m³/h to 1,440m³/h), with pressure characteristics of up 550Pa.

Motors
At the heart of the range is a proven 230V/1/50Hz external rotor motor and backward curved impeller assembly. The assembly is dynamically balanced to ISO 1940. Motors are rated to IP44 according to BS EN 60529. Ball bearings are greased for life and allow the fan to run at any angle. Insulation is Class 'B' (from -15°C to +40°C).

All Acoustic fans are suitable for speed control, an Auto Transformer is recommended to ensure minimum noise levels during speed control so eliminating any possibility of motor harmonic noise.

Performance and Sound
Tested to BS 848 Parts 1 & 2. Published dB(A) figures are free field sound pressure levels at 3m with spherical propagation at a reference level of 2 x 10-5 Pa (20 micro-Pascal). The inlet, outlet and breakout sound power level spectra figures are dB with a reference of 10-12 Watts (1 pico-watt).

Quality Assurance
Design and manufacture shall be in accordance with BS EN ISO 9001:1994.

Dimensions (mm)

Plan

Elevation

8 HOLES 8MM Ø

AIRFLOW
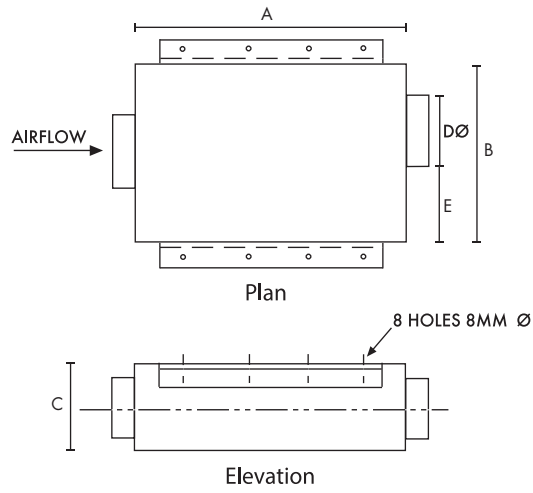
Unit Duct Ø	A	B	C	DØ	E	Weight kg
200	760	490	235	200	205	20
250	865	590	285	250	233	32
315	955	650	350	315	240	39

Performance Guide
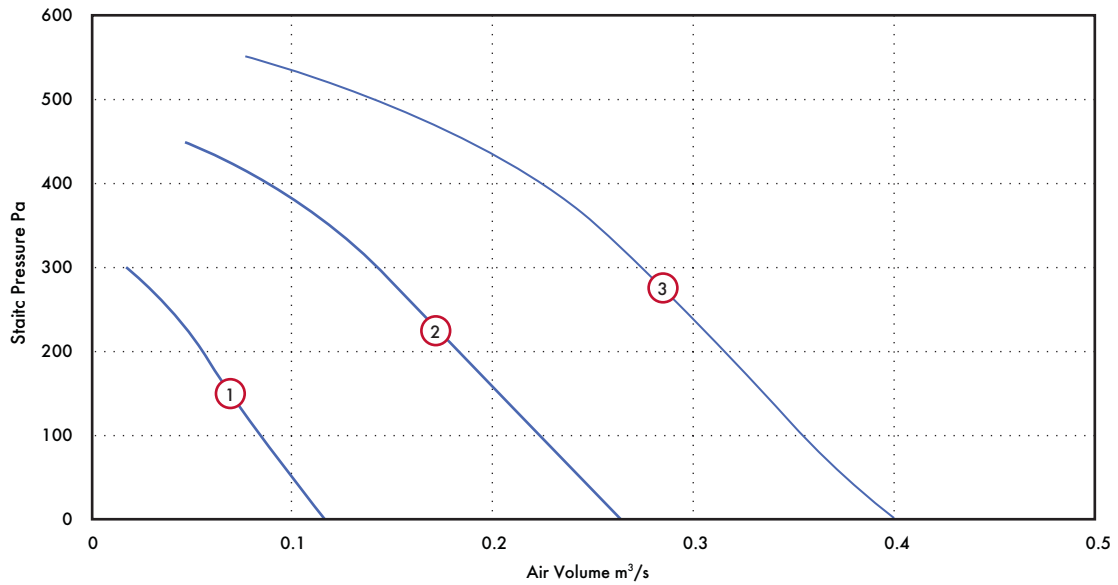
Dia.	Motor Phase	Stock Ref	Poles	r.p.m	IP Rating	Curve Ref.	0	100	200	m³/s @ Pa 300	400	500	Motor kW	S.C. Amps	F.L.C Amps	dBA @ 3m
200	1	SLPT200	2	2450	IP44	1	0.12	0.09	0.06	0.02			0.09	1.44	0.36	31
250	1	SLPT250	2	2400	IP44	2	0.26	0.22	0.18	0.14	0.09		0.21	3.6	0.9	43
315	1	SLPT315	2	2550	IP44	3	0.4	0.36	0.32	0.27	0.22	0.14	0.27	4.6	1.15	45

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Poles	Spectrum	63	125	250	500	1k	2k	4k	8k	dBA @ 3m
200	1	SLPT200	2	Inlet	55	60	61	62	55	51	49	41	41
200	1	SLPT200	2	Outlet	53	59	60	62	61	57	54	43	44
200	1	SLPT200	2	Breakout	52	53	53	52	43	38	34	30	31
250	1	SLPT250	2	Inlet	74	76	75	68	58	57	55	48	50
250	1	SLPT250	2	Outlet	62	72	74	73	72	69	68	59	56
250	1	SLPT250	2	Breakout	61	70	68	63	54	47	43	32	43
315	1	SLPT315	2	Inlet	71	75	74	70	70	66	63	58	54
315	1	SLPT315	2	Outlet	62	70	76	78	72	71	70	63	59
315	1	SLPT315	2	Breakout	61	69	70	64	58	52	46	37	45

Models & Accessories

Fan	ITC Man/Auto Changeover Controller	ITC-DS12/24hr Auto Changeover Controller	RVC ELV Remote Visual Indicator	Auto Transformer
Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
SLPT200	10314200	10314210	10314220	10314103
SLPT250	10314200	10314210	10314220	10314103
SLPT315	10314200	10314210	10314220	10314103

Size	Flexible Connection Stock Ref	Anti-Vibration Mounts (set of 4) Stock Ref	Backdraught Shutter Stock Ref	Fast Clamp Stock Ref	Worm Drive Clips Stock Ref
200mm	FLX200	68MP033G	10542200	10540200	561710
250mm	FLX250	68MP033G	10542250	10540250	561710
315mm	FLX315	68MP033G	10542315	10540315	561710

Size	Pre Filter Cassette Stock Ref	5 Spare Pre Filters Stock Ref	Bag Filter Cassette Stock Ref	Spare Bag Filter Each Stock Ref	Duct Air Heater Stock Ref
200mm	10532200	10556200A	10533200	10557200	10531200T1
250mm	10532250	10556250A	10533250	10557250	10531250T1
315mm	10532315	10556315A	10533315	10557315	10531315T1

	Duct Attenuator				
Size	600mm Stock Ref	900mm Stock Ref	1200mm Stock Ref	Joining Piece Stock Ref	Louvre Shutter Stock Ref
200mm	10535200	10536200	10537200	561808	LS200
250mm	10535250	10536250	10537250	561810	LS250
315mm	10535315	10536315	10537315	561813	LS315

EuroSeries (SDX)

- Available in sizes 100 to 315
- 200 and 250 sizes also available as high performance
- Motor Insulation Class B, protected to IP44
- Operating Temperatures from -25°C up to +60°C
- All units suitable for speed control
- Quality Assurance to BS EN ISO 9001:1994
- Performance tested to BS848 Part 1 1980
- 2 Year Warranty

The SDX Euroflow in-line centrifugal duct fans are designed around an efficient backward curved centrifugal impeller and external rotor motor to ensure a compact design, high performance and low sound levels.

The in-line fan casing is constructed from pressed steel and incorporates an aerodynamically designed airflow guide vane, ensuring maximum performance from the unit whilst maintaining minimum noise levels. All models are supplied with a simple mounting foot for ease of installation.

The SDX range is available in eight model sizes: 100, 125, 150, 200, 250 & 315mm diameter as standard performance and sizes 200 and 250 also available as a high performance in-line centrifugal duct fan. The range provides a performance up to 0.372m³/s with a maximum pressure development of 500 Pa.

The SDX range is suitable for the extract of clean air only. It is not suitable for extracting or transporting grinding dust, soot, explosive or other aggressive gases etc.

Impellers
The impellers are aerodynamically designed centrifugal backward curved type, manufactured by injection moulding of a polypropylene resin. The motor and impeller is factory matched, statically and dynamically balanced in two planes to ISO 1940, Grade G 6.3.

Motors
All units are fitted with motors protected to IP44, insulation Class B and are suitable for temperatures ranging from -25°C to +60°C with humidity levels of up to 95% RH ensuring reliable operation. All sizes are for a 220V/1/50Hz electrical supply and incorporate a manual reset thermal protection device.

Terminal Box
An IP54 terminal box fitted to the casing with multiple cable entry positions.

Performance
The fan performance is in accordance with tests to BS848 Part 1 1980, with the fan sound levels measured in a reverberant chamber in accordance with BS848 Part 2 1985.

Quality Assurance
Design and manufacture is in accordance with the standard for quality management systems BS EN ISO 9001:1994.

Accessories
A full range of accessories are available with the Euroflow in-line centrifugal duct fans such as:

- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. Starter and Overload
- Pre & Secondary Filter Cassettes
- Electric Heater Batteries
- In-Line Attenuators
- Backdraught Shutters
- Fast Clamps
- Flexible Ducting
- Wall Terminals
- Roof Terminals

Dimensions (mm)
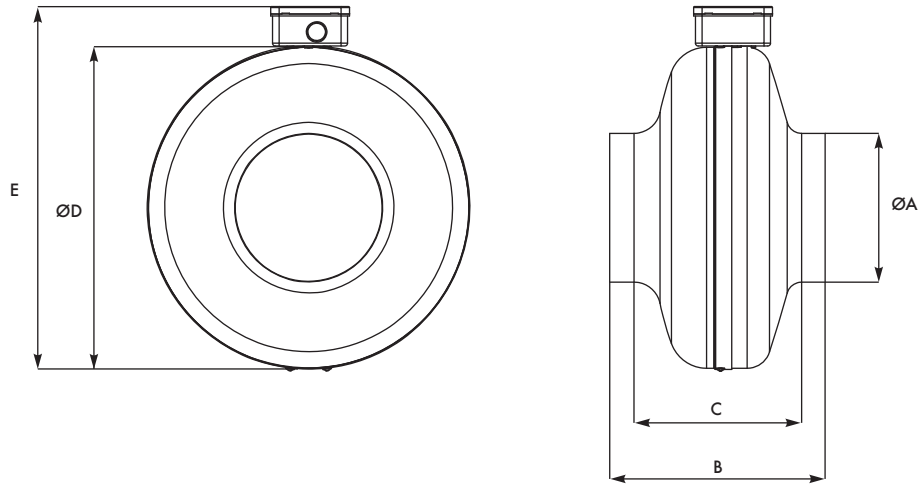
Unit Size	ØA	B	C	ØD	E	kg
SDX100	100	189	152	244	287	3
SDX125	125	182	143	243	286	3
SDX150	150	217	166	344	387	3
SDX200	200	219	167	344	387	4
SDX200H	200	231	179	344	387	4.7
SDX250	250	223	167	344	387	4
SDX250H	250	230	167	344	387	4.7
SDX315	315	243	175	402	444	5.6

Performance Guide
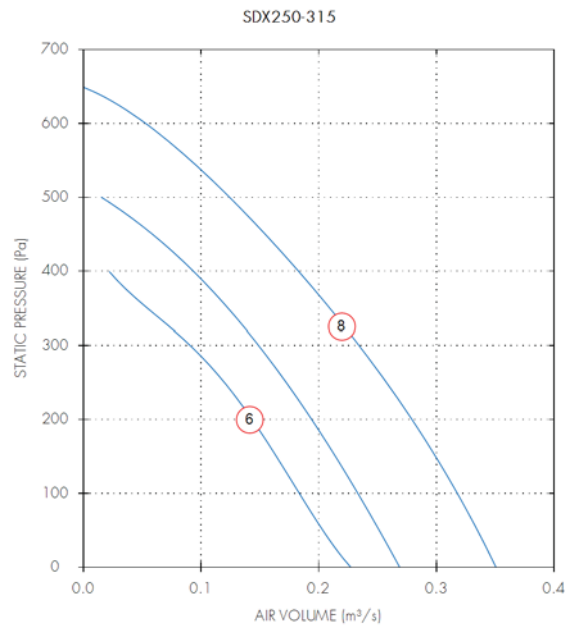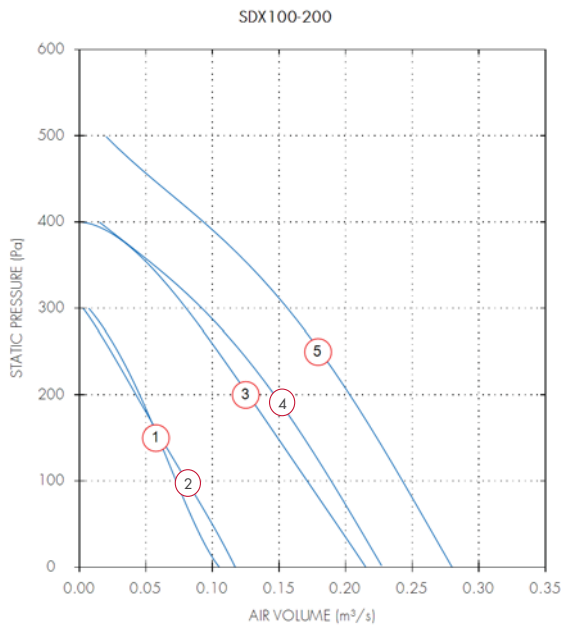
SDX100-200

SDX250-315

Dia.	Motor Phase	Stock Ref	r.p.m	IP Rating	Curve Ref.	0	100	200	300	400	500	600	Motor kW	F.L.C Amps	dBA @ 3m
100	1	SDX100C	2800	IP44	1	0.11	0.07	0.05					0.07	0.31	26
125	1	SDX125C	2800	IP44	2	0.12	0.08	0.04					0.08	0.31	24
150	1	SDX150C	2800	IP44	3	0.22	0.17	0.13	0.08				0.1	0.44	35
200	1	SDX200C	2600	IP44	4	0.23	0.19	0.15	0.09				0.11	0.45	34
200	1	SDX200HC	2660	IP44	5	0.28	0.24	0.2	0.16	0.09			0.14	0.56	38
250	1	SDX250C	2600	IP44	6	0.23	0.18	0.14	0.09				0.11	0.45	31
250	1	SDX250HC	2460	IP44	7	0.27	0.23	0.19	0.15	0.09	0.02		0.13	0.56	34
315	1	SDX315C	2567	IP44	8	0.35	0.32	0.28	0.23	0.18	0.12	0.05	0.22	0.96	36

Column group header: m³/s @ Pa (over columns 0, 100, 200, 300, 400, 500, 600)

Sound Power Level Spectra dB (ref 10⁻¹² Watts)

Dia.	Motor Phase	Stock Ref	Spectrum	125	250	500	1k	2k	4k	8k	dBA @ 3m
100	1	SDX100C	Inlet	53	58	60	66	65	58	47	49
100	1	SDX100C	Outlet	54	60	61	67	66	58	48	50
100	1	SDX100C	Breakout	34	58	44	55	54	47	37	39
125	1	SDX125C	Inlet	50	54	63	65	64	56	47	48
125	1	SDX125C	Outlet	49	53	61	64	63	55	45	47
125	1	SDX125C	Breakout	28	29	45	53	52	44	35	36
150	1	SDX150C	Inlet	51	66	67	71	62	61	53	52
150	1	SDX150C	Outlet	52	67	68	72	64	63	50	54
150	1	SDX150C	Breakout	30	49	51	60	52	50	36	41
200	1	SDX200C	Inlet	46	53	62	66	63	64	54	50
200	1	SDX200C	Outlet	45	54	61	68	64	65	53	51
200	1	SDX200C	Breakout	22	24	41	49	53	43	40	35
200	1	SDX200HC	Inlet	53	60	66	69	66	65	63	53
200	1	SDX200HC	Outlet	54	62	65	70	67	67	63	54
200	1	SDX200HC	Breakout	25	35	46	53	55	47	45	38
250	1	SDX250C	Inlet	41	52	61	66	66	64	56	51
250	1	SDX250C	Outlet	43	53	60	68	67	65	57	52
250	1	SDX250C	Breakout	24	30	38	48	47	45	40	32
250	1	SDX250HC	Inlet	54	62	67	69	67	67	65	54
250	1	SDX250HC	Outlet	55	63	66	70	68	67	65	54
250	1	SDX250HC	Breakout	33	38	47	50	48	47	46	34
315	1	SDX315C	Inlet	50	59	67	68	66	65	64	52
315	1	SDX315C	Outlet	51	60	66	69	67	66	65	53
315	1	SDX315C	Breakout	33	38	45	48	47	45	43	32

Models & Accessories

Fan	Speed Controller		Starter (requires Overload)	Overload
Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
SDX100	SP5001	SPM5020	444744	444696
SDX125	SP5001	SPM5020	444744	444696
SDX150	SP5001	SPM5020	444744	444697
SDX200	SP5001	SPM5020	444744	444698
SDX200H	SP5001	SPM5020	444744	444699
SDX250	SP5001	SPM5020	444744	444698
SDX250H	SP5001	SPM5020	444744	444699
SDX315	SP5001	SPM5020	444744	444699

	In-Line Attenuators			
	300mm	600mm	900mm	1200mm
Dia	Stock Ref	Stock Ref	Stock Ref	Stock Ref
100	83010030	83010060	83010090	-
125	83012030	83012060	83012090	-
150	83015030	83015060	83015090	-
200	-	83020060	83020090	83020120
250	-	83025060	83025090	83025120
315	-	83031060	83031090	83031120

Fan	Wall Terminal	Wall Terminal	Electric Heaters	Panel Filters
Stock Ref	Stock Ref	Stock Ref	Stock Ref	Stock Ref
100	SA100/280	SA100/80	10531100T1	QPF100A
125	SA125/280	SA125/80	10531125T1	QPF125A
150	SA150/280	SA150/80	10531150T1	QPF150A
200	SA200/280	SA200/80	10531200T1	QPF200A
250	SA250/280	SA250/80	10531250T1	QPF250A
315	SA315/280	SA315/80	10531315T1	QPF315A

Fan	Bag Filters	Roof Terminal	Louvre Shutter
Stock Ref	Stock Ref	Stock Ref	Stock Ref
100	QPFB100A	WRC100	LS250
125	QPFB125A	WB160	LS250
150	QPFB150A	WB160	LS250
200	QPFB200A	WB200	LS250
250	QPFB250A	RCZ300	LS250
315	QPFB315A	RCZ300	LS315

Speed Controllers

Single Phase SP & SPTK (Electronic)

Single Phase, electronic, infinitely variable, stepless speed control with MIN/MAX preset facility
- Separate starter not required when used with HOT SPOT protected fan (SPTK only)
- Compact and easy to install
- Suitable for surface or flush mounting (SP5010 surface only)*
- SP type include ON/OFF switch with neon indicator
- SPTK type include ON/OFF/RESET switch and indication light fan trip indicator and built in facility for manual reset
- Complies with required statutory regulations and carries CE mark

Unit Stock Ref	*Max Peak Load Current	Dimensions H x W x D (mm)	Weight kg	Enclosure
SP5001	1.7 amps	86 x 86 x 71	0.33	IP40
SP5025	3.0 amps	147 x 86.5 x 62	0.5	IP40
SP5050	5.0 amps	147 x 86.5 x 62	0.6	IP40
SPTK5050	5.0 amps	147 x 86.5 x 62	0.8	IP40
SP5010	10.0 amps	185 x 172 x 135	2.0	IP54

* Note:- The max peak load current is for surface mounting installation.

Stock Ref
SP5001
SP5025
SP5050
SPTK5050
SP5010

Single Phase SPM (Auto-Transformer)

- Single Phase, 5 step auto-transformer speed controller
- Low motor noise - no magnetic hum
- ON/OFF Switch

Unit Stock Ref	Max Peak Load Current	Dimensions H x W x D (mm)	Weight kg	Enclosure	Damper Connection
SPM5020	2.0	230 x 168 x 118	2.2	IP54	Yes
SPM5035	3.5	230 x 168 x 118	4.6	IP54	Yes
SPM5060	6.0	230 x 166 x 118	5.0	IP50	Yes
SPM5075	7.5	284 x 240 x 132	6.2	IP54	Yes
SPM5090	9.0	316 x 270 x 168	10.5	IP54	No
SPM5140	14.0	316 x 270 x 168	16.5	IP54	No

Stock Ref
SPM5020
SPM5035
SPM5060
SPM5075
SPM5090
SPM5140

Single Phase RTRE (Enhanced Auto-Transformer)

- Single Phase 5 step auto-transformer speed controller
- Separate starter not required when used with HOT SPOT protected fans
- Low motor noise - no magnetic hum
- Additional terminals to allow connection of remote switching device
- Allows operation via BMS interface
- Additional terminals to allow connection of remote anti-freezing thermostat

Unit Stock Ref	Max Peak Load Current	Dimensions H x W x D (mm)	Weight kg	IP	Damper Connection	VFC
RTRE20	2.0 amps	230 x 166 x 118	2.3	IP54	Yes	Yes
RTRE35	3.5 amps	230 x 166 x 118	3.6	IP54	Yes	Yes
RTRE60	6.0 amps	230 x 166 x 118	5.1	IP54	Yes	Yes
RTRE75	7.5 amps	284 x 240 x 132	6.1	IP54	Yes	Yes
RTRE90	9.0 amps	284 x 240 x 132	10.6	IP54	Yes	Yes

Stock Ref
RTRE20
RTRE35
RTRE60
RTRE75
RTRE90

Three Phase RDTK (Auto - Transformer)

- Three phase 5 step auto - transformer speed controller
- Separate starter not required when used with HOT SPOT protected fans
- Low motor noise - no magnetic hum
- Compact fire retardant surface mounting enclosure
- Additional terminals to allow connection of remote switching device
- Additional terminals to allow connection of remote anti-freezing thermostat

Unit Stock Ref	Max Peak Load Current	Dimensions H x W x D (mm)	Weight kg	Enclosure	Damper Connection
RDTK10	1.0 amps	284 x 240 x 132	4.7	IP54	Yes
RDTK20	2.0 amps	284 x 240 x 132	7.4	IP54	Yes
RDTK40	4.0 amps	316 x 270 x 168	12.9	IP21	No
RDTK70	7.0 amps	324 x 270 x 168	15.6	IP21	Yes
RD14	14.0 amps	295 x 400 x 170	30.0	IP21	No

Stock Ref
RDTK10
RDTK20
RDTK40
RDTK70
RD14

Starters & Overloads

- Suitable for all models
- Push button Start/Stop
- 240V contactor coil for single phase applications and three phase supplies where a neutral is present
- 415V contactor coil for three phase supplies where a neutral is not present or required
- Protection is given by an overload relay which is selected to match the load of the fan
- Enclosures are protected to IP55

Stock Ref	Starters	DOL Rating (Amps)	Star Delta Rating (Amps)	Dimensions H x W x D	Weight kg
444744	DOL Starter 1 Phase 240V 12A	12	-	174x104x134	3.0
444745	DOL Starter 1 Phase 240V 25A	25	-	174x104x134	1.5
444746	DOL Starter 1 Phase 240V 32A	32	-	184x184x149	2.5
444747	DOL Starter 3 Phase 415V 12A	12	-	174x104x134	3.0
444748	DOL Starter 3 Phase 415V 25A	25	-	174x104x134	3.5
444749	DOL Starter 3 Phase 415V 32A	32	-	184x184x149	2.5
444750	DOL Starter 3 Phase 415 V 50A	50	-	305x285x159	7.0
444842	Star Delta Starter 21A	-	21	184x284x149	3.5
444843	Star Delta Starter 30A	-	30	184x284x149	3.5

Stock Ref	Overloads	DOL Rating (Amps)	Star Delta Rating (Amps)
444696	OVERLOAD 0.16-0.25	0.16-0.25	-
444697	OVERLOAD 0.25-0.40	0.25-0.40	-
444698	OVERLOAD 0.40-0.63	0.40-0.63	-
444699	OVERLOAD 0.63-1.0	0.63-1.0	-
444700	OVERLOAD 1.0-1-6	1.0-1-6	-
444701	OVERLOAD 1.6-2.5	1.6-2.5	2.7-4.3
444702	OVERLOAD 2.5-4.0	2.5-4.0	4.3-6.9
444703	OVERLOAD 4-0.6.0	4-0.6.0	6.9-10
444704	OVERLOAD 5.5-8.0	5.5-8.0	9.5-13.8
444705	OVERLOAD 7-10	7-10	12-17
444706	OVERLOAD 10-13	10-13	17-22
444707	OVERLOAD 13-18	13-18	22-31
444708	OVERLOAD 18-25	18-25	31-43
444709	OVERLOAD 23-32	23-32	39-55

This range of Starters and Overloads is not cross compatible with previous versions.

Sonex Circular Sound Attenuators

- Low cost – exceptional performance, exstock availability
- Sheet steel casing and end plates 30 minute fire rating as standard
- Fitted spigot for direct connection to circular ductwork
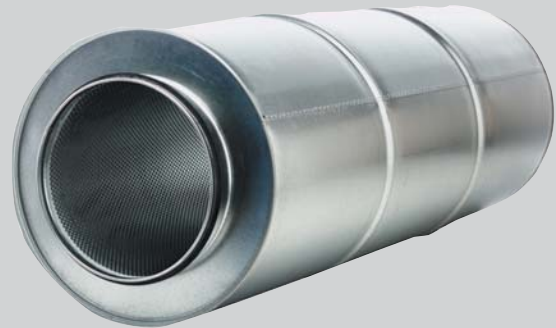
Application Data

The effective and economic solution for sound attenuation in circular duct systems from 100 to 500mm diameter. With at least three models per size throughout the range the system designer is given complete flexibility of choice allowing a selection which is the best balance of attenuation, size and cost for any application. Sonex Attenuators are fitted with a patented duct seal which enables leak free 'plug-in' connection to rigid ductwork with consequent savings of installation costs. The excellent attenuation characteristics of the Sonex range are achieved without imposing undue system resistance. Pressure losses are little more than those which would occur over a comparable section of straight duct.

Construction

The attenuator consists of a perforated tubular liner manufactured from sheet steel. The liner is enclosed by a thick layer of mineral wool sound absorbing material. Casing and end plates are formed from galvanised sheet steel. Standard models have a 30 minute fire rating (60 minutes also available).

Dimensions, Weights & Insertion Loss
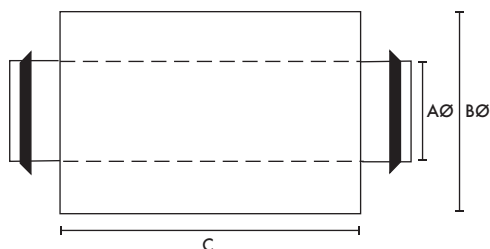
	Dimensions (mm)				Attenuation dB mid Frequency Hz							
Stock Ref	AØ	BØ	C	kg.	63	125	250	500	1K	2K	4K	8k
83010030	100	200	300	2.4	3	3	9	17	23	26	25	13
83010060	100	200	600	4.1	6	9	15	34	40	40	37	18
83010090	100	200	900	6.6	10	13	21	40	45	39	36	16
83012030	125	225	300	2.6	3	3	7	16	20	24	22	17
83012060	125	225	600	4.5	5	8	13	29	35	35	32	22
83012090	125	225	900	7.6	10	12	19	37	40	38	34	32
83015030	150	260	300	2.9	3	3	6	13	19	23	22	16
83015060	150	260	600	5.8	5	7	12	24	30	35	31	20
83015090	150	260	900	9	8	10	15	32	38	37	34	29
83016030	160	260	300	2.9	3	3	6	13	19	23	22	16
83016060	160	260	600	5.8	5	7	12	24	30	35	31	20
83016090	160	260	900	9	8	10	15	32	38	37	34	29
83020060	200	300	600	7	4	6	10	20	27	33	19	17
83020090	200	300	900	10	8	9	14	28	32	35	28	25
83020120	200	300	1200	14	10	12	17	36	41	43	28	26
83025060	250	355	600	8.6	4	5	10	19	25	29	18	17
83025090	250	355	900	12.2	6	7	12	23	30	30	22	19
83025120	250	355	1200	18	8	10	15	32	37	38	26	20
83031060	315	400	600	9.8	4	5	8	15	20	22	17	15
83031090	315	400	900	15	5	7	10	20	30	29	18	16
83031120	315	400	1200	21	7	9	13	22	32	33	19	18
83040090	400	606	900	21	3	5	9	19	26	20	13	11
83040120	400	606	1200	27	6	8	14	2 4	30	28	17	9
83050090	500	711	900	29	3	4	9	15	23	17	12	11
83050120	500	711	1200	38	5	7	13	18	26	23	15	9

Pyrocheck Intumescent Fire Dampers

- Suitable for air transfer in doors and partitions
- Complete seal achieved in approximately five minutes when tested in accordance with BS 476 pt 20 & 22
- UV Stabilised material UPVC
- Pyrocheck offer much lower resistance to airflow compared to traditional designs
- Independently tested to BS 476 pt. 22; fire integrity of 68 mins

Pyrocheck CVT Intumescent Fire Dampers are circular and have a minimum fire integrity of one hour (in accordance with BS476 Part 8 1972). The fire dampers have been independently tested at the Warrington Fire Research Centre.

Intumescent fire dampers require no mechanical or external/device to operate as they rely solely on an internal reaction initiated by heat. They are, therefore, especially suitable for applications where regular inspection is unlikely or difficult or where mechanical devices would be susceptible to shock or corrosion damage.

Typical applications are air transfer in fire doors or partitions.

The active material is encased in a PVC sleeve giving maximum protection against moulds, fungi, insect attack or similar biological damage, and may reasonably be expected to last for the life of the building. Unaffected by UV light, capable of withstanding freeze/thaw cycling and able to support ambient temperatures within the range -10°C to +80°C.

In a fire situation Pyrocheck CVT Dampers will rapidly expand to completely block the duct or opening thus preventing the further passage of smoke and hot gasses.

An unusually high free area means that Pyrocheck CVT Dampers offer much lower resistance to air flow compared to traditional intumescent designs.

Dimensions
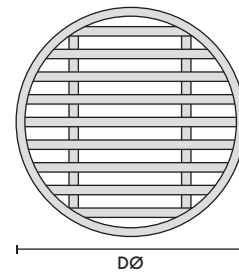
Stock Ref	DØ
CVT100	100
CVT130	125
CVT150	150
CVT200	198
CVT250	248
CVT300	298

Vent-Axia does not guarantee compliance with Building Regulations Part B, Fire Spread or other regulations that relate to fire planning. Suitability to comply with these regulations should be determined prior to installation and in conjunction with Building Control Officers. Compliance with the Regulations is specifically excluded from quotations and designs.

Models

Size	Stock Ref
4" Ø	CVT100
5" Ø	CVT130
6" Ø	CVT150
8" Ø	CVT200
10" Ø	CVT250
12" Ø	CVT300

Unitex Roof Cowl System

- Complete weather proofing with low pressure drop
- Size 160 to 250 supplied with bird guard
- Galvanised steel construction additionally protected by a dark brown epoxy powder coat finish (110mm grey PVC)
- Weather apron in stock aluminium
- Suitable for flat or pitched roofs up to 20° as standard
- Can be supplied in special colours to match building design (110mm grey PVC only)

The Unitex Roof Cowl System greatly simplifies the roof termination of mechanical ventilation systems. Consisting of an attractive epoxy finished cowl with a lead weather slate and a range of direct connection reducing fittings. It is suitable for connection to spiral duct, soil pipe and flexible duct from 125 to 250mm diameter.

Product Range

Cowl Assembly
WB160 For ducts from 125 to 160mm
WB200 For ducts from 200 to 250mm

Weather Apron for Flat Roofs
WA160
WA200

Weather Apron for Pitched Roofs (20° MAX)
WA160/20
WA200/20

Adaptor
370304 (125 to 150mm)
370309 (200 to 250mm)
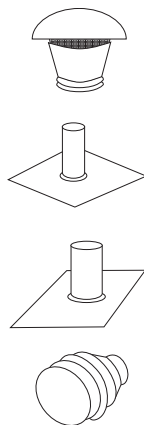
Installation with an Adaptor

COWL

DUCTING SECTION
(SUPPLIED BY OTHERS)

SEALANT

APRON

ADAPTOR

DUCTING
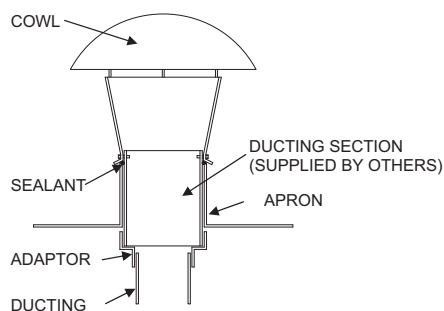
WB160 with 125mm connection using adaptor 370304
WB200 with 250mm connection using adaptor 370309

Models

110mm (4") Roof System
Description	Stock Ref
PVC Roof Cowl	WRC100
Weather Apron (pitch roofs)	WA100

125mm to 160mm Roof System
Description	Stock Ref
Roof Cowl - Standard Colour BSO8B29	WB160
Roof Cowl - Non-standard Colour	WB160C
Weather Apron (flat roofs)	WA160

200mm to 250mm Roof System
Description	Stock Ref
Roof Cowl - Standard Colour BSO8B29	WB200
Roof Cowl - Non-standard Colour	WB200C
Weather Apron (flat roofs)	WA200

Weather Apron for pitched roof
Description	Stock Ref
Weather Apron 20° (max) pitch roof	WA160/20
Weather Apron 20° (max) pitch roof	WA200/20

Adaptor
Description	Stock Ref
OR16012 (125 to 150mm)	370304
OR25020 (200 to 250mm)	370309

Unitex Wall Terminals

- External weather louvre, wall sleeve and duct connection spigot in one unit
- Satin anodised louvre gives full weather protection
- Epoxy powder coated finish, weather louvre available as optional extra
- 280mm or 80mm wall sleeve section
- Spigot connections from 100mm to 400mm
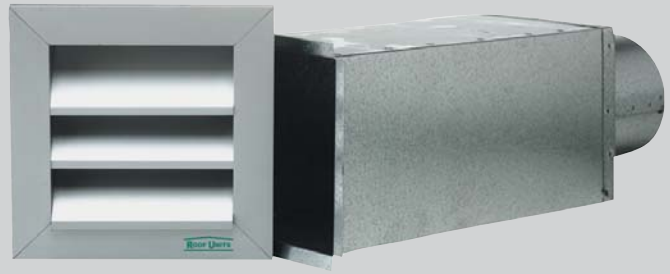
The Unitex SA Wall Terminal Module consists of a high grade satin anodised weather louvre fitted with bird guard (epoxy finish to BS or RAL standard colour available at extra cost). This is located in a galvanised sheet metal 'box section' linked to a reinforced circular stub for direct connection to rigid or flexible ductwork.

Two lengths of 'box section' are available; 80mm and 280mm. An airstream operated back draught shutter can be fitted in the 280mm version. For applications where larger air volumes are involved the Unitex QSA range of wall terminals is available.

Note:
Volume Control Dampers, Speed Clamps & Backdraught Shutters available: see Accessories Section.

Models

Description	Stock Ref
80mm wall sleeve, std. format louvre	
100mm	SA100/80
125mm	SA125/80
150mm	SA150/80
200mm	SA200/80
250mm	SA250/80
315mm	
80mm wall sleeve, large format louvre	
125mm	QSA125/80
200mm	QSA200/80
250mm	QSA250/80
315mm	QSA315/80
280mm wall sleeve, std. format louvre	
100mm	SA100/280
125mm	SA125/280
150mm	SA150/280
200mm	SA200/280
250mm	SA250/280
315mm	SA315/280

280mm wall sleeve, large format louvre

100mm	QSA100/280
125mm	QSA125/280
150mm	QSA150/280
200mm	QSA200/280
250mm	QSA250/280
315mm	QSA315/280
400mm	QSA400/280

Dimensions (mm)
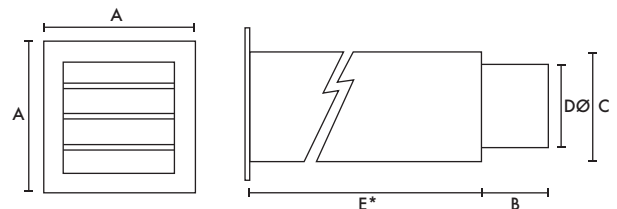
*Dimensions E select from 280 or 80mm

Model Ref	A	B	C	DØ
SA100	180	80	130	99
SA125	210	80	160	124
SA150	230	80	180	149
SA200	280	80	230	199
SA250	330	80	280	249
SA315	400	80	350	313
QSA100	230	80	180	98
QSA125	280	80	230	124
QSA150	330	80	280	149
QSA200	400	80	350	199
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QSA315	550	80	500	313
QSA400	550	80	500	400

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By Appointment to H.M. The Queen
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