

Air Flow Solutions



Ventilation with Heat Recovery

Residential application



THE BENCHMARK

The highest quality air for your family

Ventilation with Heat Recovery

Residential

The indoor climate is of the utmost importance as most of us spend the greater part of our lives indoors. To ensure comfort and a sense of well-being, the air we breathe should be clean, and also be at the right temperature and humidity level.

Whatever the situation, Duplexvent Mechanical Ventilation with Heat Recovery solutions can play a significant role as they help create a healthier living environment whilst saving valuable energy.

DUPLEXVENT BASIC RANGE

A range of compact, entry level mechanical ventilation units with heat recovery designed for social housing, private sector apartment blocks and terraced houses. The units provide high efficiency, low power consumption and low noise balanced ventilation solutions which help meet current Building Regulations.

DUPLEXVENT ENTRO LINE

A range of SAP eligible and Passive House Institute certified Mechanical Ventilation with Heat Recovery units for residential applications. These side entry units are made with high density EPP material that provides significant insulations and eliminates thermal bridging. Complete with 100% summer bypass and a number of optional extras, Entro offers the installer a huge range of installation options to suite their ventilation needs.

DUPLEXVENT ADROIT LINE

A range of internet enabled, Passive House Institute certified Mechanical Ventilation with Heat Recovery units for residential applications. Available with a unique triple filter system, these units ensure healthy and fresh indoor air. Adroit units enable remote control and monitoring of the unit's ventilation and through the Adroit Cloud Service, offer advanced control functions. All units offer automatic summer bypass and have the option of smart frost protection.

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product data and application advice

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DUPLEXVENT ADROIT PRO LINE

A range of internet enabled residential Mechanical Ventilation with Heat Recovery units, offering high performance and quality. Available with a digital control system, the user is able to totally customise their ventilation to suit their needs and improve their indoor air quality. With over 90% thermal efficiency, low noise and unrivalled user controls, Adroit Pro is the perfect unit for those looking for a high-end MVHR system.

Duplexvent UNO DV40

Single Room Unit – Up to 150 m³/hr air volume



KEY FEATURES

- For use in single rooms up to 60 m² *
- Fully balanced ventilation with simultaneous supply and extract air
- Easy to install through the wall (no central ducting)
- Over 90% thermal efficiency
- Silent operation – 30-38 dB(A)
- Built-in electric post-heater
- Automatic frost protection
- Three speed digital / wireless control
- Boost with timer function
- Built-in G4 filters with maintenance indicator
- 3 year warranty+

Duplexvent UNO DV40

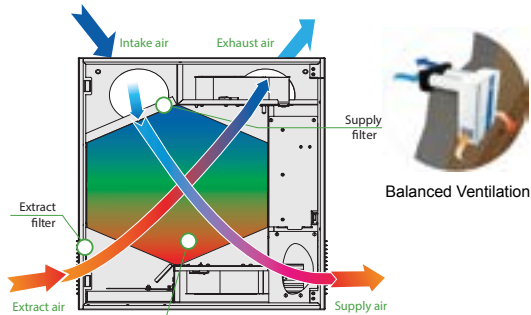
The Duplexvent UNO DV40 is a single room heat recovery unit designed to provide balanced ventilation for social and commercial premises plus residential properties. It is ideal for retro-fitting into existing buildings as the unit can be installed easily through the wall that does not involve any central ducting saving on installation time and system cost.

Unlike all the other single room heat recovery units on the market, the Duplexvent UNO DV40 is equipped with two fans and a plastic counter-flow heat exchanger which deliver balanced supply and extract air ventilation at all times with a heat recovery efficiency exceeding 90%.

The unit has a metal polymer coated casing finished in a mirror polished stainless steel. The 10 mm synthetic rubber insulation provides sound insulation and avoids thermal bridging.

The automatic frost protection prevents condensate freezing in cold periods whereas two G4 filters clean the indoor air and protect the internal components of the unit. In addition, the built-in post-heater warms the supply air to a comfortable level if needed.

Having the low energy EC fans the unit consumes as little as 9 watts and comply with the ErP 2015 standards.



TECHNICAL DATA

Specification	Duplexvent UNO DV40
Max. Air Flow m³/hr / l/sec @ 0 Pa	150 / 42
Thermal efficiency	Over 90%
Heat exchanger	Counterflow (Plastic)
Fans	EC
Frost protection	Reducing supply air
Controls	3-Speed (digital / wireless)
Mounting	Wall
Sound level @ 3 m (dB(A))	30 - 38
Duct diameter (mm)	2 x 125
Electrical supply	230 V / 1 ph / 50 Hz
Max. power consumption	40 W
Filter class	2 x G4
Electric post-heater	350 W
Protection class	IP22
Casing insulation (mm)	10
Weight (kg)	20
Dimensions (L x D x H) mm	500 x 200 x 580
Part No.	90000400

CONTROLS

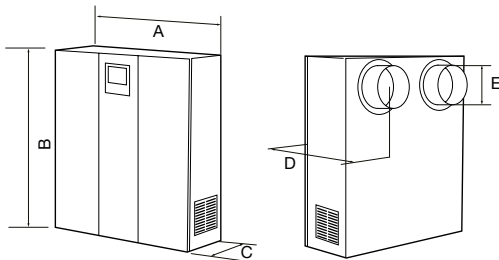
The Duplexvent UNO DV40 is equipped with a digital display which is located on the front cover plus a wireless controller allowing adjustments from anywhere within the room. Speeds 1, 2 and 3 produce an air capacity of 60, 105 and 150 m³/hr respectively. Additional functions on the control panel include:

- Extra heating of supply air
- Separate fan control
- Boost activation timer adjustable between 20 and 60 minutes
- Weekly ventilation programming
- Filter replacement and condensation drain pan level indicator



Digital controller Wireless controller
* Guidance only. Dependant upon system pressure.

DIMENSIONS



+ excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D	E
UNO DV40	500	580	200	260	ø125

QUICK INSTALLATION



Duplexvent DV72

Basic Line Top Entry - Up to 280 m³/hr air volume



KEY FEATURES

- For use in small and medium sized dwellings up to 125 m² *
- Extracts up to 260 m³ / hr at 100 Pa
- Over 90% thermal efficiency
- Thermal summer by-pass
- Energy efficient EC fans ensure low SFP
- Fits inside a 600 mm kitchen cupboard
- In-built frost protection
- Independently adjustable fans
- SAP eligible
- Complies with Building Regulations
- 1 year warranty

Duplexvent DV72

Duplexvent DV72 is a high performance heat recovery unit which provides a cost-effective solution for residential dwellings.

This MVHR unit is equipped with an easily removable polypropylene, ultra-high efficiency heat exchanger which transfers more than 90% of the warmth from the outgoing waste airstream into the incoming fresh air.

A thermal by-pass helps to avoid dwelling overheating in summer.

Thanks to its extremely compact size the Duplexvent DV72 can be mounted in a standard kitchen cupboard or on the wall vertically which provides a space-saving solution especially for small and medium size dwellings.

Our SAP eligible DV72 and AIRFLEX PRO ducting system create a perfect solution with highly efficient heat recovery and Zero Leakage air transfer which provide ventilation levels that meet the latest Building Regulations 2010 (Approved Document F).



SAP RESULTS

Tested by the BRE (Building Research Establishment) and listed in the SAP PCDB (Product Characteristics Database)

DV72	SFP	Efficiency
K+1 Wet room	0.75 W/l/s	90%
K+2 Wet rooms	0.87 W/l/s	90%
K+3 Wet rooms	1.05 W/l/s	87%
K+4 Wet rooms	1.27 W/l/s	86%

TECHNICAL DATA

Specification	Duplexvent DV72 R	Duplexvent DV72 L
Max. air flow m³/hr / l/sec @ 0 Pa	280 / 78	280 / 78
Air flow m³/hr / l/sec @ 100 Pa	260 / 72	260 / 72
Thermal efficiency	Over 90%	Over 90%
Heat exchanger	Counterflow (Plastic)	Counterflow (Plastic)
Fans	EC	EC
Controls (normal and boost)	2-Speed	2-Speed
Mounting	Wall	Wall
Sound level @ 3 m (dB(A))	28 - 45	28 - 45
Duct diameter (mm)	4 x 125	4 x 125
Condensate discharge (mm)	22	2 x 22
Electrical supply	230 V / 1 ph / 50Hz	230 V / 1 ph / 50Hz
Max. power consumption	150 W	150 W
Filter class	2 x G3	2 x G3
Thermal by-pass	Yes	Yes
Electric post-heater	1200 W (optional)	1200 W (optional)
Electric frost protection	Yes	Yes
Protection class	IPX2	IPX2
Weight (kg)	14	14
Dimensions (L x H x D) mm	560 x 635 x 260	560 x 635 x 260
Part No.	90000556	90000557



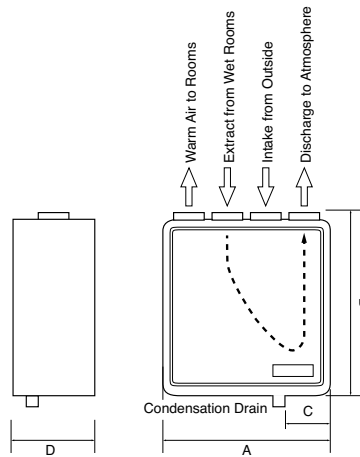
DV72 installed in a kitchen cupboard

CONTROLS

A separately mounting commissioning switch is supplied with the unit. Two, 100% user adjustable speed levels can be set on installation. In addition both fans can be independently adjusted to ensure a balanced system upon commissioning. Also accepts boost function switches (not supplied). An automatic thermal summer by-pass will activate when the supply air temperature reaches 25°C to prevent dwelling overheating via heat exchanger.

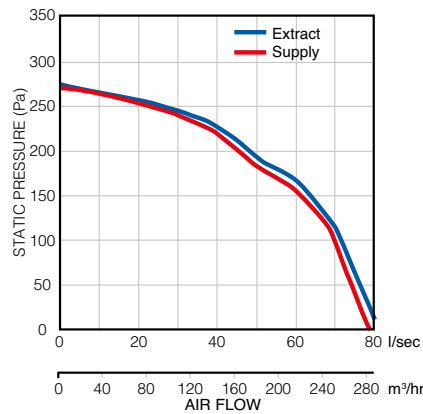


DIMENSIONS



Model	A	B	C	D = DEPTH
DV72	560	635	173.5	260

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

See switches/accessories for more details.

Duplexvent BV400

Basic Line Top Entry -
Up to 450 m³/hr air volume



KEY FEATURES

- For use in medium and large sized dwellings up to 230 m² *
- Air volume up to 370 m³/hr @ 100 Pa
- Low energy EC fans with 0.45 W/l/s SFP
- Over 90% thermal efficiency
- Automatic optional summer bypass and frost protection
- Built-in humidity sensor
- Digital controller as standard
- Filter monitoring via pressure sensors
- Easy installation via interchangeable spigots
- Tamperproof operation for extra safety
- Data logging capability
- SAP eligible
- Complies with Building Regulations
- 3 year warranty+

Duplexvent BV400

Duplexvent BV400 is one of the latest additions to Airflow's Duplexvent Basic Line provides balanced ventilation with high efficiency heat recovery, low power consumption and quiet operation to modern residential dwellings.

Duplexvent BV400 is now equipped with a built-in humidity sensor and a digital controller as standard, these ensure easier control with more functions available.

Designed for price-sensitive large-scale projects to help meet current Building Regulations this MVHR unit also complies with the Energy Saving Trust Best Practice.

Equipped with the new generation Radical Range fans, the unit achieves very low SFP levels thus providing house builders and developers with reduction in Dwelling Emission Rates (DER).



SAP RESULTS

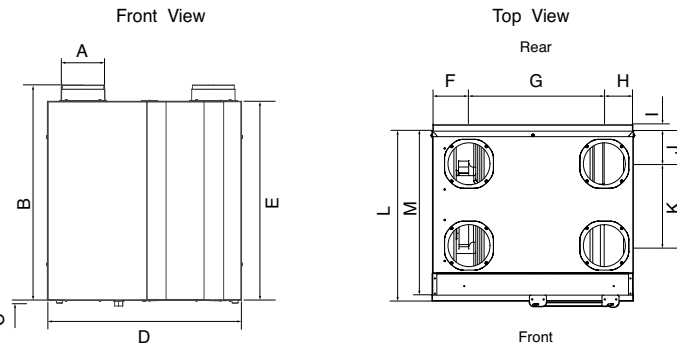
Tested by the BRE (Building Research Establishment) and listed in the SAP PCDB (Product Characteristics Database)

BV400	SFP	Efficiency
K+1 Wet room	0.46 W/l/s	92%
K+2 Wet rooms	0.49 W/l/s	92%
K+3 Wet rooms	0.60 W/l/s	91%
K+4 Wet rooms	0.74 W/l/s	90%
K+5 Wet rooms	0.89 W/l/s	90%
K+6 Wet rooms	1.05 W/l/s	89%
K+7 Wet rooms	1.23 W/l/s	88%

TECHNICAL DATA

Specification	Duplexvent BV400
Max. air flow m³/hr / l/sec @ 0 Pa	450 / 125
Air flow m³/hr / l/sec @ 100 Pa	370 / 103
Thermal efficiency	Over 90%
Heat exchanger	Counterflow (Plastic)
Fans	EC
Summer bypass damper	Automatic
Frost protection	Reducing supply air
Controls	3-Speed + Boost
Mounting	Floor / Wall
Sound Level @ 3 m (dB(A))	23 - 41
Duct diameter (mm)	4 x 160
Condensate discharge	22mm
Electrical supply	230 V / 1 ph / 50Hz
Max. power consumption	180 W
Filter class	2 x G4 (F7 optional)
Electric frost heater	1000 W (optional)
Electric post-heater	1000 W (optional)
Protection class	IP43
Weight (kg)	41
Dimensions (L x H x D) mm	710 x 725 x 630
Part No.	90000660

DIMENSIONS



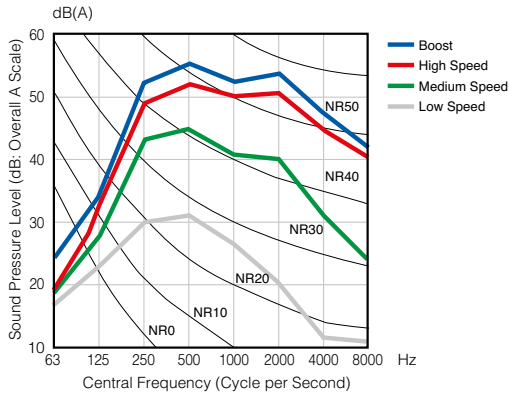
+ excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
BV400	160	731	10	710	725	130	475	103	23	116	287	630	610

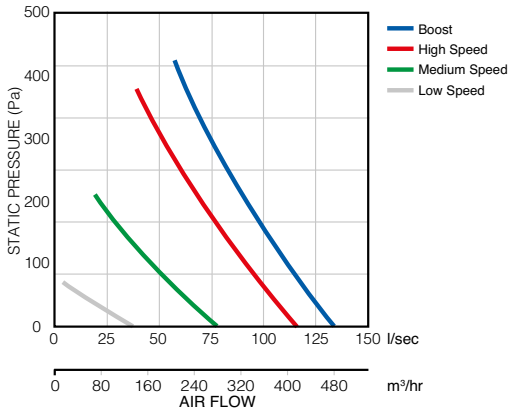


Easy maintenance through the filter access door

SOUND CURVE



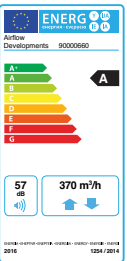
PERFORMANCE



* Guidance only. Dependant upon system pressure.

CERTIFICATION

The Duplexvent BV400 meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive at: www.airflow.com



ACCESSORIES

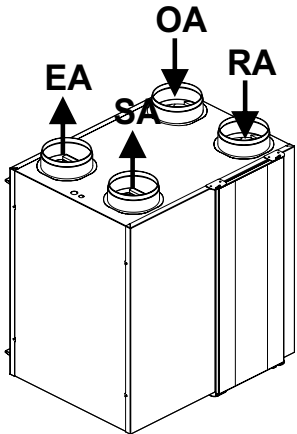
See switches/accessories for more details.

Duplexvent BV400

Basic Line Top Entry - Up to 450 m³/hr air volume

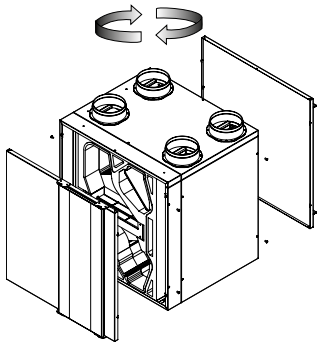
VERSATILE UNIT CONFIGURATION

The unit is supplied as a right handed version as standard. Thanks to the universal condensate drain the unit can easily be changed to the left hand configuration by swapping the front and rear covers.

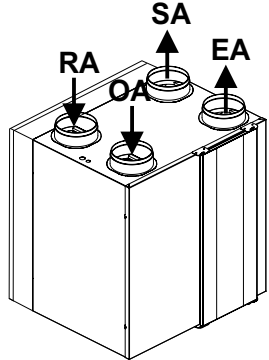


EA – Exhaust air to atmosphere
SA – Supply air to dwelling
OA – Outdoor air from atmosphere
RA – Return air from dwelling

Duplexvent BV400
(right handed - standard delivery)



Removing the front and rear covers



Duplexvent BV400
(left handed)

SIMPLE CONTROL

Simple control incorporates the following features:

- 3 speed control, low and high speeds are 100% adjustable via potentiometers, medium speed is calculated automatically.
- Boost function increases air flow when needed. Manual boost with run-on timer / automatic boost with delay timer.
- Childproof protection locks / unlocks the buttons providing extra safety.
- Filter maintenance reminder via counter clock (standard) / via pressure sensor (optional).
- Heater control for frost heater and post-heater.
- Connection to BMS via Modbus RTU (RS485).
- Self Diagnostic.
- On-demand control via humidity and PIR sensors.



DIGITAL CONTROL

Advanced digital control also provides:

- Optional separate fan control for ease of commissioning.
- Weekly ventilation programming allows users to pre-set the ventilation levels scheduled for different days.
- Data logging capability keeps record of unit's operation.
- Optional humidity or air quality sensors enable automatic boost control.
- Indoor temperature control based on room, extract or supply air temperature.

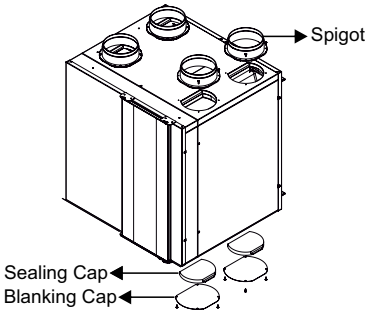


BV400 SIMPLE vs DIGITAL CONTROL

Functions		
Three speed control (Low - Medium - High)	✓	✓
Automatic bypass	✓	✓
Boost with timer	✓	✓
Frost protection	✓	✓
Frost heater control	✓	✓
Post-heater control	✓	✓
Indoor temp setting via extract / supply / room temp		✓
Separate fan control		✓
Weekly ventilation programming		✓
Data logging		✓
Filter maintenance indicator via counter clock	✓	✓
Filter maintenance indicator via pressure sensor	✓	✓
Demand control via humidity/CO ₂ /PIR sensors	✓	✓
Emergency shut-off (in case of fire etc.)	✓	✓
Self diagnostic	✓	✓
BMS connection (MODBUS RS485)	✓	✓
Built-in humidity/air quality sensor		✓
Set temperature adjustments		✓
Set timer adjustments		✓
Constant flow function		✓

SPIGOT RELOCATION

The Duplexvent BV400 has a number of options regarding the position of the four entry/exit spigots. This enables more flexibility when positioning the heat recovery unit and ducting. It is possible to configure the unit for bottom entry connection should space consideration for connecting duct runs necessitate it.

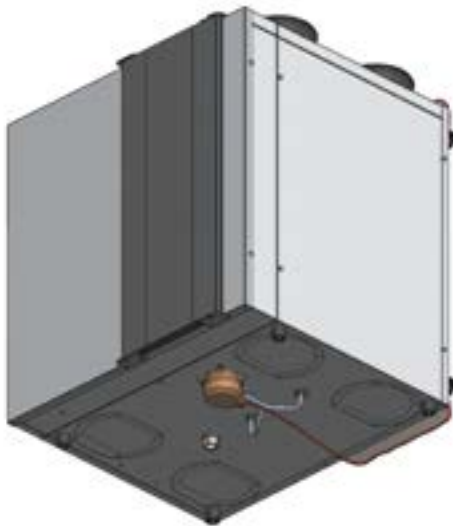


Duplexvent BV400 spigot relocation

FILTER MAINTENANCE INDICATION

On the standard BV400 a counter clock is available to alert the user for maintenance at the pre-set time period.

Alternatively, an additional pressure sensor is used to monitor the real-time filter status. This provides more accurate and cost-efficient maintenance.



Filter pressure sensor connected at the bottom of the unit

DV250 Entro

Entro line side entry -
Up to 279 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 120m²*
- Air volume up to 230 m³/hr at 100 Pa
- Up to 93% thermal efficiency
- ‘A’ energy rating
- Adjustable control
- G4 and F7 filters available
- Automatic, 100% summer by-pass
- Lightweight design allows for multiple install options
- Durable EPP casing
- Optional Digital Controller
- Auto cut-out switch for extra safety
- Optional Electric Pre-Heater / Post Heater
- Complies with Building Regulations and Passive House certified
- SAP eligible
- 2 year warranty*

DV250 Entro

The DV250 Entro is a highly efficient, side entry MVHR unit that can recover up to 93% of other wasted heat.

The unit is made with high density EPP material which provides significant insulation and eliminates thermal bridging. DV250 has a low energy EC fans that minimise the unit’s energy consumption and can help you reduce your energy bills.

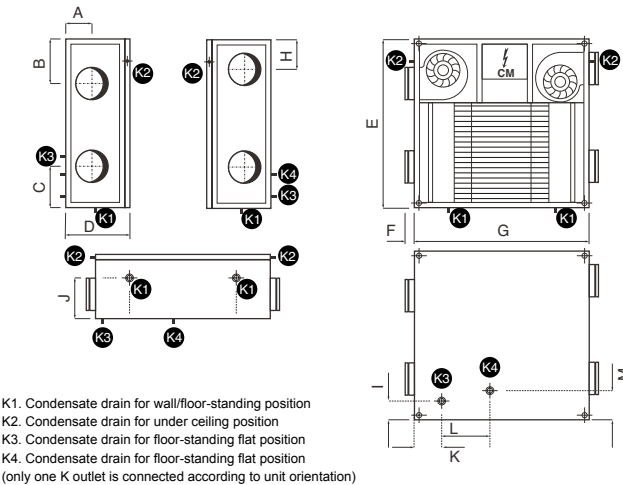
The unit has an easy to maintain plastic counterflow heat exchanger that prevents the airstreams from mixing and easy to clean air filters that provide you with a clean, healthy indoor air environment.



TECHNICAL DATA

Specification	DV250 Entro
Suitable for dwellings up to m²	120*
Max air flow (m³/hr) / (l/sec) at 100Pa.	230 / 64
Max Thermal efficiency (%)	Up to 93
Heat exchanger	Counterflow (Plastic)
Fans	EC
Summer bypass damper	100% automatic
Frost protection	Reducing supply air Optional Pre-heater
Controls	Variable speed controller Touch screen panel (optional)
Mounting	Floor / Ceiling / Wall
Sound Power Level @ 3m (dB (A))	40
Duct Diameter (mm)	160 (4 ports)
Condensate discharge (mm)	14
Electrical supply	230V / 1ph / 50Hz
Max. Power Consumption (W)	120
Filter Class	2 x G4 2 x F7 Optional
Ducted Electric Post Heater (optional) (W)	400 / 700 / 1700
Ducted Electric Pre-Heater (optional) (W)	400 / 700 / 1700
Protection class	IP20
Weight (kg)	20
Dimensions (L x D x H) (mm)	850 x 280 x 660
Entry	Side Entry
Part Number	90000397

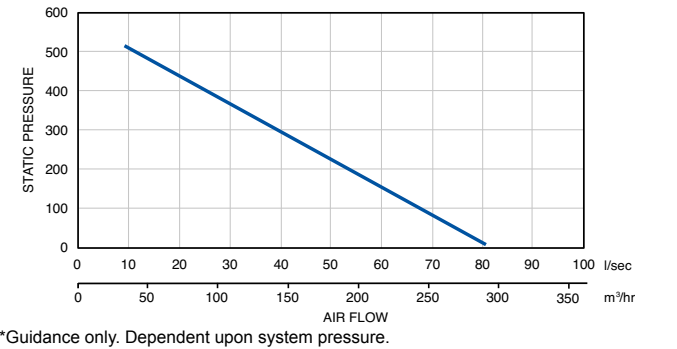
DIMENSIONS



+excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
DV250	100	210	190	280	660	45	850	135	65	198	120	425	90

PERFORMANCE



SAP RESULTS

Tested by the BRE (Building Research Establishment) and eligible for the SAP Eligible

DV250 Entro	SFP	Efficiency
K+1 Wet room	0.70	82%
K+2 Wet rooms	0.78	81%
K+3 Wet rooms	0.93	80%
K+4 Wet rooms	1.20	79%
K+5 Wet rooms	1.38	79%

ACCESSORIES

The following options are available

Accessory	Product Code
Filter pack 10pcs G4	90000410
Filter pack 10pcs F7	90000648
Ducted electric pre/post heater 400W	90000413
Ducted electric pre/post heater 700W	90000414
Ducted electric pre/post heater 1700W	90000415
Entro Touchscreen controller	90000409
Entro adjustable manual speed controller	90000408
DV250 Entro metal casing	90000345
Room Humidity Sensor	90000320
Ducted Humidity Sensor	90000659

CERTIFICATION

The DV250 Entro meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive and find the DV250 Fiche and Label at: www.airflow.com

The DV250 Entro was tested and has achieved Passive House Approval by the Passive House Institute when equipped with a pre-heater.



ACCESSORIES

See switches/accessories for more details.

DV250 Entro

Entro line side entry -
Up to 279 m³/hr air volume

MOUNTING POSITIONS

Unique to these side entry units is the ability to install the same unit at:

- **Wall / Floor - standing position**
- **Ceiling - flat position**
(with inclination for drainage)
- **Floor - flat position**
(with inclination for drainage)

This provides exceptional flexibility in product specification, installation and storage.



SIMPLE CONTROL

Simple control incorporates the following features:

- **Variable speed control** 100% adjustable by the user
- **Automatic boost function** increases air flow when needed (via volt-free contact or 0-10 V sensor output)
- **Automatic frost protection** reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- **Automatic summer bypass** fully isolates the heat exchanger and helps prevent overheating the dwelling during the summer months. Its motorised damper is triggered by the temperature sensor automatically
- **Heater control** for pre-heater and post-heater



TOUCH SCREEN CONTROL

Additionally, the digital control provides the following features:

- **Stylish Touch Screen** with easy-to-use interface
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days.
- **Party / Holiday mode** to set the air volume for specific time period based on occupancy.
- **Filter Maintenance reminder**
- **Indoor temperature control and display** based on;
Extract air temperature
Supply air temperature



HEATERS

The new generation PTC (Positive Temperature Coefficient) electric heater incorporates a power adjustment facility which automatically increases/decreases the power based on the air volume going through the heater hence shortens the heating response.

Also the heater has two protection thermostats and a perforated metal filter which can easily be maintained via the inspection door. This significantly increases its life span especially when the heater is installed on the incoming air side for frost protection purposes. Alternatively it can be used as post-heater to achieve the required indoor air temperature.



METAL HOUSING

To achieve better sound levels the units can optionally be covered with a metal jacket which is made of galvanised metal sheet.

This special accessory also protects the unit from external damage and extends the life span of the unit.



DV300 Entro

Entro line side entry -
Up to 352 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 150m²*
- Air volume up to 300 m³/hr at 100 Pa
- Up to 93% thermal efficiency
- ‘A’ energy rating
- Adjustable control
- G4 and F7 filters available
- Automatic, 100% summer by-pass
- Lightweight design allows for multiple install options
- Durable EPP casing
- Optional Digital Controller
- Auto cut-out switch for extra safety
- Optional Electric Pre-Heater / Post Heater
- Complies with Building Regulations and Passive House certified
- SAP eligible
- 2 year warranty*

DV300 Entro

The DV300 Entro is a highly efficient, side entry MVHR unit that can recover up to 93% of other wasted heat.

The unit is made with high density EPP material which provides significant insulation and eliminates thermal bridging. DV300 has a low energy EC fans that minimise the unit’s energy consumption and can help you reduce your energy bills.

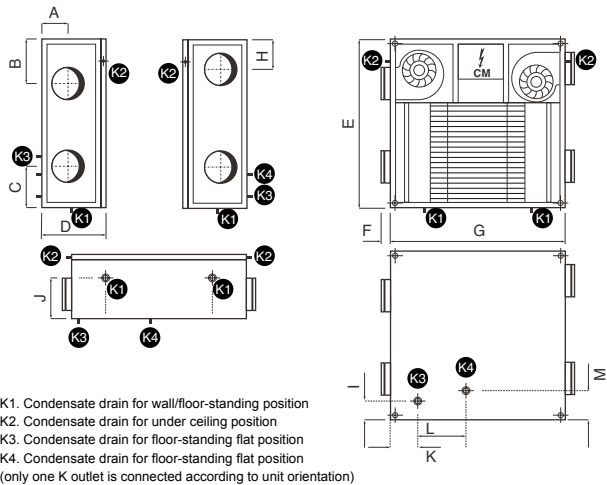
The unit has an easy to maintain plastic counterflow heat exchanger that prevents the airstreams from mixing and easy to clean air filters that provide you with a clean, healthy indoor air environment.



TECHNICAL DATA

Specification	DV300 Entro
Suitable for dwellings up to m²	150*
Max air flow (m³/hr) / (l/sec) at 100Pa.	300 / 83
Max Thermal efficiency (%)	Up to 93
Heat exchanger	Counterflow (Plastic)
Fans	EC
Summer bypass damper	100% automatic
Frost protection	Reducing supply air Optional Pre-heater
Controls	Variable speed controller Touch screen panel (optional)
Mounting	Floor / Ceiling / Wall
Sound Power Level @ 3m (dB (A))	40
Duct Diameter (mm)	160 (4 ports)
Condensate discharge (mm)	14
Electrical supply	230V / 1ph / 50Hz
Max. Power Consumption (W)	120
Filter Class	2 x G4 2 x F7 Optional
Ducted Electric Post Heater (optional) (W)	400 / 700 / 1700
Ducted Electric Pre-Heater (optional) (W)	400 / 700 / 1700
Protection class	IP20
Weight (kg)	21
Dimensions (L x D x H) (mm)	850 x 280 x 820
Entry	Side Entry
Part Number	90000398

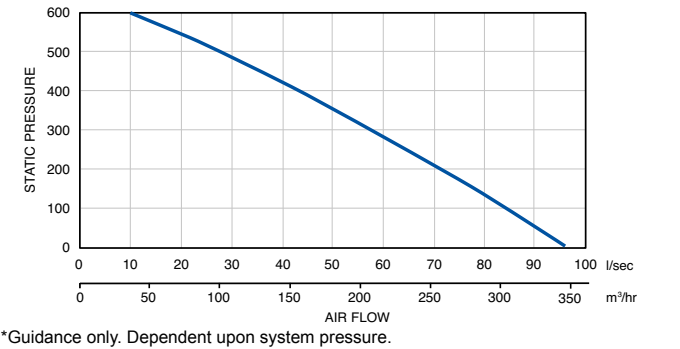
DIMENSIONS



+excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
DV300	100	210	190	280	820	45	850	135	65	198	120	435	90

PERFORMANCE



*Guidance only. Dependent upon system pressure.

SAP RESULTS

Tested by the BRE (Building Research Establishment) and eligible for the SAP Appendix Q

DV300 Entro	SFP	Efficiency
K+1 Wet room	0.58	84%
K+2 Wet rooms	0.62	82%
K+3 Wet rooms	0.70	81%
K+4 Wet rooms	0.84	80%
K+5 Wet rooms	0.99	79%

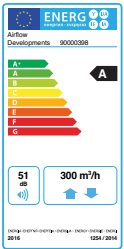
ACCESSORIES

The following options are available

Accessory	Product Code
Filter pack 10pcs G4	90000411
Filter pack 10pcs F7	90000649
Ducted electric pre/post heater 400W	90000413
Ducted electric pre/post heater 700W	90000414
Ducted electric pre/post heater 1700W	90000415
Entro Touchscreen controller	90000409
Entro adjustable manual speed controller	90000408
DV300 Entro metal casing	90000347
Room Humidity Sensor	90000320
Ducted Humidity Sensor	90000659

CERTIFICATION

The DV300 Entro meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive and find the DV300 Fiche and Label at: www.airflow.com



The DV300 Entro was tested and has achieved Passive House Approval by the Passive House Institute when equipped with a pre-heater.



ACCESSORIES

See switches/accessories for more details.

DV300 Entro

Entro line side entry -
Up to 352 m³/hr air volume

MOUNTING POSITIONS

Unique to these side entry units is the ability to install the same unit at:

- **Wall / Floor - standing position**
- **Ceiling - flat position**
(with inclination for drainage)
- **Floor - flat position**
(with inclination for drainage)

This provides exceptional flexibility in product specification, installation and storage.



SIMPLE CONTROL

Simple control incorporates the following features:

- **Variable speed control** 100% adjustable by the user
- **Automatic boost function** increases air flow when needed (via volt-free contact or 0-10V sensor output)
- **Automatic frost protection** reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- **Automatic summer bypass** fully isolates the heat exchanger and helps prevent overheating the dwelling during the summer months. Its motorised damper is triggered by the temperature sensor automatically
- **Heater control** for pre-heater and post-heater



TOUCH SCREEN CONTROL

Additionally, the digital control provides the following features:

- **Stylish Touch Screen** with easy-to-use interface
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days.
- **Party / Holiday mode** to set the air volume for specific time period based on occupancy.
- **Filter Maintenance reminder**
- **Indoor temperature control and display** based on;
Extract air temperature
Supply air temperature



HEATERS

The new generation PTC (Positive Temperature Coefficient) electric heater incorporates a power adjustment facility which automatically increases/decreases the power based on the air volume going through the heater hence shortens the heating response.

Also the heater has two protection thermostats and a perforated metal filter which can easily be maintained via the inspection door. This significantly increases its life span especially when the heater is installed on the incoming air side for frost protection purposes. Alternatively it can be used as post-heater to achieve the required indoor air temperature.



METAL HOUSING

To achieve better sound levels the units can optionally be covered with a metal jacket which is made of galvanised metal sheet.

This special accessory also protects the unit from external damage and extends the life span of the unit.



DV400 Entro

Entro line side entry -
Up to 422 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 150m²*
- Air volume up to 385 m³/hr at 100 Pa
- Up to 93% thermal efficiency
- ‘A’ energy rating
- Adjustable control
- G4 and F7 filters available
- Automatic, 100% summer by-pass
- Lightweight design allows for multiple install options
- Durable EPP casing
- Optional Digital Controller
- Auto cut-out switch for extra safety
- Optional Electric Pre-Heater / Post Heater
- Complies with Building Regulations and Passive House certified
- SAP eligible
- 2 year warranty*

DV400 Entro

The DV400 Entro is a highly efficient, side entry MVHR unit that can recover up to 93% of other wasted heat.

The unit is made with high density EPP material which provides significant insulation and eliminates thermal bridging. DV400 has a low energy EC fans that minimise the unit’s energy consumption and can help you reduce your energy bills.

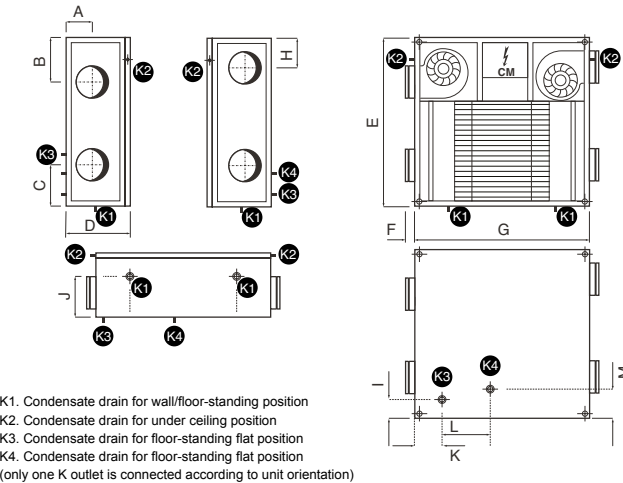
The unit has an easy to maintain plastic counterflow heat exchanger that prevents the airstreams from mixing and easy to clean air filters that provide you with a clean, healthy indoor air environment.



TECHNICAL DATA

Specification	DV400 Entro
Suitable for dwellings up to m²	200*
Max air flow (m³/hr) / (l/sec) at 100Pa.	385 / 107
Max Thermal efficiency (%)	Up to 93
Heat exchanger	Counterflow (Plastic)
Fans	EC
Summer bypass damper	100% automatic
Frost protection	Reducing supply air Optional Pre-heater
Controls	Variable speed controller Touch screen panel (optional)
Mounting	Floor / Ceiling / Wall
Sound Power Level @ 3m (dB (A))	42
Duct Diameter (mm)	160 (4 ports)
Condensate discharge (mm)	14
Electrical supply	230V / 1ph / 50Hz
Max. Power Consumption (W)	220
Filter Class	2 x G4 2 x F7 Optional
Ducted Electric Post Heater (optional) (W)	400 / 700 / 1700
Ducted Electric Pre-Heater (optional) (W)	400 / 700 / 1700
Protection class	IP20
Weight (kg)	21
Dimensions (L x D x H) (mm)	850 x 280 x 820
Entry	Side Entry
Part Number	90000399

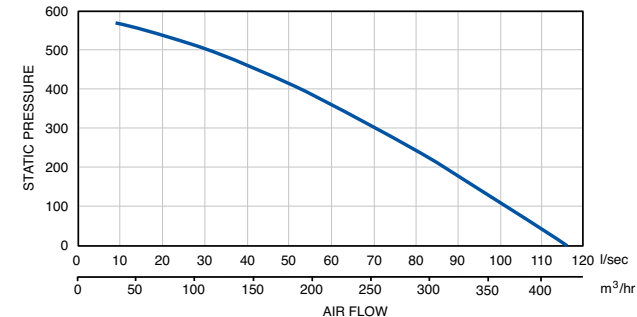
DIMENSIONS



*excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
DV400	100	210	190	280	820	45	850	135	65	198	120	435	90

PERFORMANCE



*Guidance only. Dependent upon system pressure.

SAP RESULTS

Tested by the BRE (Building Research Establishment) and eligible for the SAP Appendix Q

DV400 Entro	SFP	Efficiency
K+1 Wet room	0.59	84%
K+2 Wet rooms	0.61	82%
K+3 Wet rooms	0.71	81%
K+4 Wet rooms	0.87	80%
K+5 Wet rooms	1.03	79%
K+6 Wet rooms	1.27	79%

ACCESSORIES

The following options are available

Accessory	Product Code
Filter pack 10pcs G4	90000411
Filter pack 10pcs F7	90000649
Ducted electric pre/post heater 400W	90000413
Ducted electric pre/post heater 700W	90000414
Ducted electric pre/post heater 1700W	90000415
Entro Touchscreen controller	90000409
Entro adjustable manual speed controller	90000408
DV400 Entro metal casing	90000347
Room Humidity Sensor	90000320
Ducted Humidity Sensor	90000659

CERTIFICATION

The DV400 Entro meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive and find the DV400 Fiche and Label at: www.airflow.com

The DV400 Entro was tested and has achieved Passive House Approval by the Passive House Institute when equipped with a pre-heater.



ACCESSORIES

See switches/accessories for more details.

DV400 Entro

Entro line side entry -
Up to 422 m³/hr air volume

MOUNTING POSITIONS

Unique to these side entry units is the ability to install the same unit at:

- **Wall / Floor - standing position**
- **Ceiling - flat position**
(with inclination for drainage)
- **Floor - flat position**
(with inclination for drainage)

This provides exceptional flexibility in product specification, installation and storage.



SIMPLE CONTROL

Simple control incorporates the following features:

- **Variable speed control** 100% adjustable by the user
- **Automatic boost function** increases air flow when needed (via volt-free contact or 0-10V sensor output)
- **Automatic frost protection** reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- **Automatic summer bypass** fully isolates the heat exchanger and helps prevent overheating the dwelling during the summer months. Its motorised damper is triggered by the temperature sensor automatically
- **Heater control** for pre-heater and post-heater



TOUCH SCREEN CONTROL

Additionally, the digital control provides the following features:

- **Stylish Touch Screen** with easy-to-use interface
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days.
- **Party / Holiday mode** to set the air volume for specific time period based on occupancy.
- **Filter Maintenance reminder**
- **Indoor temperature control and display** based on;
Extract air temperature
Supply air temperature



HEATERS

The new generation PTC (Positive Temperature Coefficient) electric heater incorporates a power adjustment facility which automatically increases/decreases the power based on the air volume going through the heater hence shortens the heating response.

Also the heater has two protection thermostats and a perforated metal filter which can easily be maintained via the inspection door. This significantly increases its life span especially when the heater is installed on the incoming air side for frost protection purposes. Alternatively it can be used as post-heater to achieve the required indoor air temperature.



METAL HOUSING

To achieve better sound levels the units can optionally be covered with a metal jacket which is made of galvanised metal sheet.

This special accessory also protects the unit from external damage and extends the life span of the unit.



DV90K Adroit

Adroit Line Top Entry -
Up to 300 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 120 m² *
- Up to 83% thermal efficiency and low SFP
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Galvanised steel, double-skin casing
- Cooker hood provides separate extraction
- Comes with kit for fitted kitchen integration
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations
- 5 year warranty*

DV90K Adroit

The DV90K Adroit is a ventilation unit with state-of-the-art technology, designed to provide both essential ventilation and to save you money through its intelligent, cost effective and eco-friendly heat recovery system.

The unit is delivered with a stylish cooker hood which incorporates an integral fire damper providing fire safety between the hood and the MVHR unit. The unit can be integrated into a fitted kitchen design.

It also includes a grease filter which protects the MVHR unit against particles such as cooking oil extracted through the cooker hood.

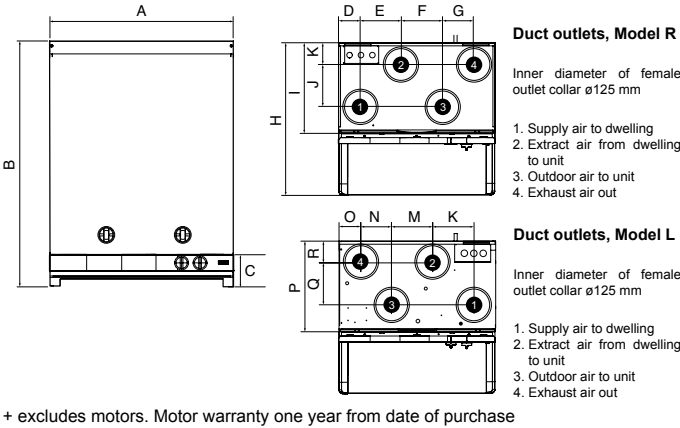
Unlike all other MVHR units with cooker hood on the market, the DV90K recovers heat even when the separate cooker hood extract is in operation. This important feature prevents cold air draughts especially in winter and keeps your house warm at all times.



TECHNICAL DATA

Specification	DV90K (R) Adroit	DV90K (L) Adroit
Suitable for dwellings up to m²	120	120
Air flow m³/hr / l/sec @ 100 Pa	252 / 70	252 / 70
Thermal efficiency	Up to 83%	Up to 83%
Heat exchanger	Counterflow (aluminium)	Counterflow (aluminium)
Fans	EC	EC
Summer bypass damper	100% automatic	100% automatic
Frost protection	Stop supply fan	Stop supply fan
Controls	4-Speed - Manual (on cooker hood)	4-Speed - Manual (on cooker hood)
Digital Controls	Optional digital - 4 profiles, 100% adjustable	Optional digital - 4 profiles, 100% adjustable
Mounting	Wall	Wall
Sound Level @ 3m (dB(A))	48	48
Duct diameter (mm)	4 x 125	4 x 125
Condensate discharge (mm)	12	12
Electrical supply	230 V / 1 ph / 50 Hz	230 V / 1 ph / 50 Hz
Max. power consumption	182 W	182 W
Filter class	2 x G4 / 1 x F7	2 x G4 / 1 x F7
Built-in electric post-heater (optional)	900 W	900 W
Protection class	IP30	IP30
Casing Insulation (mm)	10	10
Weight (kg)	52	52
Dimensions (L x D x H) mm	597 x 582 x 798 (incl. cooker hood)	597 x 582 x 798 (incl. cooker hood)
Part No.	90000663 Equipped with electric post-heater 90000663 EPH	90000664 Equipped with electric post-heater 90000664 EPH
Cooker hood	90000669	90000669

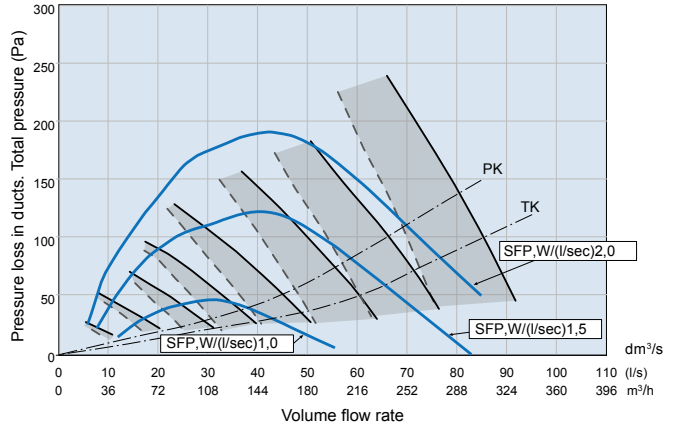
DIMENSIONS



+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I
DV90K	597	798	108	83	158	157	117	582	345.5
	J	K	L	M	N	O	P	Q	R
	160	83	158	157	117	83	345.5	160	83

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

See switches/accessories for more details.

DV90K Adroit

Adroit Line Top Entry -
Up to 300 m³/hr air volume

The DV90K Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

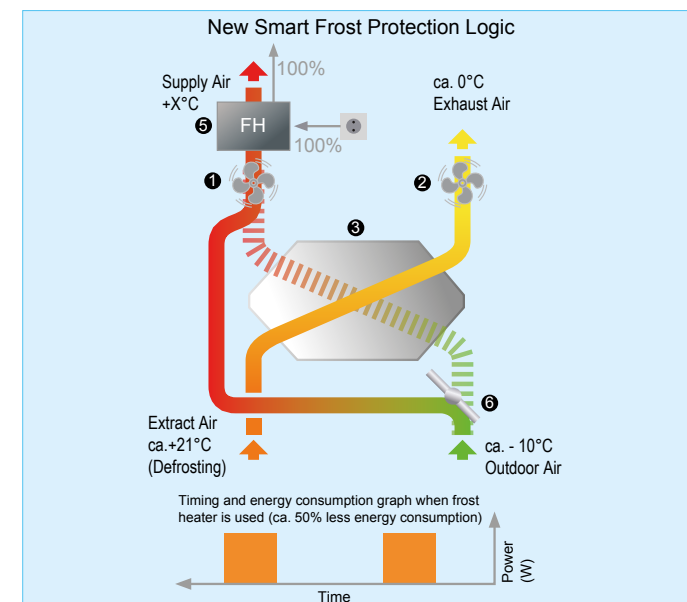
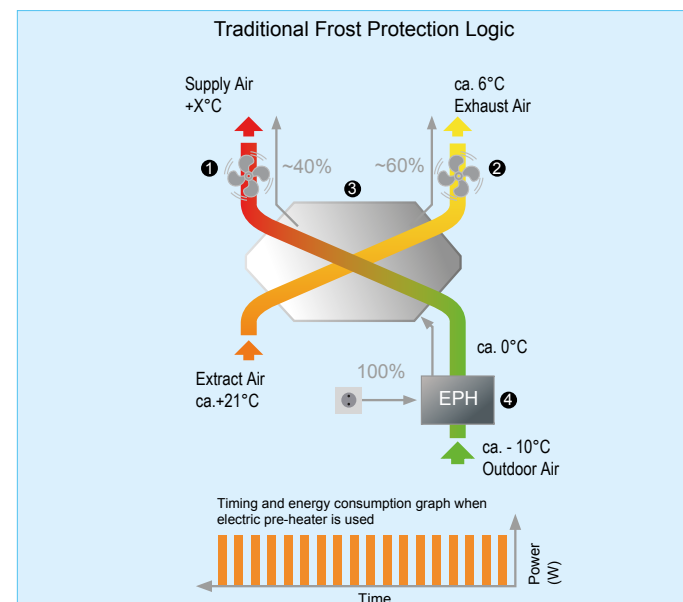
You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also

use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

The DV90K can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

- | | |
|-------------------|--------------------------|
| ① Supply air fan | ④ Electric pre-heater |
| ② Exhaust air fan | ⑤ Frost heater |
| ③ Heat exchanger | ⑥ Electric bypass damper |

TRIPLE FILTER DESIGN

The majority of the MVHR units in the U.K. incorporate G3 or G4 coarse filters on the extract / supply air side. These filters catch only coarse particles such as insects and leaves to protect the heat exchanger.

F7 fine filters on the other hand are highly efficient, catch invisible particles such as pollen, spore, bacterium and **dust entering the lungs**.

Adroit units are the only MVHR units which incorporate triple filter design combining G4 course filters with the F7 fine filter. This significantly improves the indoor air quality and lowers your maintenance costs.



CONTROLS

DV90K Slim-Line Cooker Hood

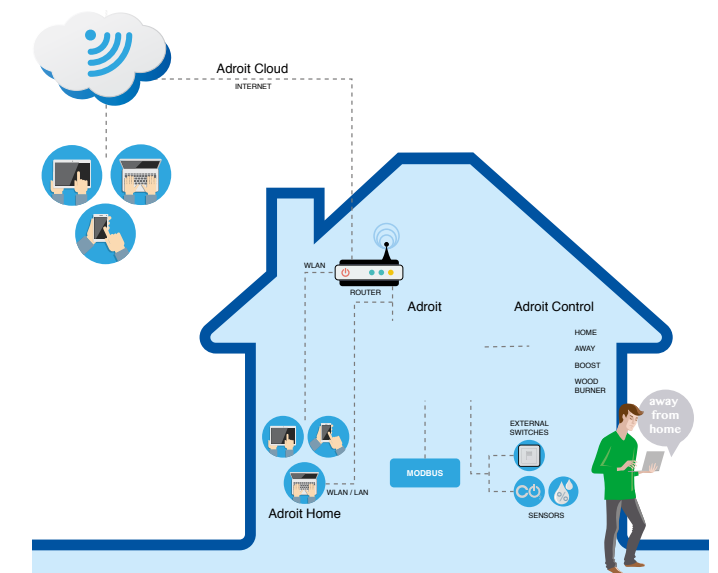
Colour options of white or grey

DV90K cooker hoods are equipped with a handy sliding glass panel which incorporates a fluorescent lamp.

The hoods have detachable grease filters which can be easily maintained.

DV90K can also be controlled via 4 ventilation profile controls, providing the following features:

- **4 ventilation profiles**, 100% adjustable
- **Internet** connection available
- **Automatic boost function** with delay timer
- **Filter maintenance reminder** via counter clock (standard)
- **Heater control** for optional post-heater
- **Connection to BMS** via LON or KNX
- **Self diagnostic** via fault signal relay
- **On-demand control** via humidity and CO₂ sensors
- **Separate fan control** for ease of commissioning
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
- **Indoor temperature control** based on extract air temperature or supply air temperature
- 100% adjustable speed levels
- User friendly for quick and simple control.



DV96 Adroit

Adroit Line Top Entry -
Up to 345 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 130 m² *
- Up to 90% thermal efficiency and low SFP
- ‘A’ energy rating
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Integral Humidity Sensor
- Galvanised steel, double-skin casing
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Optional manual four speed controller
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

DV96 Adroit

With its powerful air volume capacity and high thermal efficiency the DV96 Adroit is suitable for medium sized family homes. Control your indoor air environment at home or on the go via the Adroit ‘Cloud’ internet control by smart phone, tablet or PC.

With the triple filter design with an F7 pollen filter, the DV96 Adroit provides additional protection against invisible, harmful particles and creates an ultra hygienic environment.

The automatic, 100% summer by-pass facility isolates the heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.

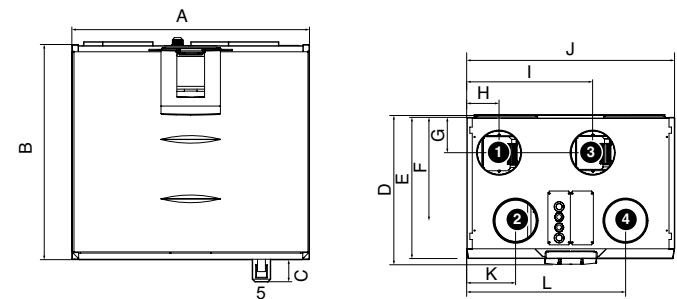
The unit includes an easily removable, plastic heat exchanger and may be equipped with a range of optional accessories for higher performance.



TECHNICAL DATA

Specification	DV96
Suitable for dwellings up to m²	130
Max air flow (m³/hr) / (l/sec) at 100Pa.	320 / 89
Thermal efficiency (%)	Up to 90
Heat exchanger	Cross-Counter-Flow (Plastic)
Fans	EC
Summer by-pass damper	100% automatic
Integral humidity sensor (RH %)	0 - 100
Frost protection (optional)	Smart Frost
Controls (optional)	Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable
Connection to BMS	Modbus / KNX optional
Mounting	Wall / Ceiling
Sound power level @3m (dB(A))	48
Duct diameter (mm)	125 (4 ports)
Condensate discharge (ins)	3/4 BSP
Electrical supply	230V / 1ph / 50Hz
Max. power consumption (W)	162
Filter Class	2 x G4, 1 x F7
Built-in electric post-heater (optional) (W)	900
Protection class	IP34
Casing insulation (mm)	20
Weight (kg)	53
Dimensions (L x D x H) (mm)	600 x 430 x 545
Duct entry	Top Entry
Versions available	
Right Hand:	90000576
With optional electric post-heater:	90000576EPH
Left Hand:	90000577
With optional electric post-heater:	90000577EPH

DIMENSIONS



- Duct outlets, model R**
Inner diameter of female outlet collar ø 125 mm

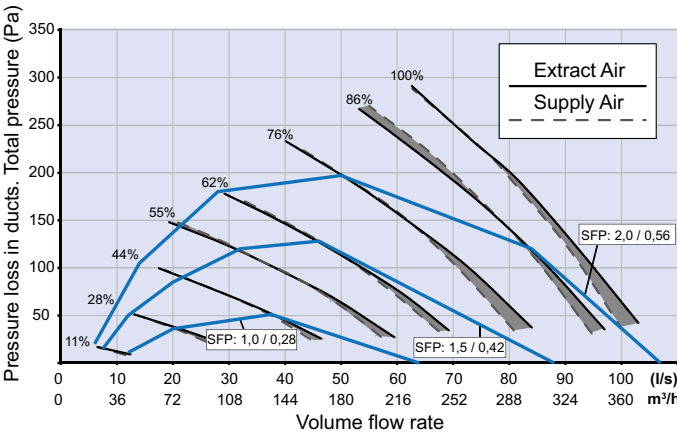
 1. Supply air to dwelling
 2. Extract air from dwelling to unit
 3. Exhaust air out
 4. Outdoor air to unit
 5. Condensate drain
- Duct outlets, model L**
Inner diameter of female outlet collar ø125mm

 1. Exhaust air out
 2. Outdoor air to unit
 3. Supply air to dwelling
 4. Extract air from dwelling to unit
 5. Condensate drain

+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I	J	K	L
DV96	600	545	55	430	407	298	102	93	363	600	141	459

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

Adroit Digital Controller
Wall mounted, LCD display with four 100% independently user adjustable air flow profiles (Home, Away, Boost, Fireplace). A range of indoor parameters ie: air flow rates, temperature, humidity, by-pass, time clock settings, CO₂ sensor, filter alert are adjustable to suit your indoor environment. Internet connectivity via Adroit ‘Cloud’ for control at home or on the go.

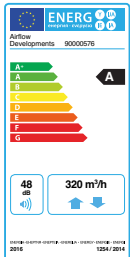
Adroit Speed Controller
Wall mounted, four speed (independently adjustable) rotary switch air flow controller.

Visit airflow.com for Adroit controls options data sheet.

Accessory	Product Code
Adroit Digital Controller	90000610
Adroit Relative Humidity Transmitter	90000612
Adroit CO ₂ Transmitter	90000613
Adroit Speed Controller	9041219
Ceiling Mounting Plate	90000716
Attic Roof Penetration Plate	90000718
Additional 900W Heater for DV96 (R)	90000614
Additional 900W Heater for DV96 (L)	90000615
Filter Set (2 x G4, 1 x F7)	90000375
Boost Switch	90000542
KNX-Converter	90000723

CERTIFICATION

The DV96 Adroit meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive at: www.airflow.com



The DV96 was tested and has achieved Passive House Approval by the Passive House Institute when equipped with the optional Electric Post-heater.



DV96 Adroit

Adroit Line Top Entry -
Up to 345 m³/hr air volume

The DV96 Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

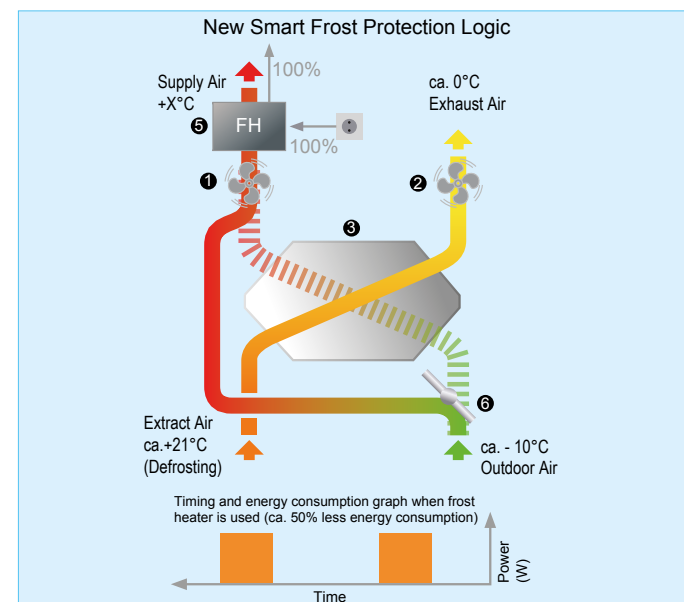
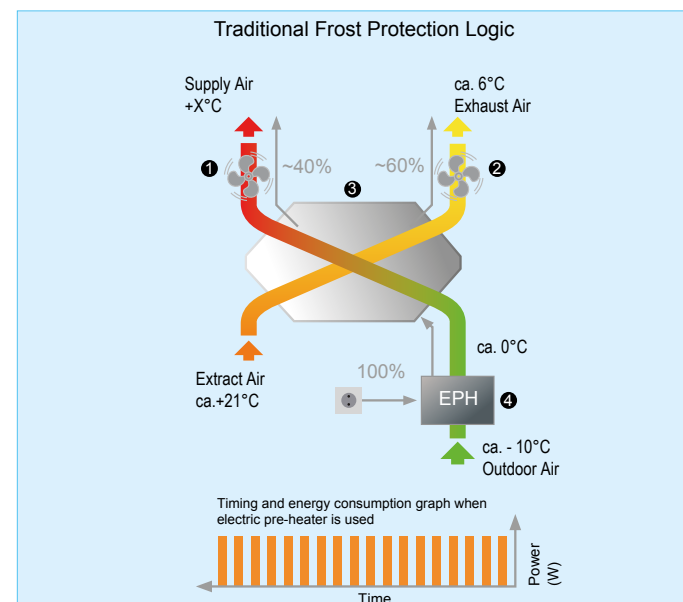
You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also

use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

The DV96 can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

- ① Supply air fan
- ② Exhaust air fan
- ③ Heat exchanger
- ④ Electric pre-heater
- ⑤ Frost heater
- ⑥ Electric bypass damper

TRIPLE FILTER DESIGN

The majority of the MVHR units in the U.K incorporate G3 or G4 coarse filters on the extract / supply air side. These filters catch only coarse particles such as insects and leaves to protect the heat exchanger.

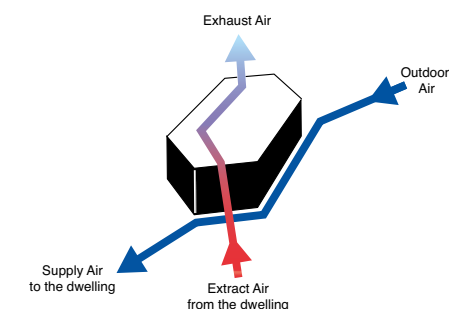
F7 fine filters on the other hand are highly efficient, catch invisible particles such as pollen, spore, bacterium and dust entering the lungs.

Adroit units are the only MVHR units which incorporate triple filter design combining G4 course filters with the F7 fine filter. This significantly improves the indoor air quality and lowers your maintenance costs.



100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.

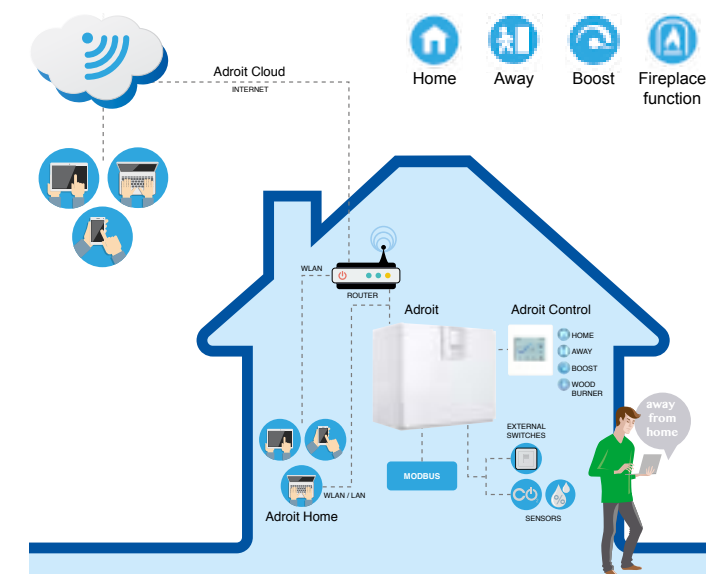


CONTROLS

Ideal indoor air quality is achieved by automatically adjusted ventilation

Adroit DV96 is controlled via 4 ventilation profiles controls providing the following features:

- **4 ventilation profiles**, 100% adjustable
- **Internet connection** available
- **Automatic boost function** with delay timer
- **Filter maintenance reminder** via counter clock (standard)
- **Heater control** for optional post-heater
- **Connection to BMS** via LON or KNX
- **Self diagnostic** via fault signal relay
- **On-demand control** via humidity and CO₂ sensors
- **Separate fan control** for ease of commissioning
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
- **Indoor temperature control** based on extract air temperature or supply air temperature



DV110 Adroit

Adroit Line Top Entry -
Up to 385 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 170m² *
- Up to 90% thermal efficiency and low SFP
- ‘A’ energy rating
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Integral Humidity Sensor
- Galvanised steel, double-skin casing
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Optional manual four speed controller
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

DV110 Adroit

With its powerful air volume capacity and high thermal efficiency the DV110 Adroit is suitable for medium sized family homes. Control your indoor air environment at home or on the go via the Adroit ‘Cloud’ internet control by smart phone, tablet or PC.

With the triple filter design with an F7 pollen filter, the DV110 Adroit provides additional protection against invisible, harmful particles and creates an ultra hygienic environment.

The automatic, 100% summer by-pass facility isolates the heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.

The unit includes an easily removable, plastic heat exchanger and may be equipped with a range of optional accessories for higher performance.



SAP ELIGIBLE

Tested by the BRE (Building Research Establishment) and eligible for the SAP eligible

Adroit DV110	SFP	Efficiency
K+1 Wet room	0.89	90%
K+2 Wet rooms	0.79	90%
K+3 Wet rooms	0.79	89%
K+4 Wet rooms	0.83	89%
K+5 Wet rooms	0.91	88%
K+6 Wet rooms	1.02	88%
K+7 Wet rooms	1.15	87%

TECHNICAL DATA

Specification	DV110
Suitable for dwellings up to m²	170
Max air flow (m³/hr) / (l/sec) at 100Pa.	370 / 103
Thermal efficiency (%)	Up to 90
Heat exchanger	Cross-Counter-Flow (Plastic)
Fans	EC
Summer by-pass damper	100% automatic
Integral humidity sensor (RH %)	0 - 100
Frost protection (optional)	Smart Frost
Controls (optional)	Digital - 4 Profiles, 100% adjustable
Connection to BMS	Modbus / KNX optional
Mounting	Wall / Ceiling
Sound power level @3m (dB(A))	58
Duct diameter (mm)	160 (4 ports)
Condensate discharge (ins)	3/4 BSP
Electrical supply	230V / 1ph / 50Hz
Max. power consumption (W)	200
Filter Class	2 x G4, 1 x F7
Built-in electric post-heater (optional) (W)	900
Protection class	IP34
Casing insulation (mm)	20
Weight (kg)	64
Dimensions (L x D x H) (mm)	638 x 472 x 678
Duct entry	Top Entry
Versions available	
Right Hand:	90000578
With optional electric post-heater:	90000578EPH
Left Hand:	90000579
With optional electric post-heater:	90000579EPH

DIMENSIONS

Duct outlets, model R
Inner diameter of female outlet collar ø 160 mm

1. Supply air to dwelling
2. Extract air from dwelling to unit
3. Exhaust air out
4. Outdoor air to unit
5. Condensate drain

Duct outlets, model L
Inner diameter of female outlet collar ø 160 mm

1. Exhaust air out
2. Outdoor air to unit
3. Supply air to dwelling
4. Extract air from dwelling to unit
5. Condensate drain

+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I	J	K	L
DV110	638	678	42	472	455	325	111	112	390	638	160	478



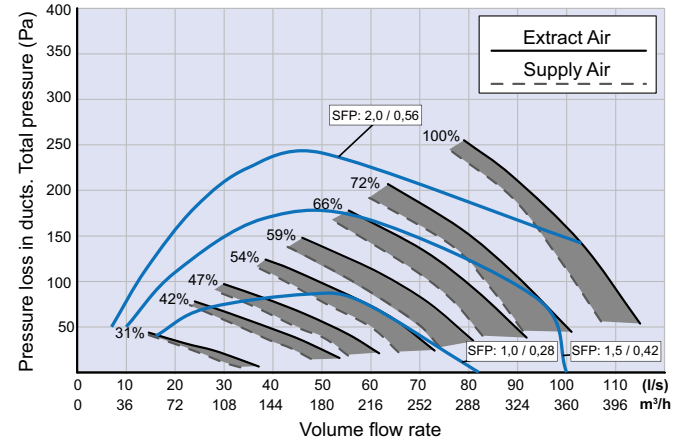
PASSIVE HOUSE CERTIFICATION

The Adroit DV110 is tested and certified by the Passive House Institute based on the following criteria:

- Thermal comfort
- Effective heat recovery
- Electric power consumption
- Air tightness
- Balancing adjustability
- Sound insulation
- Indoor air quality
- Frost protection



PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

See switches/accessories for more details.

DV110 Adroit

Adroit Line Top Entry -
Up to 385 m³/hr air volume

The DV110 Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

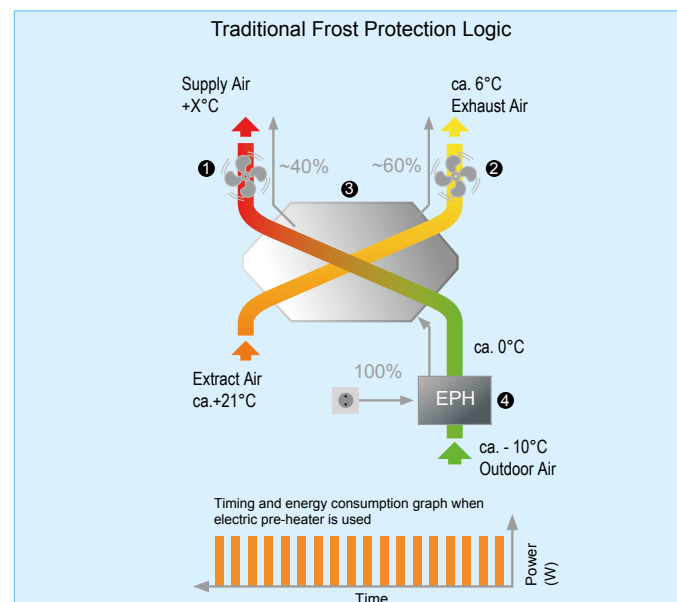
You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also

use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

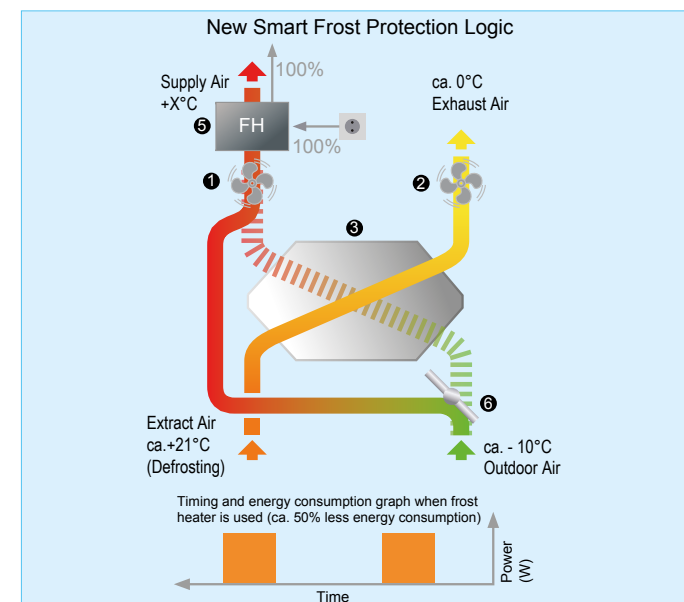
The DV110 can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

- ① Supply air fan
- ② Exhaust air fan
- ③ Heat exchanger
- ④ Electric pre-heater
- ⑤ Frost heater
- ⑥ Electric bypass damper



The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

TRIPLE FILTER DESIGN

The majority of the MVHR units in the U.K incorporate G3 or G4 coarse filters on the extract / supply air side. These filters catch only coarse particles such as insects and leaves to protect the heat exchanger.

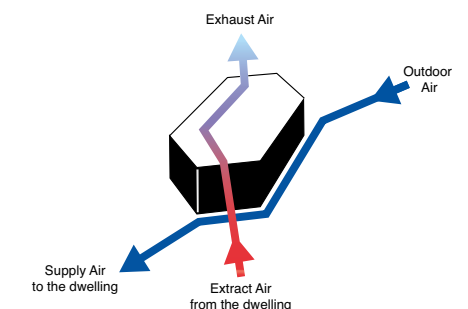
F7 fine filters on the other hand are highly efficient, catch invisible particles such as pollen, spore, bacterium and **dust entering the lungs.**

Duplexvent Professional Line units are the only MVHR units which incorporate triple filter design combining G4 course filters with the F7 fine filter. This significantly improves the indoor air quality and lowers your maintenance costs.



100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.

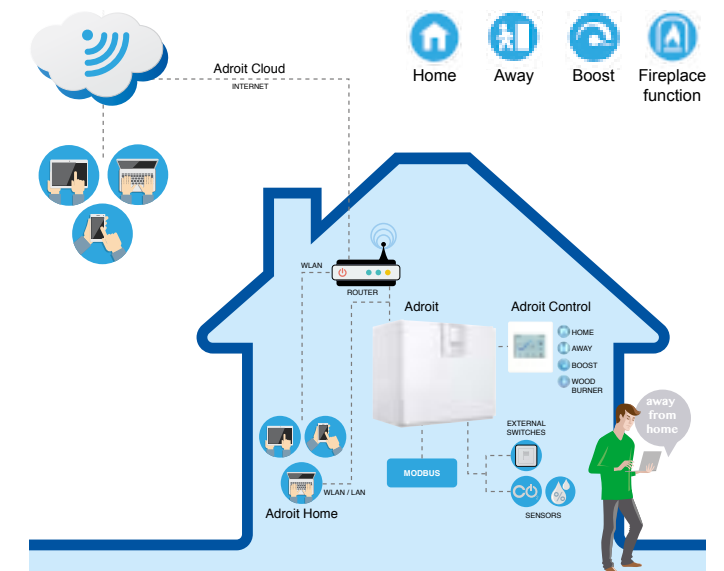


CONTROLS

Ideal indoor air quality is achieved by automatically **adjusted ventilation**

Adroit DV110 is controlled via 4 ventilation profiles controls providing the following features:

- **4 ventilation profiles**, 100% adjustable
- **Internet** connection available
- **Automatic boost function** with delay timer
- **Filter maintenance reminder** via counter clock (standard)
- **Heater control** for optional post-heater
- **Connection to BMS** via LON or KNX
- **Self diagnostic** via fault signal relay
- **On-demand control** via humidity and CO₂ sensors
- **Separate fan control** for ease of commissioning
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
- **Indoor temperature control** based on extract air temperature or supply air temperature



DV145 Adroit

Adroit Line Top Entry -
Up to 565 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 250m² *
- Up to 90% thermal efficiency and low SFP
- ‘A’ energy rating
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Integral Humidity Sensor
- Galvanised steel, double-skin casing
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Optional manual four speed controller
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

DV145 Adroit

With its powerful air volume capacity and high thermal efficiency the DV145 Adroit is suitable for larger family homes. Control your indoor air environment at home or on the go via the Adroit ‘Cloud’ internet control by smart phone, tablet or PC.

With the triple filter design with an F7 pollen filter, the DV145 Adroit provides additional protection against invisible, harmful particles and creates an ultra hygienic environment.

The automatic, 100% summer by-pass facility isolates the heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.

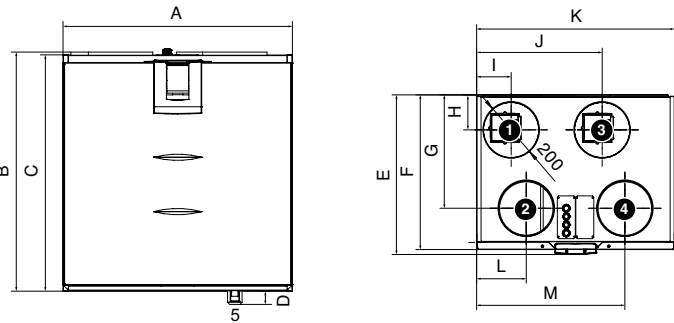
The unit includes an easily removable, plastic heat exchanger and may be equipped with a range of optional accessories for higher performance.



TECHNICAL DATA

Specification	DV145
Suitable for dwellings up to m²	250
Max air flow (m³/hr) / (l/sec) at 100Pa.	542 / 151
Thermal efficiency (%)	Up to 90
Heat exchanger	Cross-Counter-Flow (Plastic)
Fans	EC
Summer by-pass damper	100% automatic
Integral humidity sensor (RH %)	0 - 100
Frost protection (optional)	Smart Frost
Controls (optional)	Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable
Connection to BMS	Modbus / KNX optional
Mounting	Wall / Floor
Sound power level @3m (dB(A))	50
Duct diameter (mm)	200 (4 ports)
Condensate discharge (ins)	3/4 BSP
Electrical supply	230 V / 1 ph / 50 Hz
Max. power consumption (W)	310
Filter Class	2 x G4, 1 x F7
Built-in electric post-heater (optional) (W)	2400 (900 + 1500)
Protection class	IP34
Casing insulation (mm)	20
Weight (kg)	88
Dimensions (L x D x H) (mm)	717 x 578 x 748
Duct entry	Top Entry
Versions available	
Right Hand:	90000580
With optional electric post-heater:	90000580EPH
Left Hand:	90000581
With optional electric post-heater:	90000581EPH

DIMENSIONS



- Duct outlets, model R**
Inner diameter of female outlet collar ø 160 mm

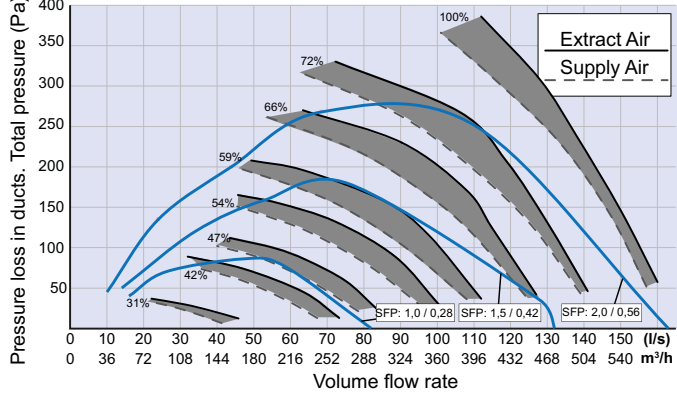
 1. Supply air to dwelling
 2. Extract air from dwelling to unit
 3. Exhaust air out
 4. Outdoor air to unit
 5. Condensate drain
- Duct outlets, model L**
Inner diameter of female outlet collar ø 160 mm

 1. Exhaust air out
 2. Outdoor air to unit
 3. Supply air to dwelling
 4. Extract air from dwelling to unit
 5. Condensate drain

+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
DV145	717	748	739	43	578	560	411	127	125	455	717	180	537

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

Adroit Digital Controller
Wall mounted, LCD display with four 100% independently user adjustable air flow profiles (Home, Away, Boost, Fireplace). A range of indoor parameters ie: air flow rates, temperature, humidity, by-pass, time clock settings, CO₂ sensor, filter alert are adjustable to suit your indoor environment. Internet connectivity via Adroit ‘Cloud’ for control at home or on the go.

Adroit Speed Controller
Wall mounted, four speed (independently adjustable) rotary switch air flow controller.

Visit airflow.com for Adroit controls options data sheet.

Accessory	Product Code
Adroit Digital Controller	90000610
Adroit Relative Humidity Transmitter	90000612
Adroit CO ₂ Transmitter	90000613
Adroit Speed Controller	9041219
Floor Rack	90000722
Attic Roof Penetration Plate	90000720
Additional 900W + 1500W Heater for DV145 (R)	90000624
Additional 900W + 1500W Heater for DV145 (L)	90000625
Filter Set (2 x G4, 1 x F7)	90000376
Boost Switch	90000542
KNX-Converter	90000723

CERTIFICATION

The DV145 Adroit meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive at: www.airflow.com

The DV145 was tested and has achieved Passive House Approval by the Passive House Institute when equipped with the optional Electric Post-heater.

DV145 Adroit

Adroit Line Top Entry -
Up to 565 m³/hr air volume

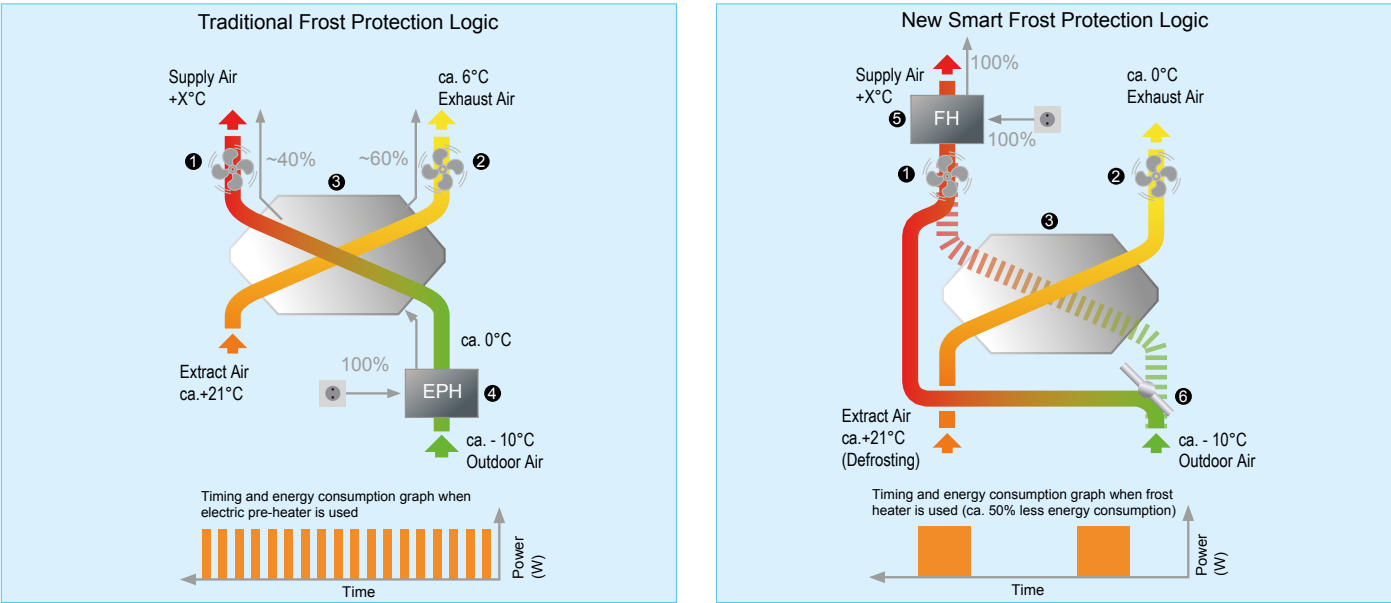
The DV145 Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

The DV145 can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

1 Supply air fan	4 Electric pre-heater
2 Exhaust air fan	5 Frost heater
3 Heat exchanger	6 Electric bypass damper

TRIPLE FILTER DESIGN

The majority of the MVHR units in the U.K incorporate G3 or G4 coarse filters on the extract / supply air side. These filters catch only coarse particles such as insects and leaves to protect the heat exchanger.

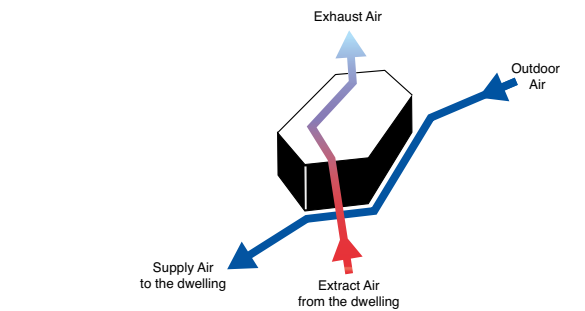
F7 fine filters on the other hand are highly efficient, catch invisible particles such as pollen, spore, bacterium and dust entering the lungs.

Adroit units are the only MVHR units which incorporate triple filter design combining G4 course filters with the F7 fine filter. This significantly improves the indoor air quality and lowers your maintenance costs.



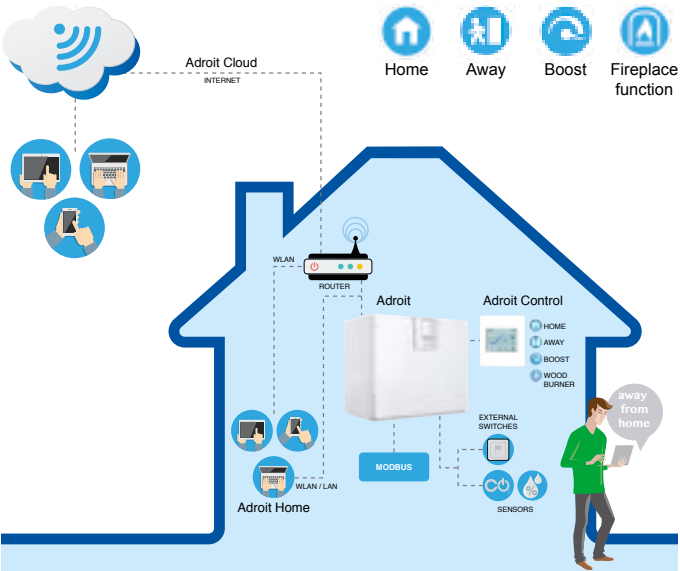
100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.



CONTROLS

- Ideal indoor air quality is achieved by automatically adjusted ventilation
- Adroit DV145 is controlled via 4 ventilation profiles controls providing the following features:
- **4 ventilation profiles**, 100% adjustable
 - **Internet** connection available
 - **Automatic boost function** with delay timer
 - **Filter maintenance reminder** via counter clock (standard)
 - **Heater control** for optional post-heater
 - **Connection to BMS** via LON or KNX
 - **Self diagnostic** via fault signal relay
 - **On-demand control** via humidity and CO₂ sensors
 - **Separate fan control** for ease of commissioning
 - **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
 - **Indoor temperature control** based on extract air temperature or supply air temperature



DV245 Adroit

Adroit Line Top Entry -
Up to 950 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 400 m²*
- Up to 90% thermal efficiency and low SFP
- ‘A’ energy rating
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Integral Humidity Sensor
- Galvanised steel, double-skin casing
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Optional manual four speed controller
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

DV245 Adroit

With its powerful air volume capacity and high thermal efficiency the DV245 Adroit is suitable for large family houses. Control your indoor air environment at home or on the go via the Adroit ‘Cloud’ internet control by smart phone, tablet or PC.

With the triple filter design with an F7 pollen filter, the DV245 Adroit provides additional protection against invisible, harmful particles and creates an ultra hygienic environment.

The automatic, 100% summer by-pass facility isolates the heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.

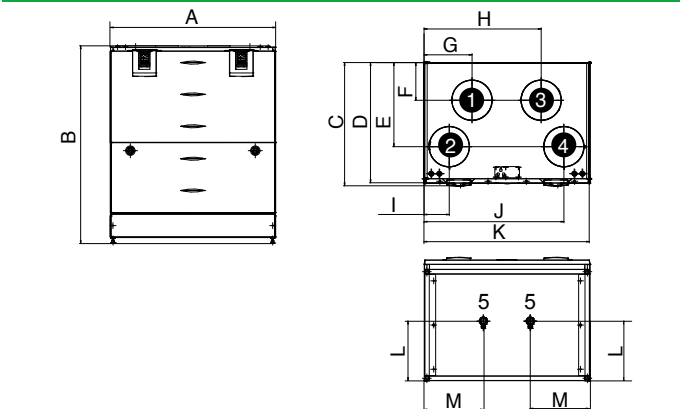
The unit includes an easily removable, aluminium heat exchanger and may be equipped with a range of optional accessories for higher performance.



TECHNICAL DATA

Specification	DV245
Suitable for dwellings up to m²	400
Max air flow (m³/hr) / (l/sec) at 100Pa.	929 / 258
Thermal efficiency (%)	Up to 90
Heat exchanger	Cross-Counter-Flow (Aluminium)
Fans	EC
Summer by-pass damper	100% automatic
Integral humidity sensor (RH %)	0 - 100
Frost protection (optional)	Smart Frost
Controls (optional)	Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable
Connection to BMS	Modbus / KNX optional
Mounting	Floor
Sound power level @3m (dB(A))	53
Duct diameter (mm)	250 (4 ports)
Condensate discharge (ins)	3/4 BSP
Electrical supply	230 V / 1 ph / 50 Hz
Max. power consumption (W)	314
Filter Class	2 x G4, 1 x F7
Built-in electric post-heater (optional) (W)	3000 (2 x 1500)
Protection class	IP34
Casing insulation (mm)	50
Weight (kg)	200
Dimensions (L x D x H) (mm)	1038 x 773 x 1226-1241
Duct entry	Top Entry
Versions available	
Right Hand:	90000582
With optional electric post-heater:	90000582EPH
Left Hand:	90000583
With optional electric post-heater:	90000583EPH

DIMENSIONS



- Duct outlets, Model R**

Inner diameter of the female collar: 250mm

 - 1.Extract air from the apartment to the unit
 - 2.Supply air from the unit to the apartment
 - 3.Outdoor air to the unit
 - 4.Exhaust air flowing outdoors from the unit
- Duct outlets, Model L**

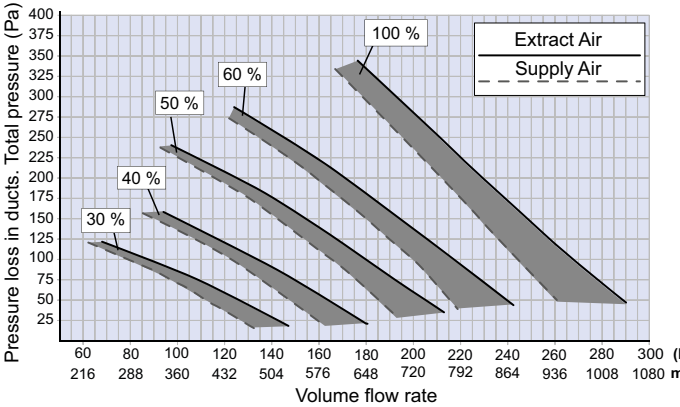
Inner diameter of the female collar: 250mm

 - 1.Outdoor air to the unit
 - 2.Exhaust air flowing outdoors from the unit
 - 3.Extract air from the apartment to the unit
 - 4.Supply air from the unit to the apartment

+ excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D	E	F	G
DV245	1038	1226-1241	773	754	528	237	301
	H	I	J	K	L	M	
	735	158	878	1038	373	371	

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

Adroit Digital Controller
Wall mounted, LCD display with four 100% independently user adjustable air flow profiles (Home, Away, Boost, Fireplace). A range of indoor parameters ie: air flow rates, temperature, humidity, by-pass, time clock settings, CO₂ sensor, filter alert are adjustable to suit your indoor environment. Internet connectivity via Adroit ‘Cloud’ for control at home or on the go.

Adroit Speed Controller
Wall mounted, four speed (independently adjustable) rotary switch air flow controller.

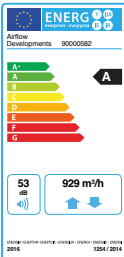
Visit airflow.com for Adroit controls options data sheet.

Accessory	Product Code
Adroit Digital Controller	90000610
Adroit Relative Humidity Transmitter	90000612
Adroit CO ₂ Transmitter	90000613
Adroit Speed Controller (manual)	9041219
2 x Additional 1500W Heaters for DV245 (R + L)	90000630
Filter Set (2 x G4, 1 x F7)	90000611
Boost Switch	90000542
KNX-Converter	90000723

CERTIFICATION

The DV245 Adroit meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive at: www.airflow.com

The DV245 was tested and has achieved Passive House Approval by the Passive House Institute when equipped with the optional Electric Post-heater.



DV245 Adroit

Adroit Line Top Entry -
Up to 950 m³/hr air volume

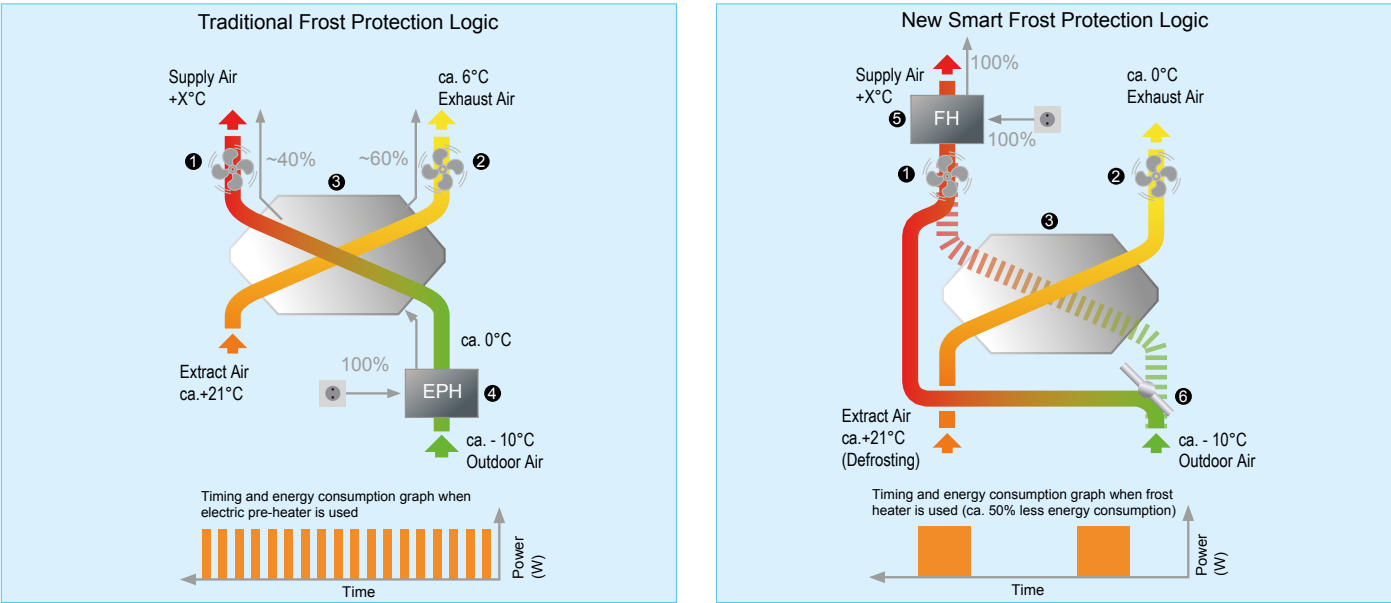
The DV245 Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

The DV245 can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

1 Supply air fan	4 Electric pre-heater
2 Exhaust air fan	5 Frost heater
3 Heat exchanger	6 Electric bypass damper

TRIPLE FILTER DESIGN

The majority of the MVHR units in the U.K incorporate G3 or G4 coarse filters on the extract / supply air side. These filters catch only coarse particles such as insects and leaves to protect the heat exchanger.

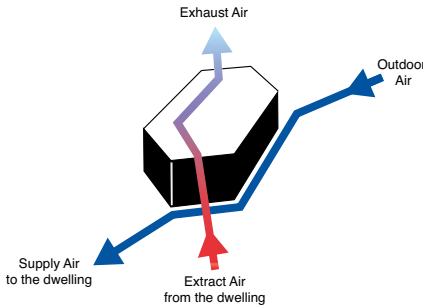
F7 fine filters on the other hand are highly efficient, catch invisible particles such as pollen, spore, bacterium and dust entering the lungs.

Adroit units are the only MVHR units which incorporate triple filter design combining G4 course filters with the F7 fine filter. This significantly improves the indoor air quality and lowers your maintenance costs.



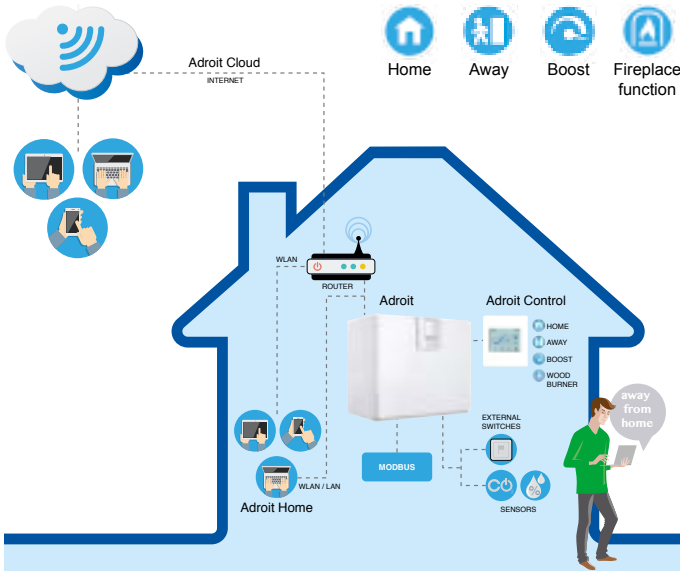
100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.



CONTROLS

- Ideal indoor air quality is achieved by automatically adjusted ventilation
- Adroit DV245 is controlled via 4 ventilation profiles controls providing the following features:
- **4 ventilation profiles**, 100% adjustable
 - **Internet** connection available
 - **Automatic boost function** with delay timer
 - **Filter maintenance reminder** via counter clock (standard)
 - **Heater control** for optional post-heater
 - **Connection to BMS** via LON or KNX
 - **Self diagnostic** via fault signal relay
 - **On-demand control** via humidity and CO₂ sensors
 - **Separate fan control** for ease of commissioning
 - **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
 - **Indoor temperature control** based on extract air temperature or supply air temperature



DV50 Adroit

Adroit Line Top Entry -
Up to 195 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 80m² *
- Up to 90% thermal efficiency and low SFP
- ‘A’ energy rating
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Integral Humidity Sensor
- Galvanised steel, double-skin casing
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Optional manual four speed controller
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

DV50 Adroit

With its powerful air volume capacity and high thermal efficiency the DV50 Adroit is suitable for smaller family homes and flats. Control your indoor air environment at home or on the go via the Adroit ‘Cloud’ internet control by smart phone, tablet or PC.

With the triple filter design with an F7 pollen filter, the DV50 Adroit provides additional protection against invisible, harmful particles and creates an ultra hygienic environment.

The automatic, 100% summer by-pass facility isolates the heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.

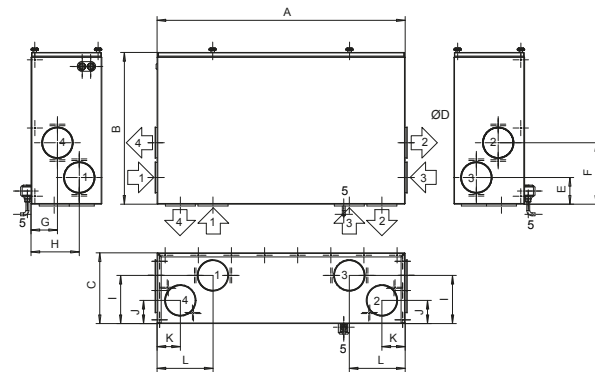
The unit includes an easily removable, plastic heat exchanger and may be equipped with a range of optional accessories for higher performance.



TECHNICAL DATA

Specification	DV50
Suitable for dwellings up to m²	80
Max air flow (m³/hr) / (l/sec) at 100Pa.	187 / 52
Thermal efficiency (%)	Up to 90
Heat exchanger	Cross-Counter-Flow (Plastic)
Fans	EC
Summer by-pass damper	100% automatic
Integral humidity sensor (RH %)	0 - 100
Frost protection (optional)	Smart Frost
Controls (optional)	Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable
Connection to BMS	Modbus / KNX optional
Mounting	Ceiling
Sound power level @3m (dB(A))	49
Duct diameter (mm)	100 (4 ports)
Condensate discharge (ins)	3/4 BSP
Electrical supply	230 V / 1 ph / 50 Hz
Max. power consumption (W)	97
Filter Class	2 x G4, 1 x F7
Built-in electric post-heater (optional) (W)	900
Protection class	IP34
Casing insulation (mm)	20
Weight (kg)	45
Dimensions (L x D x H) (mm)	900 x 547 x 236
Duct entry	Side Entry
Versions available	
Right Hand:	90000584
With optional electric post-heater:	90000584EPH
Left Hand:	90000585
With optional electric post-heater:	90000585EPH

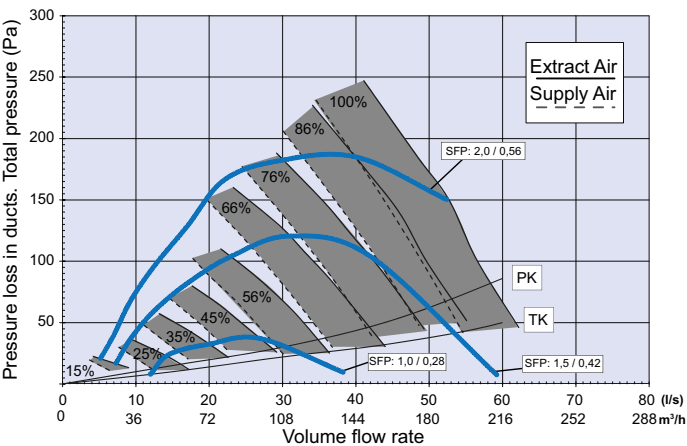
DIMENSIONS



- Model R**
Inner diameter of female outlet collar ø100mm
1. Outdoor air to the unit
2. Supply air to rooms
3. Extract air to the unit
4. Exhaust air outside
5. Condensate drain
+ excludes motors. Motor warranty one year from date of purchase
- Model L**
Inner diameter of female outlet collar ø100mm
1. Extract air to the unit
2. Exhaust air outside
3. Outdoor air to the unit
4. Supply air to rooms
5. Condensate drain
+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
DV50	900	547	236	100	87	197	86	161	161	86	96	206	498

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

Adroit Digital Controller
Wall mounted, LCD display with four 100% independently user adjustable air flow profiles (Home, Away, Boost, Fireplace). A range of indoor parameters ie: air flow rates, temperature, humidity, by-pass, time clock settings, CO₂ sensor, filter alert are adjustable to suit your indoor environment. Internet connectivity via Adroit ‘Cloud’ for control at home or on the go.

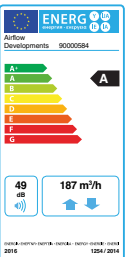
Adroit Speed Controller
Wall mounted, four speed (independently adjustable) rotary switch air flow controller.

Visit airflow.com for Adroit controls options data sheet.

Accessory	Product Code
Adroit Digital Controller	90000610
Adroit Relative Humidity Transmitter	90000612
Adroit CO ₂ Transmitter	90000613
Adroit Speed Controller	9041219
Additional 900W heater for DV50 (R)	90000626
Additional 900W heater for DV50 (L)	90000627
Filter Set (2 x G4, 1 x F7)	90000620
Boost Switch	90000542
KNX-Converter	90000723

CERTIFICATION

The DV50 Adroit meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive at: www.airflow.com



The DV50 was tested and has achieved Passive House Approval by the Passive House Institute when equipped with the optional Electric Post-heater.



DV50 Adroit

Adroit Line Side Entry -
Up to 195 m³/hr air volume

The DV50 Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

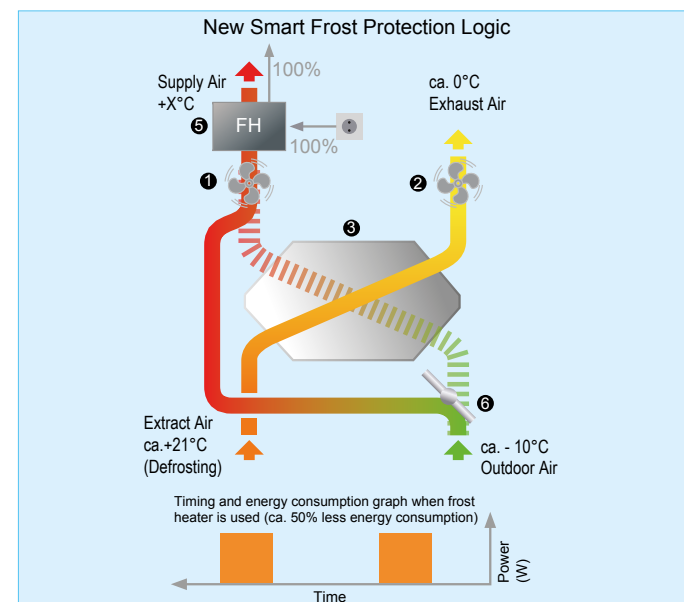
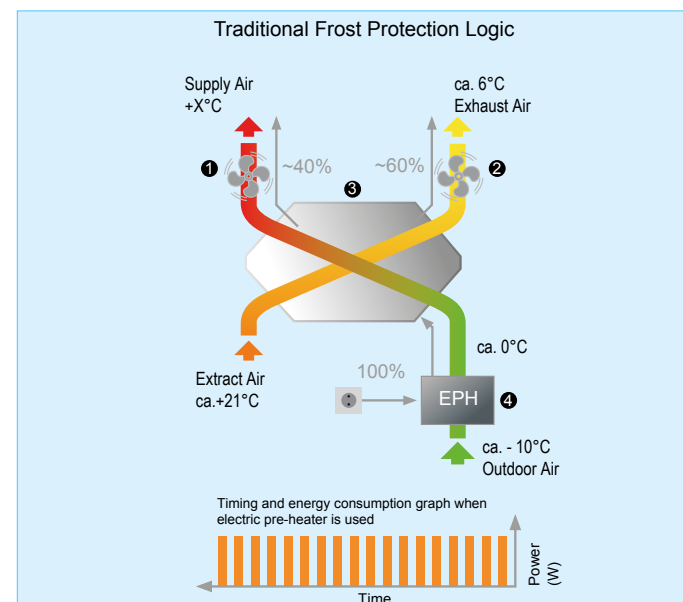
You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also

use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

The DV50 can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

- | | |
|-------------------|--------------------------|
| 1 Supply air fan | 4 Electric pre-heater |
| 2 Exhaust air fan | 5 Frost heater |
| 3 Heat exchanger | 6 Electric bypass damper |

ACCESSABILITY

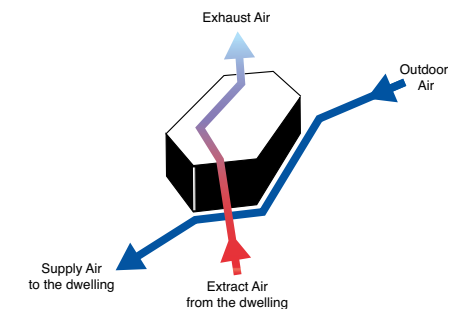
Landlords can protect their investment by insuring planned maintenance from outside the dwelling to preserve building fabric, ensure occupier wellbeing and save energy **without the need to access the dwelling or disturb the tenant.**

This significantly shortens maintenance time and saves on service cost.



100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.

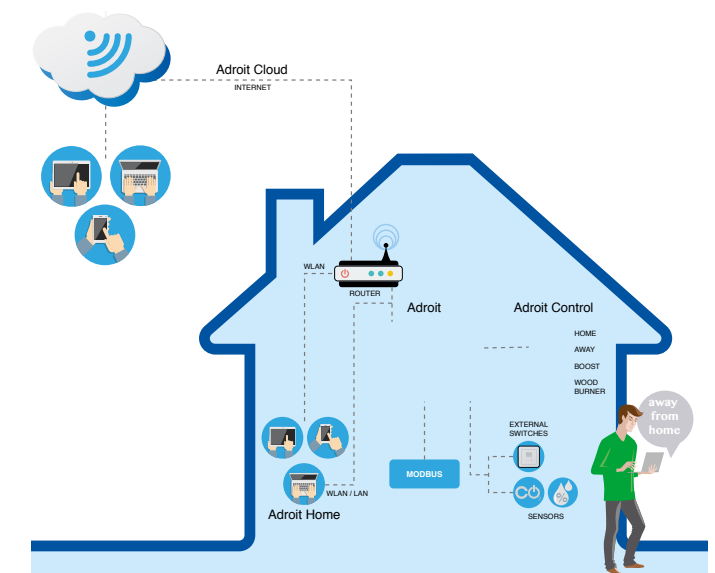


CONTROLS

Ideal indoor air quality is achieved by automatically **adjusted ventilation**

Adroit DV50 is controlled via 4 ventilation profiles controls providing the following features:

- **4 ventilation profiles**, 100% adjustable
- **Internet** connection available
- **Automatic boost function** with delay timer
- **Filter maintenance reminder** via counter clock (standard)
- **Heater control** for optional post-heater
- **Connection to BMS** via LON or KNX
- **Self diagnostic** via fault signal relay
- **On-demand control** via humidity and CO₂ sensors
- **Separate fan control** for ease of commissioning
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
- **Indoor temperature control** based on extract air temperature or supply air temperature



DV80 Adroit

Adroit Line Top Entry -
Up to 299 m³/hr air volume



KEY FEATURES

- For use in dwellings up to 120 m²*
- Up to 90% thermal efficiency and low SFP
- ‘A’ energy rating
- Internet control by smart phone, tablet or PC
- Triple filter design with F7 pollen filter
- Automatic, 100% summer by-pass
- Integral Humidity Sensor
- Galvanised steel, double-skin casing
- BMS (Modbus / KNX) connection
- Optional LCD digital controller with four independent environmental profiles
- Optional manual four speed controller
- Auto cut-out switch for extra safety
- Optional built-in Electric Post-heater
- Optional smart frost protection
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

Adroit DV80

With its powerful air volume capacity and high thermal efficiency the DV80 Adroit is suitable for smaller family homes and flats. Control your indoor air environment at home or on the go via the Adroit ‘Cloud’ internet control by smart phone, tablet or PC.

With the triple filter design with an F7 pollen filter, the DV80 Adroit provides additional protection against invisible, harmful particles and creates an ultra hygienic environment.

The automatic, 100% summer by-pass facility isolates the heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.

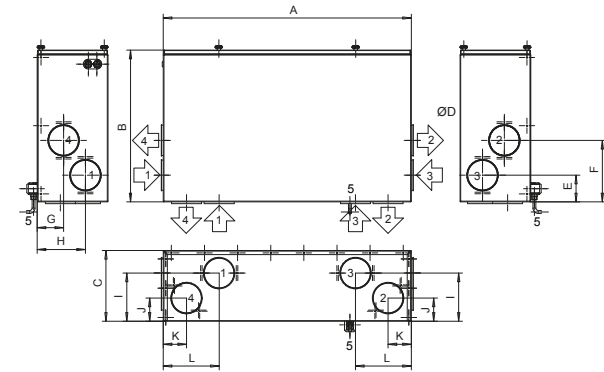
The unit includes an easily removable, plastic heat exchanger and may be equipped with a range of optional accessories for higher performance.



TECHNICAL DATA

Specification	DV80
Suitable for dwellings up to m²	120
Max air flow (m³/hr) / (l/sec) at 100Pa.	285 / 79
Thermal efficiency (%)	Up to 90
Heat exchanger	Cross-Counter-Flow (Plastic)
Fans	EC
Summer by-pass damper	100% automatic
Integral humidity sensor (RH %)	0 - 100
Frost protection (optional)	Smart Frost
Controls (optional)	Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable
Connection to BMS	Modbus / KNX optional
Mounting	Ceiling
Sound power level @3m (dB(A))	52
Duct diameter (mm)	125 (4 ports)
Condensate discharge (ins)	3/4 BSP
Electrical supply	230 V / 1 ph / 50 Hz
Max. power consumption (W)	158
Filter Class	2 x G4, 1 x F7
Built-in electric post-heater (optional) (W)	900
Protection class	IP34
Casing insulation (mm)	20
Weight (kg)	59
Dimensions (L x D x H) (mm)	1026 x 626 x 293
Duct entry	Side Entry
Versions available	
Right Hand:	90000586
With optional electric post-heater:	90000586EPH
Left Hand:	90000587
With optional electric post-heater:	90000587EPH

DIMENSIONS



- Model R**
Inner diameter of female outlet collar ø125mm

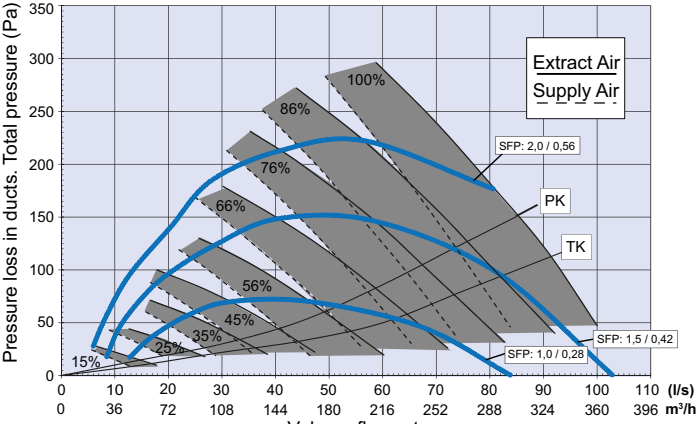
 1. Outdoor air to the unit
 2. Supply air to rooms
 3. Extract air to the unit
 4. Exhaust air outside
 5. Condensate drain
- Model L**
Inner diameter of female outlet collar ø125mm

 1. Extract air to the unit
 2. Exhaust air outside
 3. Outdoor air to the unit
 4. Supply air to rooms
 5. Condensate drain

+ excludes motors. Motor warranty one year from date of purchase

Model	A	B	C	D	E	F	G	H	I	J	K	L	M
DV80	1026	626	293	125	110	254	110	200	200	96	96	231	624

PERFORMANCE



* Guidance only. Dependant upon system pressure.

ACCESSORIES

Adroit Digital Controller
Wall mounted, LCD display with four 100% independently user adjustable air flow profiles (Home, Away, Boost, Fireplace). A range of indoor parameters ie: air flow rates, temperature, humidity, by-pass, time clock settings, CO₂ sensor, filter alert are adjustable to suit your indoor environment. Internet connectivity via Adroit ‘Cloud’ for control at home or on the go.

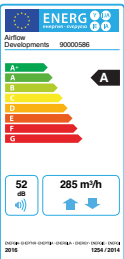
Adroit Speed Controller
Wall mounted, four speed (independently adjustable) rotary switch air flow controller.

Visit airflow.com for Adroit controls options data sheet.

Accessory	Product Code
Adroit Digital Controller	90000610
Adroit Relative Humidity Transmitter	90000612
Adroit CO ₂ Transmitter	90000613
Adroit Speed Controller	9041219
Additional 900W heater for DV80 (R)	90000626
Additional 900W heater for DV80 (L)	90000627
Filter Set (2 x G4, 1 x F7)	90000621
Boost Switch	90000542
KNX-Converter	90000723

CERTIFICATION

The DV80 Adroit meets requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A rating. You can find out more about the ErP Directive at: www.airflow.com



The DV80 was tested and has achieved Passive House Approval by the Passive House Institute when equipped with the optional Electric Post-heater.



DV80 Adroit

Adroit Line Side Entry -
Up to 299 m³/hr air volume

The DV80 Adroit is fitted with a unique triple air filter facility. It comes with two G4 air filters and an F7 filter, which provides additional air filtration by prevent particles as small as pollen from entering the premises. This is of particular benefit to those that suffer from asthma or hay fever and other respiratory conditions.

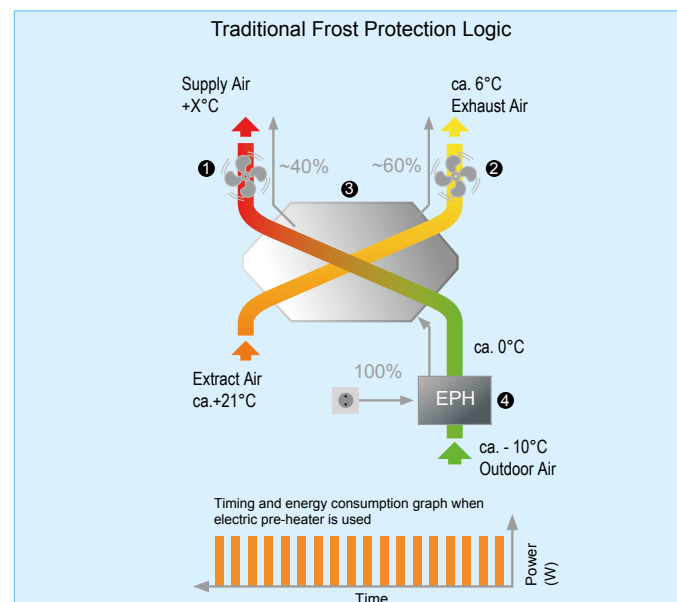
You can control your Adroit unit via internet or local network using laptop, smartphone, tablet etc. As an option there is a digital controller available that enables you to adjust the ventilation levels of your Adroit unit as well as setting the user profiles. The controller provides significant information to the user regarding the performance of their Adroit system including; adjusting the ventilation levels, filter maintenance, separate fan control, faults in the system and commissioning the system. You can also

use an optional manual controller which provides simple control by switching ventilation profiles.

Through combining your unit with additional humidity and CO₂ sensors, you are able to achieve on-demand ventilation for the property. This is possible, as due to changes to humidity and CO₂ levels that occur through changes in occupancy or usage, the ventilation will boost or reduce to match demand; without the need of manual intervention.

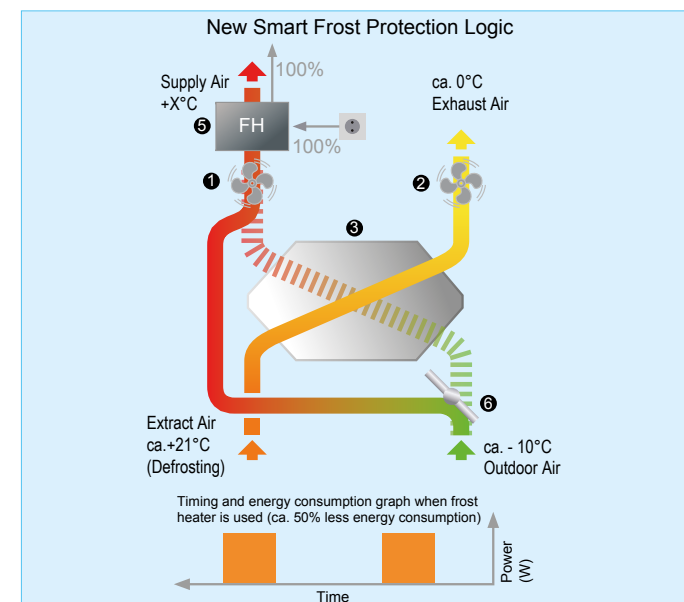
The DV80 can be integrated with a Building Management System (BMS) via a Modbus connection or KNX, which allows the user to monitor and control the unit's functions via a central control system.

NEW SMART FROST PROTECTION



On the traditional frost protection method, the outdoor air is pre-heated before passing through the heat exchanger. This way the unit could still provide balanced ventilation even when the frost protection was on. However, the electric heater kicks in intermittently hence consumes more energy than needed.

- ❶ Supply air fan
- ❷ Exhaust air fan
- ❸ Heat exchanger
- ❹ Electric pre-heater
- ❺ Frost heater
- ❻ Electric bypass damper



The new Smart Frost Protection method works in a more energy efficient manner which constantly monitors the heat exchanger conditions and uses the frost heater only when necessary. This significantly reduces the energy consumption and provides more heat recovery throughout the winter season.

ACCESSABILITY

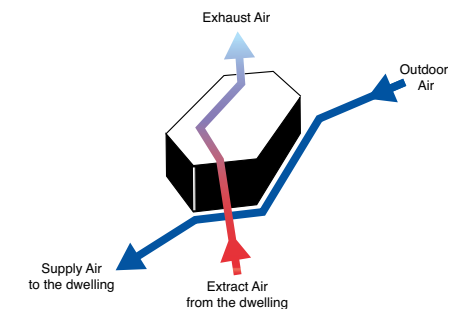
Landlords can protect their investment by insuring planned maintenance from outside the dwelling to preserve building fabric, ensure occupier wellbeing and save energy **without the need to access the dwelling or disturb the tenant.**

This significantly shortens maintenance time and saves on service cost.



100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.

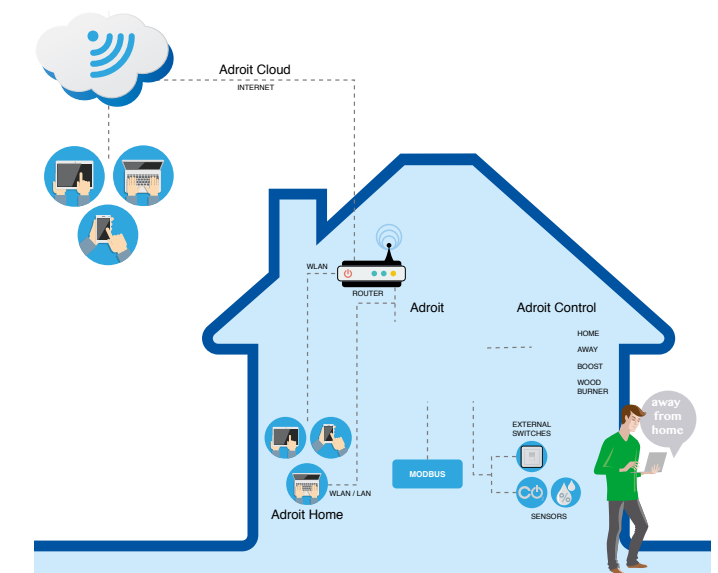


CONTROLS

Ideal indoor air quality is achieved by automatically **adjusted ventilation**

Adroit DV80 is controlled via 4 ventilation profiles controls providing the following features:

- **4 ventilation profiles**, 100% adjustable
- **Internet** connection available
- **Automatic boost function** with delay timer
- **Filter maintenance reminder** via counter clock (standard)
- **Heater control** for optional post-heater
- **Connection to BMS** via LON or KNX
- **Self diagnostic** via fault signal relay
- **On-demand control** via humidity and CO₂ sensors
- **Separate fan control** for ease of commissioning
- **Weekly ventilation programming** allows users to pre-set the ventilation levels scheduled for different days
- **Indoor temperature control** based on extract air temperature or supply air temperature



DV280, DV380 and DV580 Adroit Pro

Premium Top Entry MVHR Unit



KEY FEATURES

- For use in dwellings up to 250m²*
- 3 models (top entry) up to 565m³/hr at 100Pa
- Plastic counterflow heat exchanger
- Up to 95% thermal efficiency and low SFP
- A+ energy rating
- Sandwich casing construction with 30mm thermal insulation
- Up to 95% thermal efficiency
- Automatic, 100% summer bypass
- Versatile design (automatic switch between right / left configurations)
- Two types of control systems available
- Optional constant flow/pressure function
- Optional pre or post-heater
- Complies with Building Regulations and ErP standards
- 5 year warranty+

DV280, DV380 and DV580 Adroit Pro

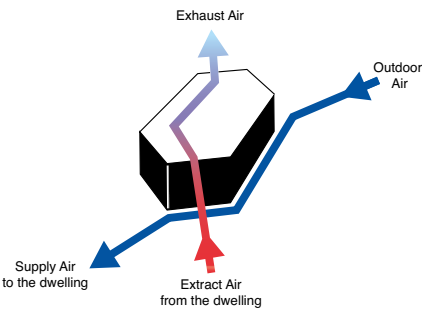
The DV280, DV380 and DV580 Adroit Pro are highly efficient top entry Mechanical Ventilation with Heat Recovery (MVHR) units that can ventilate up to 565m³/hr. They are wall mounted units and are delivered complete with a full condensate drain kit.

The Adroit Pro is made with galvanised steel, double skin casing with 30 mm thick insulation to eliminate thermal bridging and minimise noise levels.

These Adroit Pro units include an easily removable, plastic heat exchanger that can recover up to 95% of otherwise wasted heat. This recovered heat is transferred to the incoming supply air before it is filtered and supplied to the dwelling, which can reduce ongoing heating bills of the property. At no point do the airstreams mix.

100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.



TECHNICAL DATA

Specification	DV280 Adroit Pro	DV380 Adroit Pro	DV580 Adroit Pro
Suitable for dwellings up to (m²)	100	170	250
Max air flow (m³/hr) / (l/sec) at 100Pa.	285 / 79	365 / 101	565 / 157
Thermal efficiency (%)	94	95	94
Heat exchanger	Counterflow (Plastic)	Counterflow (Plastic)	Counterflow (Plastic)
Fans	EC	EC	EC
Summer bypass damper	100% automatic	100% automatic	100% automatic
Frost protection	Reducing supply air	Reducing supply air	Reducing supply air
Controllers	Touch or Rotary	Touch or Rotary	Touch or Rotary
Connection to BMS*	Modbus (TCP/IP)	Modbus (TCP/IP)	Modbus (TCP/IP)
Mounting	Wall	Wall	Wall
Sound Power Level (dB(A))	35	36	42
Duct Diameter (mm)	160 (4 ports)	160 (4 ports)	200 (4 ports)
Condensate discharge (mm)	16	16	16
Electrical supply	230 V / 1 ph / 50 Hz	230 V / 1 ph / 50 Hz	230 V / 1 ph / 50 Hz
Max. Power Consumption (W)	118	192	345
Filter Class	2 x G4 F7 (Optional)	2 x G4 F7 (Optional)	2 x G4 F7 (Optional)
Built-in Electric pre-heater (optional) (W)	650	990	1300
Ducted Electric pre-heater (optional) (W)	900 / 1500	1500	2100 / 3000
Built-in Electric post-heater (optional) (W)	250	500	500
Ducted Electric post-heater (optional) (W)	900 / 1500	1500	2100 / 3000
Protection class	IP34	IP34	IP34
Casing insulation (mm)	30	30	30
Weight (kg)	59	59	75
Dimensions (L x D x H) (mm)	617 x 490 x 1000	617 x 490 x 1000	928 x 509 x 1080
Duct Entry	Top Entry	Top Entry	Top Entry
Versions available			
Adroit Pro Web with Touch controller	90000635	90000636	90000637
Adroit Pro Web with Rotary controller	90000673	90000676	90000678
Adroit Pro Basic with Touch controller	90000674	90000665	90000679
Adroit Pro Basic with Rotary controller	90000675	90000677	90000680

*Only for units with Adroit Pro Web control system



DIMENSIONS

DV280

DV380

DV580

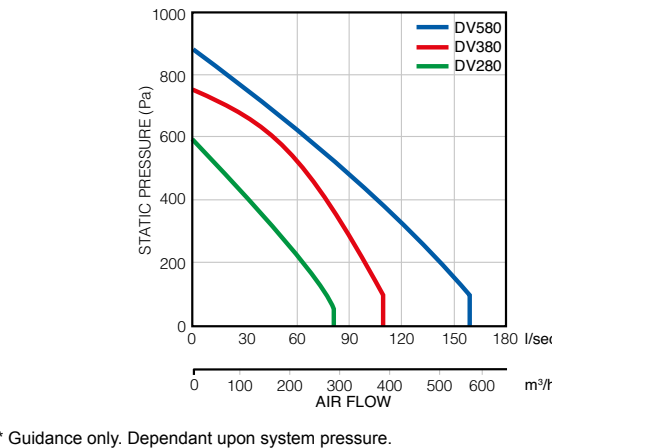
Duct Connections

1. Exhaust air outside
2. Outdoor air to the unit
3. Supply air to rooms
4. Extract air to the unit
- K. Condensate drain

Model	A	B	C	D
DV280 Adroit Pro (mm)	617	490	1000	60
DV380 Adroit Pro (mm)	617	490	1000	60
DV580 Adroit Pro (mm)	928	509	1080	60

+ excludes motors. Motor warranty one year from date of purchase.

PERFORMANCE



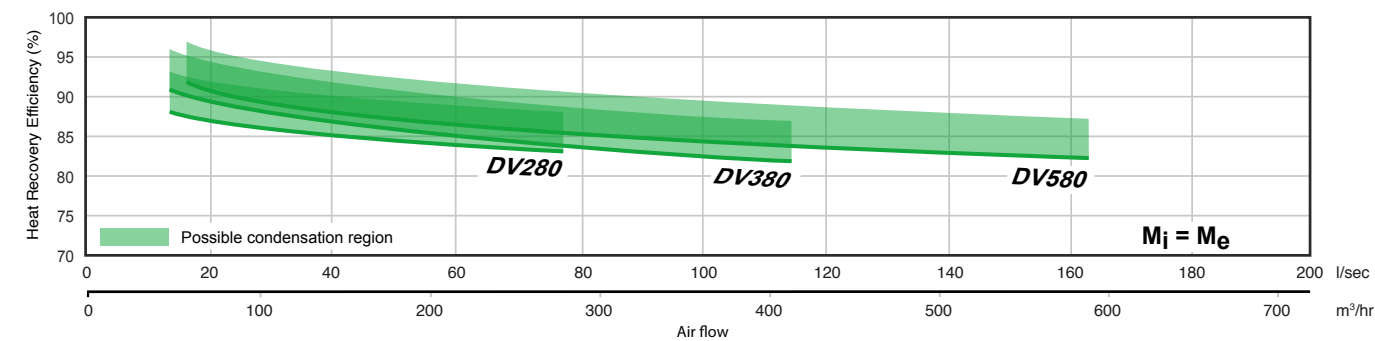
ACCESSORIES

See Duplexvent accessories for more details.

DV280, DV380 and DV580 Adroit Pro

Premium Top Entry MVHR Unit

PERFORMANCE



CONTROLS

There are two types of control systems available for Adroit Pro units:

- Adroit Pro Web control system, which is internet and BMS capable solution to meet requirements of the most advanced systems.
- Adroit Pro Basic control system, which is simpler solution for controlling the basic functions of the unit.

Adroit Pro Web control system

Main features:

- Two types of controllers available: Touch or Rotary controller
- Internet connectivity which enables unit control and monitoring from a remote location via laptop, tablet or smart phone
- BMS connection
- Daily / Weekly programme setting
- Automatic boost function with timer delay (via volt-free contact or 0-10V sensor output)
- Automatic frost protection reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- Automatic, 100% summer bypass prevents overheating the dwelling in summer season.
- Demand ventilation via CO₂, humidity and air quality sensors
- Versatile design (automatic switch between right / left configurations)
- Zonal ventilation control
- Constant flow / pressure control
- Heater control for pre or post-heater
- Filter monitoring and alert via pressure sensors



WB1 Touch controller



WB2 Rotary controller

Adroit Pro Basic control system

Main features:

- Two types of controllers available: Touch or Rotary controller
- Automatic or manual mode
- Analogue signal 0-10V (RH%, air quality sensors)
- Automatic frost protection reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- Automatic, 100% summer bypass prevents overheating the dwelling in summer season
- Heater control for pre or post-heater
- Filter change reminder



BC1 Touch controller



BC2 Rotary controller

INTERNET CONNECTION*

Adroit Pro units incorporate an Internet server to provide a connection between the ventilation unit and the internet via a standard plug and play Ethernet cable.

This allows you to monitor and control the unit from a laptop, tablet or smartphone via internet or local area network. The unit can be also monitored remotely by technical service which saves time and cost on service processes.

*Only for units with Adroit Pro Web control system



HEATERS

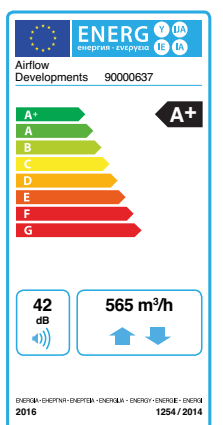
The new generation PTC (Positive Temperature Coefficient) electric heater incorporates a power adjustment facility which automatically increases/decreases the power based on the air volume going through the heater hence shortens the heating response.



Also the heater has two protection thermostats and a perforated metal filter which can easily be maintained via the inspection door. This significantly increases its life span especially when the heater is installed on the outdoor air side for frost protection purposes. Alternatively it can be used as post-heater to achieve the required indoor air temperature.

CERTIFICATION

All Adroit Pro units meet the requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A+ rating. You can find out more about the ErP Directive at: www.airflow.com



DV170 / DV370 / DV570 Adroit Pro

Premium Side Entry MVHR Unit



KEY FEATURES

- For use in dwellings up to 250m²*
- 3 models (side entry) up to 570m³/hr at 100Pa
- Plastic counterflow heat exchanger
- Up to 95% thermal efficiency and low SFP
- A+ energy rating
- Sandwich casing construction with 30mm thermal insulation
- Automatic, 100% summer bypass
- Versatile design (automatic switch between right / left configurations)
- Two types of control systems available
- Optional constant flow / pressure function
- Optional pre or post-heater
- Complies with Building Regulations and ErP standards
- 5 year warranty+

Adroit Pro DV170 / DV370 / DV570

The DV170, DV370 and DV570 Adroit Pro are highly efficient side entry Mechanical Ventilation with Heat Recovery (MVHR) units that can ventilate up to 570 m³/hr. They are ceiling mounted unit and are delivered complete with a full condensate drain kit.

The Adroit Pro is made with galvanised steel, double skin casing with 30 mm thick insulation to eliminate thermal bridging and minimise noise levels.

These Adroit Pro units include an easily removable, plastic heat exchanger that can recover up to 95% of otherwise wasted heat. This recovered heat is transferred to the incoming supply air before it is filtered and supplied to the dwelling, which can reduce ongoing heating bills of the property. At no point do the airstreams mix.



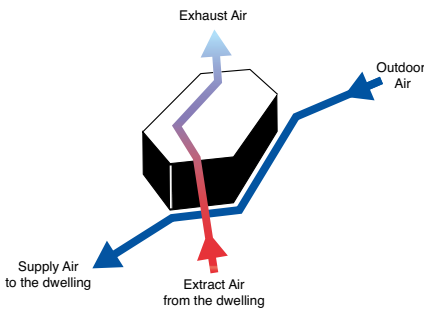
100% AUTOMATIC BYPASS

The unit is equipped with an automatic, 100% bypass which totally isolates the heat exchanger so that no air passes through it. This prevents overheating the dwelling in the summer season.

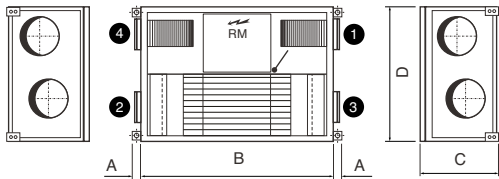
TECHNICAL DATA

Specification	DV170 Adroit Pro	DV370 Adroit Pro	DV570 Adroit Pro
Suitable for dwellings up to m ₂	100	170	250
Max air flow (m ³ /hr) / (l/sec) at 100Pa.	175 / 49	370 / 103	570 / 158
Thermal efficiency (%)	94	95	94
Heat exchanger	Counterflow (Plastic)	Counterflow (Plastic)	Counterflow (Plastic)
Fans	EC	EC	EC
Summer bypass damper	100% automatic	100% automatic	100% automatic
Frost protection	Reducing supply air	Reducing supply air	Reducing supply air
Controllers	Touch or Rotary	Touch or Rotary	Touch or Rotary
Connection to BMS*	Modbus (TCP / IP)	Modbus (TCP / IP)	Modbus (TCP / IP)
Mounting	Ceiling	Ceiling	Ceiling
Sound Power Level (dB(A))	37	38	42
Duct Diameter (mm)	160 (4 ports)	200 (4 ports)	250 (4 ports)
Condensate discharge (mm)	16 (2 drain options available)	16 (2 drain options available)	16 (2 drain options available)
Electrical supply	230 V / 1 ph / 50 Hz	230 V / 1 ph / 50 Hz	230 V / 1 ph / 50 Hz
Max. Power Consumption (W)	79	167	313
Filter Class	2 x G4 (F7 Optional)	2 x G4 (F7 Optional)	2 x G4 (F7 Optional)
Built-in Electric pre-heater (optional) (W)	650	990	1300
Ducted Electric pre-heater (optional) (W)	900 / 1500	2100	3000
Built-in Electric post-heater (optional) (W)	250	500	500
Ducted Electric post-heater (optional) (W)	900 / 1500	1500	3000
Protection class	IP34	IP34	IP34
Casing insulation (mm)	30	30	30
Weight (kg)	39	58	72
Dimensions (L x D x H) (mm)	840 x 655 x 290	1116 x 930 x 290	1290 x 930 x 370
Duct Entry	Side Entry	Side Entry	Side Entry
Versions available			
Adroit Pro Web with Touch controller	90000638	90000639	90000640
Adroit Pro Web with Rotary controller	90000681	90000684	90000708
Adroit Pro Basic with Touch controller	90000682	90000685	90000666
Adroit Pro Basic with Rotary controller	90000683	90000686	90000784

*Only for units with Adroit Pro Web control system



DIMENSIONS



Right hand connections

- 1. Supply air to rooms
- 2. Outdoor air to the unit
- 3. Extract air to the unit
- 4. Exhaust air outside

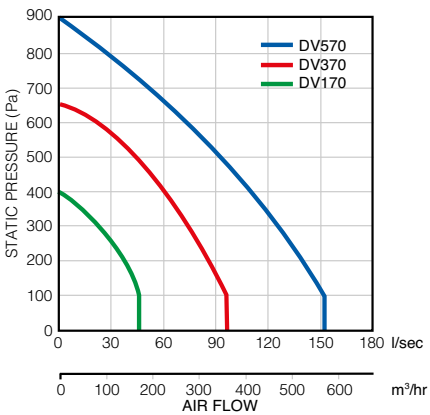
Left hand connections

- 1. Exhaust air outside
- 2. Extract air to the unit
- 3. Outdoor air to the unit
- 4. Supply air to rooms

+excludes motors. Motor warranty one year from date of purchase.

Model	A	B	C	D
DV170 Adroit Pro (mm)	60	840	290	655
DV370 Adroit Pro (mm)	60	1116	290	930
DV570 Adroit Pro (mm)	60	1290	370	930

PERFORMANCE



* Guidance only. Dependant upon system pressure.

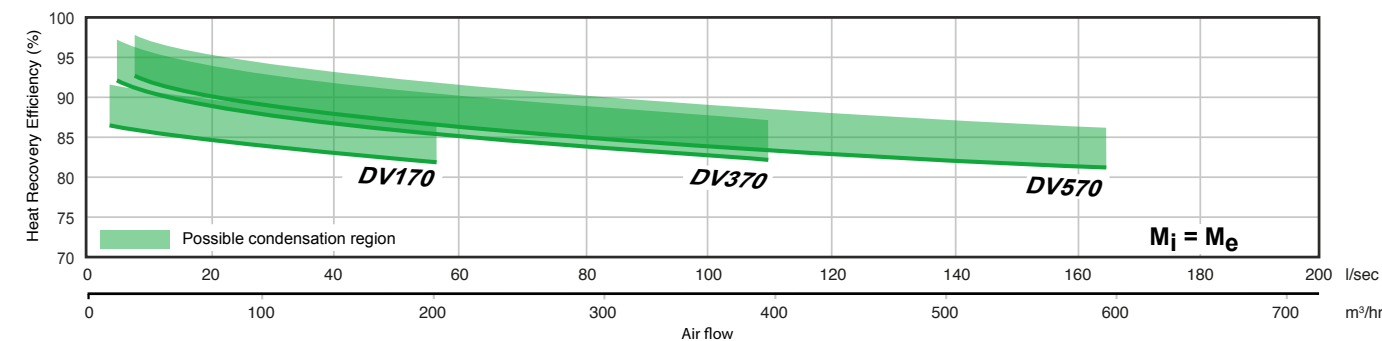
ACCESSORIES

See Duplexvent accessories for more details.

DV170 / DV370 / DV570 Adroit Pro

Premium Side Entry MVHR Unit

PERFORMANCE



CONTROLS

There are two types of control systems available for Adroit Pro units:

- Adroit Pro Web control system, which is internet and BMS capable solution to meet requirements of the most advanced systems.
- Adroit Pro Basic control system, which is simpler solution for controlling the basic functions of the unit.

Adroit Pro Web control system

Main features:

- Two types of controllers available: Touch or Rotary controller
- Internet connectivity which enables unit control and monitoring from a remote location via laptop, tablet or smart phone
- BMS connection
- Daily / Weekly programme setting
- Automatic boost function with timer delay (via volt-free contact or 0-10V sensor output)
- Automatic frost protection reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- Automatic, 100% summer bypass prevents overheating the dwelling in summer season.
- Demand ventilation via CO₂, humidity and air quality sensors
- Versatile design (automatic switch between right / left configurations)
- Zonal ventilation control
- Constant flow / pressure control
- Heater control for pre or post-heater
- Filter monitoring and alert via pressure sensors



WB1 Touch controller



WB2 Rotary controller

Adroit Pro Basic control system

Main features:

- Two types of controllers available: Touch or Rotary controller
- Automatic or manual mode
- Analogue signal 0-10V (RH%, air quality sensors)
- Automatic frost protection reduces the supply ventilation rate for a certain period to prevent ice build-up within the heat recovery cell depending on the outside air temperature
- Automatic, 100% summer bypass prevents overheating the dwelling in summer season
- Heater control for pre or post-heater
- Filter change reminder



BC1 Touch controller



BC2 Rotary controller

INTERNET CONNECTION*

Adroit Pro units incorporate an Internet server to provide a connection between the ventilation unit and the internet via a standard plug and play Ethernet cable.

This allows you to monitor and control the unit from a laptop, tablet or smartphone via internet or local area network. The unit can be also monitored remotely by technical service which saves time and cost on service processes.

*Only for units with Adroit Pro Web control system



HEATERS

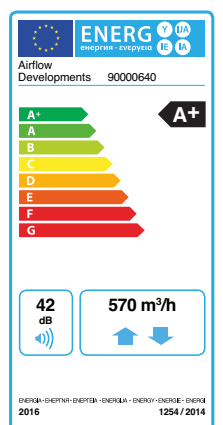
The new generation PTC (Positive Temperature Coefficient) electric heater incorporates a power adjustment facility which automatically increases/decreases the power based on the air volume going through the heater hence shortens the heating response.



Also the heater has two protection thermostats and a perforated metal filter which can easily be maintained via the inspection door. This significantly increases its life span especially when the heater is installed on the outdoor air side for frost protection purposes. Alternatively it can be used as post-heater to achieve the required indoor air temperature.

CERTIFICATION

All Adroit Pro units meet the requirements set out by the Energy Related Products (ErP) Directive 2016, achieving an A+ rating. You can find out more about the ErP Directive at: www.airflow.com



A Brine to Air Energy Collector

Increases the thermal efficiency of your MVHR unit, saves even more energy and reduces costs of heating and cooling to minimum



KEY FEATURES

- Connect your MVHR unit for enhanced thermal efficiency
- Can be automatically controlled by an Adroit unit
- Brine is kept at a sub-soil temperature of 8 to 12°C
- Provides additional pre-heating to your MVHR unit during the winter
- It also provides cooler air in the summer
- Water temperature gauges monitor the supply and return temperature of the brine
- Fitted with a G4 filter
- Wall mounted, 12 litre pressure expansion tank with relief valve included

Brine to Air Exchanger

The Brine to Air Exchanger enhanced the thermal efficiency of your MVHR unit by provided additional pre-heating to your unit during the winter and also helps to cool the air during the summer.

The Brine to Air Exchanger uses the warmth in the ground to maintain the brine's temperature of 8 - 12°C.

A 1.2 m deep flexible polyethylene under-soil tube pumps brine through a loop.

To increase the heat exchange the tube should be laid directly under the soil in a sand bed.

The minimum space between the parallel tubes should be 0.5 m.

Alternatively to laying the tube horizontally a vertical bore can be used.



OPERATING MODES

Brine to Air Energy collector can work either in automatic or manual mode.

In automatic mode operation of the circulation pump is controlled by the MVHR unit. The pump circulates the brine when the outside air temperature falls below 5°C or

INSTALLATION SCHEME

Brine to air heat exchanger is mounted in-line before mvhr unit. It is important that the air flows through the heat exchanger in horizontal direction. To provide optimum performance it is recommended that approx. 1m of straight duct is mounted upstream and downstream of the brine to air heat exchanger.

The ducting should be done with Airflex ISO system to avoid creation of the condensation. Alternatively insulated spiral ducting can be used.

Pipework and connection between hydraulic kit and brine to air heat exchanger shall be provided on site. The pipe connections of the hydraulic kit are 3/4" IG.

The quick vent valve must be installed at the highest point of the pipework.

It is recommended to install undersoil tube when outdoor air is above 5°C. The area where the undersoil tube is laid should not be built over so it is guaranteed that seeping rainwater can contribute to the thermal regeneration of the soil.

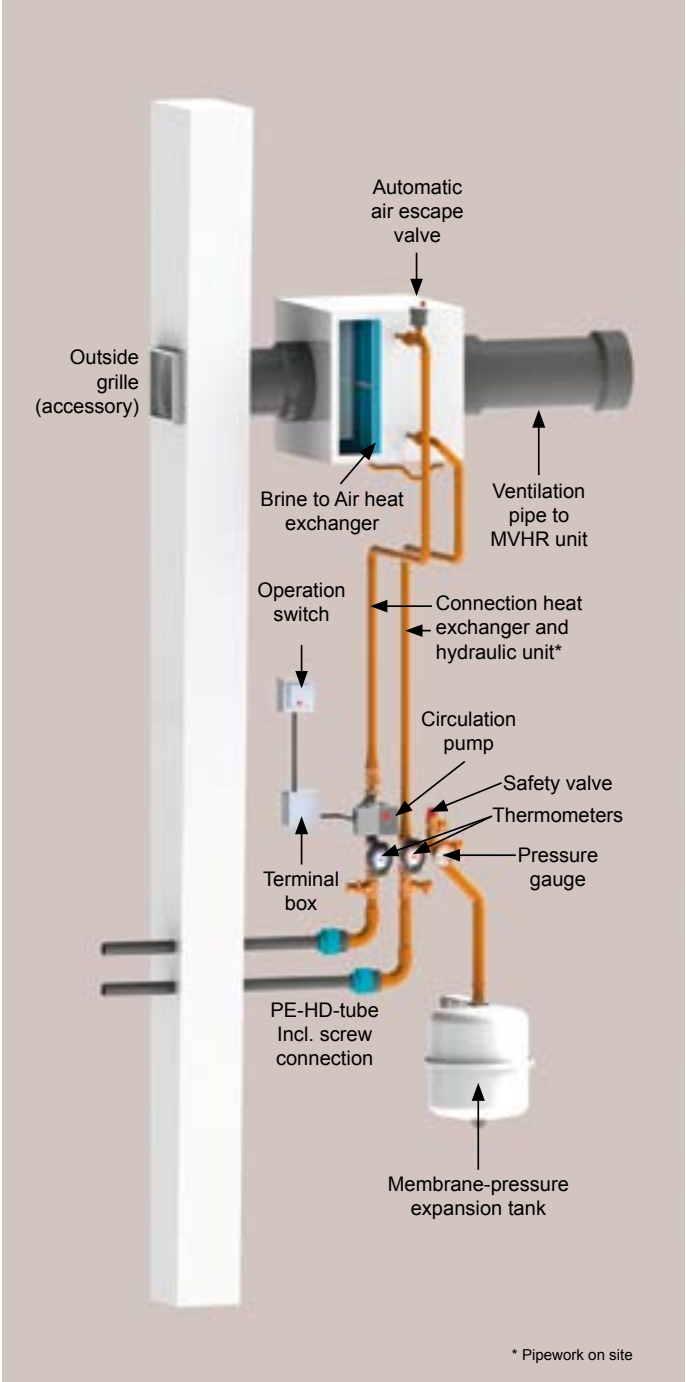
The filling of the system is carried out via feed and drain cock located on the hydraulic kit. During this operation take care to avoid air entering the system.

After the installation of the undersoil pipework, system should be tested at high pressure for tightness check.



when actual supply air temperature is higher than the set value.

System can be switched into the manual mode by using an operation switch. In this mode the circulation pump is always turned on regardless of the outdoor air temperature.



A Brine to Air Energy Collector

SPECIFICATION

Brine to Air Energy Collector is delivered as a kit, which ensures full functionality and optimal performance.

Components included in the kit:

- Highly efficient brine to air heat exchanger delivered with ceiling / wall mounting plate. Heat exchanger fins are made of aluminium to ensure the best heat transfer to incoming outdoor air. Tubes inside the heat exchanger are made of copper.

There is a convertible G4 filter integrated, which prevents the contaminating of the heat exchanger and enables

variable air flow direction. The Filter must be always mounted before heat exchanger. The filter should be cleaned 2 to 4 times a year and replaced at least once a year.

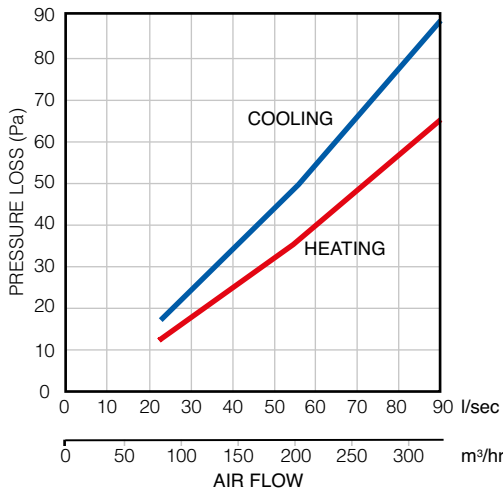
Heat exchanger should be periodically checked to see if it gets dirty and should be cleaned if necessary.

Condensate connection located at the bottom of the heat exchanger casing must be checked before the cooling season

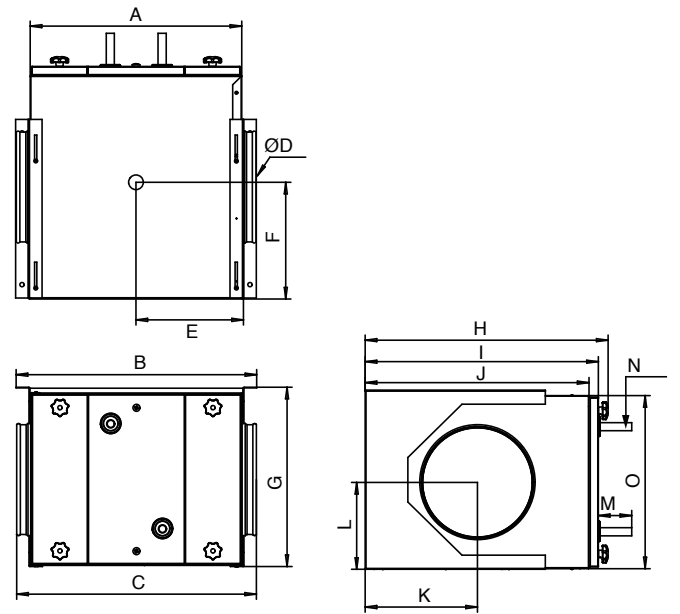
TECHNICAL DATA

Specification	Brine to air heat exchanger
Casing	Double skin steel with insulation
Heat exchanger material	Aluminium
Heat exchanger Pipe connection	Copper, 2 x Ø12 mm
Duct connection	2 x Ø200 mm
Condensate discharge	12 mm
Filter	G4
Weight	16kg

HEAT EXCHANGER PRESSURE LOSS



DIMENSIONS



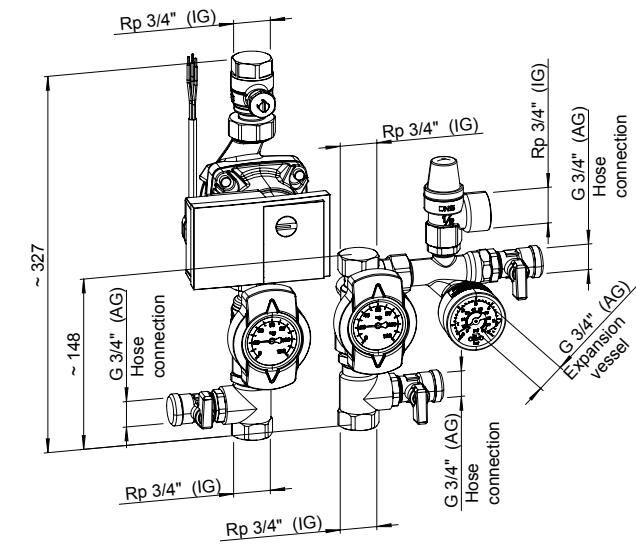
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Brine to air heat exchanger	367	431	450	Ø200	187	200 + (60)	334	420 + (60)	399 + (60)	378 + (60)	190 + (60)	160	50	Ø12	320

All dimensions in mm

HYDRAULIC KIT

- Brine pump (230 V), includes safety device
- Temperature gauges for supply and return
- Automatic protection against reverse flow
- Pressure expansion tank - 12 litres, connection 3/4", delivered with wall bracket and stop valve for maintenance
- Electrical terminal box with 24 V DC relay and operation switch

Technical data of the hydraulic kit	
Current max.	0.44A
Voltage	230V, 50Hz
Power consumption	3-45W
Protection class	IP 44



UNDERSOIL TUBE SET

Undersoil tube with screw connections and 20l canister with ethylene glycol

- Flexible PE-HD undersoil tube - 100 running metres, Ø32 mm, wall thickness 2.9 mm
- Screw connection set made from high class polymer (PP) to connect the undersoil tube to the hydraulic kit
- 20l canister with ethylene glycol to ensure anti-freeze protection for the system. Glycol has to be homogeneously mixed with water first before filling the pipe-work system. The following mixing ratios apply to the ethylene glycol offered by Airflow:

Glycol mixing ratio	Frost protection until °C
22%	-10°C
29%	-15°C
35%	-20°C
40%	-25°C



Duplexvent Range Overview

Residential Heat Recovery

	BASIC LINE (TOP ENTRY)		ENTRO LINE (SIDE ENTRY)		
Model	DV72	BV400	DV250	DV300	DV400
					
Air flow m³/hr / l/sec @ 100Pa	260 / 72	370 / 103	230 / 64	300 / 83	385 / 107
Thermal efficiency	Over 90%				
Fans	EC				
Automatic summer bypass	-	Standard	Standard		
100% summer bypass	-	-	Standard		
Frost protection via heater	-	Optional	Optional		
Frost protection via supply air reduction	-	Standard	Standard		
Standard control	3-speed (manual)	3-speed (digital)	100% Variable (manual)		
Alternative control	-	3-speed (manual)	10-speed (digital)		
Boost with delay timer	-	Standard	Optional		
Maintenance indicator	-	Standard	Optional		
Weekly ventilation programming	-	Standard	Optional		
BMS connection	-	Standard	Optional		
Integrated web server	-	-	Optional		
Mounting	Wall	Floor / Wall	Wall / Ceiling / Floor		
Filter class	2 x G3	2 x G4 (F7 optional)			
Post-heater	Optional				
Warranty	1 year	3 years+	2 years+		
SAP eligible	✓	✓	✓	✓	✓
Passive House Institute certified	-	-	✓	✓	✓

+excludes motors. Motor warranty one year from date of purchase.



Duplexvent Range Overview

Residential Heat Recovery

	ADROIT LINE (TOP ENTRY)					ADROIT LINE (SIDE ENTRY)	
Model	DV90K	DV96	DV110	DV145	DV245	DV50	DV80
							
Air flow m³/hr / l/sec @ 100Pa	252 / 70	320 / 89	370 / 105	542 / 151	929 / 258	187 / 52	285 / 79
Thermal efficiency	Up to 90%				Up to 90%		Up to 90%
Fans	EC						
Automatic summer bypass	Standard						
100% summer bypass	Standard						
Frost protection via heater	Standard						
Frost protection via supply air reduction	Standard						
Standard control	Cloud						
Alternative control	Digital or 4-speed manual						
Boost with delay timer	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Maintenance indicator	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Weekly ventilation programming	Standard	Standard	Standard	Standard	Standard	Standard	Standard
BMS connection	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Mounting	Wall	Wall / Ceiling		Wall / Floor	Floor	Ceiling	
Triple filter	Standard						
Filter class	2 x G4 / 1 x F7						
Post-heater	Standard						
Warranty	5 years*						
SAP eligible	-	✓	✓	✓	-	-	-
Passive House Institute certified	-	✓	✓	✓	✓	✓	✓

+excludes motors. Motor warranty one year from date of purchase.

Duplexvent Range Overview

Residential Heat Recovery

	ADROIT PRO (TOP ENTRY)			ADROIT PRO (SIDE ENTRY)		
Model	DV280	DV380	DV580	DV170	DV370	DV570
						
Air flow m³/hr / l/sec @ 100Pa	285 / 79	365 / 107	565 / 157	175 / 49	370 / 103	570 / 158
Thermal efficiency	Over 90%					
Fans	EC					
Automatic summer bypass	Standard					
100% summer bypass	Standard					
Frost protection via heater	Optional					
Frost protection via supply Air reduction	Standard					
Standard Control	Digital					
Alternative Control	Manual					
Boost with delay timer	Standard					
Maintenance indicator	Standard					
Weekly ventilation programming	Standard					
BMS connection	Standard*					
Integrated web server	Standard*					
Mounting	Wall / Floor			Under - Ceiling		
Filter class	2 x G4 (F7 optional)					
Post-heater	Optional					
Warranty	5 years*					

+excludes motors. Motor warranty one year from date of purchase.
* only for units with web control system

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- Easy fit - a round fan for a round hole
- Complies with Building Regulations



Silver



Sandstone



Chrome



Anthracite



For further information see Residential Range

Visit: airflow.com

Duplexvent Residential Accessories

Controllers - Switches - Sensors								
Commissioning switch			⊙	-	-	-	-	-
90000559	2 speed, 100% adjustable							
Boost switch			⊙	⊙	⊙	⊙	⊙	⊙
90000228	Manual boost (1-way)							
Electrical humidistat			⊙	⊙	⊙	⊙	⊙	⊙
9041570	30-90% RH (volt-free output)							
Manual control switch			-	⊙	-	-	-	-
90000334	3 speed							
Digital controller			-	⊙	-	-	-	-
90000336	3 speed LCD display with data logger and weekly programming							
PIR motion sensor			-	⊙	-	-	-	-
51969702	With 3-30 min timer (230 V output)							
Manual control switch			-	-	⊙	-	-	-
90000408	100% adjustable							
Digital controller			-	-	⊙	-	-	-
90000409	Touch screen panel							
Manual control switch			-	-	-	⊙	-	-
9041219	4 speed, 100% adjustable							
Digital controller			-	-	-	⊙	⊙	-
90000610	4 speed, 100% adjustable							

Duplexvent Residential Accessories

Controllers - Switches - Sensors								
Room humidity sensor			-	⊙	⊙	-	⊙	
90000320	Room rh (0-10 V output)							
Duct humidity sensor			-	⊙	⊙	-	⊙	
90000313	Duct RH (0-10 V output)							
Room CO ₂ sensor			-	⊙	⊙	-	⊙	
90000166	Room CO ₂ (0-10 V output)							
Duct CO ₂ sensor			-	⊙	⊙	-	⊙	
90000165	Duct CO ₂ (0-10 V output)							
Room air quality sensor			-	⊙	⊙	-	⊙	
90000321	Room air quality (0-10 V output)							
Built-in humidity / air quality sensor			-	⊙	-	-	-	-
90000325	Built-in humidity sensor							
90000344	Built-in air quality sensor							
Pressure sensor			-	⊙	-	-	-	-
90000326	For filter monitoring							
Digital controller			-	-	-	-	⊙	
90000710	100% adjustable, incl. internet control							
Room humidity sensor			-	-	-	⊙	-	
90000612	Adroit humidity transmitter							
Room CO ₂ sensor			-	-	-	⊙	-	
90000613	Adroit CO ₂ transmitter							

Duplexvent Residential Accessories

Filters							
Filter pack							
Part No.	Description						
90000410	2 x G4 filter (DV250)		-	-	⊙	-	-
90000411	2 x G4 filter (DV300 / DV400)		-	-	⊙	-	-
90000620	2 x G4 / 1 x F7 (DV50) Adroit		-	-	-	⊙	-
90000621	2 x G4 / 1 x F7 (DV80) Adroit		-	-	-	⊙	-
9041127	2 x G4 / 1 x F7 (DV90K) Adroit		-	-	-	⊙	-
90000375	2 x G4 / 1 x F7 (DV96) Adroit		-	-	-	⊙	-
90000378	2 x G4 / 1 x F7 (DV110) Adroit		-	-	-	⊙	-
90000376	2 x G4 / 1 x F7 (DV145) Adroit		-	-	-	⊙	-
90000611	2 x G4 / 1 x F7 (DV245) Adroit		-	-	-	⊙	-
9041511	2 x G3 filter		⊙	-	-	-	-
90000322	2 x G4 filter		-	⊙	-	-	-
90000323	1 x F7 filter		-	⊙	-	-	-
90000765	10 x G4 filter cloths (DV280 / DV380) Adroit Pro		-	-	-	-	⊙
90000767	10 x G4 filter cloths (DV580) Adroit Pro		-	-	-	-	⊙
90000759	10 x G4 filter cloths (DV170) Adroit Pro		-	-	-	-	⊙
90000761	10 x G4 filter cloths (DV370) Adroit Pro		-	-	-	-	⊙
90000763	10 x G4 filter cloths (DV570) Adroit Pro		-	-	-	-	⊙

Duplexvent Residential Accessories

Part No.	Description	Product Image	DV72	BV400	DV250 DV300 DV400	DV50 DV80 DV90K DV96 DV110 DV145 DV245	DV170 DV280 DV370 DV380 DV570 DV580
Heaters							
Electric duct heater							
90000301	125 mm, 1.2kW incl. temp. sensor and control switch		⊙	-	-	-	-
Electric duct heater							
90000324	160 mm, 1.0kW (BV400)		-	⊙	-	-	-
Electric duct heater							
90000413	160 mm, 0.4kW		-	-	⊙	-	-
90000414	160 mm, 0.7kW		-	-	⊙	-	-
90000415	160 mm, 1.7kW		-	-	⊙	-	-
Electric duct heater							
90000162	125 mm, 0.9kW		-	-	-	-	⊙
90000163	160 mm, 1.5kW		-	-	-	-	⊙
90000156	200 mm, 2.1kW		-	-	-	-	⊙
90000173	250 mm, 3.0kW		-	-	-	-	⊙
Other components							
KNX-Converter							
90000723	For BMS connection (KNX)		-	-	-	⊙	-
Horizontal condensate kit							
90000558	For horizontal installation		⊙	-	-	-	-
Metal casing							
90000345	Galvanised (DV250)		-	-	⊙	-	-
90000347	Galvanised (DV300/400)		-	-	⊙	-	-
Ceiling mounting plate							
90000716	(DV96) Adroit		-	-	-	⊙	-
90000717	(DV110) Adroit		-	-	-	⊙	-
Floor stand							
90000722	(DV145) Adroit		-	-	-	⊙	-

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