Air Flow Solutions

Ventilation with Heat Recovery
Residential application
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.

**Ventilation with Heat Recovery**

**Residential**

The highest quality air for your family

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 BASIC RANGE**

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 ENTRO 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.

**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

**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+

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 retrofitting 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.
Duplexvent DV72

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

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).

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

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

<table>
<thead>
<tr>
<th>Model</th>
<th>K+1 Wet room</th>
<th>K+2 Wet rooms</th>
<th>K+3 Wet rooms</th>
<th>K+4 Wet rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV72</td>
<td>0.75 W/l/s</td>
<td>0.87 W/l/s</td>
<td>1.05 W/l/s</td>
<td>1.27 W/l/s</td>
</tr>
<tr>
<td>SFP</td>
<td>90%</td>
<td>90%</td>
<td>87%</td>
<td>86%</td>
</tr>
</tbody>
</table>

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Duplexvent DV72 R</th>
<th>Duplexvent DV72 L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. air flow m³/hr / l/sec @ 0 Pa</td>
<td>280 / 78</td>
<td>280 / 78</td>
</tr>
<tr>
<td>Air flow m³/hr / l/sec @ 100 Pa</td>
<td>260 / 72</td>
<td>260 / 72</td>
</tr>
<tr>
<td>Thermal efficiency Over 90%</td>
<td>Over 90%</td>
<td>Over 90%</td>
</tr>
<tr>
<td>Heat exchanger Counterflow (Plastic)</td>
<td>Counterflow (Plastic)</td>
<td></td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
<td>EC</td>
</tr>
<tr>
<td>Controls (normal and boost)</td>
<td>2-Speed</td>
<td>2-Speed</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall</td>
<td>Wall</td>
</tr>
<tr>
<td>Sound level @ 3 m (dB(A))</td>
<td>28 - 45</td>
<td>28 - 45</td>
</tr>
<tr>
<td>Duct diameter (mm)</td>
<td>4 x 125</td>
<td>4 x 125</td>
</tr>
<tr>
<td>Condensate discharge (mm)</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>230 V / 1 ph / 50Hz</td>
<td>230 V / 1 ph / 50Hz</td>
</tr>
<tr>
<td>Max. power consumption</td>
<td>150 W</td>
<td>150 W</td>
</tr>
<tr>
<td>Filter class</td>
<td>2 x G3</td>
<td>2 x G3</td>
</tr>
<tr>
<td>Thermal by-pass</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Electric post-heater</td>
<td>1200 W (optional)</td>
<td>1200 W (optional)</td>
</tr>
<tr>
<td>Electric frost protection</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP22</td>
<td>IP22</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Dimensions (L x H x D) mm</td>
<td>560 x 635 x 260</td>
<td>560 x 635 x 260</td>
</tr>
<tr>
<td>Part No.</td>
<td>90000556</td>
<td>90000557</td>
</tr>
</tbody>
</table>

DIMENSIONS

Control

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.

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.

**SAP RESULTS**

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

<table>
<thead>
<tr>
<th>Model</th>
<th>SFP Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>K+1 Wet room</td>
<td>0.46 W/l/s 92%</td>
</tr>
<tr>
<td>K+2 Wet rooms</td>
<td>0.49 W/l/s 92%</td>
</tr>
<tr>
<td>K+3 Wet rooms</td>
<td>0.60 W/l/s 91%</td>
</tr>
<tr>
<td>K+4 Wet rooms</td>
<td>0.74 W/l/s 90%</td>
</tr>
<tr>
<td>K+5 Wet rooms</td>
<td>0.89 W/l/s 90%</td>
</tr>
<tr>
<td>K+6 Wet rooms</td>
<td>1.05 W/l/s 89%</td>
</tr>
<tr>
<td>K+7 Wet rooms</td>
<td>1.23 W/l/s 88%</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

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

**PERFORMANCE**

Easy maintenance through the filter access door

**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](http://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.

**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**

<table>
<thead>
<tr>
<th>Functions</th>
<th>SIMPLE</th>
<th>DIGITAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three speed control (Low - Medium - High)</td>
<td>✔ ✔</td>
<td>✔ ✔</td>
</tr>
<tr>
<td>Automatic bypass</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Boost with timer</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Frost protection</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Frost heater control</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Post-heater control</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Indoor temp setting via extract / supply / room temp</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Separate fan control</td>
<td></td>
<td>✔ ✔</td>
</tr>
<tr>
<td>Weekly ventilation programming</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Data logging</td>
<td></td>
<td>✔ ✔</td>
</tr>
<tr>
<td>Filter maintenance indicator via counter clock</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Filter maintenance indicator via pressure sensor</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Demand control via humidity/CO₂/PIR sensors</td>
<td></td>
<td>✔ ✔</td>
</tr>
<tr>
<td>Emergency shut-off (in case of fire etc.)</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Self diagnostic</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>BMS connection (MODBUS RS485)</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Built-in humidity/air quality sensor</td>
<td>✔ ✔</td>
<td></td>
</tr>
<tr>
<td>Set temperature adjustments</td>
<td></td>
<td>✔ ✔</td>
</tr>
<tr>
<td>Set timer adjustments</td>
<td></td>
<td>✔ ✔</td>
</tr>
<tr>
<td>Constant flow function</td>
<td></td>
<td>✔ ✔</td>
</tr>
</tbody>
</table>

**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.

**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.
DV250 Entro

Entro 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*

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 following options are available

- Filter pack 10pcs G4
- Filter pack 10pcs F7
- Ducted electric pre/post heater 400W
- Ducted electric pre/post heater 700W
- Ducted electric pre/post heater 1700W
- Entro Touchscreen controller
- Entro adjustable manual speed controller
- DV250 Entro metal casing
- Room Humidity Sensor
- Ducted Humidity Sensor

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 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.

**SAP RESULTS**

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

**PERFORMANCE**

The following options are available

- Ducted Electric Pre-Heater 1700W
- Ducted Electric Post Heater 1700W
- Ducted Electric Pre-Heater 400W
- Ducted Electric Post Heater 400W
- Optional Pre-heater
- Optional Digital Controller

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV300 Entro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for dwellings up to m²</td>
<td>150*</td>
</tr>
<tr>
<td>Max airflow (m³/hr) / (l/sec) at 100Pa</td>
<td>300 / 83</td>
</tr>
<tr>
<td>Max Thermal efficiency (%)</td>
<td>Up to 93</td>
</tr>
<tr>
<td>Heat exchanger</td>
<td>Counterflow (Plastic)</td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
</tr>
<tr>
<td>Summer bypass damper</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Cooling</td>
<td>Reducing supply air</td>
</tr>
<tr>
<td>Heat Recovery</td>
<td>Optional Pre-heater</td>
</tr>
<tr>
<td>Controls</td>
<td>Variable speed controller</td>
</tr>
<tr>
<td>Mounting</td>
<td>Touch screen panel (optional)</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP20</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>230V / 1ph / 50Hz</td>
</tr>
<tr>
<td>Max. Power Consumption (W)</td>
<td>120</td>
</tr>
<tr>
<td>Filter Class</td>
<td>2 x G4</td>
</tr>
<tr>
<td>Duct Diameter (mm)</td>
<td>160 (4 ports)</td>
</tr>
<tr>
<td>Condensate discharge (mm)</td>
<td>14</td>
</tr>
<tr>
<td>Sound Power Level @ 3m (dB (A))</td>
<td>40</td>
</tr>
<tr>
<td>Water Level</td>
<td>10010 20 30 40 50 60 70 80 90</td>
</tr>
<tr>
<td>0 50 100 150 200 250 300 350 0 300 m³/h</td>
<td></td>
</tr>
<tr>
<td>Tests for tinting, condensation, static pressure and humidity</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>350</td>
</tr>
<tr>
<td>0 200 300 400 500 600 0 50 100 150 200 250 300 350 0 300 m³/h</td>
<td></td>
</tr>
<tr>
<td>Tests for tinting, condensation, static pressure and humidity</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>350</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>Condensate drain for under ceiling position</td>
</tr>
<tr>
<td>K2</td>
<td>Condensate drain for under ceiling position</td>
</tr>
<tr>
<td>K3</td>
<td>Condensate drain for under floor standing position</td>
</tr>
<tr>
<td>K4</td>
<td>Condensate drain for under floor standing position</td>
</tr>
</tbody>
</table>

**ACCESSORIES**

- Room Humidity Sensor
- Ducted Humidity Sensor
- Ducted Electric Pre-Heater 400W
- Ducted Electric Post Heater 400W
- Ducted Electric Pre-Heater 700W
- Ducted Electric Post Heater 700W
- Ducted Electric Pre-Heater 1700W
- Ducted Electric Post Heater 1700W

**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.

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

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
- Max air flow (m³/hr) / (l/sec) at 100Pa: 200 / 107
- Max Thermal efficiency (%): Up to 93
- Heat exchanger: Counterflow (Plastic)
- fans: EC
- Summer bypass damper: 100% automatic
- Frost protection: Reducing supply air to 1°C before heat recovery
- Controls: Variable speed controller
- 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
- Protection class: IP20
- Weight (kg): 21
- G4 and F7 filters available
- Filter Class: 2 x G4
- Max. Power Consumption (W): 220
- Dimensions (L x D x H) (mm): 850 x 280 x 820
- Entry: Side Entry
- Part Number: 90000399

**PERFORMANCE**

- **SAP RESULTS**
  Tested by the BRE (Building Research Establishment) and eligible for the SAP Appendix Q
  - DV400 Entro:
    - SFP: 90000415
    - Efficiency: 84%
    - K1 Wet room: 0.59
    - K2 Wet rooms: 0.61
    - K3 Wet rooms: 0.71
    - K4 Wet rooms: 0.87
    - K5 Wet rooms: 1.03
    - K6 Wet rooms: 1.27

  *Guidance only. Dependent upon system pressure.

- **ACCESSORIES**
  The following options are available
  - Filter pack 10pcs G4
  - Filter pack 10pcs F7
  - Ducted electric pre/post heater 400W
  - Ducted electric pre/post heater 700W
  - Ducted electric pre/post heater 1700W
  - Entro Touchscreen controller
  - Entro adjustable manual speed controller
  - DV400 Entro metal casing
  - Room Humidity Sensor

**DIMENSIONS**

- **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.
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+  

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.

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.

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.

**TECHNICAL DATA**

**DIMENSIONS**

**PERFORMANCE**

**ACCESSORIES**

See switches/accessories for more details.

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

* Guidance only. Dependent upon system pressure.
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.

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 programming allows users to pre-set the ventilation levels scheduled for different days
- 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+

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.

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 smartphone, 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.

TECHNICAL DATA

Specification | DV96
--- | ---
Suitable for dwellings up to m² | 130
Max air flow (m³/hr) (l/s) at 100P. | 320 / 89
Thermal efficiency (%) | Up to 95
Heat exchanger | Cross-Counter-Flow (Plastic)
Fins | 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 (@0m (dB(A)) | 46
Duct diameter (mm) | 125 (4 ports)
Condensate discharge (m²) | 0.35 SPF
Electrical supply | 230 V / 1ph / 50Hz
Max. power consumption (W) | 162
Filter Class | 2 x G4, 1 x F7
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

Dimensions (L x D x H) (mm) | 53
Casing Insulation (mm) | 20
Weight (kg) | 53

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.

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.

Customer Services 01494 560800
airflow.com
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 to 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.

Throughout the winter season.

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.

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 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.

NEW SMART FROST PROTECTION

TRIPLE FILTER DESIGN

100% AUTOMATIC BYPASS

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
- Galvanized 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 built-in Electric Post-heater
- Optional four speed controller
- Optional BMS (Modbus / KNX) connection
- Galvanized steel, double-skin casing
- Optional humidity sensor (RH %)
- Frost protection
- Indoor air quality
- Sound insulation
- Balancing adjustability
- Summer by-pass damper
- Heat exchanger
- Energy rating
- Thermal efficiency (%)
- Low heat recovery function and helps to effectively maintain a temperate indoor air climate during the summer months.
- 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.

**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.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV110 Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitability</td>
<td>Suitable for buildings up to m² 170</td>
</tr>
<tr>
<td>Max air flow (m³/hr)</td>
<td>370 / 100</td>
</tr>
<tr>
<td>Thermal efficiency (%)</td>
<td>Up to 90</td>
</tr>
<tr>
<td>Heat exchanger</td>
<td>Cross-Counter-Flow (Plastic)</td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
</tr>
<tr>
<td>Summer by-pass damper</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Integral humidity sensor (RH %)</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP34</td>
</tr>
<tr>
<td>Controls (optional)</td>
<td>Digital - 4 Profiles, 100% adjustable</td>
</tr>
<tr>
<td>Connection to BMS</td>
<td>Modbus / KNX optional</td>
</tr>
<tr>
<td>Mouting</td>
<td>Wall / Ceiling</td>
</tr>
<tr>
<td>Sound power level (LwA dB(A))</td>
<td>58</td>
</tr>
<tr>
<td>Condensate discharge (max) (mm)</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>230V / 1ph / 50Hz</td>
</tr>
<tr>
<td>Max. power consumption (W)</td>
<td>200</td>
</tr>
<tr>
<td>Filter Class</td>
<td>2 x G4, 1 x F7</td>
</tr>
<tr>
<td>Built-in electric post-heater (optional) (W)</td>
<td>200</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP34</td>
</tr>
<tr>
<td>Casing insulation (mm)</td>
<td>20</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>64</td>
</tr>
<tr>
<td>Dimensions (L x D x H) (mm)</td>
<td>638 x 472 x 678</td>
</tr>
<tr>
<td>Duct entry</td>
<td>Top Entry</td>
</tr>
<tr>
<td>Version available</td>
<td>Right Hand: 90000579, 90000782PH</td>
</tr>
<tr>
<td></td>
<td>Left Hand: 90000579, 90000782PH</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

![Graph showing performance](image)

* Guidance only. Dependent upon system pressure.

**ACCESSORIES**

See switches/accessories for more details.

**SAP ELIGIBLE**

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

<table>
<thead>
<tr>
<th>Adroit DV110</th>
<th>SFP</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>K+1 Wet rooms</td>
<td>0.63</td>
<td>50%</td>
</tr>
<tr>
<td>K+2 Wet rooms</td>
<td>0.79</td>
<td>90%</td>
</tr>
<tr>
<td>K+3 Wet rooms</td>
<td>0.79</td>
<td>89%</td>
</tr>
<tr>
<td>K+4 Wet rooms</td>
<td>0.83</td>
<td>89%</td>
</tr>
<tr>
<td>K+5 Wet rooms</td>
<td>0.91</td>
<td>88%</td>
</tr>
<tr>
<td>K+6 Wet rooms</td>
<td>1.02</td>
<td>88%</td>
</tr>
<tr>
<td>K+7 Wet rooms</td>
<td>1.15</td>
<td>87%</td>
</tr>
</tbody>
</table>

**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

**DIMENSIONS**

![Diagram showing dimensions](image)

* Guidance only. Dependent upon system pressure.

**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.
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

Traditional Frost Protection Logic vs. New Smart Frost Protection Logic

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. Electric pre-heater
4. Heat exchanger
5. 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.

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
- 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

Customer Services 01494 560800

airflow.com
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
- Complies with Building Regulations and Passive House certified
- 5 year warranty+

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.

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.

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.

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, 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.

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 coarse filters with the F7 fine filter. This significantly improves the indoor air quality and lowers your maintenance costs.

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.

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+

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV245</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for dwellings up to m²</td>
<td>400</td>
</tr>
<tr>
<td>Max air flow (m³/hr)</td>
<td>929 / 258</td>
</tr>
<tr>
<td>Thermal efficiency (%)</td>
<td>Up to 90</td>
</tr>
<tr>
<td>Heat exchanger</td>
<td>Cross-Counter-Flow (Aluminium)</td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
</tr>
<tr>
<td>Summer by-pass damper</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Integral humidity sensor (RH %)</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Frost protection (optional)</td>
<td>Smart Frost</td>
</tr>
<tr>
<td>Controls (optional)</td>
<td>Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable</td>
</tr>
<tr>
<td>Connection to BMS</td>
<td>Modbus (RJ45) optional</td>
</tr>
<tr>
<td>Mounting</td>
<td>Floor</td>
</tr>
<tr>
<td>Sound power level (dB(A))</td>
<td>53</td>
</tr>
<tr>
<td>Duct diameter (mm)</td>
<td>250 (4 ports)</td>
</tr>
<tr>
<td>Condensate discharge (l/sec)</td>
<td>0.55</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>230 V / 1 ph / 50 Hz</td>
</tr>
<tr>
<td>Max. power consumption (W)</td>
<td>314</td>
</tr>
<tr>
<td>Filter Class</td>
<td>2 x G4, 1 x F7</td>
</tr>
<tr>
<td>Built-in electric post-heater (optional) (W)</td>
<td>2000 (2 x 1000)</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP34</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>200</td>
</tr>
<tr>
<td>Dimensions (L x D x H) (mm)</td>
<td>1038 x 773 x 1226-1241</td>
</tr>
<tr>
<td>Duct entry</td>
<td>Top Entry</td>
</tr>
</tbody>
</table>
| Versions available | Right Hand: 90000583
With optional electric post-heater: 90000583PH
With optional LCD digital controller: 90000583DH |
| Adroit CO2 Transmitter 90000613 |
| KNX-Converter 90000723 |
| Boost Switch 90000542 |
| Filter Set (2 x G4, 1 x F7) 90000611 |
| 2 x Additional 1500W Heaters for DV245 (R + L) 90000630 |

**PERFORMANCE**

**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.

**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 preventing 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, 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.

**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 coarse 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.

DV50 Adroit

PERFORMANCE

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.

DV50 Adroit

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for dwellings up to m²</td>
<td>80</td>
</tr>
<tr>
<td>Max air flow (m³/hr) / (l/sec)</td>
<td>187 / 52</td>
</tr>
<tr>
<td>Thermal efficiency (%)</td>
<td>Up to 90</td>
</tr>
<tr>
<td>Heat exchanger</td>
<td>Cross-Counter-Flow (Plastic)</td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
</tr>
<tr>
<td>Summer by-pass damper</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Integral humidity sensor (RH %)</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Frost protection (optional)</td>
<td>Smart Frost</td>
</tr>
<tr>
<td>Controls (optional)</td>
<td>Digital - 4 Profiles, 100% adjustable Manual - 4 Speed controller, adjustable</td>
</tr>
<tr>
<td>Connection to BMS</td>
<td>Modbus / KNX optional</td>
</tr>
<tr>
<td>Mounting</td>
<td>Ceiling</td>
</tr>
<tr>
<td>Sound power level @3m (dB(A))</td>
<td>49</td>
</tr>
<tr>
<td>Duct diameter (mm)</td>
<td>100 (4 ports)</td>
</tr>
<tr>
<td>Condensate discharge (l/sec)</td>
<td>0.6 BDF</td>
</tr>
<tr>
<td>Max. power consumption (W)</td>
<td>97</td>
</tr>
<tr>
<td>Filter Class</td>
<td>2 x G4, 1 x F7</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP44</td>
</tr>
<tr>
<td>Coating-insulation (mm)</td>
<td>20</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>45</td>
</tr>
<tr>
<td>Dimensions (L x D x H) (mm)</td>
<td>900 x 547 x 236</td>
</tr>
<tr>
<td>Duct entry</td>
<td>Side Entry</td>
</tr>
<tr>
<td>Version available</td>
<td></td>
</tr>
<tr>
<td>Right-hand:</td>
<td>90000684</td>
</tr>
<tr>
<td>With optional electric post-heater:</td>
<td>90000585EPH</td>
</tr>
<tr>
<td>Left-hand:</td>
<td>90000685</td>
</tr>
<tr>
<td>With optional electric post-heater:</td>
<td>90000585EPH</td>
</tr>
</tbody>
</table>

PERFORMANCE

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.

DV50 Adroit

DV50 Adroit

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.

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

Traditional Frost Protection Logic

- Supply Air: ca.+21°C
- Extract Air: ca. -10°C
- Timing and energy consumption graph when frost protection is on

New Smart Frost Protection Logic

- Supply Air: ca. +21°C
- Supply Air: +X°C
- Extract Air: ca. +21°C
- Supply Air: +X°C
- Timing and energy consumption graph when frost protection is off

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.

- Supply air fan
- Exhaust air fan
- Electric pre-heater
- Frost heater
- Heat exchanger
- Electric bypass damper

ACCESSIBILITY

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 smartphone, 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*

DV80 Adroit
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 smartphone, tablet or PC.

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.

DV80 Adroit

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for dwellings up to m²</td>
<td>120</td>
</tr>
<tr>
<td>Max. air flow (m³/hr)</td>
<td>285 / 79</td>
</tr>
<tr>
<td>Thermal efficiency (%)</td>
<td>Up to 90</td>
</tr>
<tr>
<td>Heat exchanger</td>
<td>Cross-Country Flow (Plastic)</td>
</tr>
<tr>
<td>Fins</td>
<td>EC</td>
</tr>
<tr>
<td>Summer by-pass damper</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Integral humidity sensor (RH%)</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Frost protection (optional)</td>
<td>Smart Frost</td>
</tr>
<tr>
<td>Controls (optional)</td>
<td>Digital - 4 Profiles, 100% adjustable</td>
</tr>
<tr>
<td>Manual - 4 Speed controller, adjustable</td>
<td></td>
</tr>
<tr>
<td>Connection to BMS</td>
<td>Modbus / KNX optional</td>
</tr>
<tr>
<td>Mounting</td>
<td>Ceiling</td>
</tr>
<tr>
<td>Sound power level @3m (dB(A))</td>
<td>52</td>
</tr>
<tr>
<td>Duct diameter (mm)</td>
<td>125 (4 ports)</td>
</tr>
<tr>
<td>Condensate discharge (l/sec)</td>
<td>3/4 BSP</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>230 V / 1.0 / 50 Hz</td>
</tr>
<tr>
<td>Max. power consumption (W)</td>
<td>158</td>
</tr>
<tr>
<td>Filter Class</td>
<td>2 x G4, 1 x F7</td>
</tr>
<tr>
<td>Built-in electric post-heater (optional) (W)</td>
<td>900</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP34</td>
</tr>
<tr>
<td>Insulation (mm)</td>
<td>20</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>59</td>
</tr>
<tr>
<td>Dimensions (L x D x H) (mm)</td>
<td>1026 x 626 x 293</td>
</tr>
<tr>
<td>Duct entry</td>
<td>Side Entry</td>
</tr>
<tr>
<td>Version available</td>
<td>Right Hand:</td>
</tr>
<tr>
<td>With optional electric post-heater:</td>
<td>90000587E</td>
</tr>
<tr>
<td>Left Hand:</td>
<td>90000586E</td>
</tr>
<tr>
<td>With optional electric post-heater:</td>
<td>90000586EPH</td>
</tr>
</tbody>
</table>

PERFORMANCE

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.

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.

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.

ACCESSIBILITY

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

Customer Services 01494 560800
airflow.com
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+  

**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**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV280 Adroit Pro</th>
<th>DV380 Adroit Pro</th>
<th>DV580 Adroit Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for dwellings</td>
<td>100</td>
<td>150</td>
<td>250</td>
</tr>
<tr>
<td>Max air flow (m³/hr) /</td>
<td>285 / 79</td>
<td>385 / 101</td>
<td>950 / 157</td>
</tr>
<tr>
<td>(in/hr) at 100Pa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat exchanger</td>
<td>Counterflow (Plastic)</td>
<td>Counterflow (Plastic)</td>
<td>Counterflow (Plastic)</td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
<td>EC</td>
<td>EC</td>
</tr>
<tr>
<td>Summer bypass damper</td>
<td>100% automatic</td>
<td>100% automatic</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Frost protection</td>
<td>Reducing supply air</td>
<td>Reducing supply air</td>
<td>Reducing supply air</td>
</tr>
<tr>
<td>Controllers</td>
<td>Touch or Rotary</td>
<td>Touch or Rotary</td>
<td>Touch or Rotary</td>
</tr>
<tr>
<td>Connection to BMS*</td>
<td>Modbus (TCP/IP)</td>
<td>Modbus (TCP/IP)</td>
<td>Modbus (TCP/IP)</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall</td>
<td>Wall</td>
<td>Wall</td>
</tr>
<tr>
<td>Sound Power Level (dB(A))</td>
<td>35</td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>Condensate discharge (mm)</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>230 V / 1 ph / 50 Hz</td>
<td>230 V / 1 ph / 50 Hz</td>
<td>230 V / 1 ph / 50 Hz</td>
</tr>
<tr>
<td>Max. Power Consumption (W)</td>
<td>118</td>
<td>192</td>
<td>245</td>
</tr>
<tr>
<td>Filter Class</td>
<td>2 x G4 F7 (Optional)</td>
<td>2 x G4 F7 (Optional)</td>
<td>2 x G4 F7 (Optional)</td>
</tr>
<tr>
<td>Built-in Electric pre-heater (optional) (W)</td>
<td>650</td>
<td>990</td>
<td>1330</td>
</tr>
<tr>
<td>Built-in Electric post-heater (optional) (W)</td>
<td>900 / 1500</td>
<td>1550</td>
<td>2100 / 3000</td>
</tr>
<tr>
<td>Mounted Electric post-heater (optional) (W)</td>
<td>250</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Duct Diameter (mm)</td>
<td>150 (4 ports)</td>
<td>150 (4 ports)</td>
<td>200 (4 ports)</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP34</td>
<td>IP34</td>
<td>IP34</td>
</tr>
<tr>
<td>Casing insulation (mm)</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>118</td>
<td>192</td>
<td>245</td>
</tr>
<tr>
<td>Dimensions (L x D x H) (mm)</td>
<td>617 x 490 x 1000</td>
<td>617 x 490 x 1000</td>
<td>928 x 509 x 1080</td>
</tr>
<tr>
<td>Duct Entry</td>
<td>Top Entry</td>
<td>Top Entry</td>
<td>Top Entry</td>
</tr>
</tbody>
</table>

**ACCESSORIES**
See Duplexvent accessories for more details.
DV280, DV380 and DV580 Adroit Pro

Premium Top Entry MVHR Unit

PERFORMANCE

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 smartphone
- 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

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

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 250 m²*
- 3 models (side entry) up to 570 m³/hr at 100Pa
- Plastic counterflow heat exchanger
- Up to 95% thermal efficiency and low SFP
- A+ energy rating
- Sandwich casing construction with 30 mm thick insulation to eliminate 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+

**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**

<table>
<thead>
<tr>
<th>Specification</th>
<th>DV170 Adroit Pro</th>
<th>DV370 Adroit Pro</th>
<th>DV570 Adroit Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for dweller up to:</td>
<td>170</td>
<td>370 / 103</td>
<td>570 / 158</td>
</tr>
<tr>
<td>Max air flow (m³/hr) / (l/sec) at 100Pa:</td>
<td>175 / 49</td>
<td>370 / 103</td>
<td>570 / 158</td>
</tr>
<tr>
<td>Thermal efficiency (%):</td>
<td>54</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>Heat exchanger:</td>
<td>Counterflow (Plastic)</td>
<td>Counterflow (Plastic)</td>
<td>Counterflow (Plastic)</td>
</tr>
<tr>
<td>Pans:</td>
<td>EC</td>
<td>EC</td>
<td>EC</td>
</tr>
<tr>
<td>Summer bypass damper:</td>
<td>100% automatic</td>
<td>100% automatic</td>
<td>100% automatic</td>
</tr>
<tr>
<td>Frost protection:</td>
<td>Reducing supply air</td>
<td>Reducing supply air</td>
<td>Reducing supply air</td>
</tr>
<tr>
<td>Controllers:</td>
<td>Touch or Rotary</td>
<td>Touch or Rotary</td>
<td>Touch or Rotary</td>
</tr>
<tr>
<td>Connection to BMS:</td>
<td>Modbus (TCP / IP)</td>
<td>Modbus (TCP / IP)</td>
<td>Modbus (TCP / IP)</td>
</tr>
<tr>
<td>Mounting: Ceiling</td>
<td>Ceiling</td>
<td>Ceiling</td>
<td></td>
</tr>
<tr>
<td>Sound Power Level (dB(A)):</td>
<td>37</td>
<td>38</td>
<td>42</td>
</tr>
<tr>
<td>Duct Diameter (mm):</td>
<td>150 (4 ports)</td>
<td>200 (4 ports)</td>
<td>250 (4 ports)</td>
</tr>
<tr>
<td>Condensate discharge (mm):</td>
<td>16 (2 drain options available)</td>
<td>16 (2 drain options available)</td>
<td>16 (2 drain options available)</td>
</tr>
<tr>
<td>Electric supply:</td>
<td>230 V / 1 ph / 50 Hz</td>
<td>230 V / 1 ph / 50 Hz</td>
<td>230 V / 1 ph / 50 Hz</td>
</tr>
<tr>
<td>Max. Power Consumption (W):</td>
<td>79</td>
<td>167</td>
<td>313</td>
</tr>
<tr>
<td>Filter Class: 2 x G4 (F7) Optional</td>
<td>2 x G4 (F7 Optional)</td>
<td>2 x G4 (F7 Optional)</td>
<td></td>
</tr>
<tr>
<td>Built-in Electric pre-heater (optional) (kW):</td>
<td>650</td>
<td>980</td>
<td>1300</td>
</tr>
<tr>
<td>Ducted Electric pre-heater (optional) (kW):</td>
<td>900 / 1500</td>
<td>2100</td>
<td>3000</td>
</tr>
<tr>
<td>Built-in Electric post-heater (optional) (kW):</td>
<td>250</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Ducted Electric post-heater (optional) (kW):</td>
<td>900 / 1500</td>
<td>2100</td>
<td>3000</td>
</tr>
<tr>
<td>Protection class: IP34</td>
<td>IP34</td>
<td>IP34</td>
<td></td>
</tr>
<tr>
<td>Casing insulation (mm):</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Weight (kg):</td>
<td>18</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>Dimensions (L x D x H) (mm):</td>
<td>840 x 655 x 290</td>
<td>1116 x 930 x 290</td>
<td>1290 x 930 x 370</td>
</tr>
<tr>
<td>Dust Entry:</td>
<td>Side Entry</td>
<td>Side Entry</td>
<td>Side Entry</td>
</tr>
<tr>
<td>Versions available:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adroit Pro Web with Touch controller:</td>
<td>90000683</td>
<td>90000682</td>
<td>90000681</td>
</tr>
<tr>
<td>Adroit Pro Basic with Touch controller:</td>
<td>90000684</td>
<td>90000685</td>
<td>90000686</td>
</tr>
<tr>
<td>Adroit Pro Web with Rotary controller:</td>
<td>90000687</td>
<td>90000688</td>
<td>90000689</td>
</tr>
<tr>
<td>Adroit Pro Basic with Rotary controller:</td>
<td>90000682</td>
<td>90000683</td>
<td>90000684</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

**PERFORMANCE**

*Only for units with Adroit Pro Web control system

**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 smartphone
- 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

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

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.

*A 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 providing 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 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.

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 ¾” 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.
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**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Brine to air heat exchanger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing</td>
<td>Double skin steel with insulation</td>
</tr>
<tr>
<td>Heat exchanger material</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Heat exchanger Pipe connection</td>
<td>Copper, 2 x Ø12 mm</td>
</tr>
<tr>
<td>Duct connection</td>
<td>2 x Ø200 mm</td>
</tr>
<tr>
<td>Condensate discharge</td>
<td>12 mm</td>
</tr>
<tr>
<td>Filter</td>
<td>G4</td>
</tr>
<tr>
<td>Weight</td>
<td>16kg</td>
</tr>
</tbody>
</table>

**HEAT EXCHANGER PRESSURE LOSS**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brine to air heat exchanger</td>
<td>387</td>
<td>401</td>
<td>433</td>
<td>Ø200</td>
<td>187</td>
<td>208 + (60)</td>
<td>324</td>
<td>408 + (56)</td>
<td>358 + (50)</td>
<td>370 + (30)</td>
<td>189 + (56)</td>
<td>189</td>
<td>93</td>
<td>Ø12</td>
<td>328</td>
</tr>
</tbody>
</table>

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 ¾”, delivered with wall bracket and stop valve for maintenance
- Electrical terminal box with 24 V DC relay and operation switch

**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.
### Duplexvent Range Overview

#### Residential Heat Recovery

**BASIC LINE (TOP ENTRY)**

<table>
<thead>
<tr>
<th>Model</th>
<th>DV72</th>
<th>BV400</th>
<th>DV250</th>
<th>DV300</th>
<th>DV400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air flow m³/hr / l/sec @ 100Pa</td>
<td>260 / 72</td>
<td>370 / 103</td>
<td>230 / 64</td>
<td>300 / 83</td>
<td>385 / 107</td>
</tr>
<tr>
<td>Thermal efficiency</td>
<td>Over 90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ENTRO LINE (SIDE ENTRY)**

<table>
<thead>
<tr>
<th>Model</th>
<th>DV72</th>
<th>BV400</th>
<th>DV250</th>
<th>DV300</th>
<th>DV400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air flow m³/hr / l/sec @ 100Pa</td>
<td>260 / 72</td>
<td>370 / 103</td>
<td>230 / 64</td>
<td>300 / 83</td>
<td>385 / 107</td>
</tr>
<tr>
<td>Thermal efficiency</td>
<td>Over 90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Features**

- **Fans**
  - EC

- **Automatic summer bypass**
  - Standard

- **100% summer bypass**
  - Standard

- **Frost protection via heater**
  - Optional

- **Frost protection via supply air reduction**
  - 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

- **Maintenance indicator**
  - Standard

- **Weekly ventilation programming**
  - Standard

- **BMS connection**
  - Standard

- **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*1
  - 2 years*2

- **SAP eligible**
  - ✓ ✓ ✓ ✓ ✓ ✓

- **Passive House Institute certified**
  - ✓ ✓ ✓ ✓ ✓ ✓

---

### Duplexvent Range Overview

#### Residential Heat Recovery

**ADROIT LINE (TOP ENTRY)**

<table>
<thead>
<tr>
<th>Model</th>
<th>DV90K</th>
<th>DV96</th>
<th>DV110</th>
<th>DV145</th>
<th>DV245</th>
<th>DV50</th>
<th>DV80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air flow m³/hr / l/sec @ 100Pa</td>
<td>252 / 70</td>
<td>320 / 89</td>
<td>370 / 105</td>
<td>542 / 151</td>
<td>929 / 258</td>
<td>187 / 52</td>
<td>285 / 79</td>
</tr>
<tr>
<td>Thermal efficiency</td>
<td>Up to 90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ADROIT LINE (SIDE ENTRY)**

<table>
<thead>
<tr>
<th>Model</th>
<th>DV90K</th>
<th>DV96</th>
<th>DV110</th>
<th>DV145</th>
<th>DV245</th>
<th>DV50</th>
<th>DV80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air flow m³/hr / l/sec @ 100Pa</td>
<td>252 / 70</td>
<td>320 / 89</td>
<td>370 / 105</td>
<td>542 / 151</td>
<td>929 / 258</td>
<td>187 / 52</td>
<td>285 / 79</td>
</tr>
<tr>
<td>Thermal efficiency</td>
<td>Up to 90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Features**

- **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

- **Maintenance indicator**
  - Standard

- **Weekly ventilation programming**
  - Standard

- **BMS connection**
  - 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

<table>
<thead>
<tr>
<th>Model</th>
<th>ADROIT PRO (TOP ENTRY)</th>
<th>ADROIT PRO (SIDE ENTRY)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DV280</td>
<td>DV380</td>
</tr>
<tr>
<td>Air flow m³/hr / l/sec @ 100Pa</td>
<td>285 / 79</td>
<td>365 / 107</td>
</tr>
<tr>
<td>Thermal efficiency</td>
<td>Over 90%</td>
<td></td>
</tr>
<tr>
<td>Fans</td>
<td>EC</td>
<td></td>
</tr>
<tr>
<td>Automatic summer bypass</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>100% summer bypass</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>Frost protection via heater</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Frost protection via supply Air reduction</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>Standard Control</td>
<td>Digital</td>
<td></td>
</tr>
<tr>
<td>Alternative Control</td>
<td>Manual</td>
<td></td>
</tr>
<tr>
<td>Boost with delay timer</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>Maintenance indicator</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>Weekly ventilation programming</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>BMS connection</td>
<td>Standard*</td>
<td></td>
</tr>
<tr>
<td>Integrated web server</td>
<td>Standard*</td>
<td></td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall / Floor</td>
<td>Under - Ceiling</td>
</tr>
<tr>
<td>Filter class</td>
<td>2 x G4 (F7 optional)</td>
<td></td>
</tr>
<tr>
<td>Post-heater</td>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>5 years*</td>
<td></td>
</tr>
</tbody>
</table>

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

- Unique, quiet, reliable with modern styling
- A range of fans for toilet, bathroom, utility and kitchen ventilation
- Iris shutter prevents back draughts and reduces noise ingress
- Choice of Basic, Timer, Humidity, Motion Sensor and SELV models
- Easy fit - a round fan for a round hole
- Complies with Building Regulations

For further information see Residential Range

Visit: airflow.com

Air Flow Solutions

The stylish face of ventilation

Silver Sandstone Chrome Anthracite
### Controllers - Switches - Sensors

<table>
<thead>
<tr>
<th><strong>Controller / Sensor</strong></th>
<th><strong>Model</strong></th>
<th><strong>Description</strong></th>
<th><strong>Features</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissioning switch</td>
<td>90000059</td>
<td>2 speed, 100% adjustable</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>Boost switch</td>
<td>90000028</td>
<td>Manual boost (1-way)</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>Electrical humidistat</td>
<td>9041570</td>
<td>30-90% RH (volt-free output)</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>Manual control switch</td>
<td>90000334</td>
<td>3 speed</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>Digital controller</td>
<td>90000336</td>
<td>3 speed LCD display with data logger and weekly programming</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>PIR motion sensor</td>
<td>51969702</td>
<td>With 3-30 min timer (230 V output)</td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
<tr>
<td>Manual control switch</td>
<td>90000408</td>
<td>100% adjustable</td>
<td><img src="image7.png" alt="Image" /></td>
</tr>
<tr>
<td>Digital controller</td>
<td>90000409</td>
<td>Touch screen panel</td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
<tr>
<td>Manual control switch</td>
<td>9041219</td>
<td>4 speed, 100% adjustable</td>
<td><img src="image9.png" alt="Image" /></td>
</tr>
<tr>
<td>Digital controller</td>
<td>90000610</td>
<td>4 speed, 100% adjustable</td>
<td><img src="image10.png" alt="Image" /></td>
</tr>
<tr>
<td>Room humidity sensor</td>
<td>90000320</td>
<td>Room rh (0-10 V output)</td>
<td><img src="image11.png" alt="Image" /></td>
</tr>
<tr>
<td>Duct humidity sensor</td>
<td>90000313</td>
<td>Duct RH (0-10 V output)</td>
<td><img src="image12.png" alt="Image" /></td>
</tr>
<tr>
<td>Room CO₂ sensor</td>
<td>90000166</td>
<td>Room CO₂ (0-10 V output)</td>
<td><img src="image13.png" alt="Image" /></td>
</tr>
<tr>
<td>Duct CO₂ sensor</td>
<td>90000165</td>
<td>Duct CO₂ (0-10 V output)</td>
<td><img src="image14.png" alt="Image" /></td>
</tr>
<tr>
<td>Room air quality sensor</td>
<td>90000321</td>
<td>Room air quality (0-10 V output)</td>
<td><img src="image15.png" alt="Image" /></td>
</tr>
<tr>
<td>Built-in humidity / air quality sensor</td>
<td>90000325</td>
<td>Built-in humidity sensor</td>
<td><img src="image16.png" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td>90000344</td>
<td>Built-in air quality sensor</td>
<td><img src="image17.png" alt="Image" /></td>
</tr>
<tr>
<td>Pressure sensor</td>
<td>90000326</td>
<td>For filter monitoring</td>
<td><img src="image18.png" alt="Image" /></td>
</tr>
<tr>
<td>Digital controller</td>
<td>90000710</td>
<td>100% adjustable, incl. internet control</td>
<td><img src="image19.png" alt="Image" /></td>
</tr>
<tr>
<td>Room humidity sensor</td>
<td>90000612</td>
<td>Adroit humidity transmitter</td>
<td><img src="image20.png" alt="Image" /></td>
</tr>
<tr>
<td>Room CO₂ sensor</td>
<td>90000613</td>
<td>Adroit CO₂ transmitter</td>
<td><img src="image21.png" alt="Image" /></td>
</tr>
</tbody>
</table>
## Duplexvent Residential Accessories

### Filters

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Product Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>90000410</td>
<td>2 x G4 filter (DV250)</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000411</td>
<td>2 x G4 filter (DV300 / DV400)</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000620</td>
<td>2 x G4 / 1 x F7 (DV50) Adroit</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000621</td>
<td>2 x G4 / 1 x F7 (DV80) Adroit</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>9041127</td>
<td>2 x G4 / 1 x F7 (DV80K) Adroit</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000375</td>
<td>2 x G4 / 1 x F7 (DV96) Adroit</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000376</td>
<td>2 x G4 / 1 x F7 (DV110) Adroit</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000611</td>
<td>2 x G4 / 1 x F7 (DV245) Adroit</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>9041111</td>
<td>2 x G3 filter</td>
<td>⚤ – – – – – –</td>
</tr>
<tr>
<td>90000322</td>
<td>2 x G4 filter</td>
<td>– ⚤ – – – – –</td>
</tr>
<tr>
<td>90000323</td>
<td>1 x F7 filter</td>
<td>– ⚤ – – – – –</td>
</tr>
<tr>
<td>90000765</td>
<td>10 x G4 filter cloths (DV280 / DV380) Adroit Pro</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000767</td>
<td>10 x G4 filter cloths (DV580) Adroit Pro</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000759</td>
<td>10 x G4 filter cloths (DV170) Adroit Pro</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000761</td>
<td>10 x G4 filter cloths (DV370) Adroit Pro</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000763</td>
<td>10 x G4 filter cloths (DV570) Adroit Pro</td>
<td>– – – ⚤ – – –</td>
</tr>
</tbody>
</table>

### Heaters

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Product Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>90000301</td>
<td>125 mm, 1.2kW incl. temp. sensor and control switch</td>
<td>⚤ – – – – –</td>
</tr>
<tr>
<td>90000324</td>
<td>160 mm, 1.0kW (BV400)</td>
<td>– ⚤ – – – – –</td>
</tr>
<tr>
<td>90000413</td>
<td>160 mm, 0.4kW</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000414</td>
<td>160 mm, 0.7kW</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000415</td>
<td>160 mm, 1.7kW</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000162</td>
<td>125 mm, 0.9kW</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000163</td>
<td>160 mm, 1.5kW</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000156</td>
<td>200 mm, 2.1kW</td>
<td>– – – ⚤ – – –</td>
</tr>
<tr>
<td>90000173</td>
<td>250 mm, 3.0kW</td>
<td>– – – ⚤ – – –</td>
</tr>
</tbody>
</table>

### Other components

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Product Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>90000723</td>
<td>For BMS connection (KNX)</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000058</td>
<td>For horizontal installation</td>
<td>⚤ – – – – – –</td>
</tr>
<tr>
<td>90000345</td>
<td>Galvanised (DV250)</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000347</td>
<td>Galvanised (DV300/400)</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000716</td>
<td>(DV96) Adroit</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000717</td>
<td>(DV110) Adroit</td>
<td>– – ⚤ – – – –</td>
</tr>
<tr>
<td>90000722</td>
<td>(DV145) Adroit</td>
<td>– – ⚤ – – – –</td>
</tr>
</tbody>
</table>
Always Innovating

Our constant search for new and better ways to save energy, improve the indoor environment and provide you with high quality, reliable and easy to use products that contribute to a low carbon future continues.

visit: airflow.com

for the latest, products, data sheets, application advice and information

Customer Services : 01494 560800
Technical Support : 01494 560950