

UNIT SPECIFICATION - DV250 ENTRO

The mechanical ventilation with heat recovery unit shall be the DV250 Entro as manufactured by Airflow, shall be sized as indicated on the drawings and shall be in accordance with the specification.

The unit shall be a highly efficient side-entry MVHR (mechanical ventilation with heat recovery) that can recover up to 90% of the wasted heat. The unit's casing shall be manufactured from high density EPP (expanded polypropylene) material which provides significant insulation and eliminates thermal bridging.

The plastic counterflow heat exchanger shall prevent the air-streams from mixing and shall be easy to clean and maintain.

The unit shall have low energy EC fans that minimise the unit's energy consumption with a quiet operation and low specific fan power values. The sound power level requirements shall be detailed by the unit's manufacturer and in accordance with the ventilation equipment operation schedule.

The unit shall be designed with a double filter facility that comes with two ISO Coarse 60% (G4) filters as standard with an optional ISO ePM1 55% (F7) pollen filter which provides additional protection against invisible, harmful particles creating an ultra-hygienic environment.

The unit shall benefit from a lightweight design which allows all types of installation layouts such as wall, ceiling or floor. The mounting positions and flexibility in product specification, installation and storage shall be as described in the product's datasheet and instruction manual provided by Airflow.

The unit shall be 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.

The unit shall be supplied with a 14 mm insulated condensation discharge. The unit shall be suitable for 160 mm (4 ports) duct diameter installed at the side entry.

The unit shall be DV250 Entro as manufactured by Airflow and shall be listed on the SAP Appendix Q Database PCDB.

KEY FEATURES

- For use in dwellings up to 120 m²
- Up to 90% thermal efficiency and low SFP
- 'A' energy rating
- Adjustable control
- Double filter design with ISO Coarse 60% (G4) filters and an optional ePM1(F7) pollen filter
- Automatic, 100% summer by-pass
- Lightweight design allows for multiple install options
- Durable EPP casing
- Optional metal housing used for sound absorption, components protection and unit's life span extension
- Optional digital touch screen controller
- Auto cut-out switch for extra safety
- Optional electric pre-heater / post-heater
- Complies with Building Regulations and Passive House certified

OPERATION

The supply and extract sides shall be positioned as indicated on the project's drawing and shall be in accordance with the ventilation unit's schedule.

The mechanical ventilation with heat recovery unit shall extract stale air from all wet rooms such as bathroom, kitchen, en-suite, W.C., utility rooms and supply fresh warm air to all habitable rooms such as bedrooms and living areas. The incoming air which is the supply air shall be warmed up by the extracted indoor air through the highly efficient heat exchanger. Also, both air flow paths, the extract and supply sides, shall be filtered in order to protect the heat exchanger.

The ventilation unit shall have a variable speed control 100% adjustable depending upon the control option chosen in the specification. The unit shall have be easy to commission the supply and extract fans independently having fully variable fan speed control.

CONTROL OPTIONS

The DV250 Entro unit shall be controlled by one of the following:

- Manual controller
- Touch screen controller
- Additional external sensors achieving on-demand ventilation
- Switched live signal from light/remote switches

MANUAL CONTROLLER

The recessed simple variable speed controller is compatible with the DV250 Entro heat recovery unit and shall provide 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
- Automatic summer bypass
- Heater control for pre-heater and post-heater

TOUCH SCREEN CONTROLLER

The digital touch screen controller is available as an optional controller compatible with the DV250 Entro heat recovery unit and shall provide 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 and supply air temperature
- Automatic control of summer by-pass actuator
- Automatic anti-frost protection of the heat recovery core