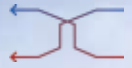


energiVent® Q

Range of Eco-Friendly Whole House Heat Recovery Systems



The energiVent® Q is the new breed in Heat Recovery, bringing energy efficiency, innovation and performance to a new level. Available in two versions - the energiVent® Q Air Source and the energiVent® Q Solar.

Features

- Intelligent humidity tracking (as standard)
- Switch live input (as standard)
- Frost protection (as standard)
- Wireless controls (as standard)
- Wide range of additional innovative control options
- Energy saving zone control
- Ultra Low Watt DC motor technology
- Intelligent zone control
- Flexible installation layout
- A summer by-pass option
- On-going 5 year warranty
- 5 year filter

Benefits

- Designed to match the life-cycle of the property
- energiVent® Q Air Source is SAP Appendix Q eligible
- A one man installation
- ≥93% efficient
- energiVent® Q Solar benefits from solar gain
- Ease of installation
- Exceeds current building regulations

About the energiVent® Q

The energiVent® Q is the new breed in Heat Recovery, bringing energy efficiency, innovation and performance to a new level. Available in two versions - the energiVent® Q Air Source and the energiVent® Q Solar - the systems are ideal for new build construction and energy-conscious refurbishment programmes.

Using Ultra Low Watt DC motor technology these heat recovery systems operate with low energy consumption and are eligible for SAP Appendix Q. Fitted with independent zone control and intelligent vapour tracking functions as standard, the units can also be used in conjunction with humidity sensing extracts. These extracts can be incorporated into the system at design stage to provide a totally zoned system. When the extracts sense humidity, they open by an appropriate

amount to meet the ventilation requirement for that room only. In doing so, this triggers the fan unit to boost by the corresponding amount whilst the other extracts remain at trickle ventilation. This unique combination offers optimum performance with the highest possible efficiency.

Fitted with wireless controls, intelligent humidity sensing and switch live input for boost, the energiVent® Q provides a complete solution for on demand ventilation as standard. Incorporating frost protection and on-going 5 year warranties, the systems meet the challenges of the UK's commitment towards designing and building sustainable homes.



Unique Design

The system is designed in a unique modular format to provide optimum flexibility. Each module is designed to carry out a particular function offering a highly energy efficient, effective and versatile system comprising of:

- Dual functioning twin fan extraction and input unit
- The ultra efficient heat exchange block

Summer By-Pass

The energiVent® Q Air Source can be supplied with a 100% by-pass facility (optional extra). This provides a diverter mechanism to by-pass the heat recovery process, if desired, to deliver fresh cool outside air into the property.



The Benefits of Heat Recovery

How does it work?



Stale, moist air is extracted out of the wet rooms of a home. These include the kitchen, bathrooms, utility and en-suite rooms.

This moist air is then ducted to a central unit located normally in the loft space in a house or in a utility room or cupboard in an apartment. This extracted air passes over a heat exchanger before being ducted to outside. Simultaneously, fresh air is drawn into the unit from outside via a G4 pollen filter, and is warmed by the high efficiency heat exchange cell. This tempered, fresh air is then delivered through supply vents into the living, dining and bedroom areas. This constant supply of clean, tempered air into the property creates a healthy and ideal environment, maintaining stable humidity levels, free from condensation and mould. Sufferers of asthma, house dust mite populations and other respiratory problems should find this method of ventilation significantly beneficial.

Dual Functioning Twin Fan Extraction and Input Unit

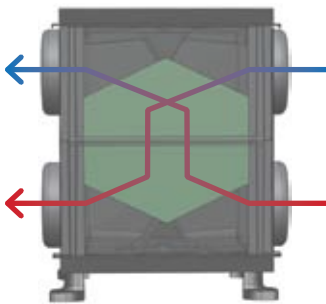
- The extract unit draws warm, moisture-laden air out of the wet rooms of the property, such as the kitchen, bathrooms and utility room.
- The intelligent vapour tracking function senses the rise in humidity and ensures that extract performance constantly matches humidity and occupancy levels to achieve optimum effectiveness with the lowest energy use.
- Wireless controls to manually boost which eliminates costly wiring and provides convenience for the occupant.
- The unique twin fan extraction unit provides independent zone control for enhanced effectiveness and improved efficiency. This allows the system to operate in 'boost' mode for one zone, when for example cooking or bathing, whilst the other zone remains in 'trickle' mode, where the humidity is lower.
- Using Ultra Low Watt DC motor technology, the unit is also able to operate at outstanding energy efficiency levels, reducing carbon emissions.
- A summer by-pass option is available.



Q Air Source

Q Solar

Ultra Efficient Counter Flow Heat Exchange Cell

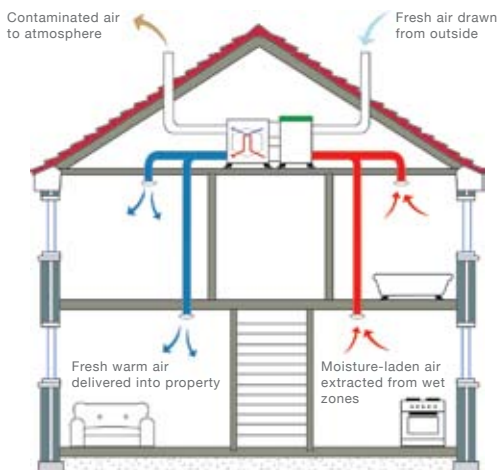


Simultaneously, moisture-laden air from the wet rooms and dry, fresh air from the loft is transferred over the heat exchange block. Counter flow heat exchange blocks can be up to 20% more efficient than cross flow heat exchange blocks, which are more common in traditional heat exchange systems. Achieving exceptional energy efficiency levels, the warmth generated from the heat exchange cell and in the loft space* is returned into the home through input vents. Due to the unique design of the fan enclosure, no cross contamination

of vapours and odours occur. By providing this constant supply of clean, tempered air into the property, the unit creates a healthy and ideal environment, maintaining stable humidity levels free from condensation and mould. Sufferers of asthma, house dust mite allergies and other respiratory problems should find this system significantly beneficial.

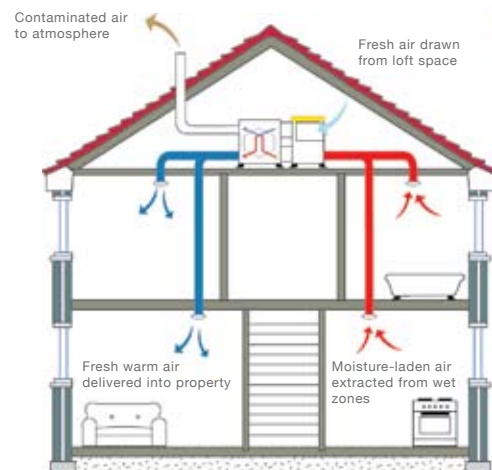
*The energiVent® Q Solar model benefits from solar gain within the loft space.

Q Air Source



The energiVent® Q Air Source unit is based on the same technology as the solar unit and differs only in that the supply air is drawn from atmosphere. This configuration would be of benefit when the unit is to be installed in the warm envelope of a property.

Q Solar



The supply air is delivered through a 5 year maintenance free filter directly from the loft space. This provides the advantage of a typical temperature increase during the heating season of around 3 degrees before the heat recovery process even begins. This is totally unique and achieves an energy recovery performance which by far exceeds any other domestic heat recovery system currently available.

Installation

The energiVent® Q is installed unobtrusively within a loft space and can be easily accessed via a standard loft hatch.



SAP Appendix Q Calculations

Exhaust Terminal Configuration	Fan Speed Setting	Specific Fan Power (W/l/s)	Heat Exchange Efficiency (%)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	100% Variable	0.74	86	Yes
Kitchen + 2 additional wet rooms	100% Variable	0.69	88	Yes
Kitchen + 3 additional wet rooms	100% Variable	0.66	88	Yes
Kitchen + 4 additional wet rooms	100% Variable	0.77	88	Yes
Kitchen + 5 additional wet rooms	100% Variable	0.81	87	Yes
Kitchen + 6 additional wet rooms	100% Variable	0.91	87	Yes
Kitchen + 7 additional wet rooms	100% Variable	1.08	87	No

energiVent® Q Control Options

The energiVent® Q offers numerous innovative control options. Whichever control option is specified, ratiometric technology balances the airflow across the system, ensuring optimum performance and efficiency.

Standard Control Options

Standard Unit Order Codes:

energiVent® Q Solar
ENERGQSOL-WH

energiVent® Q Air Source
ENERGQAS-WH

energiVent® Q Air Source with summer by-pass
ENERGQASB-WH

Intelligent humidity tracking, wireless, switch live input, frost protection.

The standard unit is fitted with intelligent humidity tracking, switch live input and wireless controls. Frost protection is also included as standard. This facility monitors the temperature of the heat exchange cell. When the temperature drops below 5°C the system will automatically blow warm air through the cell to prevent the formation of frost and ensure optimum efficiency of the system

Additional Control Options

The following additional control options are available. Simply add the letter to the end of the standard code.

CO₂ Sensing (Code Letter **C**)

Automatic sensing to monitor room occupation.

PIR Sensing (Code Letter **P**)

Automatic sensing based on presence detection.

Intelligent Single Room Zoning (Code Letter **V**)

Incorporating hygroscopic valves, intelligent single room zoning is achieved. Responding to changes in humidity, the valves open proportionately. This is achieved via a tracking device, which speeds up the fan in direct proportion: - as the airflow increases the unit senses the increase in humidity and then tracks back down when the humidity lowers. This function is specific to a single extract zone, such as the kitchen, which means that only one zone is affected rather than the entire system operating in boost mode. This ensures that extract performance constantly matches humidity and occupancy levels to achieve optimum effectiveness with the lowest energy use.

Fire Alarm Shut Down (Code Letter **F**)

Particularly appropriate for student and nursing home applications, the system will shut down when a fire alarm is triggered. This prevents the airflow from the ventilation system entering the rooms.

Hibernation Mode (Code Letter **H**)

The system will continuously monitor the PIR and CO₂ activity within the home or building. When it notices a lack of activity over a certain time frame it will go into hibernation mode for energy-saving. This is particularly beneficial when residents are on holiday.

BMS Integration (Code Letter **B**)




energiVent® Q enables ease of integration into any new or existing Building Management Service facility

Example Applications

Four Bedroom Property

Order Code: **ENERGQAS-WHH**





Standard unit with Hibernation Mode as an added control option:

-  Intelligent humidity tracking maintains the required ventilation rates in the wet rooms of the property
-  Clean, warmed air is returned through supply vents into the living areas
-  When the family is away on holiday the unit switches into hibernation mode to save energy

Five Bedroom Property

Order Code: **ENERGQASB-WHP**

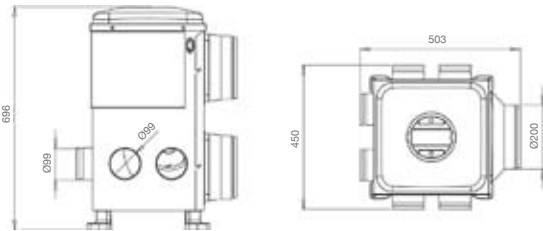
Standard summer by-pass unit with PIR Sensing as an added control option:

-  Intelligent humidity tracking maintains the required ventilation rates in the wet rooms of the accommodation
-  The PIR sensors detect presence within remote ensuite rooms
-  Clean, warmed air is returned through supply vents into the living areas
-  The summer by-pass facility delivers fresh, cool air from outside into the property during warmer months of the year

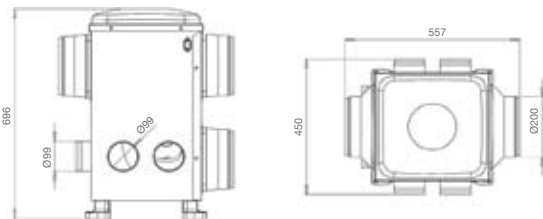
Selecting multiple auto sensing triggers or by mixing switched live inputs with auto sensing triggers can result in the unit over ventilating. Please consult EnviroVent for advice on the best control options for your requirements.

Dimensions (mm)

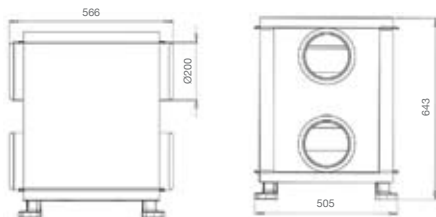
Q Solar




Q Air Source



Heat Exchange Cell



Options & Ancillaries

Product	Description	EnviroVent Code
	3 Way Splitter	ADAPTOR1-3LHR
	Universal Condensate Kit	1RD CONTRAP 100
	Wireless Switch	SWH-W
	Insulated Flexible Hose Ducting Ø100	1RD INS FLEX 100
	Supply and Extract Ceiling Vents	1DIF VALVE 100

Technical Specifications

Product

Whole house heat recovery system for properties with a loft space.

Application Suitability

Sited predominantly in a loft space, the system shall recover heat from extracted air and return clean, warmed air via a counter flow heat exchange block.

Performance

	Exhaust Terminal Configuration - Kitchen + Additional Wet Rooms						
	+1	+2	+3	+4	+5	+6	+7
Total Supply Flow Rate (l/s)	15.0	21.0	27.0	33.0	39.0	45.0	51.0
Total Exhaust Flow Rate (l/s)	15.0	21.0	27.0	33.0	39.0	45.0	51.0
Heat Exchange Efficiency (%)	86	88	88	88	87	87	87
Specific Fan Power (W/l/s)	0.74	0.69	0.66	0.77	0.81	0.91	1.08

Installation

Full installation guide is enclosed with all products; or sent separately in advance - if required.

Heat Exchanger

Is counter flow $\geq 93\%$ efficiency.

Motor

Incorporates the Ultra Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

Fan

Supply - Is a single inlet backward curved centrifugal fan.
Extract - Is a double inlet forward curved centrifugal fan.

Summer By-Pass

Can be supplied with 100% by-pass facility.

Filter

Is a synthetic fibre based filter mat to G4 standard in accordance with EN779 standard ratings. The filter should conform to all European Union and US fire classification standards (e.g. DIN 53438-F1 and UL900-class 2) and be self-extinguishing.

Casing

The cell casing is constructed from moulded EPP with a powder coated sheet metal outer case. The blower unit is constructed from powder coated sheet metal with 12mm internal insulation.

Controls

The unit shall be fitted with wireless control boost switch, humidity vapour sensing automatic operation and S/L terminal for boost from remote light switch to provide a trickle and boost facility, commissionable to suit the application and satisfy Part F. The following control options are also available: CO₂, PIR sensing automatic boost switching, intelligent single room zoning, hibernation mode, fire alarm shut down, BMS integration. There are two additional terminals on the PCB for future proofing.

Warranty

Is covered by an on-going, repeatable 5 year warranty, subject to the completion of specified maintenance.

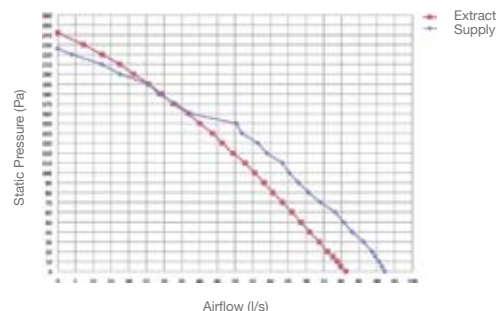
Manufacturer

Unit shall be the energivent® Q as manufactured by EnviroVent Ltd

Accreditation

SAP Appendix Q eligible

Performance Curve



Order Codes

ENERGQSOL-WH	energiVent® Q Solar (Standard Unit)
ENERGQAS-WH	energiVent® Q Air Source (Standard Unit)
ENERGQASB-WH	energiVent® Q Air Source with summer by-pass (Standard Unit)

For further control options and order codes, please refer to page 49 for more details.

For more information on this product
call 0845 27 27 810