

ECO dMEV

Decentralised Mechanical Extract Ventilation Unit



About

The ECO dMEV has been designed and developed to offer the market a constant volume, continuously running decentralised extract fan to achieve the lowest power consumption, the lowest noise and the lowest life-cycle costs.

Features & Benefits

- Constant volume, continuously running extract ventilation with up to 5 adjustable trickle speed settings
- Fitted with low watt DC motors for minimum energy consumption down to 1.5 Watts
- Incredibly quiet running below 20 dB(A)
- SAP Appendix Q eligible achieving a low Specific Fan Power of 0.28 W/l/s
- Low voltage version available
- 4 interchangeable front panel trims
- Timer, humidity sensor and pullcord models
- Complies with Building Regulations, Part F, for System 3 - Continuous Mechanical Extract
- One fan for all situations
- Ease of installation and commissioning of speed settings
- Stylish features
- Highly versatile, can be installed into walls and ceilings
- Ease of maintenance

One Fan For All Situations

Building on the principles of the hugely successful and award-winning EnviroVent Filterless Extract Fan the ECO dMEV is ideal for all domestic applications, WCs, bathrooms, utility rooms and kitchens. It is a 100mm constant volume, continuously running extract fan, which can be fitted in wall, ceiling or panel installations.

ECO friendly and Ultra Quiet

Fitted with a DC motor mounted on silent elastic blocks, the fan delivers incredibly silent running below 20 dB(A) with exceptional performance and stylish features. Fully complying with System 3 of the Building Regulations, Part F and SAP Appendix Q eligible, the ECO dMEV ensures a significant contribution to maximising the reward in SAP for ventilation.

Stylish Design



Designed with style in mind, the ECO dMEV adds a touch of elegance to the modern bathroom or kitchen without compromising on performance or quality. The fan is supplied with smart interchangeable front panel trims in four colours.

Lowest Life-cycle Costs

The ECO dMEV has been designed for ease of maintenance, achieving the lowest life-cycle costs. The motor compartment can be easily removed to be cleaned or replaced.

Easy Commissioning

The fan is easily commissioned at installation to be set at one of 5 trickle speed settings ranging from 4-13 l/s to exactly meet the airflow requirements for specific applications and ensure the lowest energy consumption down to 1.5 Watts.

Low Voltage Bathroom Fan

For extra safety, the ECO dMEV is also available in a low voltage 17V version. In addition to the standard ECO dMEV 17V, which can be boosted by an external switch, the same three models are available as the 230V version: the ECO dMEV 17V timer option, humidity sensor option with timer or pullcord with timer and humidity sensor.

'Sensorless' technology

The EnviroVent ECO dMEV incorporates a unique "sensorless" constant volume technology. Using intelligent microprocessor controls and software, the in-duct centrifugal fan works in direct correlation with any resistance in the ductwork. When it senses any resistance it automatically adjusts itself to ensure that the commissioned airflow is always delivered and maintained. This means the fan is also self-commissioning - all the installer needs to do is set the unit for kitchen or bathroom, screw it to the wall and connect it up! It will commission itself automatically and perform over and above building regulations.

No complicated commissioning, no requirement for expensive test equipment, no more failing building control and most importantly, reducing the risk of condensation to maintain stable humidity levels.

Bi-material injection moulding

The result of bi-material injection moulding is a high quality moulded plastic with a permanently attached rubber seal to safely house away all electrical components from any contaminants or humidity.

Powerful centrifugal performance

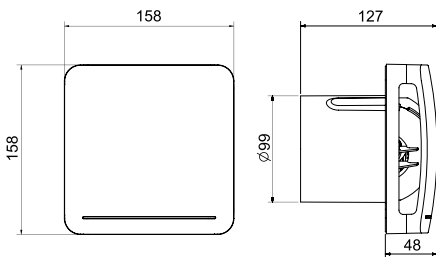
Meticulous research and development has gone into the design of the ECO dMEV to be able to incorporate a high powered, forward curved, "sensorless" constant volume centrifugal fan into the smallest of spaces. Most small dMEV's this size use an axial impeller. Axial fans can perform well if they encounter no resistance, however by adding any amount of pressure, they can struggle to perform and become noisy.

As the inlet of the ECO dMEV is oval and not round like other fans, this creates space for the dual inlet centrifugal motor assembly, meaning we can fit a centrifugal fan inside a tiny footprint. This has never been achieved before in a dMEV making it the first fan of its size in the world to incorporate centrifugal technology. Following significant investment in the latest injection moulding machinery and tooling, EnviroVent are one of the only ventilation companies to be able to mould plastic and rubber in the same process.

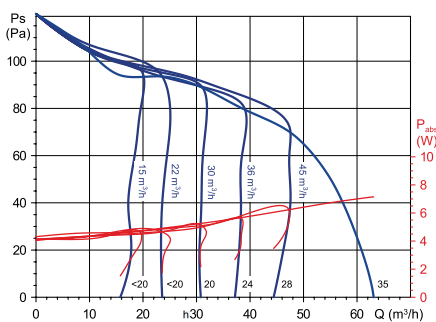
ORDER CODE	DESCRIPTION
ECO DMEV S*	Standard model
ECO DMEV T*	Adjustable run-on timer model
ECO DMEV HT*	Adjustable timer and humidity sensor model
ECO DMEV HTP*	Adjustable timer, humidity sensor and pullcord model

*For SELV models, simply add '17V' to the end of the codes above.

Dimensions (mm) ▾



Performance Curve ▾



SAP Appendix Q Performance ▾

Systems with rigid ductwork (Installation only)						
Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	Flow Rate - Wind Condition (l/s)	Specific Fan Power (W/l/s)	% Reduction of Total Flow Rate
In room (ducted)	Kitchen	45 m³/h	14.3	14.2	0.38	1
In room (ducted)	Wet Room	20 m³/h	8.5	8.2	0.29	4
Through wall	Kitchen	45 m³/h	14.9	14.3	0.36	4
Through wall	Wet Room	20 m³/h	8.7	8.2	0.28	6

Systems with flexible or mixed ductwork (Installation only)						
Unit Configuration	Location	Fan Speed Setting	Flow Rate (l/s)	Flow Rate - Wind Condition (l/s)	Specific Fan Power (W/l/s)	% Reduction of Total Flow Rate
In room (ducted)	Kitchen	45 m³/h	14.6	14.4	0.38	1
In room (ducted)	Wet Room	20 m³/h	8.5	8.2	0.29	4
Through wall	Kitchen	45 m³/h	14.9	14.3	0.36	4
Through wall	Wet Room	20 m³/h	8.7	8.2	0.28	6

Technical Data ▾

Constant Air Volume		Absorbed Power (W)		SFP* (W/l/s)	Sound Pressure Level dB(A)**		Weight (Kg)
(m³/h)	l/s	Min.	Max.		Min.	Max.	
15	4	1.5	4.5	0.36	<20	23	0.57
22	6	1.8	4.7	0.29	<20	25	
30	9	2.2	5.1	0.26	20	28	
36	10	2.7	5.5	0.27	24	30	
45	13	3.5	6.0	0.31	28	33	
Maximum Air Volume - By means of switch							
65	18	4.3	7.2	0.24	35	35	

* Following SAP Q Standard (2.5 length of 100mm circular duct diameter, two 90° bends and GR-100 grille at the discharge - max. 20 Pa)
** Measured at 3m, in free field condition. The maximum sound pressure level is given at 40Pa

Technical Specification ▾

Product

The ECO dMEV shall be a constant volume, continuous running, decentralised Mechanical Extract Ventilation unit, designed to comply with System 3 of the Building Regulations. The low energy fan shall be supplied in a 230V format with 5 adjustable trickle speed settings ranging between 4-13 l/s. The fan shall also come supplied with four interchangeable front panel trims.

Applications

The ECO dMEV shall be suitable for wall, ceiling or panel mounting in WC's, bathrooms and kitchens.

Performance

	Systems with rigid ductwork (Installation only)			
	In Room (Ducted) Kitchen	In Room (Ducted) Wet Room	Through Wall Kitchen	Through Wall Wet Room
Total Flow Rate (l/s)	14.3	8.5	14.9	8.7
Specific Fan Power (W/l/s)	0.38	0.29	0.36	0.28

Installation

A full installation guide shall be enclosed with all products; or sent separately in advance - if required.

Motor

The motor shall be a 230V Low Watt DC motor, which is assembled on silent elastic blocks, fitted with sealed for life ball bearings for enhanced working life and exceptionally quiet running down as low as 20 dB(A).

Fan

The ECO dMEV shall incorporate a centrifugal fan designed to run continuously on trickle and constant volume, with the facility to boost to maximum air volume via a switch, pullcord or humidity sensor.

Servicing / Maintenance

The motor compartment shall be easily removed to be cleaned or serviced by a competent person. The fan shall only require periodical cleaning using a cloth lightly impregnated with a soft detergent.

Guarantee

The ECO dMEV shall be covered by a 2 year warranty.

Compliance

The fan shall be SAP Appendix Q eligible.

Options & Ancillaries ▾

Description	Code(s)
Standard Wall Kit	1RDEFWAK100
Fixed Louvre Grille	1RDGRILL100



Scan the QR code to find out more about the product or visit:
envirovent.com/ecodmev