



# ECo roof fan

A modern, energy-saving roof fan with a DC motor



**Guaranteed  
VILPE® quality:**  
- 10 year colour guarantee  
- 20 year technical  
guarantee  
- 2 year guarantee for  
electrical parts

## VILPE® ECo roof fan

VILPE® ECo series roof fans are effectively controlled roof fans with a DC motor. The motor has better efficiency and optimised control, so the ECo roof fan consumes much less energy than a roof fan with an AC motor.

### Applications

VILPE® ECo roof fans with a DC motor are used in kitchen or bathroom exhaust ventilation as part of the air conditioning systems of new apartment buildings and private and terraced houses. When refurbishing older apartment buildings and private and terraced houses, natural ventilation can be converted to mechanical by means of the VILPE® ECo roof fan.

VILPE® ECo roof fans are used for the ventilation of homes, offices, commercial premises, production facilities, public buildings and any other areas where fresh air is needed. In apartment buildings, ECo roof fans can be used for exhaust ventilation in lift shafts and other public areas. VILPE® ECo is also used for base floor ventilation, radon exhaust ventilation, and exhaust ventilation in garages and storerooms.

#### Fresh air indoors

A roof fan will remove dirty, stuffy, humid and dusty air plus unpleasant smells from indoor areas. It will also protect the structures of the building and any property stored there from humidity and impurities.

## Unrivalled ECo series

### Control with a 0-10 V voltage message helps integration with building technology systems

Unlike previous VILPE® roof fan solutions, VILPE® ECo fans can be provided with stepless remote control, which uses a standard 0-10 V voltage message. An ECo roof fan can also provide an output signal which can be used to monitor the motor's rpm. This allows connecting ECo roof fans to an automatically controlled building technology system where they can be monitored and controlled with the system's CPU. ECo 110 series models can be used to exhaust radon or to ventilate an ecological toilet. The rpm of their motors is controlled by a potentiometer located in a link box on the roof, in the cowl of the roof fan.

### DC motor saves energy

The fan in VILPE® ECo roof fans is based on the EC technology, which means that it is an electronically commuted fan with a brushless DC motor. ECo roof fans address the challenge of reducing total energy consumption by saving energy, as the DC motor is much more effective than an AC motor. Calculations on the efficiency needed to move air show that a VILPE® ECo roof fan will save up to 40-60% of energy when compared to an AC roof fan, depending on the application.

### ECo roof fans meet future requirements

VILPE® ECo roof fans meet the requirements of the ERP2015 directive.



## ECo190 and ECo220



### ECo190P

Duct size  $\varnothing$  125 mm. To be installed on the roof with a VILPE® roof pass-through suited for the roof type. Due to its 50 mm insulation, the pipe doubles as a sound absorber. The inner pipe is made from galvanized sheet metal and has a lip seal.



### ECo190S

Duct size  $\varnothing$  125 mm. To be installed on a flat surface either directly or with the included 300 x 300 mm installation set.



### ECo220P

Duct size  $\varnothing$  160 mm. To be installed on the roof with a VILPE® roof pass-through suited for the roof type. The inner pipe is made from galvanized sheet metal and has a lip seal.



### ECo220S

Duct size  $\varnothing$  160 mm. To be installed on a flat surface either directly or with the included 300 x 300 mm installation set.

## ECo Controller 0-10 V



ECo190, ECo220 and ECo250 XL roof fans can be controlled with an ECo motor controller, 0-10 V.

## ECo110

ECo110 can be used to exhaust radon or to ventilate an ecological toilet. A potentiometer control's the rpm of the fan motor. It is installed in a link box on the roof, in the cowl of the roof fan. The potentiometer will be adjusted based on measurements taken indoors.



### ECo110P

Duct size  $\varnothing$  110 mm. To be installed on the roof with a VILPE® roof pass-through suited for the roof type.



## ECo250 XL

ECo250 XL models are especially suitable for use in large properties, such as apartment buildings, office buildings, halls and warehouses. VILPE® ECo roof fans can be used as part of the ventilation system or for local extraction in the elevator shafts and other public facilities. In residential houses they are used for kitchen exhaust ventilation in combination with a cooker hood.



### ECo250P XL

Duct size 200 mm. To be installed on the roof with a VILPE® roof pass-through suited for the roof type.



### ECo250S XL

Duct size  $\varnothing$  200 mm. To be installed on a flat surface either directly or with the included 400 x 400 mm installation set.



### ECo110S

Duct size  $\varnothing$  110 mm. To be installed on a flat surface either directly or with a 250 x 250 mm installation set to be purchased separately.



### ECo110 cone model

Duct size  $\varnothing$  110 mm. To be installed inside a sheet steel cone manufactured by a tin smith with  $\varnothing$  170 mm at the top.

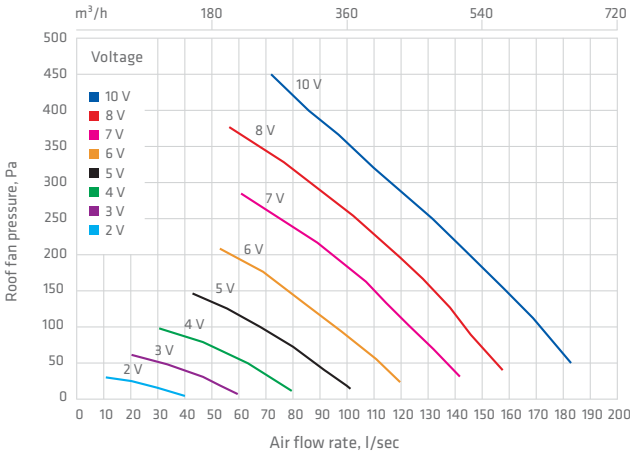
## Electrical specifications

Fan type	ECo110	ECo190	ECo220	ECo250 XL
Rated power	83 W	83 W	85 W	165 W
Rated current	0,75 A	0,75 A	0,7 A	1,4 A
Voltage	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Speed	3200 rpm	3200 rpm	2580 rpm	2560 rpm
Rpm control	Potentiometer installed in a link box in the cowl of the roof fan	0-10 V signal or PWM	0-10 V signal or PWM	0-10 V signal or PWM

# ECo190

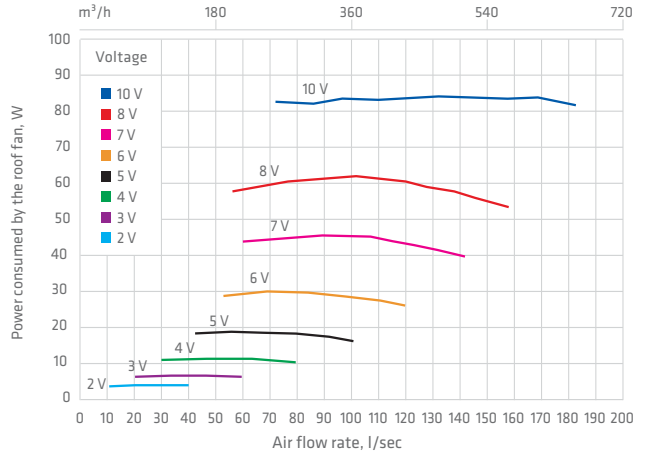
## Flow performance values ECo190

ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



## Electric power ECo190

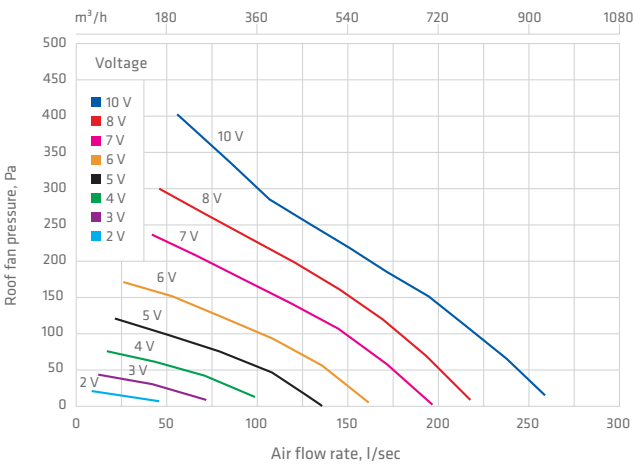
ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



# ECo220

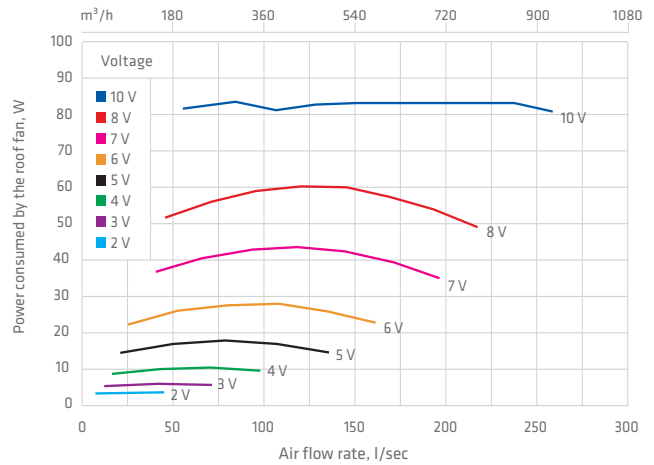
## Flow performance values ECo220

ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



## Electric power ECo220

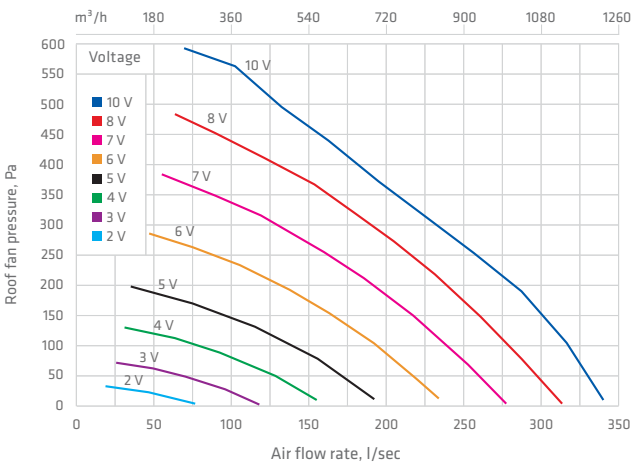
ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



# ECo250 XL

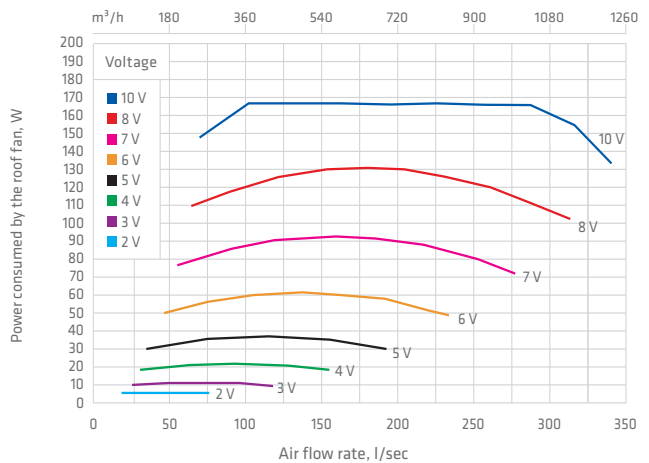
## Flow performance values ECo250 XL

ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



## Electric power ECo250 XL

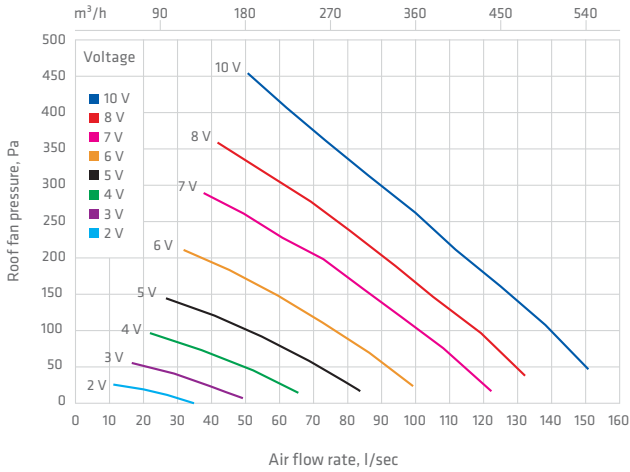
ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



# ECo110

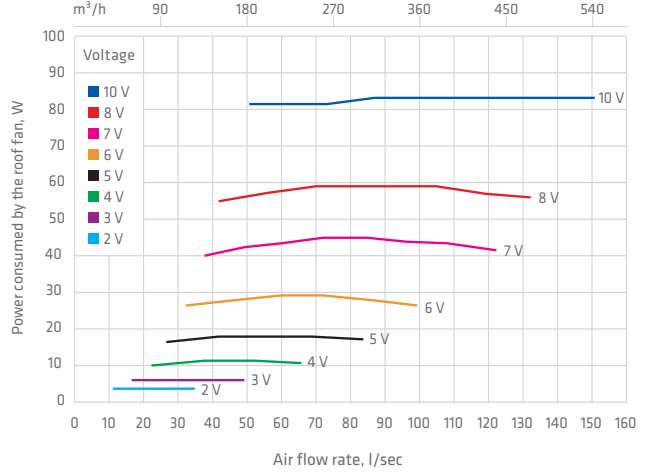
## Flow performance values ECo110

ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



## Electric power ECo110

ISO 5801:2008, connection type C  
Air density 1,20 kg/m<sup>3</sup>



## VILPE®-standard colours

### Black

Reference colours  
RR 33 - RAL 9005



### Brown

Reference colour  
RR 32



### Green

Reference colour  
RR 11



### Grey

Reference colours  
RR 23 - RAL 7015



### Red

Reference colours  
RR 28/29 - RAL 3009



### Brick red

Reference colours  
RR 750 - RAL 8004

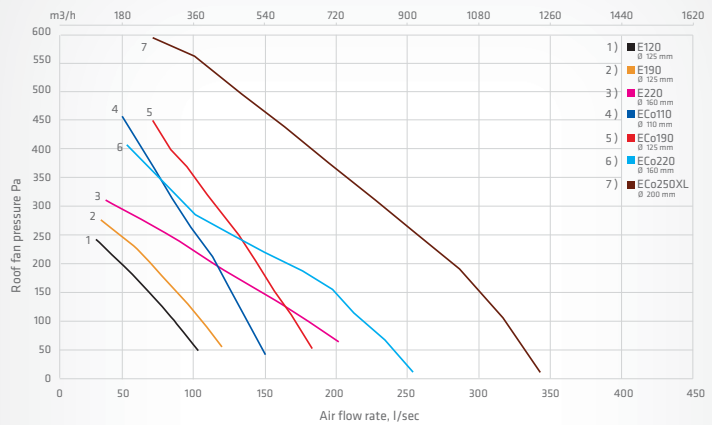


### Light grey

Reference colours  
RR 21 - RAL 7040



## Air flow, all VILPE® roof fans



## Manufacturing materials

VILPE® ECo roof fans are manufactured from corrosion, weather and impact resistant, recyclable, UV protected and solid coloured polypropylene (PP). PP is chemically neutral and harmless to the environment.



The VILPE® product range is widely known as the most versatile selection of exhaust ventilation products and roof accessories on the market. The products can be used on high and low pitched roofs in new constructions and renovation projects.

VILPE® products have remained an unparalleled roof construction solution for almost 40 years. The products are characterised by extremely high quality, innovativeness, ease of installation and use, and durability even in demanding conditions. VILPE® is also an elegant choice.

VILPE® provides functional solutions and guaranteed quality: 10 year guarantee for appearance, 20 year guarantee for technical functionality and 2 year guarantee for electrical parts.

As part of the air-conditioning system, VILPE® keeps indoor air clean and roof structures healthy.



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