

# UPC/EC PCO

VENTILATION AND PURIFICATION UNITS WITH PHOTOCATALYSIS

TECHNOLOGY AND HEPA FILTER FOR CLEANING AND
DISINFECTING AIR AND SURFACES INSIDE DUCTS

- BUILT-IN PHOTOCATALYST DEVICE
- 3 FILTRATION STAGES WITH HEPA FILTER
- EC TECHNOLOGY MOTOR
- AUTOMATIC REGULATION AND CONTROL
- THERMAL AND ACOUSTIC INSULATION
- EASY ACCESS FOR MAINTEANANCE









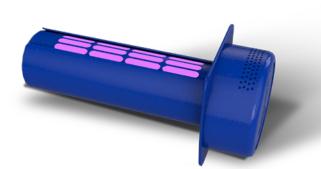






## **UPC/EC PCO**

UPC/EC PCO air purification units are designed for disinfecting, cleaning, eliminating odours and purifying air in high occupancy areas that have stringent soundproofing and versatility requirements.



# ACTIVE DISINFECTING TECHNOLOGY

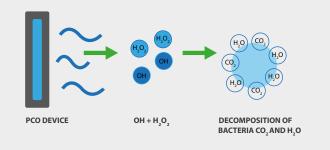
**PCO™ technology** (Photocatalytic Oxidation) is a powerful tool that is used for purifying air and nearby surfaces, by accelerating the natural decomposition of organic matter through photocatalysis.

Additionally, our equipment has built-in modules with **positive and negative ionisation technology**, which improve their purifying efficacy against ultra-fine dust and odours.

#### **HOW DOES IT WORK?**

**PCO technology** uses a UVc ultraviolet light source to react with a titanium dioxide catalyst in the presence of humidity/water vapour to create hydroxyl radicals (OH) and hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), which inactivate airborne microorganisms and harmful chemical substances circulating in the air.

These devices use PCO technology, together with **positive and negative ionisation**, to gather suspended particulate matter, which has not been collected by filters, and make it harmless.



Positive and negative ionisation of particles







#### **APPLICATIONS**

Purifying the air by disinfecting it using **PCO** technology is ideal for premises where people are continuously entering and exiting. These premises require a speedy, high efficiency disinfection due to the high rate of pollutants that may be circulating.

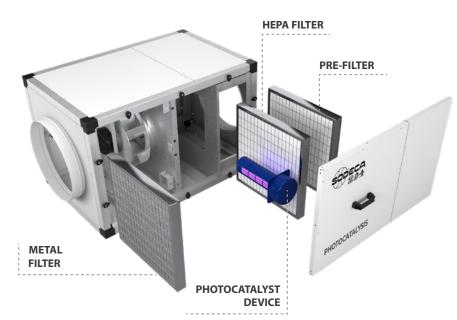
PCO technology is also suitable for use at locations where there is a need to disinfect large material surfaces through the air.

### **RECOMMENDED FOR**

- Hospitals
- Food industry
- Businesses
- Offices
- Waiting rooms
- Clean rooms
- Libraries

#### **BENEFITS**

- Eliminates germs, viruses, mould and bacteria
- Does not pollute
- Reduces odours
- Helps alleviate allergies and control asthma
- Effective against all organic pollutants
- Eliminates ultra-fine dust and animal hair
- Eases the cleaning of air ducts







#### **ENERGY SAVINGS**

The inlet panel incorporates diffusers to prevent the air flow from swirling, which together with a dynamic pressure balance chamber, increases the unit's performance.

The EC Technology type electric motor as well as the built-in PCO device are high efficiency units and essential for reducing the electrical consumption.





#### **LOW NOISE LEVEL**

The EC Technology motor as well as the 25 mm acoustic casing are made of high-quality insulating material, ensuring that this unit operates at low noise levels.



#### **DURABILITY**

These units are made from prefinished sheet metal and aluminium profiles, providing them with excellent corrosion resistance, increasing their service life.



#### **PHOTOCATALYST DEVICE**

Device with PCO technology and ambient air positive and negative ionisation technology. Designed to improve indoor air quality as well as disinfecting air and nearby surfaces to eliminate germs, viruses and bacteria.



#### **AUTOMATIC CONTROL SYSTEM**

Allows programming of the unit, turning on and off and adjusting airflow.



#### **EASY TO INSTALL AND MAINTAIN**

The inside of the unit can be quickly accessed through the inspection panel for cleaning and for filter replacement or to use the UVc ultraviolet light if required.



# PRODUCTS WITH CERTIFIED PCO TECHNOLOGY THAT ARE 100% EFFECTIVE IN 10 MINUTES AGAINST MENGOVIRUS

The efficacy of PCO technology has been proven in a laboratory certified by ENAC and APPLUS+ in accordance with standard EN 14476 for the evaluation of virucidal activity in the medical area for antiseptic and disinfectant tests.

Mengovirus is a microorganism of the same family as the SARS-CoV-2, which causes COVID-19.









## **UPC/EC PCO**





#### Air purification units with technology based on photocatalysis



Ventilation and purification units with photocatalysis technology and HEPA filter for cleaning and disinfecting air and surfaces inside any high occupancy area.

#### Characteristics:

- 40 mm aluminium profile structure.
- Dirty filter monitoring and alarm.
- Covers made from prefinished sheet, with high quality, 25 mm thick acoustic insulation.
- Backward-curved impeller.
- Built-in photocatalyst device with negative ionisation.
- Filtration stages: F7 + HEPA H14.
- Inspection cover for maintenance and filter replacement.
- Effective for up to 40 linear metres of ducting.

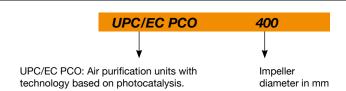
#### Motor:

- High efficiency EC Technology motors, outer rotor adjustable via 0-10 V signal.
- Single-phase 200-240 V 50/60 Hz and three-phase 380-480 V 50/60 Hz.
- Carried air temperature range: -25 °C to +60 °C.

Aluminium profile and prefinished sheet, with 25 mm thick double-wall thermal and acoustic insulation panels..

Particulate matter sensor for automatic control SI-PM2,5+VOC or SI-CO2+VOC.

#### Order code



#### Characteristics of the filters

#### STANDARD FILTERS

		_	190 10090				
	EN 779	EN 1822	ISO ePM <sub>1</sub>	ISO ePM <sub>2.5</sub>	ISO ePM <sub>10</sub>	ISO COARSE	
F7	90%	-	>50%	>65%	>85%	-	
H14	-	>99.995%	-	-	-	-	

#### Technical characteristics

Model	Recommended working surface*	Speed	Power	Power supply	Sound pressure level at 50% of max. speed.**	Maximum flow rate	Approx. weight
	(m²)	(r/min)	(W)		dB(A)	(m³/h)	(kg)
UPC/EC PCO-310	100	2377	450	200-240 V 50/60 Hz 1 Ph	55	800	56
UPC/EC PCO-400	160	1550	460	200-240 V 50/60 Hz 1 Ph	47	1300	98
UPC/EC PCO-500	240	1250	1150	380-480 V 50/60 Hz 3 Ph	51	1950	166

 $<sup>^{\</sup>star}$  Recommended surface in an area with a 3 metre high ceiling.  $^{\star\star}$  Irradiated sound pressure level in dB(A) at a distance of 3 m.



### Erp. (Energy Related Products)

 $Information \ on \ Directive \ 2009/125/EC \ can \ be \ downloaded \ from \ the \ SODECA \ website \ or \ the \ QuickFan \ selector \ programme$ 

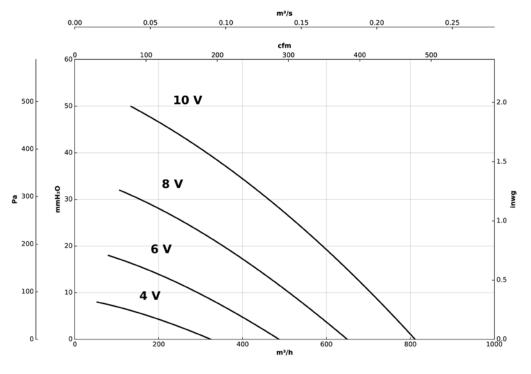
#### Dimensions mm



Model	Α	В	н
UPC/EC PCO-310	500	500	960
UPC/EC PCO-400	700	700	1210
UPC/EC PCO-500	900	900	1550

#### Characteristic curves

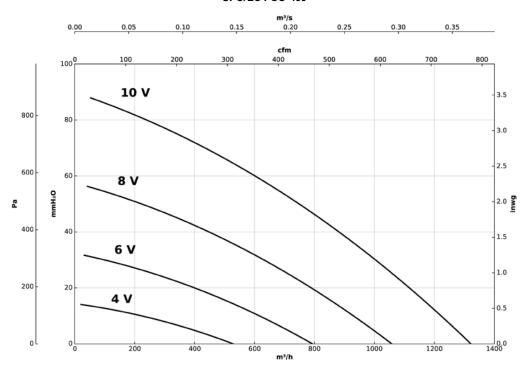
#### UPC/EC PCO-310



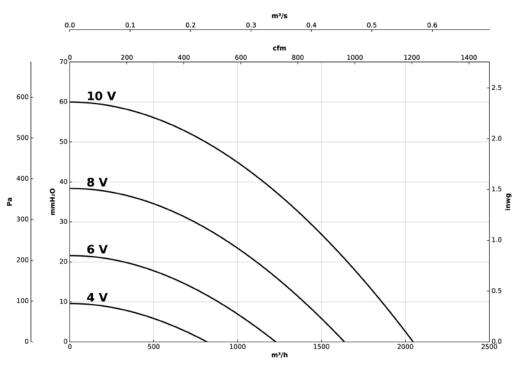


#### Characteristic curves





#### UPC/EC PCO-500





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