CERTIFIED TECHNOLOGY 100% EFFECTIVE ACCORDING TO EN 14476 STANDARD

ECOLOGY UNIT

UPC/EC FE

VENTILATION AND PURIFICATION UNITS WITH ELECTROSTATIC TECHNOLOGY AND ACTIVATED CARBON FILTERS FOR CLEANING AND DISINFECTING OF AIR INSIDE DUCTS

- ELECTROSTATIC FILTER WITH BUILT-IN THERMAL SENSOR
- EC TECHNOLOGY MOTOR
- AUTOMATIC REGULATION AND CONTROL
- ACTIVATED CARBON FILTER
- THERMAL AND ACOUSTIC INSULATION
- EASY ACCESS FOR MAINTEANANCE

SODECA®

EC TECHNOLOGY

CE ACCORDING ErP

ELECTROSTATIC FILTER

FILTRATION STAGES G2 + FE + FCA

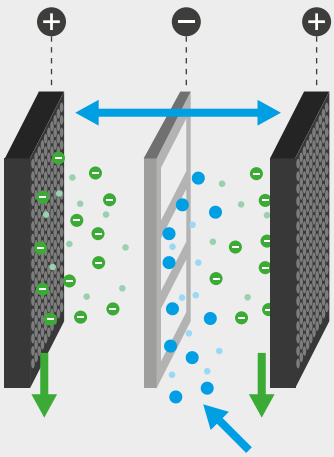
UPC/EC FE

UPC/EC FE air purification units are designed for moving, cleaning, eliminating odours and purifying air **in high occupancy areas with a high content of grease and oil pollutants.**

ELECTROSTATIC TECHNOLOGY

FE electrostatic filters are especially suitable for eliminating polluting substances such as particles, bacteria, volatile organic compounds (VOC), etc. The high performance of these filters, along with their excellent ability to capture particles, ensures this equipment operates with a very reduced load loss and consequently allows it to provide significant energy savings in comparison with that of conventional mechanical filtering systems.

HOW DOES IT WORK?



Particulate matter is ionised and becomes adhered to oppositely charged collector cells and this way, they are removed from the outlet air flow.

APPLICATIONS

Air purification by disinfecting using **electrostatic filter technology is ideal for environments where pollutants are suspended particulate matter, oily or greasy or of the type that quickly saturate mechanical or fabric filters.** Electrostatic filters are washable and easy to maintain.

RECOMMENDED FOR

- Industrial kitchens
- Hospitals
- Use in the agri-food sector
- Factories (suspended particulate matter and smoke up to 20 mg/m^3)
- Fumes generated by welding
- Fast food restaurants
- Chemical and metallurgy industry

EFFICIENCY AGAINST GERMS AND BACTERIA

Acts on all organic contaminants with an efficiency between 98 and 99.9%.

SUSTAINABLE

Particulate matter accumulates on the collector plates. Proper cleaning of the filter guarantees efficiency and increases the service life of the filter as well as of the unit.

ENERGY EFFICIENCY

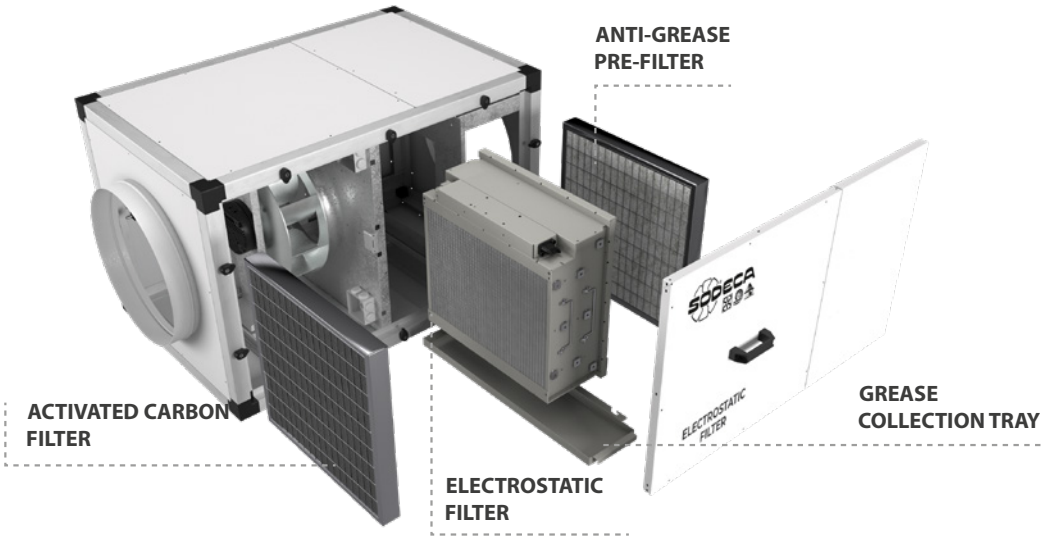
The electrostatic filter generates a low drop in pressure due to low resistance to the passage of air, which ensures a lower energy consumption. Additionally, these filters are highly efficient at collecting particulate matter and pollutants.

ANTI-GREASE TECHNOLOGY

Designed to operate in adverse conditions where there are vapours/air with a high oil content. Trays are installed below the filter to collect the condensation and grease that is generated during the filtration process.

LOW MAINTENANCE COSTS

The costs associated with replacing the filters are eliminated.
When the filter is saturated, simply wash it with detergent and water to remove the dirt and regenerate the filter. The electronics are completely watertight and don't need to be removed.
The time between maintenance tasks is usually quite long.



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 electrostatic filters, 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 materials, ensuring that this unit operates at low noise levels.

ELECTROSTATIC FILTER

Built-in, high efficiency electrostatic filter. Designed to improve indoor air quality, it also incorporates a technology capable of retaining grease particles in the air.

ELIMINATION OF ODOURS

With an activated carbon filter.

AUTOMATIC CONTROL SYSTEM

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

DURABILITY

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

WASHABLE FILTERS

The pre-filter as well as the electrostatic filter are washable and can be continuously reused, requiring minimum maintenance.

EASY TO INSTALL AND MAINTAIN

The inside of the unit can be quickly accessed through the inspection panel for cleaning and for filter replacement if required.

UPC/EC FE

Air purification units with high efficiency electrostatic filters. Recommended for applications with greasy particulate matter

Ventilation and purification units with high efficiency electrostatic filters and activated carbon filters that are specifically designed for cleaning air in locations containing a high amount of greasy or suspended particulate matter.

Characteristics:
- 40 mm aluminium profile structure.
- Dirty filter monitoring and alarm.
- Covers with a high quality, 25 mm thick acoustic casing made of prefinished sheet.
- Backward-curved impeller.
- Washable pre-filter.
- High efficiency (95% ePM_1) electrostatic filter device with built-in thermal sensor.
- Additional activated carbon filter stage.
- Inspection cover for maintenance and filter replacement.
- Grease-collection tray.

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 +50 °C.

Finish:
- Aluminium profile and prefinished sheet steel structure with 25 mm thick thermal and acoustic insulation panels.

On request:
- Particulate matter sensor for automatic control SI-PM2,5+VOC or SI-CO2+VOC.
- Negative ion ioniser.

Order code

UPC/EC FE **400**

UPC/EC FE: Air purifying units with high efficiency electrostatic filters. For use in applications with greasy particles

Impeller diameter in mm

Characteristics of the filters

ELECTROSTATIC FILTER

	ePM_1				
	95%		90%	80%	70%
Filtration class EN 779	-	-	F9	F8	F7
Air speed (m/s)	1	2	2.5	3	4
Air flow capacity (%)	40	50	65	75	100
Pressure drop (Pa)	10	17	24	37	64

ACTIVATED CARBON FILTER

	EN 779	EN 1822	ISO 16890			
			ISO ePM_1	ISO $ePM_{2.5}$	ISO ePM_{10}	ISO COARSE
FCA	90%	-	-	-	-	60%

Technical characteristics

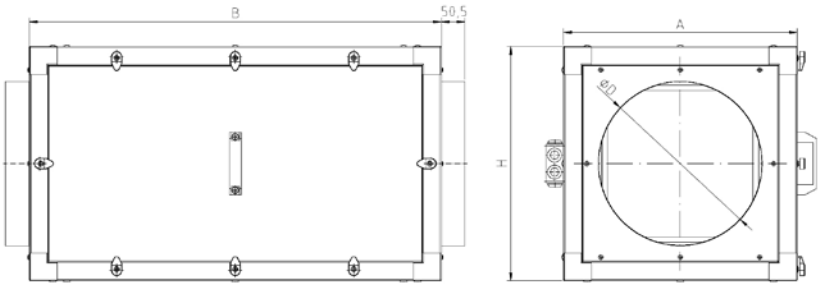
Model	Recommended working surface (m^2)*		Speed	Power	Power supply	Sound pressure level at 50% of max. speed**	Maximum flow rate (m^3/h)		Approx. weight
	Grease particles	Dry particles	(r/min)	(W)		dB(A)	Grease particles	Dry particles	(kg)
UPC/EC FE-310	65	85	1920	175	200-240 V 50/60 Hz 1 Ph	47	525	700	60
UPC/EC FE-400	195	245	1550	460	200-240 V 50/60 Hz 1 Ph	47	1575	2000	111
UPC/EC FE-500	315	385	1250	1150	380-480 V 50/60 Hz 3 Ph	51	2550	3120	184

* Recommended surface in an area with a 3 metre high ceiling.
** 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



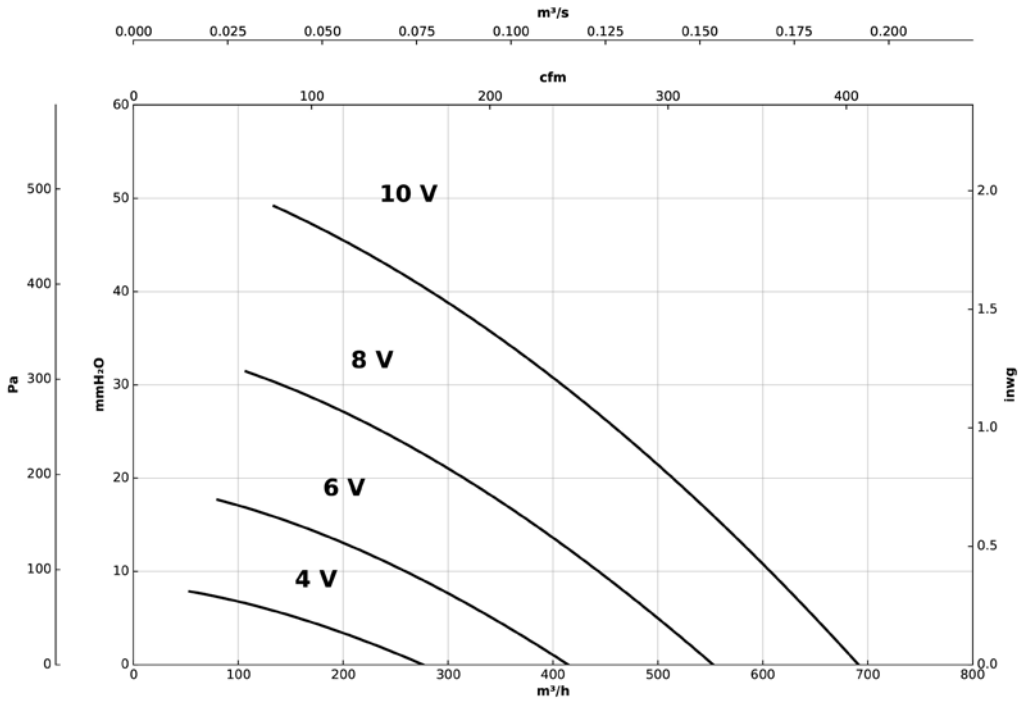
Model	A	B	H	øD
UPC/EC FE-310	500	880	500	350
UPC/EC FE-400	700	1080	700	450
UPC/EC FE-500	900	1280	900	500

Characteristic curves

Q = Flow rate in m^3/h, m^3/s and cfm.

Pe = Static pressure in mmH_2O, Pa and inwg.

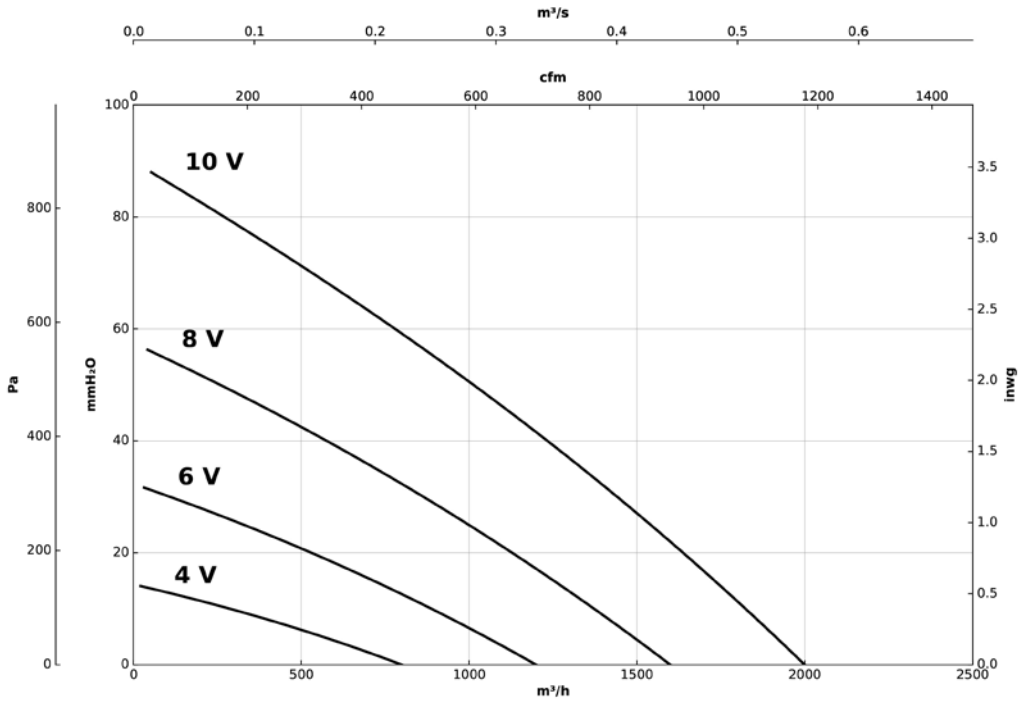
UPC/EC FE-310



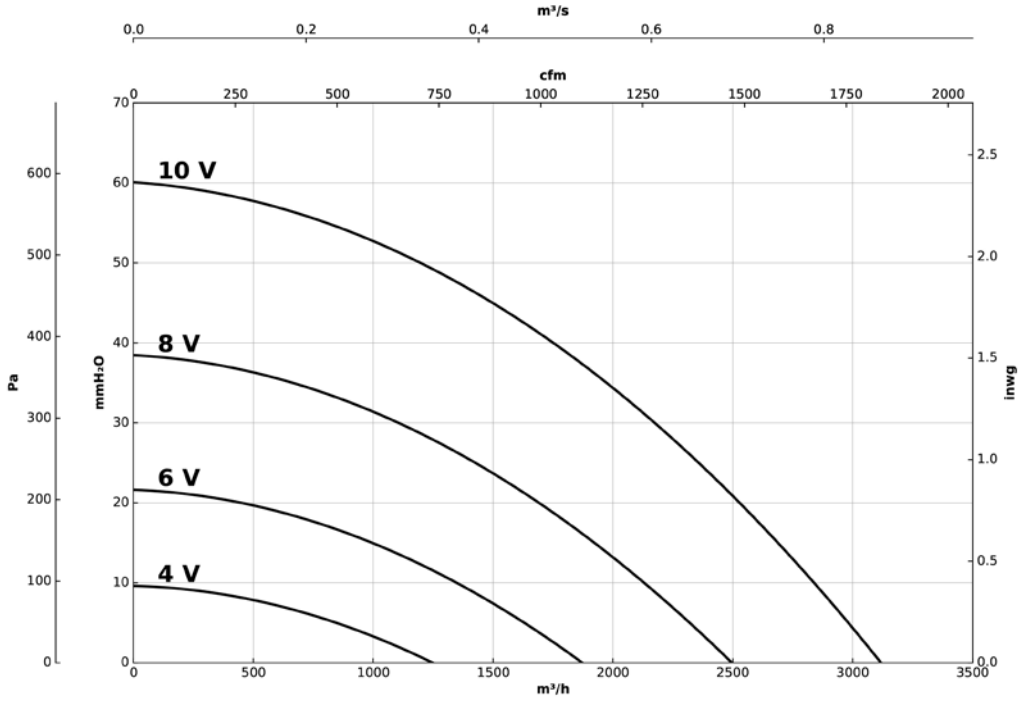
Characteristic curves

Q = Flow rate in m^3/h, m^3/s and cfm. Pe = Static pressure in mmH_2O, Pa and inwg.

UPC/EC FE-400



UPC/EC FE-500



Accessories

MF

MCA

MFE

MPCO

Ref. 10/2021

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