CERTIFIED TECHNOLOGY 100% EFFECTIVE ACCORDING TO EN 14476 STANDARD

ECOLOGY UNIT

UPM/EC FE

MOBILE AIR PURIFICATION UNITS WITH ELECTROSTATIC TECHNOLOGY

- ELECTROSTATIC FILTER WITH BUILT-IN THERMAL SENSOR
- EC TECHNOLOGY MOTOR
- AUTOMATIC REGULATION AND CONTROL
- 3 STAGES OF FILTRATION
- THERMAL AND ACOUSTIC INSULATION
- EASY ACCESS FOR MAINTENANCE
- ANTI-GREASE TECHNOLOGY

SODECA®

EC TECHNOLOGY

CE ACCORDING ErP

ELECTROSTATIC FILTER

FILTRATION STAGES G2 + FE + FCA

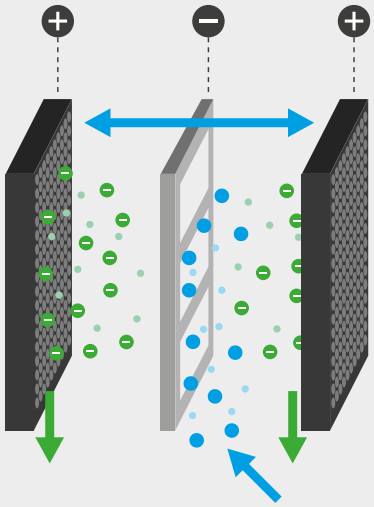
UPM/EC FE

UPM/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 useful for eliminating pollutants such as particles, bacteria, volatile organic compounds (VOC's), etc. The exceptional performance of these filters, together with their excellent ability to capture particles, results in this equipment operating with a very low load loss and therefore, their energy consumption is very low in comparison with that of conventional mechanical filtration systems.

HOW DOES IT WORK?



Particulate matter is ionised and becomes adhered to oppositely charged collector cells, thereby removing it from the outlet air flow.

Air purification by disinfecting using **ELECTROSTATIC FILTER technology is ideal for environments where pollutants are greasy, oily or are suspended particulate matter and which typically,** quickly saturate mechanical or fabric filters - electrostatic filters are washable and easy to maintain.

APPLICATIONS

- Industrial kitchens
- Hospitals
- Use in the agri-food sector
- Factories
  (suspended particulate matter and smoke up to 20 mg/m³)
- Smoke generated by welding
- Fast food restaurants
- Chemical and metallurgy industry

ADVANTAGES

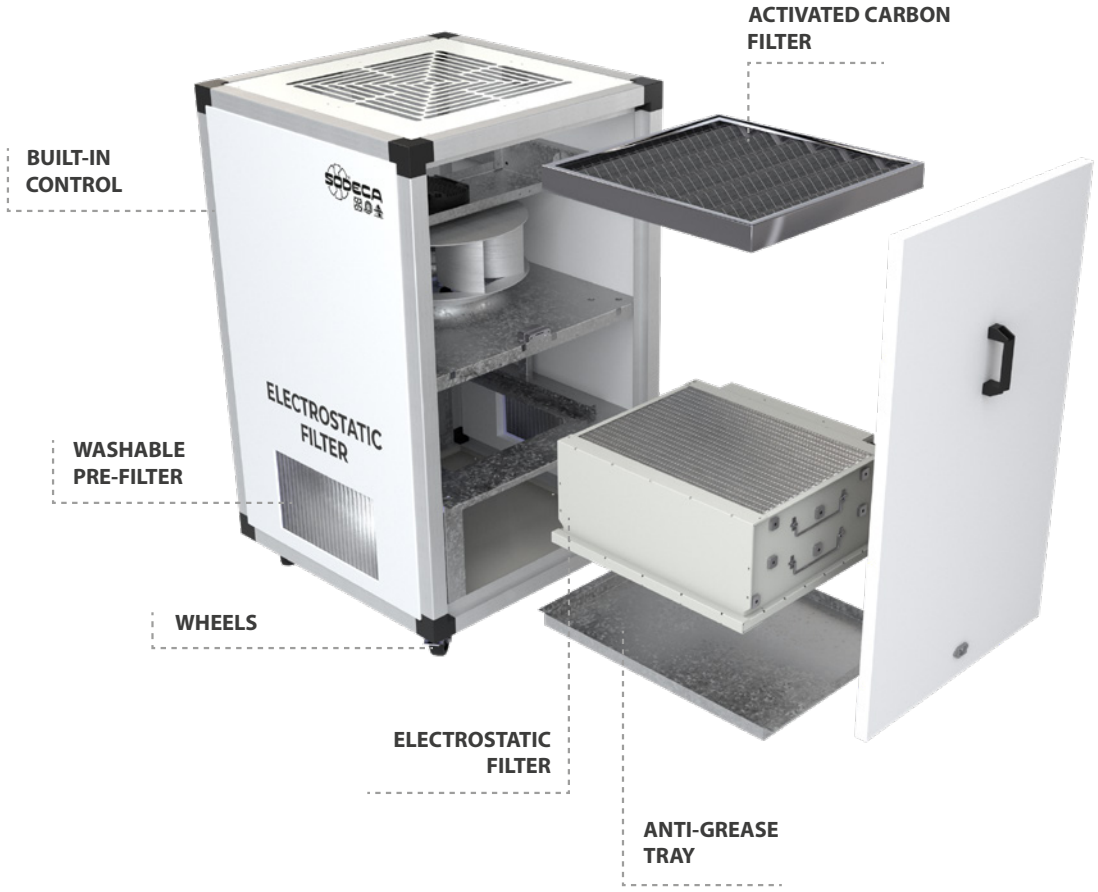
Efficiency against germs and bacteria
Acts on all organic contaminants with an efficiency between 98 and 99.9%

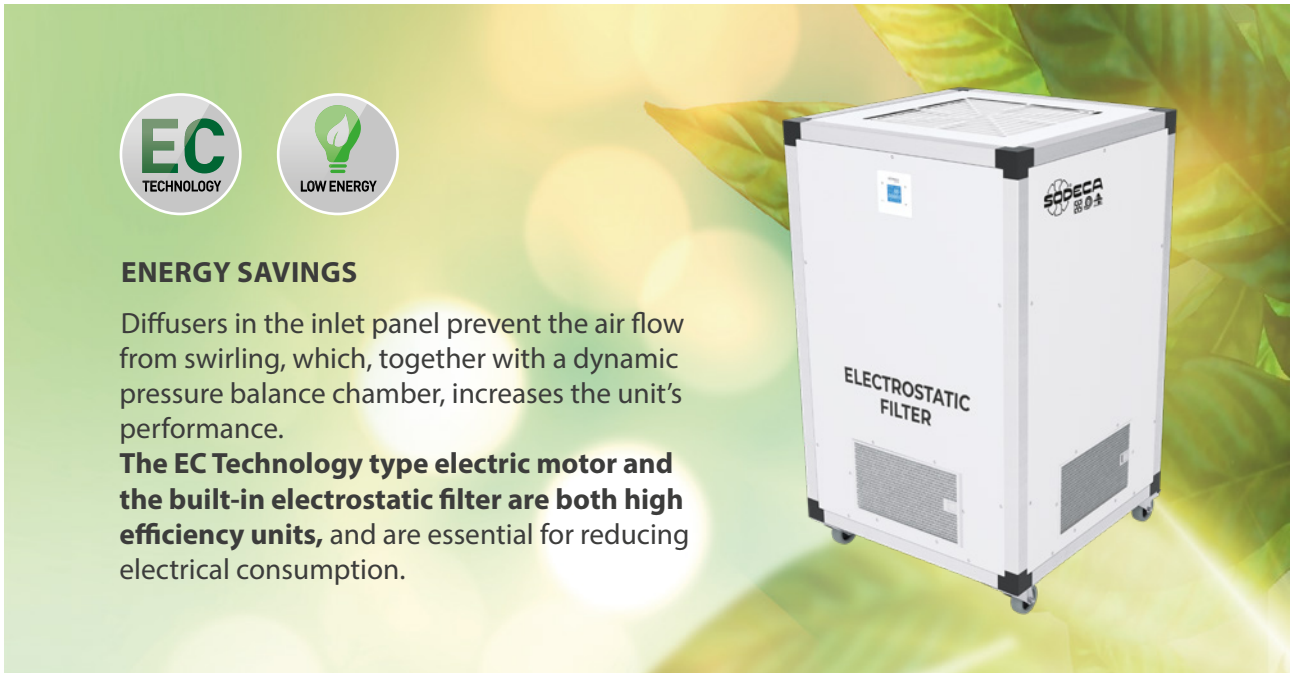
Sustainable
Particulate matter accumulates on the collector plates. Proper cleaning of the filter guarantees the efficiency and increases the service life of the filter as well as of the unit.

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

Anti-grease technology
Designed to operate in conditions where the through-air has a high grease content. A tray is installed at the bottom section of the filter to trap the grease that accumulates during the filtration process.

Low maintenance costs
Costs associated with replacing filters are eliminated. When the filter is saturated, simply wash it with water and detergent to restore the filtering function. This will not affect the electrostatic function of the filter. The length of time before cleaning is required is typically quite long.





ENERGY SAVINGS

Diffusers in the inlet panel 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 and the built-in electrostatic filter are both high efficiency units, and are essential for reducing electrical consumption.

LOW NOISE LEVEL
The 25 mm acoustic casing is made of high-quality insulating material and, together with the EC Technology motor, ensures 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 technology capable of trapping airborne grease.

ELIMINATION OF ODOURS
With an activated carbon filter.

AUTOMATIC CONTROL SYSTEM
Allows programming the unit, turning off and on, adjusting the flow, etc.

DURABILITY
The pre-lacquered and anodized aluminium profiles finish provide higher corrosion resistance, extending product lifetime.

WASHABLE FILTERS
The pre-filter and the electrostatic filter require minimal maintenance. They are washable and can be continuously reused.

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.

UPM/EC FE

Mobile air purifying units with high-efficiency electrostatic filters. For use in applications with greasy particles

Air purifier units with high efficiency electrostatic filters, specifically designed for cleaning and purifying indoor areas where large amounts of grease or suspended particulate matter can be present.

Characteristics:
- 40 mm aluminium profile structure.
- Wheel kit.
- Plug & Play system with integrated control.
- Adjustable filter change alarm.
- Covers with a high quality, 25 mm thick acoustic casing made of prefinished sheet.
- Backward curved impeller.
- Washable pre-filter.
- High efficiency (95% ePM1) electrostatic filter device with built-in thermal sensor.
- Additional active carbon filter stage.
- Inspection cover for filter maintenance and 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.
- Maximum temperature of air to be carried: -25 ºC +60 ºC.

Finish:
- Structure of anodised aluminium profiles and pre-lacquered sheet metal with 25 mm thermal and acoustic insulation panels.

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

Order code

UPM/EC FE — 310

UPM/EC FE: Mobile air purifying units with high-efficiency electrostatic filters. For use in applications with greasy particles

Impeller diameter in mm

Filter characteristics

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

ACTIVE CARBON FILTER	EN 779	EN 1822	ISO 16890			
	Em		ISO ePM$_1$	ISO ePM$_{2,5}$	ISO ePM$_{10}$	ISO COARSE
FCA	90%	-	-	-	-	60%

Technical characteristics

Model	Recommended effective working area[1] (m²)		Speed	Power	Power supply	Sound pressure level at 50% of max speed.[2]	Maximum flow rate (m³/h)		Approx. weight
	Grease particles	Dry particles	(r/min)	(W)		dB (A)	Grease particles	Dry particles	(Kg)
UPM/EC FE-310	65	85	1920	175	200-240V 50/60Hz 1Ph	47	525	700	60
UPM/EC FE-400	195	245	1550	460	200-240V 50/60Hz 1Ph	47	1575	2000	111
UPM/EC FE-500	315	385	1250	1150	380-480V 50/60Hz 3Ph	51	2550	3120	184

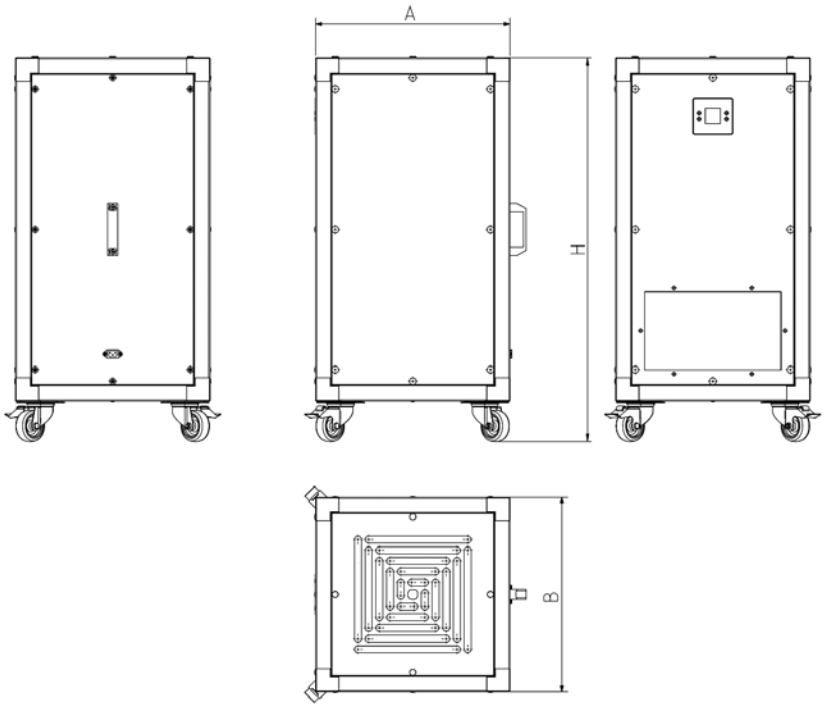
[1]Recommended effective working area with a 3-meter-high premises.

[2] 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



	A	B	H
UPM/EC FE-310	500	500	985
UPM/EC FE-400	701	701	1186
UPM/EC FE-500	901	901	1386

03/2022

SODECA

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ISO 9001 BUREAU VERITAS Certification

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