



Ceiling Suspended Electronic Air Cleaner/Purifier  
for Commercial and Industrial Applications.



For a Cleaner, Greener and More Sustainable World.



# Ceiling Suspended Electronic Air Cleaner/Purifier



# DM450N/DM900N-DC

**CEILING SUSPENDED ELECTRONIC AIR CLEANER /PURIFIER**  
*With UVC Lamps (UVC), Photo Catalytic oxidization (PCO) and Bi-Polar Ionisation (BPI)*

The DM450N and DM900-DC are commercial grades Electronic Air Cleaners with multiple air and surface purification technologies. These include UVC Germicidal Irradiation, Photo Catalytic oxidization and Bi-Polar Ionisation.

These units are designed to be flush mounted to false ceilings or simply suspended from the ceiling in the room. The Electronic Air Cleaner section is the principal filtration for effective removal of dust, tobacco smoke, bacteria, pollens, lint and various pollutants. It is followed by UVC, PCO and Bi-Polar systems for moving air and surface purification.

The UVC Germicidal Irradiator disable germs, bacteria and viruses entering the unit.

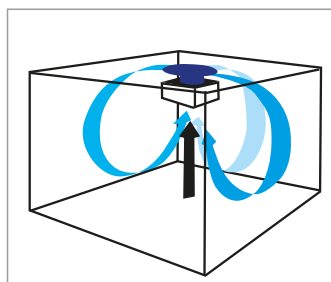
The Photo Catalytic Oxidization section converts moisture in the untreated air and breaks them into hydroxyls which are highly reactive. These Hydroxyls destroy pollutants like fungi, moulds, bacteria VOCs and viruses, rendering them inactive. Finally, the Bi-Polar ionisers send out millions of negative and positive ions into the room. These ions perform an active purification process as they disable bacteria and viruses floating in the room as well as on surfaces.

The combination of PCO and Bi-Polar has been shown to be very effective in air and surface purifications.

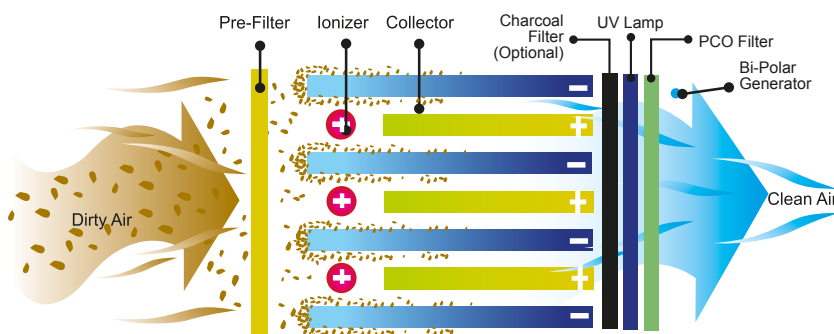
**FEATURES:**

- Infra Red Remote Control Manual setting on power on is available via hard switch inside the unit. This eliminate the use of the remote control unit.
- 3 Speed motor control for desired rate of cleaning
- Washable Main Filters and Pre-filters
- Flush Mounted to false ceiling, Fits into 60cm x 60cm and 60cm x 120cm ceiling board.
- Recirculates clean indoor air without any loss of airconditioning or heating in the room. Dirty air intake in one direction and clean air discharge in 3 directions.
- Collect dust particles from 0.01 microns and up.
- Multiple technologies for air and surface purification.
- For heavy odor, like cigarette smoke, the UVC lamp can be changed to an UV ozone Lamp. The charcoal filter can be omitted. **UV ozone lamp is available on special order only.**

**COANDA AIR FLOW EFFECT**



**How The DM 450/900 Units Work:**



Air passes through the high voltage ionizing section where it is given a high electrical charge. The charged particles then passes through a series of alternately charged plates. The charged particles are repelled by plates with the same polarity and attaches to the plates of the opposite polarity.

A 15 watt UVC germicidal lamp adds to the purifying process by destroying germs, bacteria and viruses in the air as it flows through the machine. The UVC lamp also reacts with the PCO filter to produce hydroxyls.

A Bi-Polar ion generator produces huge amounts of ions. The ions and hydroxyls purify the air moving through, and as they are pushed out of the unit, the air and surfaces in the room gets purified as well.



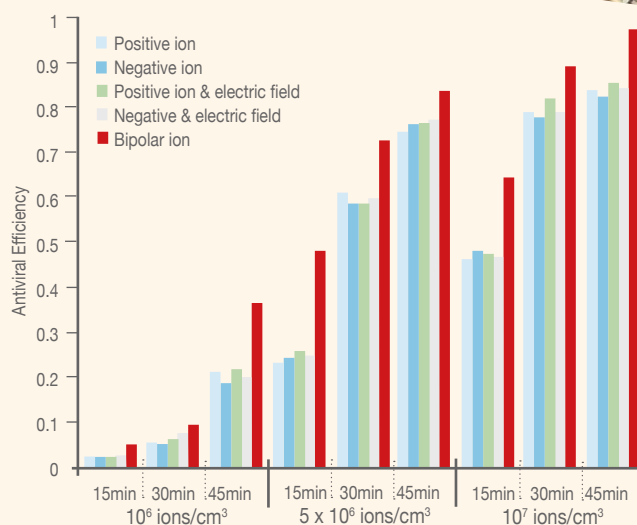
# DM450N/DM900N-DC

## CEILING SUSPENDED ELECTRONIC AIR CLEANER / PURIFIER

With UVC Lamps (UVC), Photo Catalytic oxidation (PCO) and Bi-Polar Ionisation (BPI)

Test conducted by Journal of Aerosol Science 107 (2017) 31-40 on “**Application of corona discharge- generated ions for filtration of aerosolized virus & inactivation of filtered virus**” showed :

When the ionizer was operated in a bipolar mode, the number concentrations of positive and negative ions were  $6.6 \times 10^6$ ;  $3.4 \times 10^6/\text{cm}^3$ , respectively, and the antiviral efficiency were **64.3%, 89.1%, and 97.4% with exposure times of 15 min, 30 min, and 45 min, respectively.**



Antiviral efficiency of air ions.

<sup>3</sup>Journal of Aerosol Science 107 (2017) 31-49

### SPECIFICATIONS

	DM450N	DM900-DC
Dimensions. W x L x H (mm)	570 x 570 x 300	570 x 1150 x 350
Material	1.0mm Electro Galvanised Steel, Powder Coated	Grill
Weight	26 Kg / 28 Kg	42 Kg / 45 Kg
Voltage	230VAC	230VAC
Power Consumption:	100 watts	120 watts
Efficiency	Up to 95%	Up to 95%
Max Air Volume #	800 CMH	1550 CMH
Speed / Noise Level	L: 45dB, M:56dB, H:65dB	L: 45dB, M:59dB, H:68dB
Coverage (Floor Area)	40 - 50 Sqm	80 - 100 Sqm
Ionising Voltage	8 Kv	8 Kv
Collecting Voltage	4 Kv	4 Kv
Charcoal Filter	Optional	Optional
UVC Lamp	15 Watts	15 Watts x 2 lamps
Bi-Polar Ion Generator	Yes	Yes
Photo-Catalytic Filter	1pc	2pcs

# - airflow w/o charcoal filter.



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