

# Hygieia

Ion generator 1100



## KEY FEATURES

- Produces a natural bio-climate rich in positive and negative oxygen ions
- Efficiently neutralises particulate matter, bacteria, virus cells, odorous gases and VOCs (Volatile Organic Compounds)
- Removes airborne contaminants
- Oxygen ions cause a chemical reaction with VOCs breaking down their molecular structure
- Bipolar ionisation technology proactively treats the air with a negligible pressure drop
- Filterless and does not require replacement parts
- Easy to install in existing or new ventilation systems
- Free of harmful byproducts
- Silent and invisible to the homeowner
- 3-year warranty

## HYGiEiA

People spend up to 90% of their time inside buildings, inhaling thousands of litres of indoor air every day. The indoor air from within a typical dwelling is filled with invisible yet harmful pollutants such as bacteria, viruses, mould spores, VOCs (Volatile Organic Compounds), dust, pet dander and pollen. These pollutants can trigger asthma, allergies, headaches, infections and respiratory conditions. HYGiEiA range improves the Indoor Air Quality with a 98% reduction of VOCs (Volatile Organic Compounds) and odours, 95% bacteria reduction, 91% removal of mould spores and 86% reduction of dust particles.

HYGiEiA range offers air purification solutions for both residential and commercial applications by using bipolar ionisation technology. HyGiEiA works inside the ventilation system to silently, invisibly and safely neutralise airborne pollutants. Ion generators neutralise odours and VOCs (Volatile Organic Compounds), smoke, bacteria and viruses, pet dander, dust, mould spores and pollen. The bipolar ionisation technology replicates nature's process for cleaning the air by producing an equal amount of positive and negative oxygen ions.

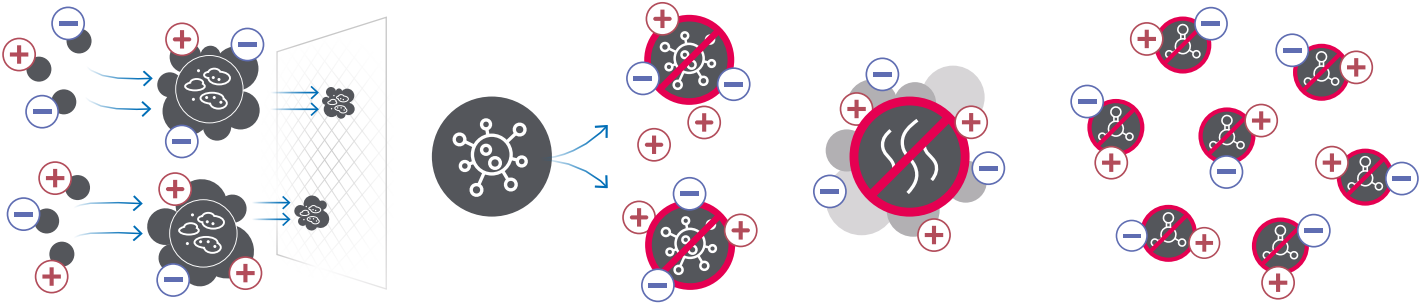


## WORKING PRINCIPLE

These devices produce millions of positively and negatively charged oxygen ions which travel through the duct system and into the occupied space.

The negative oxygen ions contain an extra electron while the positive ones are missing an electron resulting in an unstable

condition. To restabilise, these bipolar ions seek out atoms and molecules in the air to trade electrons with, effectively neutralising particulate matter, bacteria and virus cells, odorous gases and aerosols, and VOCs.



### PARTICULATE

Airborne particles, such as smoke, dust, pollen and spores are charged by the ions through ionic bonding. These charged particles stick together increasing their size allowing them to be easily removed by low grade filters.

### BACTERIA & VIRUSES

As they divide to reproduce, bacteria and virus cells bond with oxygen ions and are destroyed.

### ODOROUS GASES

Odorous gases and aerosols oxidize on contact with oxygen ions and are neutralised.

### VOLATILE ORGANIC COMPOUNDS

Oxygen ions cause a chemical reaction with VOCs breaking down their molecular structure.

## BRUSH STYLE BIPOLAR IONISER

**90001389** - Ion generator (up to 1100 l/s)



The HYGiEiA range can be used in a variety of IAQ applications with different pollutant levels.

The two ion generators we have available provide the right concentration of ionisation to remove the various pollutants from applications such as:

### Pollutant load factor A

Office  
Classroom  
Library  
Church  
Day care center

### Pollutant load factor B

Gymnasium  
Auditorium  
Arena  
Athletic facility  
Cafeteria  
Hospital

- Compact design allows for flexible and easy installation in a number of locations
- No maintenance required
- Treats up to 1132 l/s (4075 m<sup>3</sup>/h)
- Fuse protected
- This type of technology outperforms PCO (Photo-Catalytic Oxidation), UV (Ultra-Violet) and HEPA filters having a lower pressure drop, less energy consumption.

	Bipolar ionisation
Effectiveness	99%
Particle size	Small < 2.5µm
Treats indoor air	Yes
Replacement parts required	No
Maintenance required	No
Produces harmful by-products	No



# INSTALLATION

The ion generators are highly versatile as they can be installed in air handling units, fan coil units, MVHR unit, heat pumps and so on.

## HYGiEiA Ion generator (up to 1100 l/s)

The brush style bipolar ioniser is self-contained in an encapsulated enclosure which has moulded flanges with mounting holes. The device should be mounted downstream of the supply air filter.

## Operation

- 1 When power is supplied to the ioniser, the ioniser will be activated and the green ion indicator light will illuminate.
- 2 The ionisation unit is self balancing and does not require any type of adjustment.

FIGURE 1

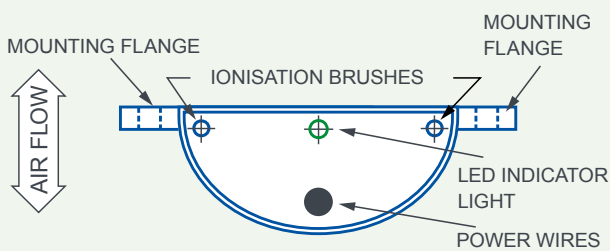
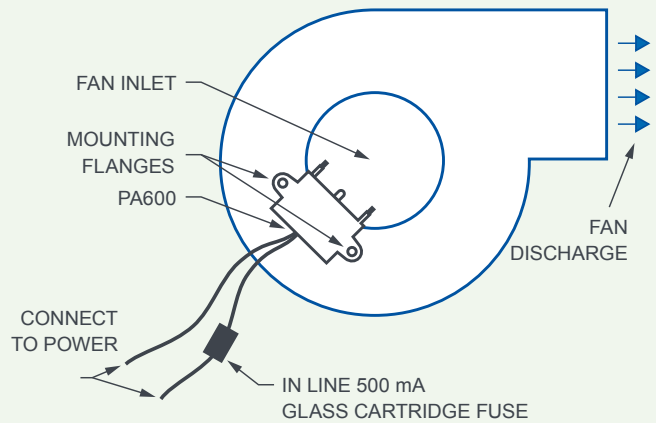
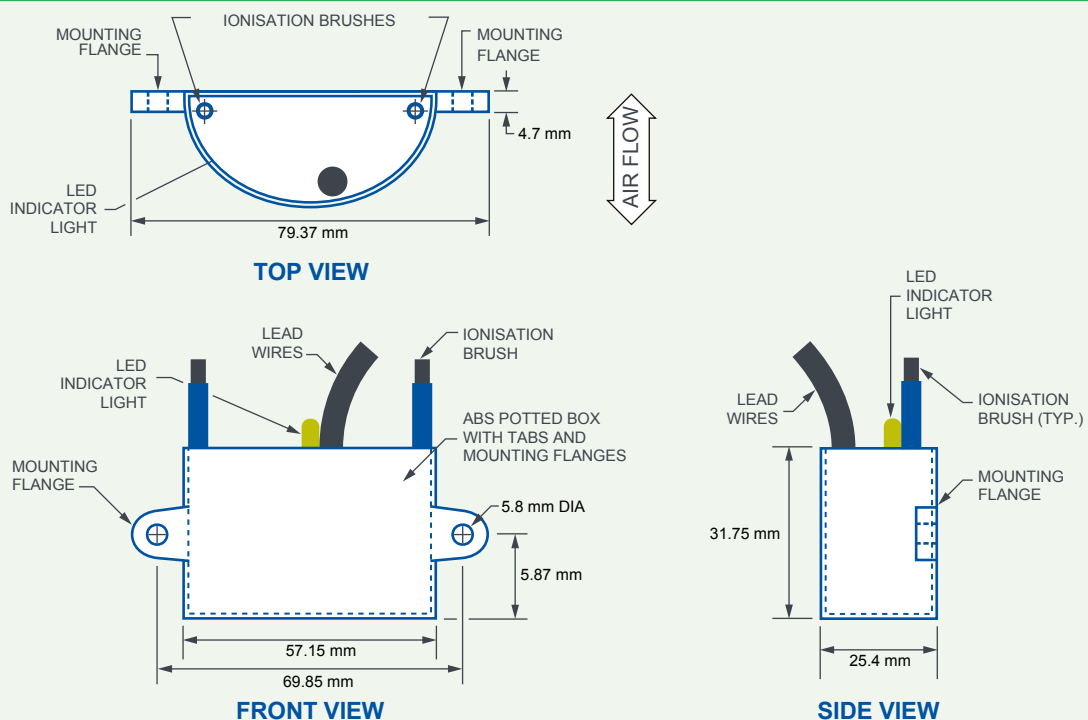


FIGURE 2

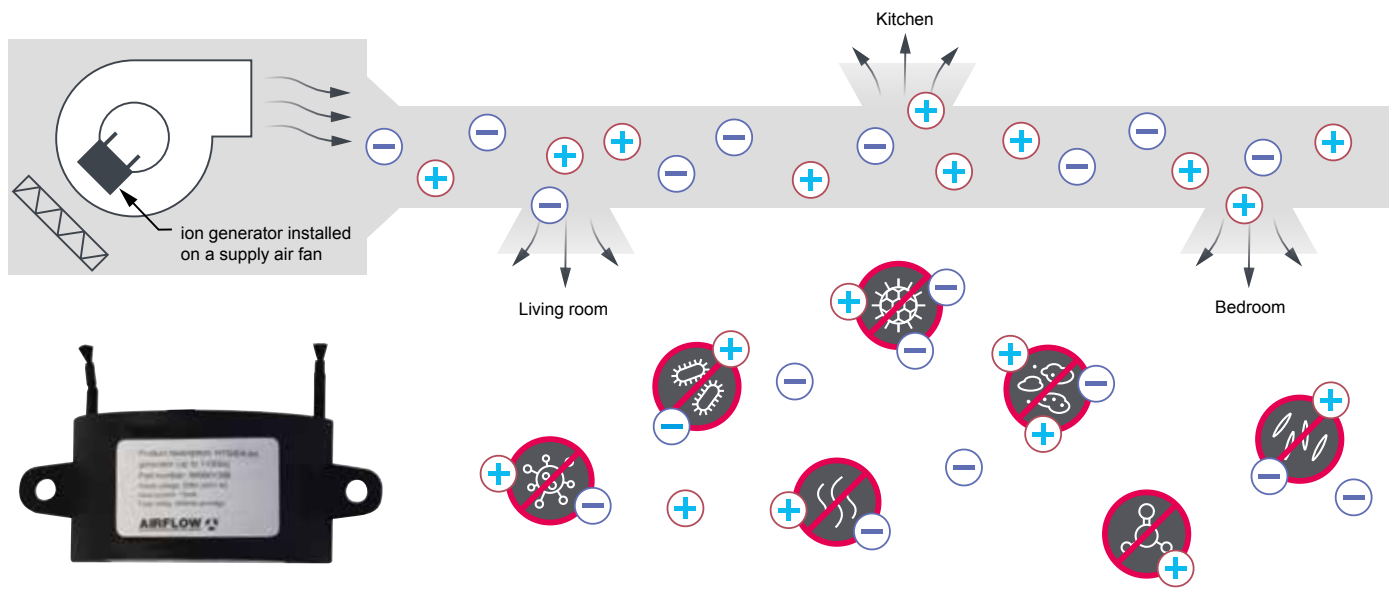


# DIMENSIONS



# APPLICATION EXAMPLE

## Residential dwelling example



# TECHNICAL DATA

Specification	Ion generator (up to 1100/s)
Airflow capacity (m3/h) / (l/s)	4075 / 1132
Pressure drop (Pa)	Less than 2.49
Housing material	ABS (Acrylonitrile Butadiene Styrene)
Weight (kg)	0.09
Maximum operating temperature (°C)	93
Voltage input (V)	208-240 AC
Power consumption	Less than 1 W
Frequency (Hz)	50/60
Over current protection (mA)	500 (Glass cartridge fuse)
Lead wire length (cm)	127
Mode of operation / ionisation output	Needlepoint type
Needle configuration	Brush type
Part number	90001389

**Call: 01494 525252** **Visit: [airflow.com](http://airflow.com)**



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