

A PRISTINE NEW STANDARD IN INDOOR AIR QUALITY



Electronic Air Cleaners

Honeywell

AIR QUALITY MATTERS

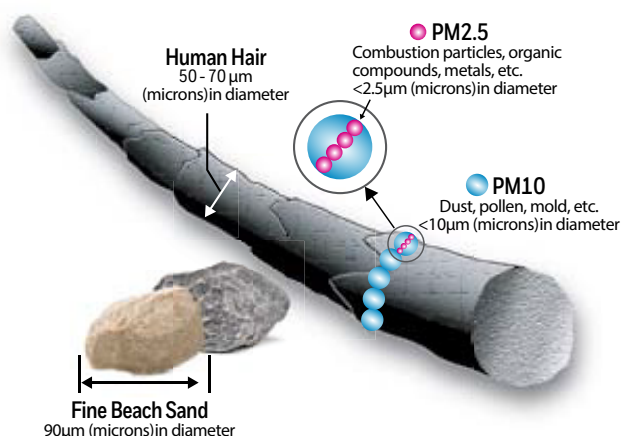
Good indoor air quality, thermal comfort, natural light, good acoustics, and occupant amenities help create healthy and productive workplaces. Any focus on green sustainable buildings must also address these priorities, given the business impact of employee wellbeing.

However, the long-term impact of clean air goes beyond enhancing occupant health and safety. Clean air also optimizes HVAC performance, prevents cooling coil fouling, and maximizes efficiency and energy savings.

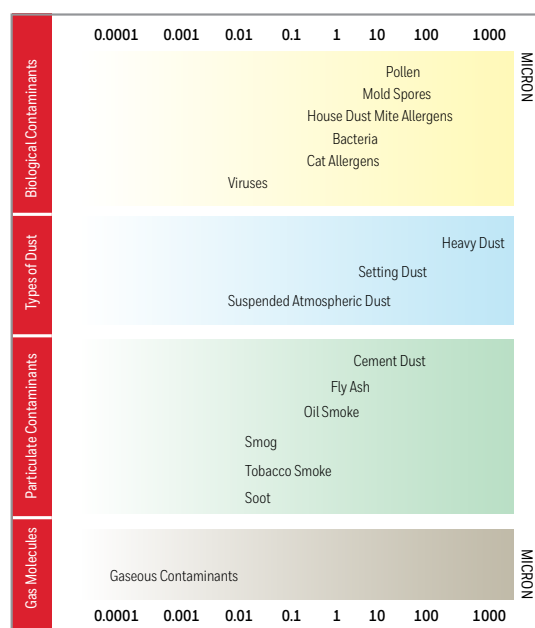
“Particle pollution - especially fine particles - contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems.”
United States Environmental Protection Agency

The smallest particles visible to the human eye are 40 to 50 microns* in size. Particles less than or equal to 10 microns in size can cause serious health issues when breathed in, and those in the .01 to 1 micron range can reach the deepest parts of our respiratory system.

Particulate pollution can cause irritation of the eyes, nose and throat; coughing; shortness of breath; irregular heartbeat; asthma; heart attacks; and premature death.



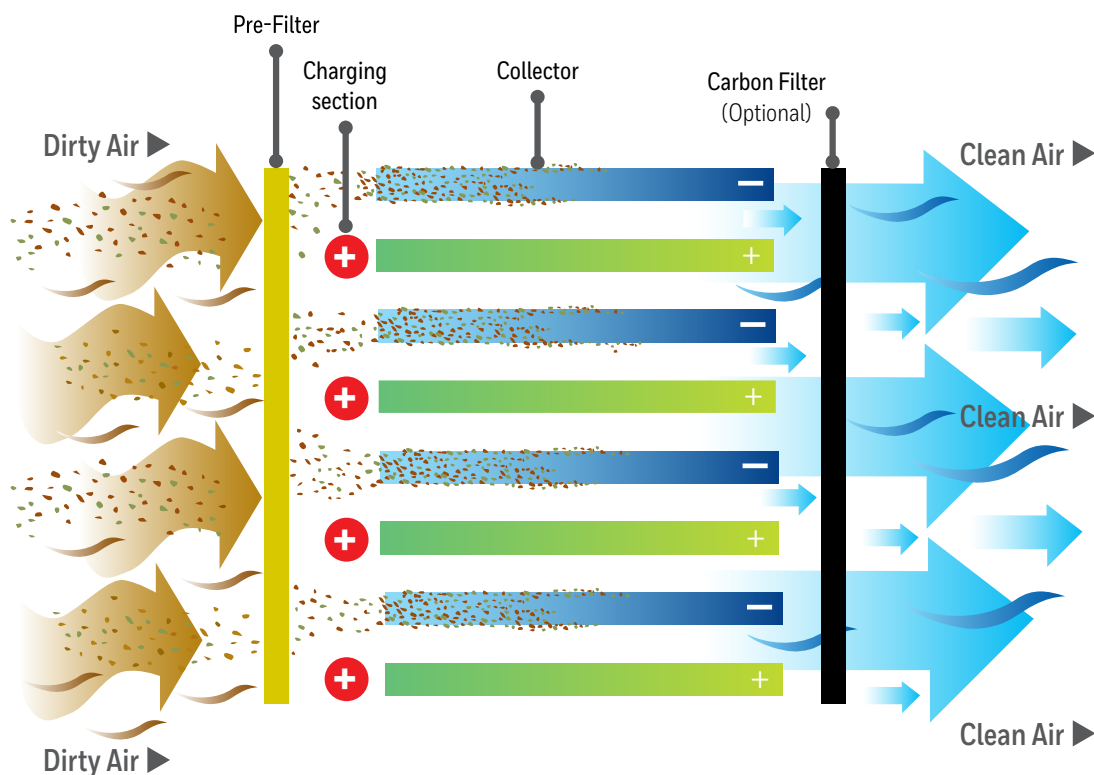
* 1 micron = 1/1000 millimeters



THE SCIENCE OF ELECTROSTATIC PRECIPITATION

An electrostatic precipitator, also called electrostatic air cleaner or electronic air cleaner (EAC), uses an electric charge to remove impurities from the air. The device applies energy only to the particulate matter to be collected, without significantly impeding air-flow.

Designed to recover valuable materials in industrial-processes, electronic air cleaners can also be used to control air pollution control - particularly to remove particles from waste gases at industrial facilities and power generating stations. Today, electronic air cleaners are also being used for indoor air pollution control.



A Honeywell two-stage electronic air cleaner consists of a charging and a collection section. A high voltage is used to create a strong electric field. Electrons present in pollutants - such as fine dust, smoke particles, pollens, mould spores and bacteria - are pushed by strong Coulomb Forces from the negative to the positive charge, in the electric field. Along the way they collide with the contaminants, releasing more electrons.

By moving air into the strong electric field around the collector, charged pollutant particles are trapped at the collector plates.

“The electronic air cleaner functions by applying energy only to the particulate matter being collected, without significantly impeding the flow of air.”

HONEYWELL ELECTRONIC AIR CLEANERS (EACs)

| The key to lowering your Ecological Footprint

An ecological footprint measures human impact on the Earth's ecosystems. Honeywell EACs reduce energy consumption by:

- Reducing the pressure drop across the EACs when compared with conventional media-type air filters.
- Enabling the use of smaller AHU (Air Handling Unit) fan motors which consume less energy.



Based on the usual operating hours of AHUs in commercial buildings, EAC investments are recovered in about one and a half years through AHU fan energy savings when compared with media air filters.

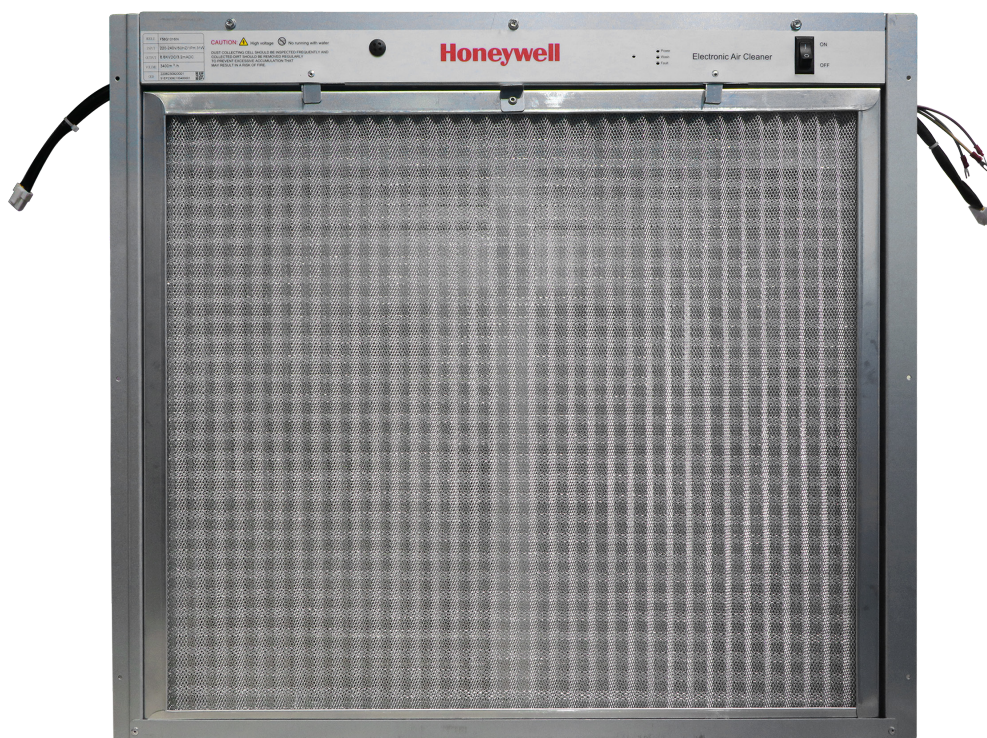
Unlike conventional media filters or charged media filters which are thrown away at the end of their service life, Honeywell's electronic cells and pre-filters are washable and reusable. Disposable media air filters clog up landfills, or if incinerated cause the release of greenhouse gases, adding to global warming.

Honeywell EACs have been independently tested and verified to meet a MERV 14* rating.

**"MERV 14" As per ASHRAE 52.2 - 2017*

F58G / F58H

Duct Mounted Commercial Electronic Air Cleaner



F58G1016IN

FEATURES



Capacity:
1000 cfm (1700m³/hr) on F58H
2000 cfm (3400m³/hr) on F58G



Heavy duty commercial
cells and pre-filters are
removable for cleaning



Able to maintain peak efficiency
during a wide range of cell
dirt-loading conditions



Removes airborne particles
as small as 0.01 micron



Interconnectable units to form
array of air cleaners



Connectable to Building
Management Systems



Solid state
power supply



Test button checks
system operation



Certifications: UL
Listed, CE, MERV 14

PRODUCT SPECIFICATION

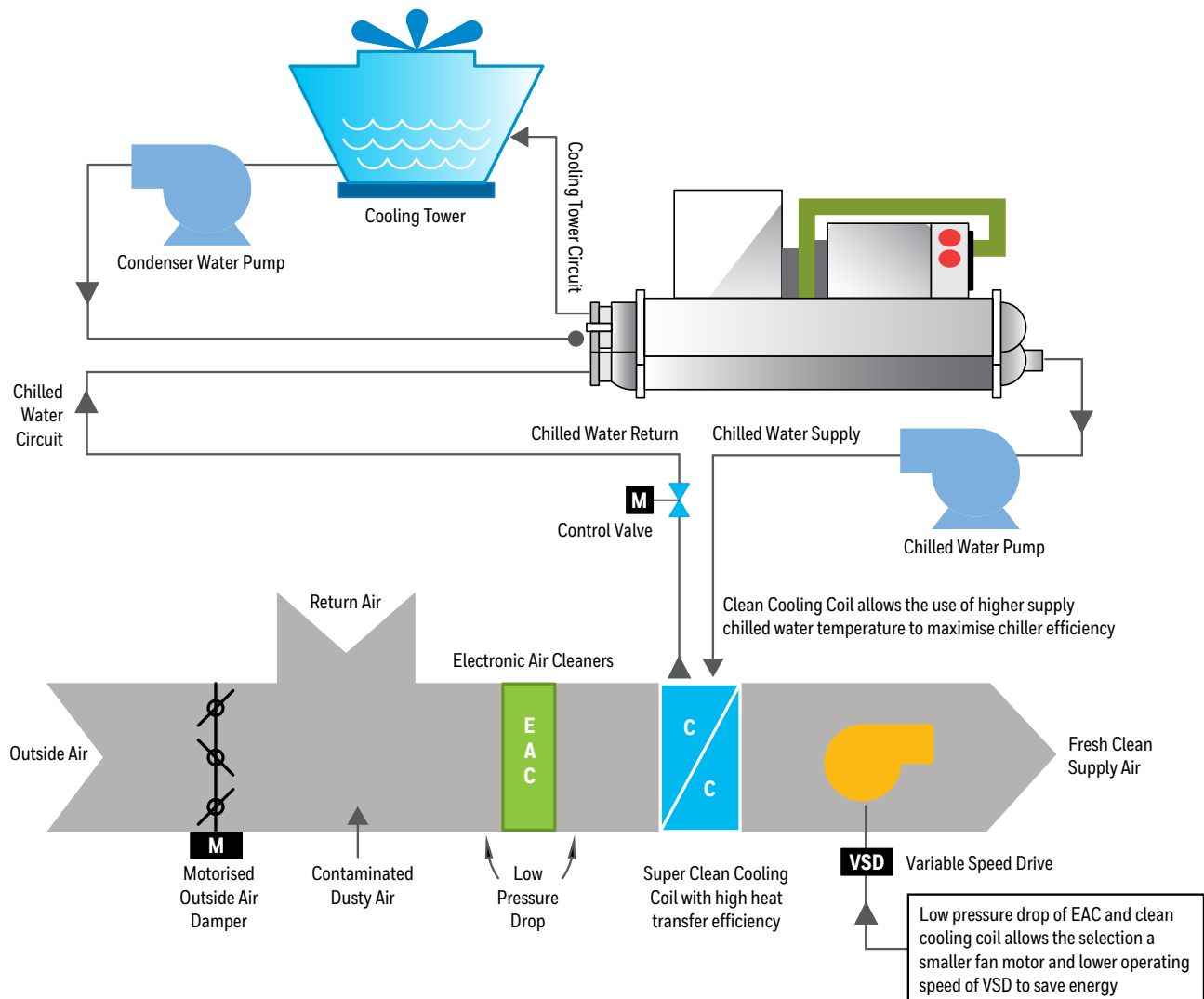
STANDARD CONFIGURATION		
MODEL	F58H1006IN	F58G1016IN
Input Power	220V ~ 240V/50Hz(60Hz)/1PH	
Output	6.6KVDC/3.2mADC	
Power Consumption	17W	31W
Applicable Environment Temperature	4°C ~ 52°C	
Total Weight	12KG	18KG

TECHNICAL INFORMATION

MODEL	F58H1006IN	F58G1016IN
No. of Cells	1	2
Capacity	1000 CFM (1700 m ³ /hr)	2000 CFM (3400 m ³ /hr)
Mounting	Duct Mounted	
Housing	Galvanised Steel Cabinet	
Operating Ambient	4°C to 52°C	
Colour	Silver	
Dimensions	370 x 610 x 180 mm	680 x 610 x 180 mm
Weight	12	18
Certifications	UL Listed, CE , MERV 14	
Electrical Ratings	Voltage and Frequency Power Supply : 220 - 240 Vac, 50 Hz Power Consumption : 36 W maximum Current Draw : 0.2 A Ionizer Voltage : 6000 VDC Collector Voltage : 6000 VDC	



Integration of Honeywell EACs into Air-Conditioning System



How Electronic Air Cleaners (EACs) Improve the Efficiency of Chiller Plants and AHUs

