

# SHARP

Air Purifiers and Air Purifiers  
with Humidifying Function

Millions of ions with  
moisture provide  
natural clean air

# SHARP

High-Density Plasmacluster Ions  
Clean the Room Air  
Powerfully and Quickly



KC-860E



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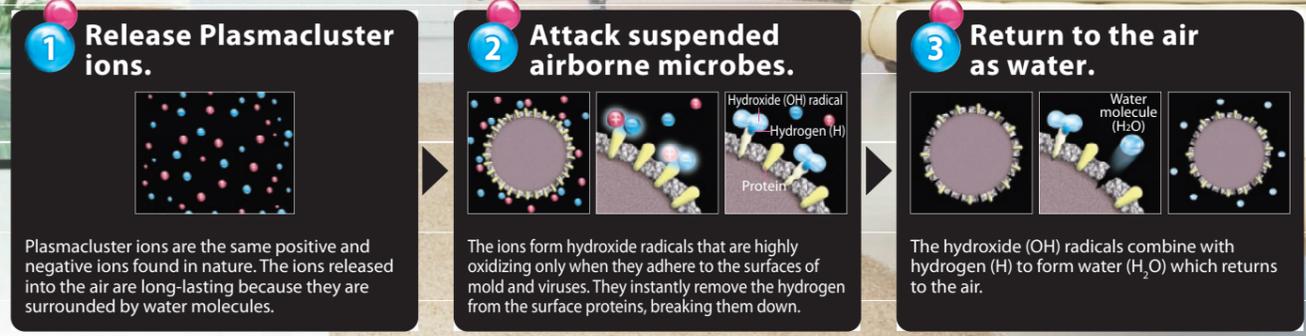
# Sharp's New Air Purifiers with High-Density Plasmacluster Ions Quickly and Powerfully Clean the Entire Room Air by Removing Airborne Allergens and Substances



## Plasmacluster technology

Plasma discharge generates and emits the same positive and negative ions that occur in nature. Plasmacluster technology is Sharp's original air purifying technology that removes suspended airborne mold and viruses.

Winner of the Invention Prize at the 2008 National Invention Awards Ceremony held by the Japan Institute of Invention and Innovation (JIII)  
Patented by Sharp (patent No. 3680121)



### High-Density Ion Generating Unit

Plasmacluster ions in the air are the same as they are in nature, so they can be generated in high density in a living environment.

#### The Same Type of Ions As Those in the Natural Environment

Plasmacluster ions are positive and negative ions that adhere to the surfaces of suspended airborne microbes and form highly oxidizing hydroxide radicals that physically break down and remove the proteins on the surfaces of suspended microbes. Since they are the same as naturally occurring ions while airborne, they can exist in higher densities in homes.

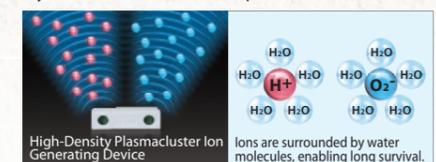
GLP\*-compliant test facilities have gathered highly reliable safety data on Sharp's Plasmacluster technology.

- Skin irritation/corrosion test
- Eye irritation/corrosion test
- Inhalation toxicity test (lung tissue genetic impact assessment)

Tested by: Mitsubishi Chemical Safety Institute

#### Water Molecules Surround Ions Ensuring Long Ion Life

The Plasmacluster ion generating device that drives it is mounted as a replaceable unit. It uses high voltage and a larger number of electrical discharges to generate higher densities of positive and negative ions. Since the positive and negative ions generated are surrounded by water molecules, they can survive for extended periods.



\* GLP (Good Laboratory Practice) is a system of management controls for test facilities and test procedures designed to ensure the reliability of chemical safety assessment tests.



# High-Density Plasmacluster Technology: A Refined Antibacterial Air-Sanitizing Technology that Offers Groundbreaking Air-Purifying Capacity

Plasmacluster technology is an original Sharp sanitizing technology that purifies the air by emitting highly safe positive and negative ions of the same type found in nature. It sanitizes and purifies suspended airborne mold, viruses and allergens. The benefits have been proven by official test institutions in Japan and around the world.



## Proven Effectiveness of Plasmacluster Ions

### Removal of Dust Mite Allergens

Plasmacluster ions cut through and remove proteins in suspended allergens generated by dust mite feces and dead mites, reducing their effects.

**Removal effectiveness for dust mite allergens in suspended house dust**

- Tested by Hiroshima University Graduate School of Advanced Sciences of Matter
- Test method: The effect of dust mite allergens in an uncleaned room (with a floor area of about 13 m²) was measured in an actual home by the ELISA (Enzyme-Linked Immunosorbent Assay) method. Sharp converted the results and calculated the average value. (Plasmacluster ion density: 3000 ions/cm³)

### Removal of Mold

Plasmacluster ions cut through and remove the cell membrane proteins on suspended mold surfaces, inhibiting their effects.

**Reduction of airborne mold**

- Tested by Ishikawa Health Services Association
- Test method: Plasmacluster ions were emitted into an experimental chamber with a floor area of about 13 m², and the suspended mold was measured with an air sampler. Sharp has graphed the results using approximate figures. (Plasmacluster ion density: 3,000/cm³)

## Effectiveness Rises with Increasing Density

### Reducing Growth of Adhering Mold

High-density Plasmacluster ions remove suspended mold and reduce the growth of adhered mold.

**Area of mold filament growth**

- Tested by Japan Food Research Laboratories
- Test method: Sharp generated ions in a space of 2.6 m³, grew mold on a PVC plate for five days, and had a test facility estimate the mold growth. The mold growth was compared as directed by JISZ2911. Sharp plotted the results. (Plasmacluster ion density: 30,000 ions/cm³)
- Test results: No.208071183-001 of July 30, 2008
- The results do not apply to the FU series and KC-C series. Average ion density measured at the walls of a room half the recommended room size with the KC-860E/850E/840E using air purifying and humidifying with the maximum airflow.

### Removal of Viruses

Plasmacluster ions break down and remove projecting spike-shaped proteins of suspended viruses, and reduces their effects.

**Reduction of airborne viruses**

- Tested by Retroscreen Virology Ltd., U.K.
- Test method: Viruses were suspended in a 1 m³ box and the percentage of airborne viruses removed was measured. (Plasmacluster ion density: 7,000 ions/cm³)
- The results do not apply to the FU series and KC-C series. Average ion density measured in the center of a room at a height of 1.2 m from the floor with the recommended room size for the targeted high density of 7000 Plasmacluster ions with the KC-860E/850E/840E in air-purifying and humidifying mode at maximum airflow.

### Removal of Adhering Odor

Plasmacluster ions remove hydrogen from adhering odor molecules, breaking down and removing odor components.

**Removing cigarette smoke odor**

- Tested by Japan Spinners Inspecting Foundation
- Test method: The deodorizing effectiveness on a cloth swatch impregnated with cigarette smoke odor components was evaluated by the six-level odor intensity indication method. Sharp has converted and calculated the results. (Plasmacluster ion density: 5,000 ions/cm³)

### Increase in Adhering Odor Removal Speed (1.5 Times Faster)

High-density Plasmacluster ions increase deodorizing speed. Depending on the way in which the Air Purifier is used, a concentrated airflow of high-density Plasmacluster ions can also reduce sweat odors clinging to clothes.

**Reducing cigarette smoke odor from cloth**

- Tested by Japan Spinners Inspecting Foundation
- Test method: The effectiveness of deodorizing a cloth swatch impregnated with cigarette smoke odor components was evaluated using the six-level odor intensity indication method. Sharp converted and calculated the results. (Plasmacluster ion density: 10,000 ions/cm³)
- The results do not apply to the FU series and KC-C series. Average ion density measured at the walls of a room with the recommended room size for the targeted high density of 7000 Plasmacluster ions with the KC-860E/850E/840E in air-purifying and humidifying mode at maximum airflow.

## Proven at 13 Institutions in Japan and around the World.

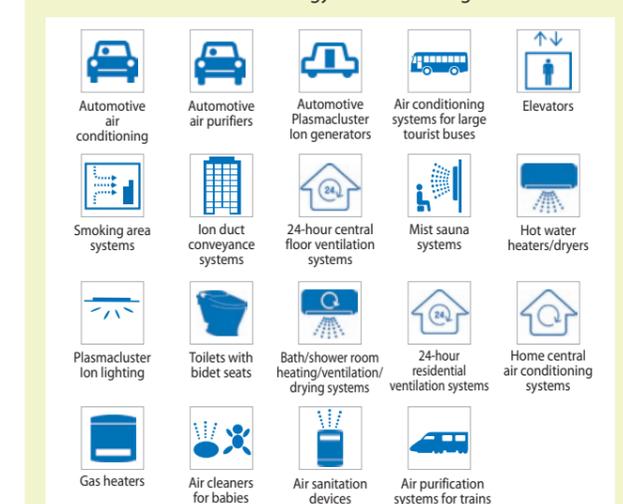
The institutions below have gathered validation data for Plasmacluster ion generating devices manufactured between October 2000 and December 2008, and records of product use.

Test substance	Tested by:
Airborne viruses	Kitasato Research Center of Environmental Sciences (Japan)
	Seoul University (Korea)
	Shanghai Municipal Center for Disease Control and Prevention
	Kitasato Institute Medical Center Hospital, Kitasato University (Japan)
	Retroscreen Virology, Ltd. (UK)
Airborne allergens	Hiroshima University Graduate School of Advanced Sciences of Matter (Japan)
	Asthma Society of Canada
Airborne mold	Ishikawa Health Service Association (Japan)
	Professor Gerhard Artmann, Aachen University of Applied Sciences (Germany)
Airborne microbes	Ishikawa Health Service Association (Japan)
	Shanghai Municipal Center for Disease Control and Prevention
	Kitasato Research Center of Environmental Sciences (Japan)
	Kitasato Institute Medical Center Hospital, Kitasato University (Japan)
Adhering odor	Professor Gerhard Artmann, Aachen University of Applied Sciences (Germany)
	Harvard School of Public Health (USA)
Adhering mold	Japan Spinners Inspecting Foundation
	The University Lübeck (Germany)
	Japan Food Research Laboratories

\* Validation test results for other test substances carried out by the same test institution at the same time have not been shown.

## The Sharp Plasmacluster Range Trusted by Over 20 Million\* Units Worldwide.

In collaboration with a number of companies, Sharp has expanded the Plasmacluster ion technology to the following industries.



\*Total number of Sharp Plasmacluster products and Plasmacluster ion-generating devices shipped within Japan and overseas between October 2000 and December 2008.

While these air purifiers can remove suspended viruses and other contaminants, they cannot create a completely sterile environment. Sharp does not guarantee the ability of these air purifiers to prevent microbial infection.

The actual number of ions and removing and purifying effectiveness will vary according to the room conditions and the operation method.

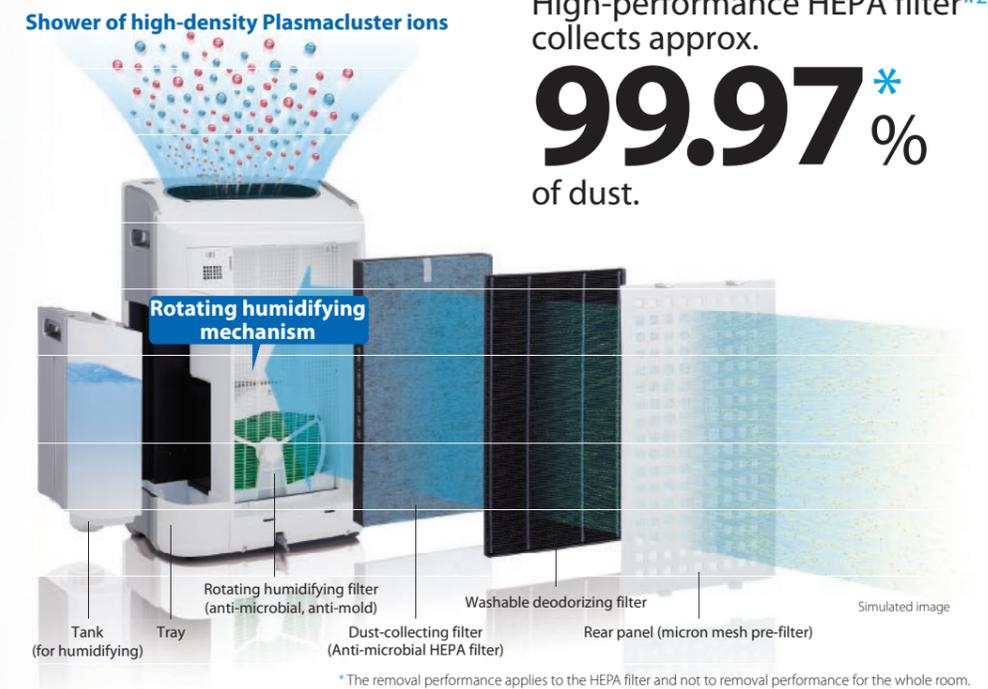
# Sharp's Unique Efficient and Powerful Airflow and Circulation Devices Enable Quick Dust Removal

Quick dust removal time of **only 8 min.** for a 13m<sup>2</sup> room.



# High-Performance Filters Provide Powerful Dust and Odor Removal for Long Periods of Time

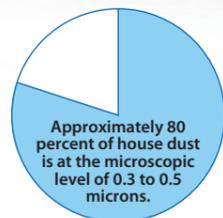
High-performance HEPA filter\*<sup>2</sup> collects approx. **99.97%\*** of dust.



## Sharp's New Airflow System Quickly and Effectively Removes House Dust

**Plasmacluster ions break down 99.9% of dust mite allergens in airborne house dust and prevent the increase in these allergens.**

Almost all dust in the air circulates the room without ever descending to the floor. The Plasmacluster shower released into the room removes the effect of this dust.



• Tested by Sharp  
• Test method: Airborne dust in a typical house was measured with a particle tester.

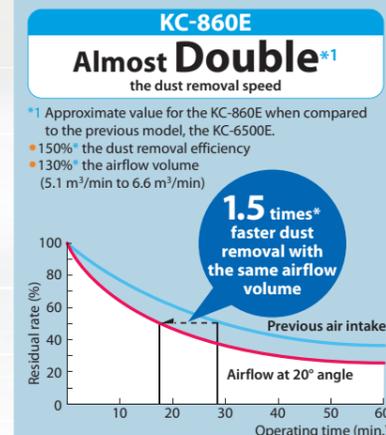
### New Nozzle at a 20° Angle Provides Efficient Airflow and Circulation

A newly developed long and wide nozzle based on aerodynamics provides a faster and more stable airflow. In addition, the 20° angle of the nozzle circulates air faster throughout the room, enabling remarkably quick removal of dust and particles even from far corners.

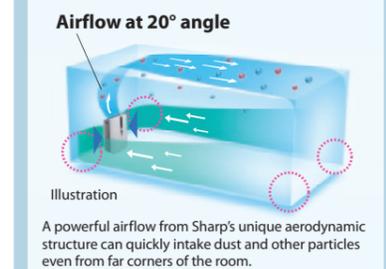


KC-860E simulated images

Powerful airflow at a 20° angle with funnel-shaped nozzle remarkably improves dust suction speed.



• Tested by Sharp  
• Test method: The residual rate of airborne house dust was measured in a room of approximately 13 m<sup>3</sup> with uniform airflow.  
\* Approximate value for the KC-860E when compared to the previous model, the KC-6500E.



A powerful airflow from Sharp's unique aerodynamic structure can quickly intake dust and other particles even from far corners of the room.

### Efficient Air Intake with Grid Rear Air Suction Panel

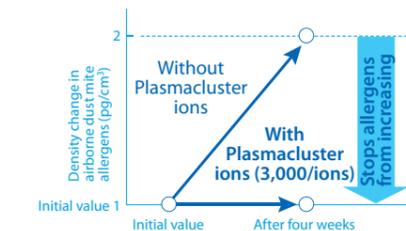
The volume of the powerful airflow is more than 1.2 times\* the volume of previous models. Plus, the grid rear air suction panel takes in this strong airflow without leaving any clogging dust or dirt particles. This unique construction efficiently removes dust even from the four corners of the room.



KC-860E simulated image

\* Approximate value for the KC-860E when compared to the previous model, the KC-6500E.

**Increase of dust mite allergens is prevented even in an uncleaned room.**

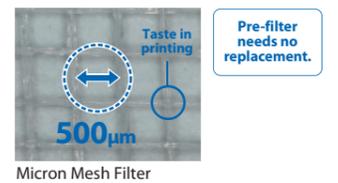


• Tested by Hiroshima University Graduate School of Advanced Sciences of Matter  
• Test method: The effect of dust mite allergens in an uncleaned room (with a floor area of about 13 m<sup>2</sup>) was measured in an actual home by the ELISA (Enzyme-Linked ImmunoSorbent Assay) method. Sharp converted the results and calculated the average value. (Plasmacluster ion density: 3,000/cm<sup>3</sup>)

## High-Performance Filters Remove Micron-size Dust Particles

### 1 Micron Mesh Pre-Filter Stops Microscopic Dust Particles

The pre-filter maintains the high performance of the HEPA filter by preventing microscopic dust from entering the core parts of the air purifier. Dust can be easily wiped or washed away from the filter without detaching the panel. There is no need to replace the pre-filter.



### 2 Washable Deodorizing Filter Removes Odors

The odor removal ability of the deodorizing filter can be easily restored\* by periodically washing away any dust or dirt. The filter can be repeatedly washed, so there is no need to replace it.

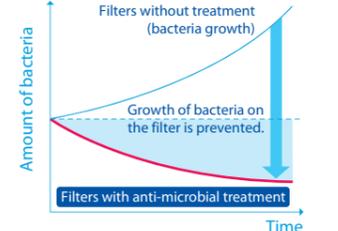


### 3 Anti-Microbial\*<sup>1</sup> HEPA Filter\*<sup>2</sup> Catches Even 0.3-Micron House Dust Particles

Anti-microbial\*<sup>1</sup> HEPA filter\*<sup>2</sup> catches 99.97% of 0.3-micron house dust particles, providing almost perfect dust removal. And, this high performance can be maintained for a long period of use because no filter replacement is required for 10 years.\*<sup>3</sup>

\*<sup>1</sup> Tested by Japan Synthetic Textile Inspection Institute Foundation.  
\*<sup>2</sup> The filter removes more than 99.97% of 0.3-micron dust particles.  
\*<sup>3</sup> When smoking five cigarettes a day.  
\*<sup>4</sup> Tested by Hiroshima University Graduate School of Advanced Sciences of Matter.  
\*<sup>5</sup> Tested by Chinese Center for Disease Control and Prevention (CCDC), Laboratory for Infectious Disease Prevention and Control.

### Removing allergens and viruses, plus preventing bacteria growth



99.8% of allergens in dust mite droppings are removed.\*<sup>4</sup>  
99.9% of pollen allergens are removed.\*<sup>4</sup>  
99.9% of viruses are removed.\*<sup>5</sup>

# Plus, Powerful Humidifying Enhances the Performance of the Plasmacluster Ions



Powerful Humidifying

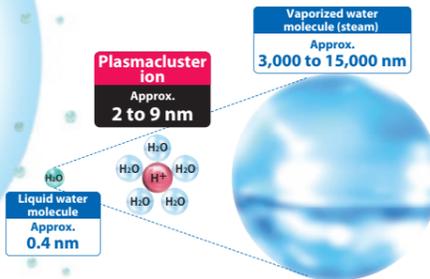
## Humidity of 60% to Keep Your Skin and Throat from Becoming Dry

The rotating filter disc automatically starts and stops according to the level of humidity in the entire room to maintain the level at 60%\* and create an ideally comfortable environment. Keeping humidity at 60%\* also prevents nose and throat dryness and limits virus activity.

\*The effectiveness of humidifying depends on the season as well as the size and temperature of the room.



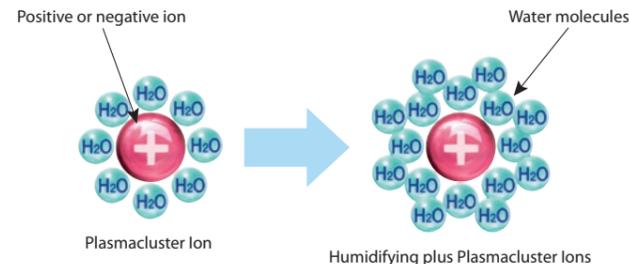
Humidifying through vaporization moisturizes your skin by penetration with tiny invisible water molecules. (1 nm = 1/1,000,000 mm)



## Humidifying Improves the Effectiveness and Endurance of Plasmacluster Ions

Water molecules accumulate around the positive and negative Plasmacluster ions, increasing their size and doubling their endurance and air-purifying speed\*.

Improved air cleaning



\*Tested by Japan Food Research Laboratories  
Test method: Plasmacluster ions were emitted into an experimental chamber with a floor area of about 8m<sup>2</sup>, suspended mold was measured with an air sampler, and the approximate values were compared for two conditions: with and without humidifying.

## Rotating Humidifying Filter with Humidity Detector

Temperature and humidity detectors constantly sense the room moisture conditions to automatically stop and start humidifying and maintain an optimal degree of humidity. The humidifying filter is anti-microbial and anti-mold.

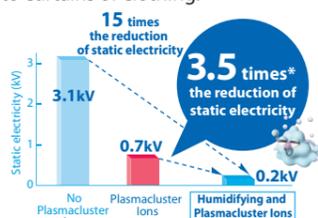
- \*1 Tested by Japan Spinners Inspecting Foundation  
Test method: JIS Z 2801 standard test  
Anti-microbial method: Infusing filter with anti-bacterial agents  
Test result: 99% removed
- \*2 Tested by Japan Spinners Inspecting Foundation  
Test method: Halo method  
Anti-mold method: Infusing filter with anti-mold agents  
Test result: 99% removed



## Humidifying Prevents Dust and Pollen from Circulating and Clinging to Clothing or Other Fibers

Operation with humidifying and Plasmacluster ions is 3.5 times\* more effective at reducing static electricity, preventing pollen from circulating in the room and clinging to curtains or clothing.

Clinging pollen is not removed only by trying to dust it off. A shower of Plasmacluster ions reduces static electricity, and the pollen is removed from the cloth.



### Change in static electricity due to humidifying and Plasmacluster ions

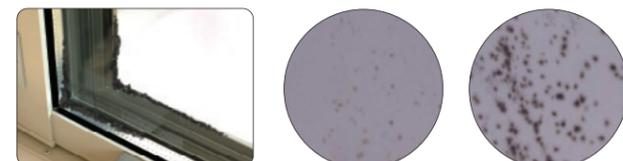
Tested by Sharp  
Test method: Simulated pollen was made to cling to a cloth charged with static electricity, and then Plasmacluster ions were released. The cloth was dusted off several times, and then examined with an electron microscope.

Tested by Sharp  
Test method: A plate electrically charged with approximately 3 kV is placed in a 1m<sup>3</sup> sealed container and the static electricity is measured when humidity and Plasmacluster ions are released. (Plasmacluster ion density: 30,000/cm<sup>3</sup>)  
\* Approximate value when comparing two conditions: operation with and without humidifying.

## Prevent Mold in the Wet Season

High-density Plasmacluster ions remove suspended mold and reduce the growth of mold on surfaces.

High-density Plasmacluster ions produce a condition in which it is difficult for black mold to grow on surfaces such as rubber window frames.



- Tested by Japan Food Research Laboratories  
Test result: No. 20807071183-001, July 30, 2008
- Test method: Sharp generated ions in a space of 2.6 m<sup>3</sup>, grew mold on a PVC plate for five days and entrusted them to a test institution. The mold growth was compared as directed by JISZ2911. Sharp plotted the results. (Plasmacluster ion density: 30,000 ions/cm<sup>3</sup>)

Plasmacluster ions (30,000/cm<sup>3</sup>)  
Area of mold filament growth: 25% to 50% of total

Mold allowed to grow naturally  
Area of mold filament growth: 50% to 100% of total

The effectiveness of the Plasmacluster ions depends on the size and structure of the room and the air purifier operation mode.

\* Average ion density measured with the KC-860E using air purifying and humidifying with the maximum airflow volume in a room half the size of the recommended room size.

# The Effectiveness of Dust Removal is Indicated in Eleven Levels



## Four Sensors Check and Control Room Air Conditions

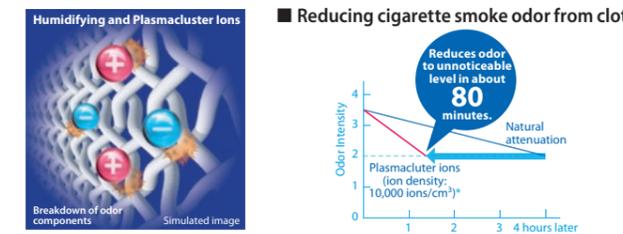
Four sensors for dust, odor, temperature\* and humidity constantly monitor the room air.

- 1 House Dust Monitor**  
The dust sensor detects dust in the room and indicates the intensity in eleven levels with color changes (KC-860E).
- 2 Odor Monitor**  
The odor sensor detects odors and indicates the intensity in three levels with colors.
- 3 Humidity Monitor**  
Room humidity is monitored in units of 1%. Note: It is not possible to set a desired humidity (KC-860E/850E).

\*The temperature sensor is installed to check the room temperature and adjust the humidity to the temperature, but there is no monitor for this sensor.

## Powerful Removal of Stubborn Lingering Odors

Humidifying and Plasmacluster ions quickly remove pet and cigarette odors seeped into curtains, sofas and other fibers.

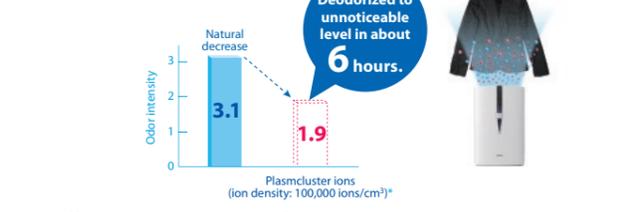


### Change in static electricity due to humidifying and Plasmacluster ions

- Tested by Japan Spinners Inspecting Foundation
- Test method: The deodorizing effectiveness on a cloth swatch impregnated with cigarette smoke odor components was evaluated by the six-level odor intensity indication method. Sharp has converted and calculated the results. (Plasmacluster ion density: 10,000/cm<sup>3</sup>)
- \* Ion density measured at the walls of a room with the recommended room size for the targeted high-density Plasmacluster ions in air-purifying and humidifying mode at maximum airflow.

## Spot Deodorizing Function

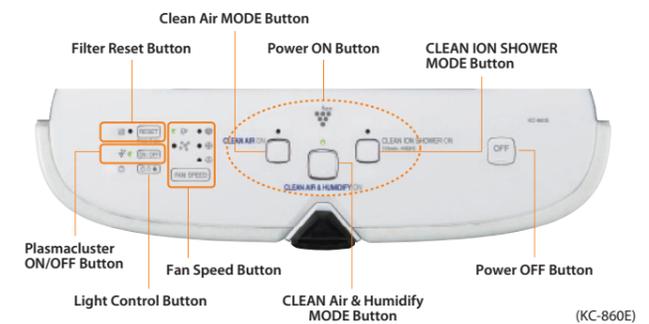
The Spot Deodorizing function gently deodorizes suits or coats impregnated with unpleasant odors overnight by emitting a focused stream of high-density Plasmacluster ion air onto them.



- Tested by Japan Spinners Inspecting Foundation
  - Test method: The deodorizing effectiveness on a cloth swatch impregnated with sweat odor components was evaluated by the six-level odor intensity indication method. (Plasmacluster ion density: 100,000 ions/cm<sup>3</sup>)
  - \* The ion density created when the KC-860E was operated at the HIGH airstream setting, measured next to hanging clothing with the airstream directed onto it.
- Note: The effectiveness of clothing odor removal varies according to the type and intensity of the odor, and the clothing material. Odor is not removed from clothing areas away from the airstream. The FU series and KC-C series do not have this function.

## Simple-to-Use Control Panel

The control panel is easy to use with separate buttons to directly start operation of air purifying alone, air purifying and humidifying together, and Plasmacluster shower. Also, an indicator notifies when the filter needs to be cleaned.



## Reduced Household Expenditures and Quiet Operation

### Economical Even with Year-Round Use

Only 1/5\*<sup>1</sup> the annual electricity expense of using an air purifier and humidifier separately.

\*1 Approximate value when compared to using the air purifier and humidifier together

### Quiet Operation for Nighttime

Air purifying with humidifying provides quiet operation of only 24 dB, which is almost the same sound level as a quiet library. Air purifying alone without humidifying is even quieter.

KC-860E		KC-850E		KC-840E	
in low operation	in high operation	in low operation	in high operation	in low operation	in high operation
27dB	51dB	24dB	48dB	24dB	42dB

# KC-series Air Purifiers with Humidifying Function

Panel enlargement: Marble-like finish

KC-860E-W (White)

**48 m<sup>2</sup>**  
(recommended room size\*) **KC-860E**

Panel enlargement: Crystal-cut, gloss finish

KC-850E-W (White) -R (Red)

**38 m<sup>2</sup>**  
(recommended room size\*) **KC-850E**

Panel enlargement: Diamond-cut, shiny finish

KC-840E-W (White) -B (Black)

**26 m<sup>2</sup>**  
(recommended room size\*) **KC-840E**

## Specifications

Models		KC-860E	KC-850E	KC-840E
Air purifying system		High-density PCI generator and fan	High-density PCI generator and fan	High-density PCI generator and fan
Plasmacluster ion modes		On/Off	On/Off	On/Off
Remote control		Yes	Yes	Yes
Plasmacluster indicator light		Yes	Yes	Yes
Humidifying	Humidifying system	Natural vaporization	Natural vaporization	Natural vaporization
	Tank capacity	4.3 L	4.3 L	3.0 L
	Humidifying capacity*2	730 mL/hour	600 mL/hour	450 mL/hour
Remote control		No	No	No
Recommended room size*1	Without humidifying	48 m <sup>2</sup>	38 m <sup>2</sup>	26 m <sup>2</sup>
	With humidifying*2	33 m <sup>2</sup>	28 m <sup>2</sup>	21 m <sup>2</sup>
Recommended room size*2 for Plasmacluster ions		33 m <sup>2</sup>	28 m <sup>2</sup>	21 m <sup>2</sup>
Fan speed		3 (max. / med. / low) auto and pollen	3 (max. / med. / low) auto and pollen	3 (max. / med. / low) auto and pollen
Voltage/frequency (V, Hz)		220-240, 50/60	220-240, 50/60	220-240, 50/60
Power input (W)	Without humidifying	56 / 19 / 5.5	41 / 11.6 / 3.8	26 / 9.5 / 3.7
	With humidifying	56 / 21 / 8.8	40 / 13.5 / 6.8	21 / 11.5 / 6.1
Running current (A)		0.7	0.38	0.25
Inverter operation		Yes	Yes	Yes
Airflow (max. / med. / low) (m <sup>3</sup> /hour)	Without humidifying	396 / 240 / 84	306 / 168 / 60	210 / 132 / 48
	With humidifying	396 / 240 / 120	288 / 168 / 84	186 / 132 / 54
Noise level (max. / med. / low) (dB)	Without humidifying	51 / 39 / 17	47 / 35 / 15	45 / 34 / 15
	With humidifying	50 / 39 / 25	47 / 35 / 22	42 / 34 / 20
Special program mode		High-density Plasmacluster ion shower	High-density Plasmacluster ion shower	High-density Plasmacluster ion shower
Filter type	Dust collection	Antimicrobial HEPA	Antimicrobial HEPA	Antimicrobial HEPA
	Deodorization	Washable deodorizing	Washable deodorizing	Washable deodorizing
	Pre-filter	Yes	Yes	Yes
	Humidifying	Yes	Yes	Yes
Filter life	HEPA / deodorizing filter	Up to 5 years	Up to 5 years	Up to 5 years
	Humidifying filter	Up to 2 years	Up to 2 years	Up to 2 years
Sensor	Odor	Yes	Yes	No
	Dust	Yes	Yes	Yes
	Temperature & humidity	Yes	Yes	Yes
Clean sign indicator	Dust monitor	Yes (11 steps)	Yes (9 steps)	Yes (5 steps)
	Odor sign	Yes (3 steps)	Yes (3 steps)	No
Light control button		Yes (bright / dim / off)	Yes (bright / dim / off)	Yes (bright / dim / off)
Power cord length (m)		2.0	2.0	2.0
Plug type		Type C (2-pin)	Type C (2-pin)	Type C (2-pin)
Dimensions (W x H x D) (mm)		398 x 627 x 288	378 x 586 x 265	360 x 550 x 233
Net weight (kg)		11.0	9.0	8.0
Replacement filter	HEPA filter	FZ-C150HFE	FZ-C100HFE	FZ-C70HFE
	Deodorizing filter	FZ-C150DFE	FZ-C100DFE	FZ-C70DFE
	Humidifying filter	FZ-C100MFE	FZ-C100MFE	FZ-C100MFE

\*1 Recommended room size: Calculated based on the JEM1467 standard of the Japan Electrical Manufacturers' Association. \*2 Measurement Conditions: 20°C, 30% humidity (JEM1426) \*3 Size of a room in which approximately 7000 ions can be measured per m<sup>3</sup> in the center of the room (at a height of approximately 1.2 meters from the floor) when the product is placed next to a window and run at the MAX operation position. ● Operation manual language availability is subject to change.

# FU-series Air Purifiers

High-Density Plasmacluster Ions

FU-W53E (White)

**40 m<sup>2</sup>**  
(recommended room size\*) **FU-W53E**

FU-W43E (White)

**32 m<sup>2</sup>**  
(recommended room size\*) **FU-W43E**

FU-W28E (White)

**21 m<sup>2</sup>**  
(recommended room size\*) **FU-W28E**

## Specifications

Models		FU-W53E	FU-W43E	FU-W28E
Air purifying system		High-density PCI generator and fan	High-density PCI generator and fan	High-density PCI generator and fan
Plasmacluster ion modes		On/Off	On/Off	On/Off
Remote control		No	No	No
Recommended room size*1	Without humidifying	40 m <sup>2</sup>	32 m <sup>2</sup>	21 m <sup>2</sup>
	With humidifying	20 m <sup>2</sup>	15 m <sup>2</sup>	10 m <sup>2</sup>
Recommended room size*2 for Plasmacluster ions		20 m <sup>2</sup>	15 m <sup>2</sup>	10 m <sup>2</sup>
Fan speed		3 (max. / med. / silent) auto and pollen	3 (Max / Med / Silent) auto and pollen	3 (max. / med. / silent) auto and pollen
Voltage/frequency (V, Hz)		220-240, 50/60	220-240, 50/60	220-240, 50/60
Power input (max. / med. / low) (W)	Without humidifying	42 / 15 / 3.5	27 / 15 / 3.5	33 / 12 / 3.9
	With humidifying	—	—	—
Standby power (W)		0.8	0.8	0.8
Running current (A)		0.33	0.22	0.27
Inverter operation		Yes	Yes	Yes
Airflow (max. / med. / low) (m <sup>3</sup> /hour)		318 / 204 / 36	258 / 180 / 36	168 / 90 / 30
Noise level (max. / med. / low) (dB)		52 / 40 / 14	47 / 40 / 14	52 / 40 / 18
Special program mode		High-density Plasmacluster ion shower	High-density Plasmacluster ion shower	High-density Plasmacluster ion shower
Filter type	Dust collection	Antimicrobial HEPA	Antimicrobial HEPA	Antimicrobial HEPA
	Deodorization	Washable deodorizing	Washable deodorizing	Washable deodorizing
	Pre-filter	No	No	No
	Humidifying	No	No	No
Filter life	HEPA / deodorizing filter	Up to 5 years	Up to 5 years	Up to 2 years
	Humidifying filter	—	—	—
Sensor	Odor	Yes	Yes	Yes
	Dust	Yes	No	No
	Temperature and humidity	Yes	No	No
Clean sign indicator		Yes (3 steps)	Yes (3 steps)	Yes (3 steps)
Lights control button		Yes (bright / dim / off)	Yes (bright / dim / off)	Yes (on / off)
Power cord length (m)		2.0	2.0	—
Plug type		Type C (2-pin)	Type C (2-pin)	Type C (2-pin)
Dimensions (W x H x D) (mm)		338 x 620 x 207	314 x 620 x 207	410 x 430 x 158
Net weight (kg)		6.1	6.0	4.3
Replacement filter		FZ-W53SEF	FZ-W53SEF	FZ-425SEF

\*1 Recommended room size: Calculated based on the JEM1467 standard of the Japan Electrical Manufacturers' Association. \*2 Size of a room in which approximately 7000 ions can be measured per m<sup>3</sup> in the center of the room (at a height of approximately 1.2 meters from the floor) when the product is placed next to a window and run at the MAX operation position. ● Operation manual language availability is subject to change.

Panel enlargement: Marble-like finish

KC-C150E (Pure White)

**48 m<sup>2</sup>**  
(recommended room size\*) **KC-C150E**

Panel enlargement: Ceramic-like finish

KC-C100E (Ceramic White) Beige

**38 m<sup>2</sup>**  
(recommended room size\*) **KC-C100E**

Panel enlargement: Cut-diamond-like shiny finish

KC-C70E (Crystal White)

**26 m<sup>2</sup>**  
(recommended room size\*) **KC-C70E**

## Specifications

Models		KC-C150E	KC-C100E	KC-C70E
Air purifying system		Twin Plasmacluster ions with fan	Single Plasmacluster ions with fan	Single Plasmacluster ions with fan
Humidifying	Humidifying system	Natural evaporation system	Natural evaporation system	Natural evaporation system
	Tank capacity (approx.)	4.3 L	4.0 L	3.0 L
	Humidifying capacity (max. / med. / silent) mL/h	730 / 500 / 300	600 / 400 / 230	450 / 330 / 170
Recommended room size*1	Without humidifying	48 m <sup>2</sup>	38 m <sup>2</sup>	26 m <sup>2</sup>
	With humidifying*2	33 m <sup>2</sup>	28 m <sup>2</sup>	21 m <sup>2</sup>
Fan speed		3 (max. / med. / silent) and auto	3 (max. / med. / silent) and auto	3 (max. / med. / silent) and auto
Air flow (max. / med. / silent) (m <sup>3</sup> /h)	Clean air and humidify mode	6.5 / 3.9 / 2.0	4.8 / 2.8 / 1.4	3.1 / 2.2 / 0.9
	Clean air mode	6.6 / 3.9 / 1.4	5.1 / 2.8 / 1.0	3.5 / 2.2 / 0.8
Power consumption (max. / med. / silent) (W)	Clean air and humidify mode	54 / 20 / 8.8	40 / 13.5 / 6.8	21 / 11.5 / 6.1
	Clean air mode	56 / 18.5 / 5.5	41 / 11.6 / 3.8	26 / 9.5 / 3.7
Filter type	Dust	Pre-filter and antimicrobial HEPA	Pre-filter and antimicrobial HEPA	Pre-filter and antimicrobial HEPA
	Odor	Washable deodorizing	Washable deodorizing	Washable deodorizing
	Humidifying	Humidifying	Humidifying	Humidifying
Special program		Clean ion shower	Clean ion shower	Clean ion shower
Dimensions (W x H x D) (mm)		398 x 627 x 288	378 x 586 x 265	360 x 550 x 233
Net weight (kg)		Approx. 11	Approx. 9	Approx. 8
Replacement filters (approx. service life)	HEPA filter	FZ-C150HFE (5 years)	FZ-C100HFE (5 years)	FZ-C70HFE (5 years)
	Deodorizing filter	FZ-C150DFE (5 years)	FZ-C100DFE (5 years)	FZ-C70DFE (5 years)
	Humidifying filter	FZ-C100MFE (24 months)	FZ-C100MFE (24 months)	FZ-C100MFE (24 months)

\*1 Recommended room size: Calculated based on the JEM1467 standard of the Japan Electrical Manufacturers' Association. \*2 Measurement Conditions: 20°C, 30% humidity (JEM1426) ● Operation manual language availability is subject to change.

Panel enlargement: Marble-like finish

FU-S40E R FU-S40E W

**31 m<sup>2</sup>**  
(recommended room size\*) **FU-S40E**

Panel enlargement: Marble-like finish

FU-S25E

**19 m<sup>2</sup>**  
(recommended room size\*) **FU-S25E**

## Specifications

Models		FU-S40E	FU-S25E
Air purifying system		Single Plasmacluster ions with fan	Single Plasmacluster ions with fan
Recommended room size*1	Without humidifying	31 m <sup>2</sup>	19 m <sup>2</sup>
	With humidifying	15 m <sup>2</sup>	10 m <sup>2</sup>
Airflow (max. / med. / silent) (m <sup>3</sup> /h)		240 / 108 / 30	150 / 60 / 24
Filter type	Dust	Washable active carbon and antimicrobial HEPA	Antimicrobial HEPA
	Odor	Washable active carbon	Washable active carbon
Off timer (hours)		No	No
Special program		Ion shower, pollen	Ion shower, pollen
Dimensions (W x H x D) (mm)		314 x 620 x 207	410 x 430 x 158
Net weight (kg)		Approx. 6.4	Approx. 4.8
Replacement filters (approx. service life)		FZ-S51SEF (5 years)	FZ-425SEF (2 years)

\*1 Recommended room size: Calculated based on the JEM1467 standard of the Japan Electrical Manufacturers' Association. ● Operation manual language availability is subject to change.

- The filter itself may produce an odor and need to be replaced after several months if the air purifier is used to reduce strong odors, such as cigarette smoke or grilled meat.
- Use the air purifier in combination with room ventilation if it is used for strong odors.
- Not all harmful substances in cigarette smoke (e.g., carbon monoxide) can be removed.
- Not all commonly occurring odors (e.g., pet odors) can be removed.
- Heat from air drawn in is lost when water evaporates from the humidifier filter, so the temperature of the outgoing airflow is lower than the room temperature.
- Use tap water to fill the water tank.

\* Design and specifications are current as of February 2009, but are subject to change without prior notice. \* Actual colors may differ slightly from the colors shown in this brochure.