### **High-Density Plasmacluster Ions Remove Airborne Mold and Viruses**

Plasma discharge generates and emits the same positive and negative ions that occur in nature. Plasmacuster technology is Sharp's original air purifying technology that removes airborne mold and viruses. The benefits have been proven by official test institutions in Japan and around the world.



#### **CERTIFIED WORLDWIDE**

PLASMACLUSTER—GAINING TRUST AND NEW CUSTOMERS AROUND THE WORLD (TESTED BY 28 INSTITUTES AND ORGANIZATIONS)



- Ishikawa Health Service Association
   Japan Food Research Laboratories
- - U.S.A.

  - Dr. Melvin W. First, Prof. Emeritu Harvard School of Public Health

- Sharp does not guarantee the test results can be replicated in actual user situation:
- nacluster Ion effectiveness will vary depending on ion density and product used. nacluster and the Plasmacluster logo are trademarks or registered trademarks of Sharp Corporation.

#### Used in a variety of industries

#### You Never Have to Be without It















### For vehicle

release, products equipped with Plasmacluster ions have exceeded the 70-million-unit mark. Sharp aims to bring the benefits of Plasmacluster ions to every air space.



Used in over 70 million products in 17 years

 Total number of products equipped with a Sharp Plamacluster device and of Plasmacluster ion generating devices shipped in Japan and abroad from October 2000 to the end of February 2017.

<sup>\*</sup> Design and specifications are current as of October 2018, but are subject to change without prior notice.



#### SHARP ELECTRONICS (MALAYSIA) SDN. BHD. (No.356997-H)

No.1A, Persiaran Kuala Langat, Section 27, 40400 Shah Alam, Selangor Darul Ehsan Product Enquiry: 03 5102 5369 Service Enquiry: 1 800 888 678 (Toll Free) Email: productinfo@my.sharp-world.com

Sharp Malaysia | my.sharp



# SHARP

Be Original.

AIR PURIFIER and **ION GENERATOR** 



# Naturally Fresh and Safe Air









# Purify Air with the Same Ions As in Nature

Plasmacluster – Only from SHARP

Plasmacluster ions are positive and negative ions that occur in nature.

Plasmacluster is air-purifying technology. Its effectiveness has been supported by test data, and Plasmacluster is thus increasingly finding applications in various areas of activity, such as in businesses, in addition to household use. Plasmacluster provides you with natural and safe air. This unique technology from Sharp applies the power of nature.



### **SHARP's Original 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 airborne mold and viruses.

#### Winner of the 2008 **Invention Prize**

National Invention Awards Ceremony held by the Japan Institute of Invention and Innovation (JIII)



### **Assured Safety**

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

\* 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

Test name (abbreviation)	Ion density setting					
Acute skin irritation/ corrosion	Approx. 1,000,000 ions/cm³					
Acute eye irritation/ corrosion	Approx. 13,000,000 ions/cm³					
Inhalation toxicity (evaluation of genetic effect on pulmonary tissue)	Approx. 7,000,000 ions/cm³					
Inhalation toxicity	Approx. 7,000,000 ions/cm³					
Inhalation toxicity	Approx. 7,000,000 ions/cm³					
	(abbreviation)  Acute skin irritation/ corrosion  Acute eye irritation/ corrosion  Inhalation toxicity (evaluation of genetic effect on pulmonary tissue)  Inhalation toxicity					

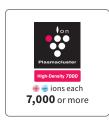
Testing institution: LSI Medience Corporation

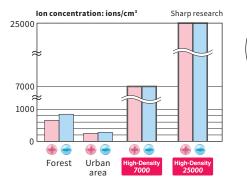
### The Same Safe Ions As in Nature

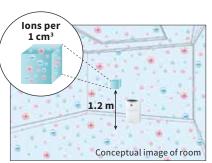
The safety of Plasmacluster ions has been verified, and so a high density of ions can be used. With more positive and negative ions in a room than even in a forest, Plasmacluster provides an environment of even greater effectiveness.

Numbers of 🔴 and 🔵 ions per 1 cm³ when measured near the center of a room (at a height of 1.2 m from the floor) with the product placed at a wall:











# Plasmacluster Air Purifiers Provide Solutions for Air-quality Concerns





The number in this technology mark indicates the approximate number of ions supplied into 1 cm<sup>3</sup> of air, measured around the center of a room (at a height of 1.2 m above the floor) with the applicable floor area and at the maximum airflow when a Plasmacluster ion generator using a high-density Plasmacluster ion-generating device is placed close to a wall.

#### Plasmacluster Ions Clean the Room Air

#### **Removal of Airborne Mold**

Result after approx. 49 minutes in a testing space of approx. 25 m<sup>3</sup>.

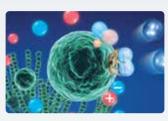
Tested by: Japan Food Research Laboratories

Test result certificate: No. 15061723001-0101

 Test method: Performance evaluation test according to voluntary standard HD-131 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m<sup>2</sup>.

■ Test result: 99% reduction in approx. 49 minutes. Tested with an FP-F30 operating at the High airflow setting





#### **Reducing Growth of Adhering Mold**

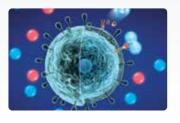
Result after approx. three days (one day as 24 hours) in a testing space of approx. 20 m<sup>3</sup>.

- Tested by: Shokukanken Inc.
- Test method: Emission of Plasmacluster ions with vinyl chloride plate with adhering mold placed in testing space. Comparison of
- Test result: Limitation of growth after 3 days. Tested with a KI-A60 operating at the High airflow setting.

#### **Suppressing the Activity of Airborne Viruses**

Result after approx. 18 minutes in an airtight testing space of approx. 25 m<sup>3</sup>.

- Tested by: Pasteur Institute in Ho Chi Minh City, Vietnam
- Test method: Performance evaluation test according to voluntary standard JEM 1467 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m3.
- Object tested: One type of airborne virus.
- Test result: 99% reduction in approx. 18 minutes. Tested with an FP-F30 operating at the High airflow setting.



#### **Suppressing the Activity of Adhering Viruses**

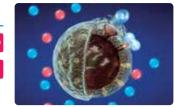
Result after approx. 10 hours in an airtight testing space of approx. 25 m<sup>3</sup>.

- Tested by: Shokukanken Inc.
- Test method: Performance evaluation test according to voluntary standard JEM 1467 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m3.
- Object tested: One type of adhering virus.
- Test result: 99% reduction in approx. 10 hours. Tested with a KI-A60 operating at the High airflow setting.

### **Suppressing the Activity of Airborne Microbe**

Result after approx. 51 minutes in a testing space of approx. 25 m<sup>3</sup>.

- Tested by: Japan Food Research Laboratories Test result certificate: No.15061721001-0101
- Test method: Performance evaluation test according to voluntary standard HD-131 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m3.
- Test result: 99% reduction in approx. 51 minutes. Tested with an FP-F30 operating at the High airflow setting.



#### **Suppressing the Activity of Airborne Allergens from Dust Mite Feces** and Remains

Result after approx. 51 minutes in a testing space of approx. 25 m<sup>3</sup>.

- Tested by: ITEA Inc.
- Test method: Allergens from dust mite feces and remains were suspended in the air in a testing space of approx. 25 m3 and neasured using the ELISA method.
- Test result: 99% reduction in approx. 51 minutes. Tested with an FP-F30 operating at the High airflow setting



### Plasmacluster Ions and Air-Purification Technology Remove Haze

It Was Proven that Sharp's Plasmacluster Ion and Air Purifying Technology Has the Effect on **Haze in Collaboration with University Putra Malaysia** 

The study found that a harmful substance such as toluene, pentanone is included organic chemicals in HAZE

#### Plasmacluster Ions Reduce 98% of Toluene and 70% of Pentanone

- Tested by: Sumika Chemical Analysis Service, Ltd.
- Test method: A 20-liter volume was irradiated with ions at a density of 2 million ions per cm3. Air treated with Plasmacluster ions was compared to air vithout Plasmacluster ions, and the removal rates of toluene and pentanone were measured.
- Test result: After 24 hours, 91% of toluene and 44% of pentanone were removed, increasing to 98% and 70% after 48 hours,

#### Air-Purification Technology Removes 99% of Haze Particles as Small as 0.06 μm in Size

- Test method: A KC-D60 and KC-D40 were each installed in a separate 25.6 m3 space and set to Haze Mode.
- Test result: The air purifiers each required approx. 30 minutes to remove 99% of haze particles 0.06 µm or larger in size.

### **Reduction of Static Electricity**

#### **Reducing Static Electricity**

Result after approx. 2.7 minutes for the KI-A60 and approx. 13 minutes for the FP-F30 in a testing space of approx. 41 m<sup>3</sup>.

- Tested by: Sharp
- Test method: Measurement of time required for a metal sensing plate charged to 5 kV to decrease in charge to 0.5 kV when irradiated
- Test result: As described above.





### Removing Stubborn Odors with Plasmacluster

#### **Breakdown and Elimination of Clinging Odors**

**Breakdown and Removal of Clinging Cigarette Odor** 

Result after approx. 55 minutes for the KI-A60 and approx. 90 minutes for the FP-F30 in a testing space of approx. 41 m<sup>3</sup>.

- Test method: The effectiveness of deodorizing a cloth swatch impregnated with cigarette odor components and irradiated with Plasmacluster ions was evaluated by using the six-level odor intensity indication method.

ation depends on factors such as the odor type and intensity, as well as the materials of the objects to be deodo

#### Spot Deodorization of Sweat Odor Clinging to Clothing in Approx. Six Hours

- Test method: The effectiveness of deodorizing a cloth swatch impregnated with sweat odor components and irradiated with
- Plasmacluster was evaluated by using the six-level odor intensity indication method.

  Test result: Deodorized to unnoticeable level in about six hours. Tested with an FP-F30 operating at the Low airflow setting.

#### Spot Deodorization of Damp-dry Odor on Clothes Drying Indoors in Approx. Three Hours

- Test method: The effectiveness of deodorizing a cloth swatch impregnated with damp-dry odor components on clothes drying
  indoors and intensively irradiated with Plasmacluster ions was evaluated by using the six-level odor intensity indication method. Test result: Deodorized to unnoticeable level in approx, three hours. Tested with an FP-F30 operating at the Low airflow setting

Odors at portions not directly subjected to the airflow cannot be removed.

Note: This effect is provided when KI-series models operate at the Med setting and when FU-series models operate at the High setting. The effectiveness of deodorization depends on factors such as the odor type and strength, as well as the materials of the objects to be deodorized



### Skin-Beautifying Effects of High-Density Plasmacluster Ions

#### **Beautifying Skin with a Lustrous Sheen**

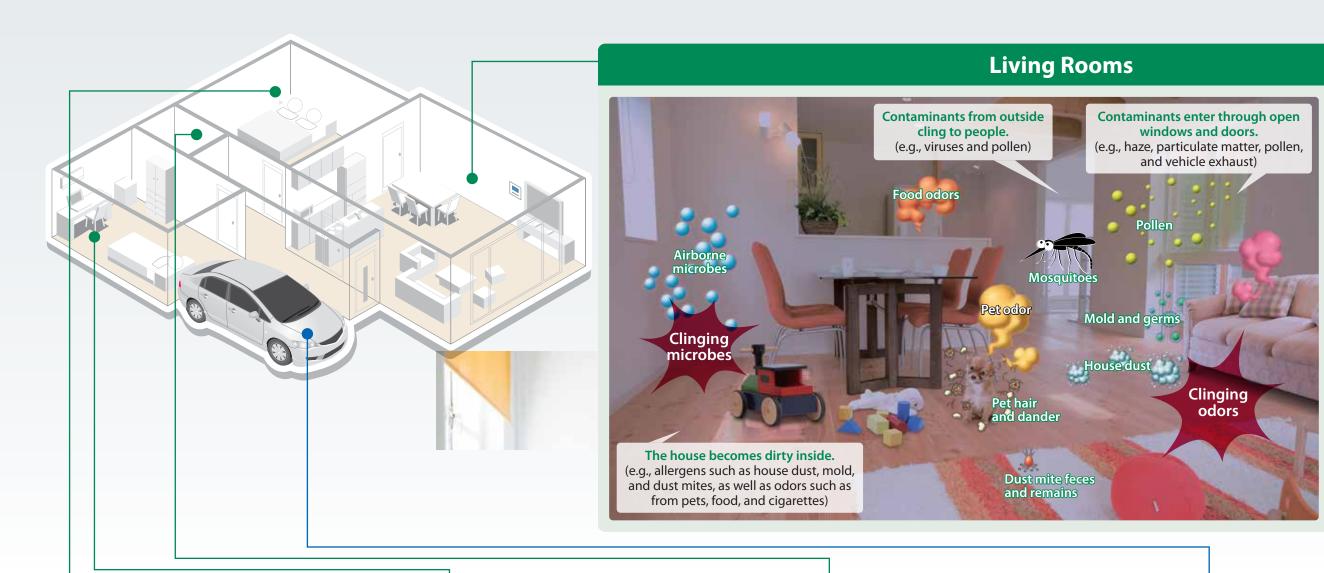
Result after approx. 20 minutes in a testing space of approx. 41 m<sup>3</sup>.

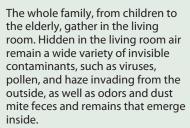
- Subjects tested: 21 women, ages 36 to 63
- Temperature: Approx. 25°C, Humidity: Approx. 45%
- Test method: Measurement of skin moisture levels at the corners of the eyes of subjects at rest.
- Test result: An effect of providing luster to skin after 20 minutes of operation was verified. Tested with a KI-A60 operating with humidifying air purification at the Med setting.





# A Wide Variety of Concerns Are Lurking in the Air of Your Living Environment







Plasmacluster Air Purifier with Humidifier



Plasmacluster Air Purifier with Humidifier



Plasmacluster Air Purifier with Mosquito Catcher

### **Bedrooms**



We spend more than a quarter of each day in bed. Lingering odors of sweat, lurking dust mites, and the irritating allergens of dust mite feces and remains prevent comfortable sleeping.









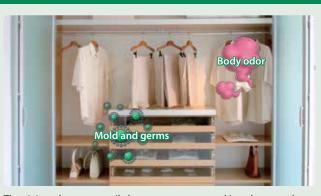
### **Small Rooms** (for children or pets)



Because children have a weaker immune system than do adults, it is important to provide a clean air environment. In addition to visible contaminants such as dust and pet hair, impurities such as viruses and dust mites remain hidden.



### **Closets**



The air in a closet can easily become stagnant, making closets a place in the house where mold easily grows. Also, because a lot of clothes are kept in a small space in a closet,

clinging sweat odors linger.

Plasmacluster Air Purifier



**Use in Cars** 

Because the air inside a car lingers, odors from eating food or smoking cigarettes easily cling to the inside.

The odor of mold that emerges inside the car air conditioner prevents you from comfortable driving.





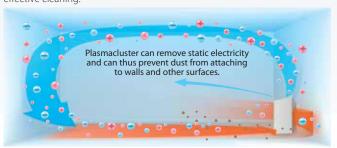
### **Plasmacluster Air Purifier Three-step Dust Collection System**



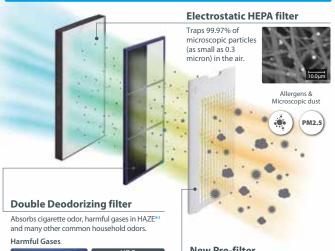




Faster airflow at a 20° angle collects dust at lower levels in the room for more







Captures larger than approx. 240 micron

Pet hair/Large dust particle



Cigarette odor/General odor in house/ Harmful gases in HAZE.\*3



\*3 Toluene, Ethylbenzene, xylene etc. The deodorizing performance for a single component odors substance in a 1m<sup>3</sup> test

#### **HEPA Filter\*5**

**Enlargement of HEPA Filter\*** 

The larger the surface area of the filter, the more dust and other harmful particles are captured.



The filter measures as long as approx. 8 m when fully extended.

#### What the HEPA Filter\*5 Captures

99.97%\*10 capture and removal of 0.3-micron dust particles











dog dander, cat dander, hamster dander mold







Black mold, Stachybotrys, Aspergillus





Dust, pet hair, pet dander, cigarette smoke, cooking fumes, mite dust, diesel exhaust particles. Asian dust



Cigarette odor, pet odor, cooking odor, kitchen food waste odor, toilet odor, body odor, mold odor, ammonia odor

- \*1 99% of airborne mold was removed in a test space of 31 m<sup>3</sup> after 195 min, of use, (tested by Ishikawa Health Services Association)
- \*2 99% of airborne viruses were removed in a closed test space of 25 m<sup>3</sup> after 18 min. of use. (tested by Pasteur Institute, Ho Chi Minh City)
- \*3 Effectiveness in a test space of 31 m³ after four weeks of use (one day: 24 hours). (tested by Hiroshima University Graduate School of Advanced Sciences of Matter)
- \*4 Effectiveness in a test space of 41 m³ after 80 min. of use. The effectiveness depends on the odor type, odor intensity, and material of object measured. (tested by Sharp) \*5 The filter captures more than 99 97% of 0.3-micron dust particles.
- \*6 When smoking five cigarettes a day. Depending on the usage conditions, filter replacement may be required.
- 7 Deodorizing performance depends on the room conditions.
- \*8 Tested by the Boken Quality Evaluation Institute. Test method: JIS Z 2801 standard test. Anti-microbial method: Infusing filter with anti-bacterial agents. Test result: 99% removal Object tested: Microbes adhering to rear panel filter.
- 9 Tested by the Boken Quality Evaluation Institute, Test method; Mold resistance test according to the JIS Z 2911 standard. Mold prevention method: Infusing filter with anti-mold agents. Test result: No mold growth.
- OThis value applies to filter removal performance, not to removal for the entire roon

#### Dust removing and deodorizing performance of air purifiers · Not all harmful substances in cigarette smoke, e.g., carbon monoxide, can be removed

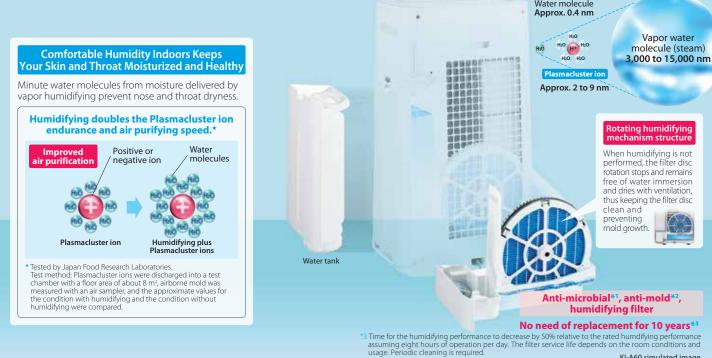
- Not all commonly occurring odors, e.g., building material odors and pet odors, can be
- \*The filter itself may produce an odor and need to be replaced after several months if the air purifier is used to reduce strong odors, such as cigarette smoke or grilled meat. Use the air purifier in combination with room ventilation if it is used for strong odors





# Air Purifiers with Humidifying (KC-G60/G50/G40, KC-D60/D50/D40)

**Automatically Rotating Humidifying Structure Creates Clean Humidity Conditions** 



#### Intelligent Mode with 7 Types of Detection in Effect (KC-G60/G50)

Once you press the button, everything operates automatically. Humidifying and air purification are controlled according to the impurities, odors, temperature, and humidity of the air in the room. Also, a motion sensor detects whether people are present, working in coordination with a light sensor to automatically switch to energy-saving operation.





areas of the room





**Plasmacluster Spot Mode** 



**Simple Operation for Easy Everyday Use** 



Ion density



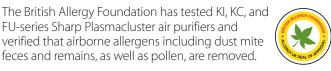




 $\Omega$ 

**Approved by the British Allergy Foundation** 

A high-density concentration of Plasmacluster ions are discharged forward. The British Allergy Foundation has tested KI, KC, and This is effective in removing odors, bacteria, and viruses clinging in remote FU-series Sharp Plasmacluster air purifiers and verified that airborne allergens including dust mite



KI-A60 simulated image

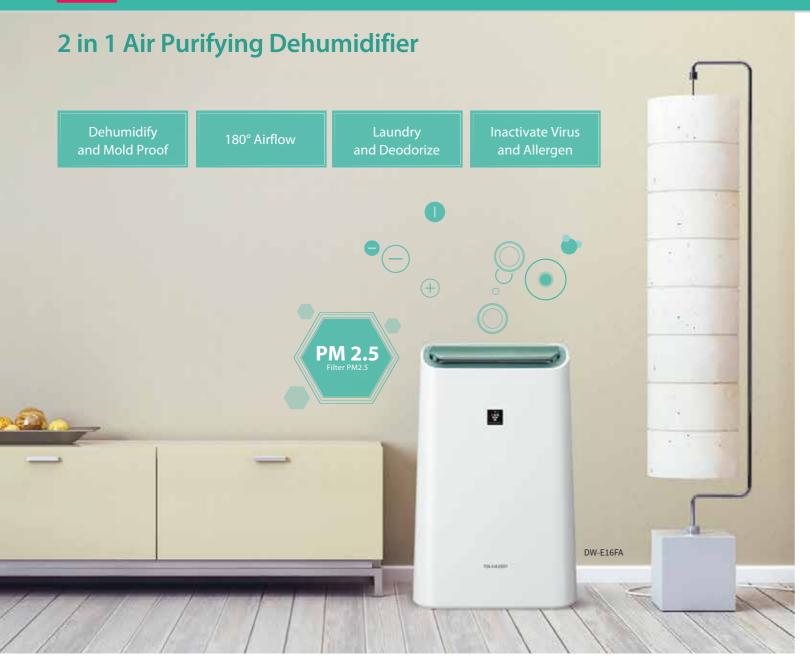
- \*1 Tested by the Boken Quality Evaluation Institute
- Test method: JIX Z2801 standard test
- Anti-microbial method: Infusing filter with anti-bacterial agents
- Test result: 99% removal
- \*2 Tested by the Boken Quality Evaluation Institute
- Test method: Mold resistance test according to the JIS Z 2911 standard Mold prevention method: Infusing filter with anti-mold agents Test result: No mold growth
- \*The number in this technology mark indicates the approximate number of ions supplied into 1 cm<sup>3</sup> of air, which is measured around the center of a room (at a height of 1.2 m above the floor) with the applicable floor area at the maximum airflow, when a Plasmacluster ion generator using a high-density Plasmacluster ion-generating device is placed close to a wall

### **Effect of Plamacluster Spot Mode Deodorization and Bacteria Removal**

Cigarette Pet odor Odor of wet clothes drying indoors Sweat odor odor	Clinging bacteria
Approx. Approx. Approx. Approx. Approx. 30 minutes 6 hours 3 hours 6 hours 2 hours	Approx. 8 hours

<sup>•</sup> Effect after the above times at a position approx. 70 cm from the floor and 50 cm from the front

### Air Purifiers with Dehumidifier



### **Plasmacluster Technology**

Plasmacluster (PCI) technology is SHARP's original air purifying technology. Plasmacluster Ion (PCI) Generating Unit generates and emits the same positive and negative ions that occur in nature, inactivating suspended airborne mold and virus.



#### **Acclaimed Plasmacluster Ion (PCI) Technology**





#### World & ASEAN'S No.1 Air Purifier Brand

SHARP air purifiers have achieved World & ASEAN'S No.1 Air Purifier Brand which is proven and trusted by consumers.

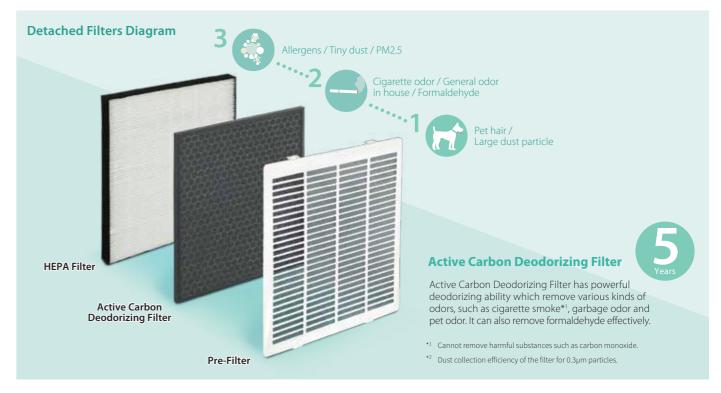


Source: Euromonitor International Limited; Consumer Appliances 18ed, volume sales in units, 2017 data.

#### **HEPA Filter**

- Collect tiny dust, PM2.5, allergens, cigarette particles\*1 and pollen as small as 0.3µm.
- 99.97% dust collection rate\*2.





#### **Various Caring Functions Satisfying Your Needs**

Auto Dehumidifying 000000

Equipped with sensors which can detect temperature and humidity automatically, the dehumidifier maintains the humidity level at around 55%-60%, providing



By emitting a concentrated stream of high-density Plasmacluster lons (HD PCI), the dehumidifier can intensively remove odor on clothing. It is also effective to deodorize the unpleasant smell impregnated in curtains and sofas when turning on the swing louvers.



It is difficult for laundry drying in humid weather. Pointing the air outlet to the laundry, the dehumidifier allows



Mold Proof and Virus Inactivated

Dehumidifying and releasing high density Plasmacluster lons (HD PCI) can effectively inactivate airborne mold and virus, and suppress the growth of adhered mold. HEPA filter and Active Carbon Deodorizing filter can also collect tiny dust, allergen and remove various kinds of odors effectively, providing fresh air to you.



The horizontal airflow range is around 100 $^{\circ}$  and the vertical airflow range is around 180 $^{\circ}$  (pic.1, 2), which provides widely dehumidifying and deodorizing function, bringing fresh air throughout the room.



### DW-E16FA

30°C / 80% Dehumidifying Capacity	<b>16L</b> (Per Day)	
26.7°C / 60% Dehumidifying Capacity	8.8L (Per Day)	

#### 24m<sup>2</sup>

Air Purifying Recommended Area

#### 38m<sup>2</sup>

Dehumidifying Recommended Area

4 Types of Operation Modes



Laundry Mode



Air Purifying Mode Deodorize Mode

4 Types of Fan Speed









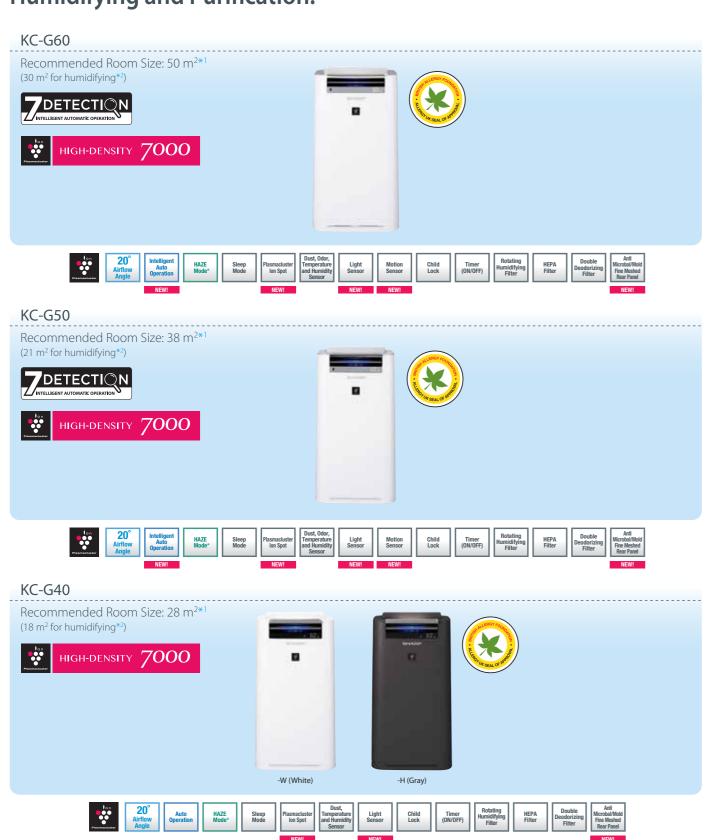
HEPA Filter Active Carbon Deodorizing Filter Continuous Drainage Full-Tank Indicator Current Humidity Temperature / Humidity Sensor Odor Sensor Child Lock

Casters

## Air Purifiers with Humidifying

### KC-G60/G50/G40

**Optimal Operation with One Button. Sensor Monitoring of Room Conditions Automatically Provides Humidifying and Purification.** 



## Intelligent Mode with 7 Types of Detection in Effect (KC-G60/G50) Once you press the button, everything operates automatically. Humidifying and air purification are controlled according to the impurities, odors, temperature, and humidity of the air in the room. Also, a motion sensor detects whether people are present, working in coordination with

a light sensor to automatically switch to energy-saving operation.













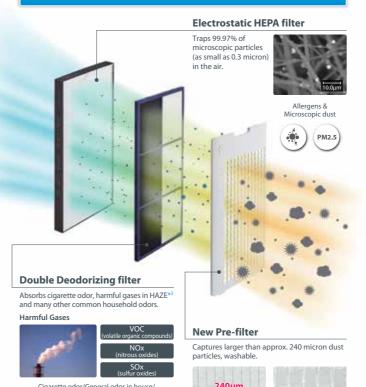








#### Three Filters Reliably Capture Dust, Gas, and Odors.





\*3 Toluene, Ethylbenzene, xylene etc. The deodorizing performance for a single component odors substance in a 1m³ test container may be different than the deodorizing performance in actual use.

#### **Plasmacluster Spot Mode**

A high-density concentration of Plasmacluster ions are discharged forward. This is effective in removing odors, bacteria, and viruses clinging in remote



Ion density

#### Effect of Plamacluster Spot Mode Deodorization and Bacteria Removal

	Removal of clinging bacteria				
Cigarette odor	Pet odor	Odor of wet clothes drying indoors	Sweat odor	Cooking odor	Clinging bacteria
Approx. 30 minutes	Approx. 6 hours	Approx. 3 hours	Approx. 6 hours	Approx. 2 hours	Approx. 8 hours

• Effect after the above times at a position approx. 70 cm from the floor and 50 cm from the front

#### **Rotating humidifying mechanism structure**



Pet hair/Large dust particle



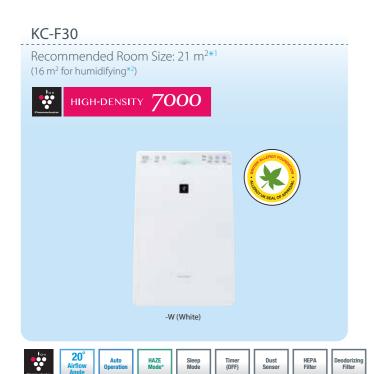
### Air Purifiers with Humidifying



### **Specifications: Air Purifiers with Dehumidifying**

### KC-F30

### **Entry-level Air Purifier Model with Genuine Humidifying** and HEPA Filter



- ullet Humidity and temperature display ullet Off timer (1, 2, 4, 8 hours)
- Dust indication monitor Auto restart

# **Simple Operation Off Timer for Convenient Use** The off timer can be set to 1, 2, 4, and 8 hours **Monitor for Dust and Displays for Humidity and Temperature** Indicates the degree of air purify according to

#### Floating Humidification System with Humidifying Filter Floating on Water

#### Fill the Humidifying Tray Directly with Tap Water

The humidifying filter operates according to the water level, and so the the humidifying level is kept constant, with humidity controlled through adjustment of the airflow by sensors detecting the temperature and humidity levels in the room.





Models							_	
Hamidifying opations	Models		KC-G60	KC-G50	KC-G40	KC-F30	DWE16FAW	
Hamidifying opacitors								
Tender   T		Humidifying system		. ,			— (Wille)	
Recommended area   Aprophing   50 m²   38 m²   28 m²   21 m²   21 m²   32 m²   38 m²   28 m²   21 m²   31 m²   38 m²   38 m²   28 m²   21 m²   31 m²   38 m²	· ·a····a···y····g		· · · · · · · · · · · · · · · · · · ·	·	·	· · · · · · · · · · · · · · · · · · ·	31 (dehumidifying)	
Recommended area   Air purifylegs   S0 m²   38 m²   28 m²   21 m²   38 m²   66 m²   38 m²   38 m²   66 m²   38 m²   38 m²   38 m²   38 m²   66 m²   38 m²							— —	
Number   N	Recommended area			_			24 m <sup>2</sup>	
Becommended area for high-density   35 m²   28 m²   21 m²   17 m²   —	necommended area							
Pisamaclusterions**   S3:70*   26:70*   21.70*   17.70*	Recommended area for his	, ,					30 III (dellamanying)	
Medical Fishery   Medical F		g., ac.,5,,,	35 m <sup>2</sup>	28 m <sup>2</sup>	21 m <sup>2</sup>	17 m²	_	
Power input (W)   Without humidifying   72 / 38 / 5.0   53 / 26 / 5.0   31 / 12 / 5.0   22 / 12 / 4.1   —	Operation modes							
Max / Med / Low)   With humidifying   S5 / 40 / 6.5   33 / 14 / 6.5   24 / 14 / 6.5   22 / 12 / 4.1   —	Voltage/frequency (V, Hz)		220-240, 50-60	220-240, 50-60	220-240, 50-60	220-240, 50-60	220-240 / 50	
Standby power (W)	Power input (W)	Without humidifying	72 / 38 / 5.0	53 / 26 / 5.0	31 / 12 / 5.0	27 / 12 / 4.1	23 / 14 / 3.5-7.5	
New   Yes   Yes   Yes   Yes   Yes   Yes   Yes   Yes   Yes   Aliflow   Aliflow   Without humidifying   406/240/72   306/180/60   240/120/60   180/125/52   240/105/75   240/1	(Max / Med / Low)	With humidifying	55 / 40 / 6.5	33 / 14 / 6.5	24/14/6.5	27 / 12 / 4.1	_	
Airflow   Without humidifying   408 / 240 / 72   306 / 180 / 160   240 / 120 / 60   180 / 125 / 52   240 / 105 / 75	Standby power (W)		1.2	1.2	1.2	0.9	1.0	
Airflow   Without humidifying   408 / 240 / 72   306 / 180 / 160   240 / 120 / 60   180 / 125 / 52   240 / 105 / 75	Inverter operation		Yes	Yes	Yes	Yes	Yes	
Noise level   Without humidifying   \$3 / 48 / 24   \$2 / 47 / 19   \$46 / 41 / 19   \$48 / 38 / 21   \$53 / 35 / 27		Without humidifying	408 / 240 / 72	306 / 180 / 60	240 / 120 / 60	180 / 125 / 52	240 / 105 / 75	
Max / Med / Low) (dB)	(Max / Med / Low) (m³/hour)	With humidifying	342 / 240 / 72	240 / 120 / 60	210/120/60	180 / 125 / 52	_	
Intelligent, Haze	Noise level	Without humidifying	53 / 48 / 24	52 / 47 / 19	46 / 41 / 19	48 / 38 / 21	53 / 35 / 27	
Intelligent, Haze	(Max / Med / Low) (dB)	With humidifying	49 / 48 / 24	46 / 40 / 20	43 / 40 / 20	48/38/21	_	
Auto restart   Yes***   Yes***   Yes***   Yes***   Yes***   No   Yes***   No   Yes***   No   Yes***   No   Yes***   Yes***   No   Yes***   Yes***   No   Yes***   Yes***   No   Yes***   Yes***   Yes***   No   Yes***   Yes***   Yes***   Yes***   Yes***   No   Yes****   Yes****   Yes***   Yes***   Yes****   Yes****   Yes		, 3	Intelligent, Haze	Intelligent, Haze	Auto, Haze		Deodorize/Dehumidifv/Laundr	
Child lock					Yes*5	Yes*5		
Timer								
Filter type    Dust collection   HEPA***   HEP								
Deodorization   Double deodrization   Double deodrization   Pre-filter   Fine-meshed   Fine-meshed   Fine-meshed   Fine-meshed   Fine-meshed   Yes   Yes   Yes   Yes   Yes   Yes   No		Dust collection						
Pre-filter	Titler type							
Humidifying							-	
Dust collection   Up to 10 years***   Up to 10 years***   Up to 10 years***   Up to 2 years***   Up to 5 years**   Up to 5 years***   Up to 6 years***   Up to 5 years**   Up to 6 years**								
Deodorizing filter   Up to 10 years***   Up to 10 years***   Up to 10 years***   Up to 10 years***   Up to 5 years***   Up to 5 years***   Up to 5 years***   Up to 5 years**   Up to 5 years*   Up to 5 years**   Up to 6 years**   Up to 7 years**   Up to 10 years**   Up	Filter life							
Humidifying filter	THE INC			, ,		· · · ·		
Sensor   Odor   Yes   Yes   Yes   No   No   Yes   Yes   No   No   Yes   Yes   Yes   Yes   Yes   Yes   Yes   No   No   No   No   No   No   No   N				, ,			op to 5 years	
Dust   Yes   Yes   Yes   Yes   Yes   Yes   Yes   No	Concor						Voc	
Temperature & humidity   Yes   Yes   Yes   Yes   Yes   No   No   No   No   No   No   No   N	Selisoi							
Light Yes Yes Yes No No No No No No Clean sign indicator Yes (7 steps) Yes (8 steps) No								
Motion Yes Yes No No No No  Clean sign indicator Yes (7 steps) Yes (7 steps) Yes (7 steps) Yes (3 steps) No  Light control button Yes (bright / dim / off) Yes (bright / di								
Clean sign indicator  Yes (7 steps) Yes (7 steps) Yes (7 steps) Yes (7 steps) Yes (3 steps) No  Light control button  Yes (bright / dim / off) No  Power cord length (m)  2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.								
Light control button  Yes (bright / dim / off) No  2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.	Cloan sign indicator	MOUOII						
Power cord length (m)  2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.						•		
Type C (2-pin) Type C				_	_			
Dimensions (W x H x D) (mm)  370 x 660 x 293  345 x 631 x 262  345 x 631 x 262  380 x 570 x 197  360 x 565 x 260  Net weight (kg)  10.5  9.2  9.2  7.2  12.2  Replacement filter  HEPA filter  FZ-D60HFE  FZ-D60HFE  FZ-G60DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G60MFE  FZ-F30MFE  —  Clinging odors  Clinging odors  Clinging odors  Capture and reduction of growth  Airborne  Microbes  Occidarette  Opust mite  Pet policy  Odor  Odor	Power cord length (m)							
Net weight (kg)  10.5  9.2  9.2  7.2  12.2  Replacement filter  HEPA filter  FZ-D60HFE  FZ-D60HFE  FZ-G60DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G40DFE  FZ-G60MFE  FZ-F30MFE  — — — — — — — — — — — — — — — — — —	Dii (WIID) (	>		71				
Replacement filter  HEPA filter  FZ-D60HFE  FZ-D40HFE  FZ-D40HFE  FZ-D40HFE  FZ-G40DFE  FZ-F30DFE  FZ-E16ADF  FZ-E16ADF  PZ-E16ADF  PZ-E30MFE  PZ-F30MFE  PZ-E16ADF  PZ-E30MFE  PZ-F30MFE  PZ-E16ADF  PZ-F30MFE		111)						
Deodorizing filter FZ-G60DFE FZ-G40DFE FZ-G40D		LIEDA ÉL						
Humidifying filter FZ-G60MFE FZ-G60MFE FZ-G60MFE FZ-G60MFE FZ-F30MFE —  Replacement unit — — — — — — — — — — — — — — — — — — —	керіасетеnt filter							
Replacement unit  Plasmacluster ion purification  Clinging odors  Clinging odors  Capture and reduction of growth  Decdorizing  Code remains  Clinging odors  Clinging odors  Clinging odors  Capture and reduction of growth  Capture							FZ-ETOAUF	
Plasmacluster ion purification  Airborne microbes  Clinging odors  Clinging odors  Capture and reduction of growth  Deodorizing  Cigarette  Odor  Airborne  Airborne  Airborne  Airborne  Dust mite  remains  Allergens  Dust mite  remains  Dust mite  remains  Dust mite  remains  Dust mite  remains  Cooking  Airborne  Odor  Od	Renlacement unit	numidifying filter	FZ-GOUIVIFE	FZ-GOUIVIFE	FZ-GOUIVIFE	FZ-F3UIVIFE	_	
Clinging odors  Cigarette odor odor  Capture and reduction of growth  Capture and reduction of grow	•		Aid-	Airharna Airharna (	Dust mite Dust mite	Ammonia		
Filter purification  Capture and reduction of growth  Capture and	Plasmacluster ion purifica	7 di Boille Illierob	nes mold	microbes viruses V	remain allergens allergens			
Deodorizing  Organite Pet odor odor odor odor Odor Odor Odor Odor		Clinging odors	odor	odor				
Airborne Plant Tree Pet Pet Cigarette Mite Diesel	Filter purification	Capture and reduc	ction of growth Airborne microbes	Viruses Tree pollen				
Airborne Plant Tree Pet Pet Cigarette Mite Diesel		Deodorizing	Cigarette	Pet Body odor		Cooking Kitchen garbage odor	oilet VOC, *9 NOX, SOX HAZE*	
		Capture	Airborne	Plant Tree pollen	Pet Pet hair	Duct Cigarette M	ite Diesel exhaus	

<sup>\*</sup>I Recommended room size: Measured 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 7,000 ions can be measured per cm³ 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 wall and operated at the maximum operation position. \*4 Ion density about 1.5 times higher for 60 minutes in the applicable room size. \*5 The air purifier automatically resumes operation buttons are locked to help prevent inadvertent operation by children or pers. \*7 HEPA is defined by the JEM1467 standard of the Japan Electrical Manufacturers' Association Standard. The filter removes more than 999% of 0.3-micron dust particles. \*8 At a smoking rate of five cigarettes per day. \*9 Volatile organic compound (VOC), Nitrous oxides (NOX), Sulfur oxides (SOX). The effectiveness of reducing three volatile organic compounds (formaldehyde, toluene, and ethyl acetate) was tested by Sharp. \*10 Toluene, Ethylbenzene, xylene etc. The deodorizing performance for a single component odors substance in a 1m³ test container may be different than the deodorizing performance in actual use.
\*The number in this technology mark indicates the approximate number of ions supplied into 1 cm³ of air, which is measured around the center of a room (at a height of 1.2 m above the floor) with the applicable floor area at the maximum airflow, when a Plasmacluster ion generator using a high-density Plasmacluster ion-generating device is placed close to a wall.

<sup>●</sup> 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 Jan. 2017, but are subject to change without prior notice. Actual colors may differ slightly from the colors shown in this brochure

### FP-J80/J60/J40

### **Enjoy Smart Air Purifier**



### **Smart System**

- Home Fit Operation
- Monitor for Outdoor/Indoor Air Quality
- Propose optimal timing for filter exchange

### Plasmacluster

The higher the PCI density is, the more effective Plasmacluster has.





◆ Dust and Odor Indication Monitor
 ◆ Auto Restart
 ◆ Child Lock
 ◆ Touch Panel

## FP-J60-W



### FP-J40-W

Recommended Room Size: 30 m<sup>2</sup> HIGH-DENSITY 7000

• Dust and Odor Indication Monitor • Auto Restart • Child Lock

### **Cleaner & Fresher with Smart Air Purifier**

#### Remote Control (FP-J80)



#### Home Fit (FP-J80)

Visualization of air quality and automatic operation based on air quality level.



#### Visualization For Air Quality (FP-J80)

Confirm that condition of air quality of the room has become clean visually.



#### Filter Status Monitor (FP-J80)

Propose optimal timing for filter exchange.



The optimal times for replacing the dust-collecting and deodorizing filters are calculated using Sharp's unique algorithm sensing information based on the JEM 1467 standard of the Japan Electrical Manufactures'

## Sharp's Unique Plasmacluster with Efficient Dust Collection Delivers Clean

**Comfortable Air in Your Room** 

#### Plasmacluster

(HIGH-DENSITY 25000: FP-J80/J60) (HIGH-DENSITY 7000: FP-J40)

Plasmacluster Ions Can Remove Mold\*1, Viruses\*2, Allergens\*4, Odors\*8, and Static Electricity.

The higher the PCI density is, the more effective PCI has.

			Air Pu	rifying	Reduction Removal of Odor				Skin-				
		Airb	orn		Adhe	ering	of Static	Cigaret	Spot Deo	dorization	Beautifying		
	Mold*1	Viruses*2	Microbe*3	Allergens*4	Mold*5	Viruses*6	Electricity*7	Electricity*	Electricity*	Odors*8	Swet Odor*9	Damp-dry Odor*10	Effects*11
HIGH-DENSITY25000													
	14 min	9 min	14 min	14 min	3 days	10 hours	2.7 min	55 min	6 hours	3 hours	20 min		
HIGH-DENSITY 7000 *													
	49 min	18 min	51 min	51 min			13 min	90 min	6 hours	3 hours			
Testing space	25 m³	25 m³	25 m³	25 m³	20 m³	25 m³	41 m³	41 m³			41 m³		
* TI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1.1	15			۲٠	15 15 6 3	. ( - 3	1 - 1 -		1.0		

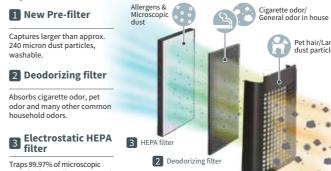
The number in this technology mark indicates an approximate number of ions supplied into air of 1 cm<sup>3</sup>, which is measured around the center of a room applicable floor area (at 1.2 m height above the floor) when the product is placed close to a wall at the MED mode setting.

#### **Sharp Air App**

Download the "SHARP AIR APP" from Apple Store and Play Store to connect your SHARP Air-Conditioner and Air Purifier to your smartphone. Enjoy the convenience of controlling your Air-Conditioner & Air Purifier via smartphone, anywhere and anytime. Monitor electricity consumption, room conditions, appliances operation and get notified if appliances encounter error.



#### 3 Steps Filtration



High-Performance Filters Capture Airborne Dust Particles.





A high-density concentration of Plasmacluster ions are discharged forward. This is effective in removing odors, bacteria, and viruses clinging in remote areas of the room.



he number of ions supplies into air of 1 cm³, which measured at a position approx.70 cm from the floor and 1 m from the front discharge outlet.

### **Effect of Plamacluster Spot Mode Deodorization and Bacteria Removal**



#### Application design may be different from actual one or be updated as necessary.

• Application design may be different from actual one or be updated as necessary.

\*1 Airborne Mold • Tested by: Japan Food Research Laboratories • Test method: Performance evaluation test according to voluntary standard HD-131 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m³. • Object tested: One type of airborne mold. ■ Test result: 99% reduction in approx. 14 minutes, tested with a model in the same class as the FP-J60 operating at the High airflow setting. \*2 Airborne Viruses • Tested by: Pasteur Institute in Ho Chi Minh City, Vietnam • Test method: Performance evaluation test according to voluntary standard JEM 1467 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m³. • Object tested: One type of airborne virus. ■ Test result: 99% reduction in approx. 9 minutes, tested with a model in the same class as the FP-J60 operating at the High airflow setting. 99% reduction in approx.18 minutes, tested with a model in the same class as the FP-J60 operating at the High airflow setting. 99% reduction in approx.18 minutes, tested with a model in the same class as the FP-J60 operating at the High airflow setting. 99% reduction in approx.9 for a part of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m³. • Object tested: One type of airborne Microbes • Test method: Performance evaluation test according to voluntary standard HD-131 of the Japan Electrical Manufacturers' Association in approx.18 minutes, tested with a model in the same class as the FP-F00 operating at the High airflow setting. 90 for the Vietnam of Viet airflow setting. \*3 Airborne Microbes • Tested by: Japan Food Research Laboratories • Test method: Performance evaluation test according to voluntary standard HD-131 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m., • Object tested: One type of airborne microbe. \*\*Test Eveslt: 99% reduction in approx. 14 minutes, tested with a model in the same class as the FP-160 operating at the High airflow setting. \*\*Object tested with a model in the same class as the FP-160 operating at the High airflow setting. \*\*A Airborne Allergens from Dust Mite Feces and Remains • Tested by: ITEA Inc. • Test method: Allergens from dust mite feces and remains were suspended in the air in a testing space of approx. 25 m\*\* and measured using the ELISA method. • Test result: 99% reduction in approx. 14 minutes, tested with a model in the same class as the FP-160 operating at the High airflow setting. \*\*S Adhering Mold • Tested by: Shokukanken Inc. • Test method: Comparison of mold growth areas on a test plate with adhered mold with reference to JIS Z 2911. \*\*Test result: Limitation of growth after 3 days. Tested with a model in the

Plasmacluster Spot Mode (FP-J80/J60)

### Once you press the button, everything operates by sensers automatically

**Convenient Features for Everyday Comfort** 

**Automatic Operation** 









#### **HAZE Special Mode**

Operates at HIGH fan speed for 60 minutes and the alternates between Low and High level for 20 minutes each.

#### **Convenient function**

#### • Timer Function

- OFF Timer (2, 4, 8 hours) [FP-J40]
- ON/OFF Timer (1-12 hours) [FP-J80/J60] (Can set in from 10 minutes to 24 hours through the designated application.) [FP-J80]
- Child Lock
- Touch Panel [FP-J80/J60]

same class as the FP-J60 operating at the High airflow setting. \*6 Adhering Viruses • Tested by: Shokukanken Inc. • Test method: Performance evaluation test according to voluntary standard JEM 1467 of the Japan Electrical Manufacturers' Association in a testing space of approx. 25 m². • Object tested: One type of adhering virus. • Test result: 99% reduction in approx. 10 hours. Tested with a model in the same class as the FP-J60 operating at the High airflow setting. \*7 Static Electricity • Tested by: Sharp • Test method: Measurement of time required for a metal sensing plate charged to 5 kV to decrease in charge to 0.5 kV. • Test result: As described above. After approx. 2.7 minutes for a model in the same class as the FP-J60 and approx. 13 minutes for a model in the same class as the FP-J60 and approx. 13 minutes for a model in the same class as the FP-J60. \*1 (Shinging Cigarette Odor • Tested by: Sharp • Test method: The effectiveness of deodorizing a cloth swatch impregnated with cigarette odor components was evaluated by using the six-level odor intensity indication method. • Test result: Deodorized to unnoticeable level in about six hours. Tested with a model in the same class as the FP-J60. \*10 Damp-dry Odor on Clothes Drying Indoors • Tested by: Sharp • Test method: The effectiveness of deodorizing a cloth swatch impregnated with damp-dry Odor on Clothes Drying Indoors was evaluated by using the six-level odor intensity indication method. • Test result: Deodorized to unnoticeable level in about six hours. Tested with a model in the same class as the FP-J60. \*10 Damp-dry Odor on Clothes Drying Indoors • Tested by: Sharp • Test method: The effectiveness of deodorizing a cloth swatch impregnated with damp-dry odor components was evaluated by using the six-level odor intensity indication method. • Test result: Deodorized to unnoticeable level in about six hours. Tested with a model in the same class as the FP-J60. \*10 Damp-dry Odor on Clothes Drying Indoors • Tested by: Solken Inc. • Subjects tested: 21 wom humidifying air purification at the Med setting.

### **Air Purifiers with Plasmacluster**

### FP-J30L

**Sharp Plasmacluster Air Purifiers Provide** Comfortable **Living Simple** 23 m<sup>2</sup> and Compact Design



#### Plasmacluster Ions Can Reduce Mold\*1, Viruses\*2, Allergens\*3, Odors\*4, and Static Electricity



#### Gentle Corner-less Design Safe for Children. Ideal for Kids' Rooms.

- s measured around the center of a room (at a height of 1.2 m above the floor) with the applicable floor area for High-density Plasmacluster 7000 at the maximum or medium airflow mode when an air purifier with humidifying or an air purifier using a high-density Plasmacluster ion-generating device is placed close to a wall.
- These test results are for a Plasmacluster ion generator in a test space of approx. 25 m³ to 41 m³. Equivalent ion
- densities mean that the effectiveness is the same.
  The effectiveness of Plasmacluster ions depends on the usage conditions (e.g., temperature, humidity, re area, position of the ion-generating device, and use of air conditioner or ventilation) and the usage method (e.g., Plasmacluster ion dispersion direction, operation mode, and operation time).
- "Plasmacluster" and "Device of a cluster of grapes" are trademarks of Sharp Corporation

#### 1 99% of airborne mold was reduced in a testing space of 25 m<sup>3</sup> in 49 mins. of use. (tested by Japar

- 2 99% of airborne viruses were removed in a closed test space of 25 m³ after 18 min. of use. (tested by Pasteur Institute, Ho Chi Minh City)
- 3 99% of allergens from dust mite feces and remains were suspended in a testing space of 25 m³ in 51 mins. (tested by ITFA Inc.)
- ticeable levels after 90 minutes in a testing space of 41 m³. (tested by Sharp)

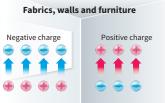
### **Convenient Features for Everyday Comfort**

- Haze Mode Powerfully Collects Haze Particles and Keeps the Room Air Clean
- Convenient function
- Timer function (4/8h)
- Filter replacement indicator\*
- acement timing when after used capacity of 24hours a day for 2years (17,520hours) in sleep mode
- Reliable rounded design even when small children touch

### Three-Step Dust Collection System with Plasmacluster Technology for Everyday Use



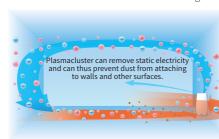
positive and negative. Negative ions can reduce only a positive charge.



The positive and negative ions of Plasmacluster reduce both positive and negative static electricity.



Faster airflow at a 20° angle collects dust at lower levels in the room for more effective cleaning.





### FP-H90

Enjoy comfortable and high quality space with SHARP air-purification technology and stylish product design





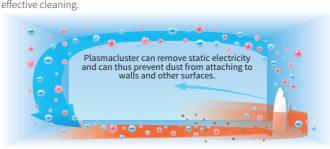


#### Three-Step Dust Collection System with Plasmacluster Technology for Everyday Use



- 1 99% of airborne mold was removed in a test space of 31 m³ after 195 min. of use. (tested by Ishikawa
- 2 99% of airborne viruses were removed in a closed test space of 25 m<sup>3</sup> after 18 min. of use. (tested by Pasteur Institute. Ho Chi Minh City)
- 3 Effectiveness in a test space of 31 m³ after four weeks of use (one day: 24 hours). (tested by Hiroshima University Graduate School of Advanced Sciences of Matter)
  4 Effectiveness in a test space of 41 m³ after 80 min. of use. The effectiveness depends on the odo
- type, odor intensity, and material of object measured. (tested by Sharp)





# High-Performance Filters Capture Airborne Dust Particles



#### **Convenient Features for Everyday Comfort**

- Haze Mode Powerfully Collects Haze Particles and Keeps the Room Air Clean.
- 3 colors lighting (blue/green/red) to show the
- 3 digits PM 2.5 monitor
- On/Off Timer function (1-12 hours)
- Child lock function





## **Specifications: Air Purifiers with Plasmacluster**



### Specifications: Air Purifiers with Plasmacluster

				-									
Models				FPH90L	.w		FPJ30LA/B/P						
Color				W (whit	e)			B (Black), P (Pink), A (Blue)					
Recommended area*1	Air purifying			69 m <sup>2</sup>	!		23 m <sup>2</sup>						
Recommended area*2 for high-	density Plasmacluster ions			23 m <sup>2</sup>	!				16 m <sup>2</sup>	!			
Voltage/frequency (V, Hz)				220-240, 5	0-60				220-240, 5	0-60			
Power input (Max / Med / Low)	Without humidifying			86 / 21 / 4.	5-5.0				50/30/	13			
Standby power (W)				0.9					0.6				
Airflow	Med and and the			540 / 205	407								
(Max / Med /Low) (m³/hour)	Without humidifying		540 / 295 / 87							/ 60			
Noise level	Mark and boundary			F1 / 20 /	10				44 / 26 /	22			
(Max / Med / Low) (dB)	Without humidifying			51 / 38 /	18				44/36/	23			
Special program mode				_					HAZE				
Auto restart				_					Yes*3				
Child lock				Yes*4					No				
Filter type	Dust collection			HEPA*	5		HEPA*5						
	Deodorization	Yes						No					
	Pre-filter			Yes				Yes					
Filter life	Dust collection	Up to 10 years <sup>"6</sup>						Up to 2 years*6					
	Deodorizing filter	Up to 10 years*6					No						
Sensor	Odor	Yes					No						
	Dust		Yes					No					
Clean sign indicator		Yes						_					
Power cord length (m) approx.				Approx.	2.0			Approx. 2.0					
Plug type				Type C (2-	pin)			Type C (2-pin)					
Dimensions (W x H x D) (mm)				381 x 301	× 820			431 x 411 x 211					
Net weight (kg)				13.2				4.0					
Replacement filter	HEPA filter			FZ-H90H	IFE				FZ-D30H	IFE			
	Deodorizing filter	FZ-H80DFE							_				
Plasmacluster ion purification	Airborne microbes	Airborne mold Airborne microbes Airborne virtuses Dust mite remain allergens					Dust mite feces allerg	Dust mite feces allergens Ammonia odor					
	Clinging odors	Cigarette odor Body odor											
Filter purification	Capture and reduction of	growth	Airborne microbes	Viruses	Tree pollen	Dust mite remains	Dust mite fe	eces					
	Deodorizing		Pet odor	Body odor	Mold odor	Ammonia odo							
	Capture		Airborne mole	d Plant pollen		Pet dander	Pet hair	Dust	Cigarette smoke	Mite dust	Diesel exhaust		
	·					_							

- 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.
- 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

Design and specifications are current as of Jan. 2017, but are subject to change without prior notice. Actual colors may differ slightly from the colors shown in this brochure.







Models			FP-J80			FP-	J60			FP-J40		
Color			Gray			Wh	ite			White		
Recommended area	Air purifying*1		62 m <sup>2</sup>			48	m²			30 m <sup>2</sup>		
Recommended area for high-d	ensity Plasmacluster ions*2		35 m <sup>2</sup>			26	m <sup>2</sup>			23 m <sup>2</sup>		
Operation modes		Max / N	1ed / Low / Po	ollen / Sleep	Max	x / Med / Low	/ Pollen / Sle	ер	Ma	x / Med / Sleep		
Voltage/frequency (V, Hz)			220-240, 50-	-60		220-240	, 50-60		2.	20-240, 50-60		
Power input (W)(Max / Med / L	ow)		48 / 28 / 4.	.0		38 / 18	3 / 3.6		23	3 / 14 / 3.5-7.5		
Standby power (W)			1.3			1.	2			0.9		
Inverter operation			Yes			Ye	S			Yes		
Airflow (Max / Med / Low) (m³/h	nour)		480 / 288 /	60		396 / 22	22 / 60		240	0 / 186 / 48-120		
Noise level (Max / Med / Low) (	dB)		47 / 45 / 1			43 / 4				5 / 39 / 15-30		
Special program mode	-		Auto, Haz			Auto,				Auto, Haze		
Auto restart			Yes*3			Yes				Yes*3		
Child lock			Yes*4			Yes				No		
Timer		Y	es (on / off) (1	L-12h)		Yes (on / o			Yes (off) (2 / 4 / 8)			
Filter type	Dust collection		HEPA*5			HEF			HEPA*5			
,,	Deodorization	Deodrization				Deodri			Deodrization			
	Pre-filter	fine-meshed				fine-m			fine-meshed			
Filter life	Dust collection	Up to 2 years*6				Up to 2			Up to 2 years*6			
	Deodorizing filter	Up to 2 years*6			Up to 2			Up to 2 years*6				
Sensor	Odor		Yes	<u>-</u>		Ye				Yes		
	Dust	Yes (High sensitive)			Yes (High:			Yes				
	Temperature and humidity	-			N.			No				
	Light	Yes			Yes				Yes			
Clean sign indicator	0		Yes			Ye			Yes			
Light control button		Ye	s (bright / din	n / off)		Yes (bright			Yes (bright / dim / off)			
Power cord length (m)		10	2.0	, 6,		2.			2.0			
Dimensions (W x H x D) (mm)			416 x 728 x 2	291		416 x 72			390 x 583 x 270			
Net weight (kg)			10.6			10 % 12			6.2			
Replacement filter	HEPA filter		FZ-J80HFI			FZ-J8				FZ-F50HFE		
nepideement inter	Deodorizing filter		FZ-J80DFI			FZ-J8				FZ-F50DFE		
Replacement unit	Deadonzing men			<u>-</u>		12 30	-			_		
Plasmacluster ion purification	Airborne microbes	Airborne mold	Airborne microbes	Airborne viruses	Dust mite remain allergens	Dust mite feces allergens	Ammonia odor					
	Clinging odors	Cigarette odor	Body odor									
Filter purification	Capture and reduction of growth	Airborne microbes	Viruses	Tree pollen	Dust mite remains	Dust mite feces						
	Deodorizing	Cigarette odor	Pet odor	Body odor	Mold odor	Ammonia odor	HAZE*7 gases					
	Capture	Airborne mold	Plant pollen	Tree pollen	Pet dander	Pet hair	Dust Dust	Cigarette smoke	Mite dust	Diesel exhaust		

<sup>\*1</sup> Recommended area: Calculated based on the JEM1467 standard of the Japan Electrical Manufacturers' Association.
\*2 The area in which approximately 7,000 ions can be measured per cm³ 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 wall and run at the maximum setting.
\*3 The air purifier automatically resumes operation when power returns, even after a sudden power interruption, such as due to a circuit breaker.
\*4 By pressing the Child Lock button for more than three seconds, the operation buttons are locked to help prevent inadvertent operation by children or pets.
\*5 HEPA is defined by the JEM1467 standard of the Japan Electrical Manufacturers' Association Standard. The filter removes more than 99.97% of 0.3-micron dust particles.
\*6 At a smoking rate of five cigarettes per day.

<sup>\*</sup> The number in this technology mark indicates the approximate number of ions supplied into 1 cm³ of air, which is measured around the center of a room (at a height of 1.2 m above the floor) with the applicable floor area at the maximum airflow, when a Plasmacluster ion generator using a high-density Plasmacluster ion-generating device is placed close to a wall.

<sup>\*1</sup> Recommended room size: Measured based on the JEM1467 standard of the Japan Electrical Manufacturers' Association.
\*2 The number in this technology mark indicates an approximate number of ions supplied into air of 1 cm³, which is measured around the center of a room applicable floor area (at 1.2 m height above the floor) when the product is placed close to a wall at the MED mode setting.
\*3 The air purifier automatically resumes operation when power returns, even after a sudden power interruption, such as due to a circuit breaker.
\*4 By pressing the Child Lock button for more than three seconds, the operation buttons are locked to help prevent inadvertent operation by children or pets.
\*5 HEPA is defined by the JEM1467 standard of the Japan Electrical Manufacturers' Association Standard. The filter removes more than 99.97% of 0.3-micron dust particles.
\*6 At a smoking rate of five cigarettes per day.
\*7 Toluene, Ethylbenzene, xylene etc. The deodorizing performance for a single component odors substance in a 1m³ test container may be different than the deodorizing performance in actual use.

Not all harmful substances in cigarette smoke (e.g., carbon monoxide) can be removed.

<sup>\*</sup> Design and specifications are current as of September 2018, but are subject to change without prior notice.

\* Actual colors may differ slightly from the colors shown in this brochure.



### Air Purifier with Mosquito Catcher

### Air Purifier with Mosquito Catcher



Effective mechanism based on mosquito behaviour



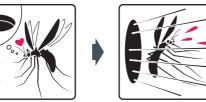


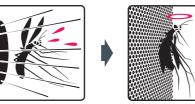












- Sharp developed the world's first air purifiers with mosquito catcher using UV light, a black panel catching mosquitos, and a sticky sheet. The first model, the FP-FM40, was released in September 2015.
  The mechanism of the mosquito catcher is studied in collaboration with the Institute for Medical Research, Malaysia.

#### **Safe and Sound Mosquito Capture System**

By using non-toxic mechanisms which are harmless to people and furniture, the FP-GM50, FP-FM40 and FP-GM30 safely capture mosquitoes even for households with small children.

Also, because the mosquitoes are captured on a glue sheet, the floor remains free of mosquitoes, and so cleaning is easier



# Number of captured mosquitoes and flies was counted



• Dust and Odor Indication Monitor • Auto Restart



HAZE Mode\*

• Dust Indication Monitor • Auto Restart





## **Specifications: Air Purifier with Mosquito Catcher**



### **Plasmacluster Ion Generator**

Models				FP-GM50				FI	P-FM40		FP-GM30				
Color				– B (b	lack)			– E	3 (black)		– B (black)				
Recommended area*1		Air purifying	40 m²						30 m <sup>2</sup>		21 m²				
Recommended area*2 for	r high-d	density Plasmacluster ions	23 m²						23 m²		16 m <sup>2</sup>				
Operation modes			Max / Med / Sleep / Auto					Max / Me	d / Sleep / A	uto	Max / Med / Sleep				
Voltage/frequency (V, Hz	<u>z</u> )			220-240	), 50-60			220-	240, 50-60			220-240, 50-	60		
Power input (Max / Med	/ Sleep	) (W)		51 / 17	7 / 4-6			33 / 1	14 / 3.7-6.2			53 / 33 / 19	)		
Standby power (W)				1.	0				1.0			1.0			
Inverter operation				Ye	<u>!</u> S				Yes			No			
Airflow (Max / Med / Slee	ep) (m³,	/hour)		306 / 186	5 / 48-90			240 /	150 / 48-90			180 / 120 / 3	78		
Noise level (Max / Med /	Sleep)	(dB)		51 / 41 /	/ 20-29			48 /	38 / 20-29			47 / 40 / 33	3		
Special program mode				Haze r	mode			Ha	ze mode			Haze mod	2		
Auto restart				Yes	5 <sup>*4</sup>				Yes*4			Yes*4			
Child lock				Ne	0				No			No			
Timer				N	0				No			No			
Filter type		Dust collection	HEPA*6					H	HEPA*6		HEPA*6				
		Deodorization		Yes					Yes		No				
		Pre-filter		Ye	es				Yes		Yes				
Filter life		Dust collection	Up to 2 years*7				Upto	o 2 years*7		Up to 2 years*7					
		Deodorizing filter	Up to 2 years*7				Up to 2 years*7			_					
Sensor		Odor	Yes						No		No				
		Dust	Yes				Yes				No				
Clean sign indicator			Yes (3 steps)				Yes (3 steps)				No				
Mosquito trap function			Yes						Yes		Yes				
Light control button			Yes (bright / off)					Yes (b	oright / off)		Yes (bright / off)				
Power cord length (m) ap	oprox.		2.0				2.0				2.0				
				Type C	(2-pin)			Туре	e C (2-pin)		Type C (2-pin)				
Dimensions (W x H x D) (	mm)			394 x 54	0 x 281		391 x 540 x 281				409 x 466 x 259				
Net weight (kg)				6.	1				5.8			5.0			
Replacement filter	HEPA	Afilter		FZ-F5	OHFE			FZ	-F40SFE			FZ-F30HF			
	Active	Carbon Deodorizing Filter		FZ-F5	0DFE				_			_			
Replacement glue sheet				FZ-ST	S2M			FZ	Z-40STS			FZ-STS2M			
Plasmacluster ion purific	ation	Airborne microbes		Airborne mo	old Airborne microbes	Airb	oorne ses	Dust mite remain allerger	Dust mite feces allerg	ens Ammonia	odor				
		Clinging odors		Cigarette od	dor Body odor										
Filter purification		Capture and reduction of	growth	Airborne microbes	Viruses	Tree	pollen	Dust mite remains	Dust mite f	eces					
		Deodorizing		Pet odor	Body odor	Mol	d odor	Ammonia od	or						
					old Plant pollen	( Tree		Pet dander	Pet hair	Dust	Cigarette smoke	Mite dust	Diesel exhaust		
Capture				•		•			_		Silloke				

- \*1 Recommended area: Calculated based on the JEM1467 standard of the Japan Electrical Manufacturers' Association.

  \*2 The area in which approximately 7,000 ions can be measured per cm³ 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 wall and run at the maximum setting.

  \*3 Ion density about 1.5 times higher for 60 minutes in the applicable room size.

  \*4 The air purifier automatically resumes operation when power returns, even after a sudden power interruption, such as due to a circuit breaker.

  \*5 By pressing the Child Lock button for more than three seconds, the operation buttons are locked to help prevent inadvertent operation by children or pets.

  \*6 HEPA is defined by the JEM1467 standard of the Japan Electrical Manufacturers' Association Standard. The filter removes more than 99.97% of 0.3-micron dust particles.

  \*7 At a smoking rate of five cigarettes per day.

- \*The number in this technology mark indicates the approximate number of ions supplied into 1 cm³ of air, which is measured around the center of a room (at a height of 1.2 m above the floor) with the applicable floor area at the maximum airflow, when a Plasmacluster ion generator using a high-density Plasmacluster ion-generating device is placed close to a wall.
- 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.

Design and specifications are current as of Jan. 2017, but are subject to change without prior notice. Actual colors may differ slightly from the colors shown in this brochure.

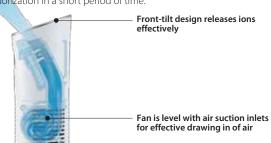
### IG-GC2

### Keep your personal space comfortable



### Double-speed deodorizing with turbo mode

For deodorization in a short period of time.





Twin air suction





Mold odor from cars air conditioner

#### Eliminates clinging mold odors in the car

- components through exposure to Plasmacluster ions was evaluated by using the pair test method in an approx. 3.6 m³ car space.\*
- $^{\circ}$  Deodorization effectiveness may vary depending on the type, strength, attached material and other factors relating to the odor

#### **Quiet operation**



No interruption of phone conversations. work and study.

Quiet operation — barely audible even in a hybrid car

#### Tiny dust and pollen collection



#### PM10 filter collects tiny dust and pollen

With a PM10 dust filter on each side, the unit captures approximately 80% of pollen and fine dust particles (10 microns or larger in size).

Twin air suction



Model	IG-GC2
Power	Car adapter
Rated input	DC12V
Rated output	DC5V (Max. 2 A for 2 ports)
Operation mode	3 (Turbo/Med/Low)
Power consumption	1.8 W/0.7 W/0.5 W
lon density (approx.)	75,000/25,000/7,000 ions/cm <sup>3</sup>
Operating noise level	36 dB/23 dB/19 dB
Outer dimensions	Upper: 74 mm / Lower: 65 mm / Height: 162 mm
Weight	Approx. 265g (excluding accessories)
Capacity applicable for high-density	Approx. 3. 6m³

<sup>\*</sup> It is the index of capacity that approximately 25,000 ions blown out to the air can be measured at the point near the center of the space (0.5m height from floor) when the air volume is "MED" by placing the unit in an appropriate place such as a cup holder beside the driver's seat.