

Be Original.

# AIR of CONfidence





# **Plasmacluster Technology**

### Plasmacluster Ions clean the air in the room

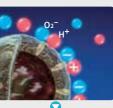
The air inside ordinary houses contains invisible, harmful organisms such as bacteria and viruses. The unique Plasmacluster Ion technology installed in Sharp air conditioners uses the actions of positive and negative ions to clean up these airborne contaminants and create a pleasant living space.

### **Plasmacluster** mechanism for removing microbes

















# **Breathe easy with** Plasmacluster-clean air

Sharp's proprietary Plasmacluster Ion technology removes airborne bacteria, suppresses airborne viruses, and breaks down and removes airborne mold and other contaminants.



### suppresses the activity of airborne microbes\*

Plasmacluster 7000 removed 99.0% of airborne microbes after 38 minutes in an approx. 40 m<sup>3</sup>

experimental chamber.





### Suppresses the activity of airborne viruses\*2

Plasmacluster 7000 removed 99.0% of

airborne viruses after 83 minutes in an approx. 25 m<sup>3</sup> experimental chamber.



# **Plasmacluster is** used in a variety of industries

For homes







For vehicles

components return

to the air as water.











For buildings





\*1 • Tested by Dr. Melvin First, Harvard School of Public Health, USA • Test method: Microbes were inserted into the air of an approx. 40 m³ experimental chamber. The remaining microbes were collected measure the removal rate. • Test results: In about 38 minutes, Plasmacluster lons removed 99.0% of airborne microbes. \*2 • Tested by Pasteur Institute, Ho Chi Minh City, Vietnam • Test method: Viruses were suspended in the air inside a 25 m³ experimental chamber, Plasmacluster lons were generated, and the percentage of airborne viruses removed was measured. • Test results: In about 83 minutes Plasmacluster lons removed 99.0% of airborne viruses. (Plasmacluster lon density: 7,000 ions/cm³)

### Protection against six elements\* for long-term reliability

# **Durable Cooling**

### **Fire Shield**

### **6-Sided All-Metal Enclosure**

The design of the metal enclosure for the inverter's outdoor circuit board meets USA safety standards (UL Standard).

### **Additional Electrical Coating**

The circuit board has a protective coating that improves electrical insulation and reduces the risk of sparks, fire, and tracking—even in the presence of dust, moisture, or insects.

### **Safety Terminal Board**

To ensure safety, the power supply is cut off if the temperature surrounding the terminal board becomes too high.

## **Corrosion Shield**

## Micro-Channel Heat Exchanger

Corrosion Thanks to their corrosion resistance, the all-aluminum heat exchangers used in Sharp air conditioners promote reliable operation, leading to energy savings and reduced costs.

# **Damage Shield**

Sharp conducts drop tests to determine how well its packaging can stand up to impact and protect the product inside from delivery-related damage.









JAPAN QUALITY

# Lightning

# **Lightning Shield**

# **Lightning Protection Circuit**

Varistors prevent damage by absorbing and stabilizing voltage spikes caused by lightning strikes.

# **Vibration Shield**





### **Connectors with Locks** To ensure safe operation, all Sharp air conditioners use high-quality, Japanese-brand connectors that include locks for key parts and for

# high-wattage parts. **Vibration Tests**

Sharp conducts vibration tests to ensure that the quality of Sharp air conditioners will not be affected by even the roughest handling during delivery.





## **Squall Shield Wind- and Rainproof Casing**

The durable design of Sharp air conditioners protects them from damage brought on by the winds and rain that can occur during downpours and thunderstorms.

# Spreading coolness to every corner of the room Strong Cooling

# Long Airflow with Coanda Technology



Sharp air conditioners exploit the Coanda effect\*—a natural tendency for a jet of gas or liquid to be attracted to nearby surfaces. The air conditioners aim the airflow at walls or ceilings to provide more precise directional control. Cool air can travel up to 14 meters across the room to create an extended comfort zone. This saves energy and gives greater installation freedom. \*The Coanda effect was discovered in 1930 by the Romanian aerodynamicist H.M. Coanda (b. 1885)

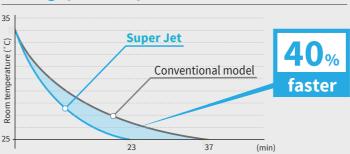


# **Super Jet Mode**

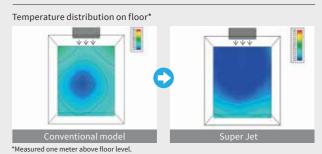


Super Jet Mode delivers strong blasts of chilled air that automatically decrease the temperature in the room by 5°C in just five minutes. With this mode, the room temperature reaches the preset level approximately 40% faster than with conventional models, as shown in the graph below. Super Jet Mode cools the room quickly, so you don't have to wait long for comfort to arrive.

### Cooling speed comparison (Cooling capacity: 9000 BTU/h, room area: 13.2 m²)



# Cool blasts of air provide fast relief





# **R410A Refrigerant**

Sharp believes that the best way to minimise environmental impact is to consider everything that might factor into global warming-from refrigerant production and the discharge of refrigerant into the a during installation to the power consumed by the equipment used. That's why some Sharp air conditioners use R410A, a refrigerant with low environmental impact. It also offers greater energy efficiency and can be used in lower volumes

# **Technical Specifications**





	Δα		

										-	
MODEL	Series			Premium Non-Inverter				Standard Non-Inverter			
	Model Name		Indoor	AHAP9SMD2	AHAP12SMD	AHAP18SMD	AHAP24SMD	AHA9UCD	AHA12UCD	AHA18UCD	AHA24UCD
			Outdoor	AUA9SMD2	AUA12SMD	AUA18SMD	AUA24SMD	AUA9UCD	AUA12UCD	AUA18UCD	AUA24UCD
	Cooling Capacity BTU		9,210	12,000	18,000	23,500	9,210	12,500	18,500	23,000	
	Power Input W		w	820	1,050	1,890	2,590	857	1,174	1,882	2,240
	Running Current A		A	3.8	4.9	8.9	12.0	3.22	4.8	7.68	9.9
	EER BTU/W		BTU/W	11.2	11.4	9.5	9.1	10.8	10.7	9.82	10.27
	COP			3.3	3.3	2.8	2.7	3.2	3.1	2.88	3.01
	Star rank	Star rank		<b>*</b> 4	<b>*</b> 3	<b>*</b> 3	<b>*</b> 3	<b>*</b> 3	<b>*</b> 3	<b>★</b> 4	★4
	Power Supply		V-Hz	220-240V 50Hz			220-240V 50Hz				
SPECIFICATIONS	Air Volume		m³/min	10.3	10.8	18.2	19.2	10.1	11.1	18.2	19.2
FICAT	Noise Level		dB (A)	28.0	31.0	36.0	39.0	37.0	43.0	46.0	48.0
PECII	Dimension	Indoor	mm	877 x 292 x 222	877 x 292 x 222	1006 X 316 X 248	1006 X 316 X 248	790×275×200	849×289×210	970×300×224	1078×325×246
100	(W×H×D)	Outdoor	mm	598 × 495 × 265	730 × 540 × 250	780 × 540 × 269	850 × 710 × 330	776×540×328	776×540×320	848×540×320	913×680×378
	Net Weight	Indoor	kg	9	9	12	12	9	10.5	13.5	17
	Net Weight	Outdoor	kg	23	26	33	46	27.5	27.5	39.5	49
	Refrigerant			R410A				R410A			
	Pipe Diameter inch		1/4, 3/8	1/4, 1/2	1/4, 1/2	1/4, 1/2	1/4, 3/8	1/4, 1/2	1/4, 1/2	1/4, 5/8	
	Pipe Length (Min-Ma	ix)	m	3-15			3-15	3-20	3-25		
	Maximum Height Difference m		m	7	7	10	10	10	10	10	10
	Plasmacluster Ion		•	•	•	•	-	-	-	-	
	Turbo Mode	Turbo Mode		-	-	-	-	•	•	•	•
FEATURES	Powerful Jet Mode / Super Jet Mode		• (Powerful Jet)	• (Powerful Jet)	• (Super Jet)	• (Super Jet)	-	-	-	-	
	W Flex Louver		-	-	•	•	-	-	-	-	
	14m Long Airflow		•	•	•	•	-	-	-	-	
	Coanda Airflow System		•	•	•	•	-	-	-	-	
	LED Display		-	-	-	-	•	•	•	•	
F.E.	Comfort Mode		•	•	•	•	-	-	-	-	
	Energy Saving Mode		-	-	-	-	•	•	•	•	
	Baby Mode		•	•	•	•	-	-	-	-	
	Quiet Operation		•	•	•	•	-	-	-	-	
	Self-Diagnosis		•	•	•	•	•	•	•	•	
	Self-Cleaning	Self-Cleaning			•	•	•	•	•	•	•





healthy air.





Design and Specification are current as of JULY 2017, but subject to change without prior notice. Actual colours may differ slightly in this catalogue.



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