SHARP

Since 1912

Air Conditioners 2013

Air Conditioners
Inverter Split
Standard Split
Window

Pioneer in unlocking hidden values of air

Value 1

INVERTER TECHNOLOGY

Save energy, conveniently!

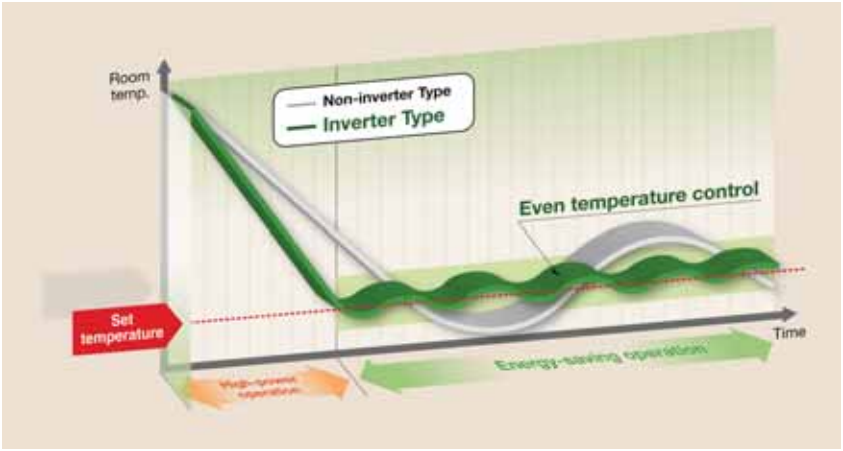
Normal Split AC is becoming Obsolete

The World has moved on to Inverter Airconditioners

Advantages Of Inverter AC

Inverter circuitry modifies and maintains room temperature by switching the compressor between high and low operation modes, instead of switching it on/off completely as non-inverter models do. This gives comfortable, even temperature control with high power savings.

Electronic Digital Control



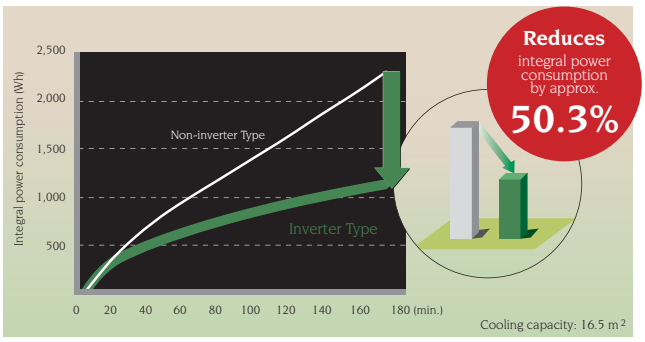
Inverter air conditioners go into energy-saving operation mode immediately once the set temperature is achieved. **Sharp's inverter air conditioners reduce energy consumption and increase performance efficiency using high power DC motors for the compressor and outdoor fan and a pulse linear expansion valve.**

Inverter is Cheaper than Normal Split AC with Better Cooling Comfort

Saving in Energy Cost in Inverter ACs

(Compared to the same tonnage of Normal Split AC)

Power Consumption Comparison



Savings Illustration

Capacity	Yearly Savings in Electricity Bill (Rs.)	Saving @ 10 Years (Rs.)
0.8 Ton	4626	46260
1.1 Ton	6264	62640
1.5 Ton	9378	93780
2.0 Ton	14652	146520

Based on 8 hrs operation for 9 months/yr (for installation inside Pune)

1. Quick cooling

Inverter air conditioners quickly reach the set temperature.

2. Even temperature control

Inverter models keep the compressor running and reduce output (rather than shutting it off) when the room has reached its target temperature. This prevents temperature fluctuations and enables comfortable and even temperature control.

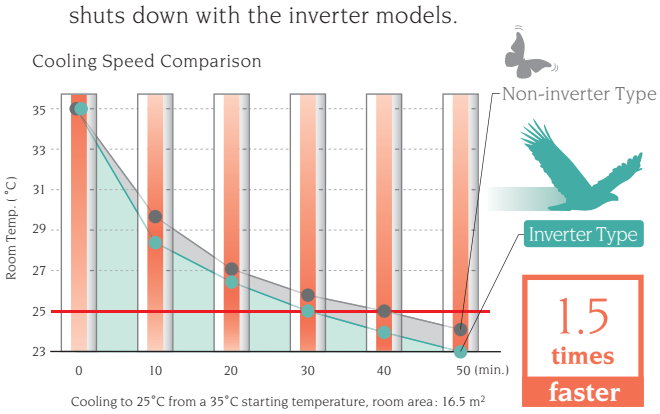
3. Reduced discomfort from humidity

Inverter models operate continuously, hence reduce discomfort from humidity.

4. Quiet operation

No operational noise is produced when the compressor shuts down with the inverter models.

Cooling Speed Comparison



Normal AC vs. Inverter AC: Room Sizes Catered

Normal AC	ROOM SIZE (Approx area in sq. ft) Ground Floor	Top Floor	Inverter AC
1.0 Ton	110	90	0.8 Ton
1.5 Ton	160	130	1.1 Ton
2.0 Ton	210	170	1.5 Ton
2.5 Ton	290	215	2.0 Ton

Inverter AC can actually cool larger areas compared to normal AC of the same capacity

Savings in Energy Cost in Inverter ACs against Equivalent Cooling Capacity in Normal Split

Normal AC Capacity	Estimated Expense/ Month (Rs.)	Equivalent Inverter Capacity	Estimated Expense/ Month (Rs.)	Yearly Savings in Electricity Bill (Rs.)	Saving @ 10 Years (Rs.)
1.0 Ton	1254	0.8 Ton	514	4626	46260
1.5 Ton	2571	1.1 Ton	696	6264	62640
2.0 Ton	3960	1.5 Ton	1042	9378	93780

Inverter AC is cheaper than Normal AC

NEW DELHI

Tonnage for Sharp Inverter AC Reqd = 1.1 Ton
Cost = Rs.37,990/-

Tonnage for Sharp Normal AC Reqd = 1.5 Ton
Cost = Rs.39,590/-

(a) Additional Cost of Inverter = Rs.2,600/-
(b) Saving for Inverter AC @ 10 Years = Rs1.88 Lac

Net Savings for Inverter Ac in 10 Years (b-a) = 1.88 Lac

All calculations are based on Room Cooling of 150-170 sq.ft (130sq.ft. in Top Floor)

(All sample calculations are based on conditions in New Delhi)

Laundry Function

The air conditioner blows air on wet clothing and moisture is transferred to the room's interior, to be removed afterward with the dehumidifier function. This makes it easier to dry your laundry indoors. After five hours, laundry-drying operation switches to fan operation, which incorporates swing function and emission of Plasmacluster Ions. Drying laundry indoors can result in an unpleasant odour, largely due to leftover dirt and germs the washing machine failed to remove. With highly concentrated Plasmacluster Ions, however, odours are suppressed for refreshing cleanliness.

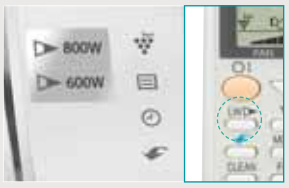
*Available in select models

Instant Low Wattage in 2 Steps / Eco Mode

The air conditioner can be set to energy-saving mode via a two-stage adjustment. Power consumption is limited to the displayed value, reducing electricity costs and preventing over-cooling.

Digital Indicator
24 K: 1.5 kW and 1.0 kW/18 K: 1.0 kW and 0.8 kW (• AH-XP18/24MV • AH-XP18/24MY)

LED Indicator
13 K: 800 W and 600 kW/10 K: 600 W and 400 kW (• AH-XP10/13MV • AH-XP10/13MY • AH-XP10/13MRY)



R410A Refrigerant

Sharp's inverter air conditioners use **R410A Refrigerant and have no adverse impact on the ozone layer when in use.** Sharp's inverter models contribute to the environment and **promote eco-friendly living.**

Value 2

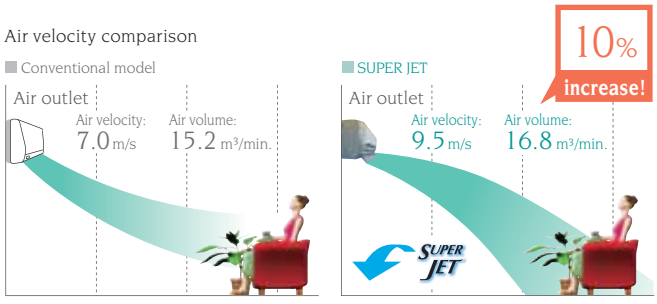
COMFORT

Precise control to match any situation or mood

Super Jet ~ Fast, strong airflow for instant cooling

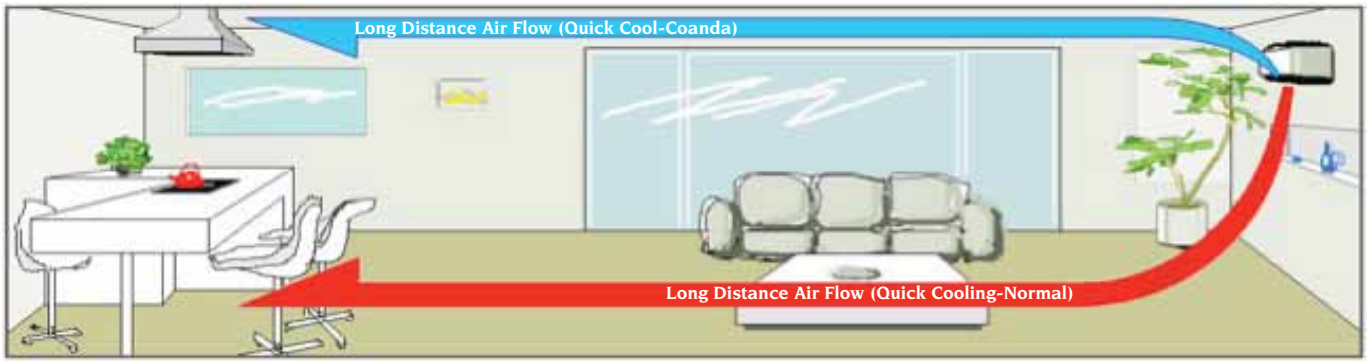
Large fan and reversible louver construction enable even more powerful cooling than ever before.

Air velocity comparison



Thanks to an air velocity higher than conventional air conditioners, you feel cooler with Super Jet.

Incredible air flow up to 11 mtr.

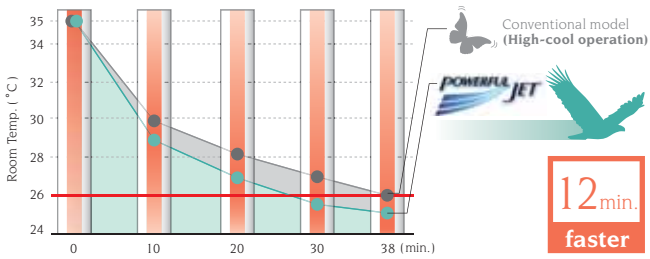


Powerful Jet

Powerful airflow directed straight at the body.

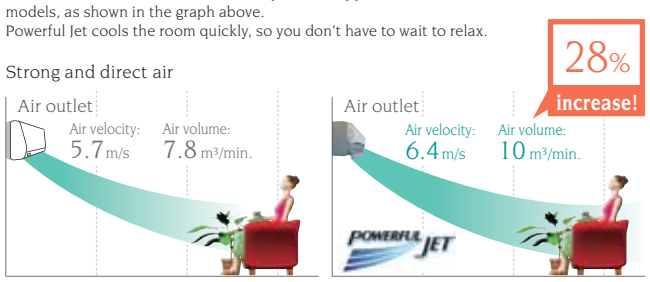
Delivers a powerful blast of cool air. When you stand in front of the air conditioner, you can feel the cool breeze on your entire body. For times when you want to cool down quickly, this offers relief from hot, humid weather, after exercise or other exertion.

Powerful Jet Cooling Speed Comparison Cooling capacity: 9000 BTU/h, room area: 13.2 m²



The new model reaches the set temperature approx. 30% faster than conventional models, as shown in the graph above.
Powerful Jet cools the room quickly, so you don't have to wait to relax.

Strong and direct air



The Powerful Jet function lowers the temperature even more because of the high air volume and velocity of the cool air that it produces.

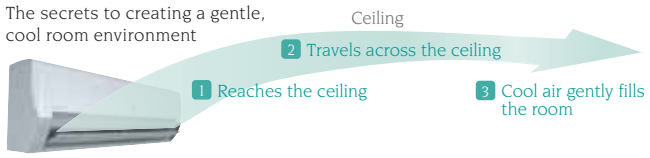
Gentle airflow for considerate cooling

Gentle Cool Air ~ Using COANDA technology

All-embracing airflow from the ceiling to the walls.

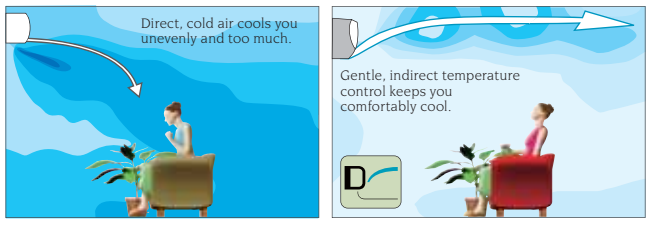
Cool air spreads throughout the room, creating a pleasant environment for everyone. Its indirect breeze makes this mode ideal for use when pregnant women, the elderly, and others who may be sensitive to low temperatures are present. The soft flow of air also makes it easy to sleep.

The secrets to creating a gentle, cool room environment



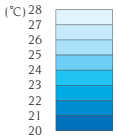
Sharp has researched the effects of moving air on temperature. According to the Coanda effect*, a moving gas or fluid leaving a nozzle tends to follow nearby surfaces, and cold air tends to move down. By delivering cold air towards the ceiling, Sharp's technicians have designed a system that cools the whole room gently and evenly.

* The Coanda effect was discovered in 1930 by worldwide aerodynamicist H. M. Coanda, born in Romania in 1885.



Without the Gentle Cool Air function

With the Gentle Cool Air function



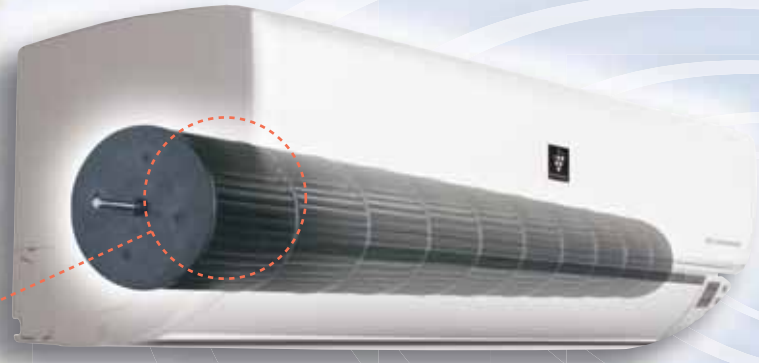
- Original inside/outside temperatures: 35°C
- Temperature distribution of the room after one hour of air conditioning
- Set temperature: 26°C
- Air volume: low

Value 3

ENERGY EFFICIENCY

Sharp's unique "Nature Wing" fan blades modeled after nature

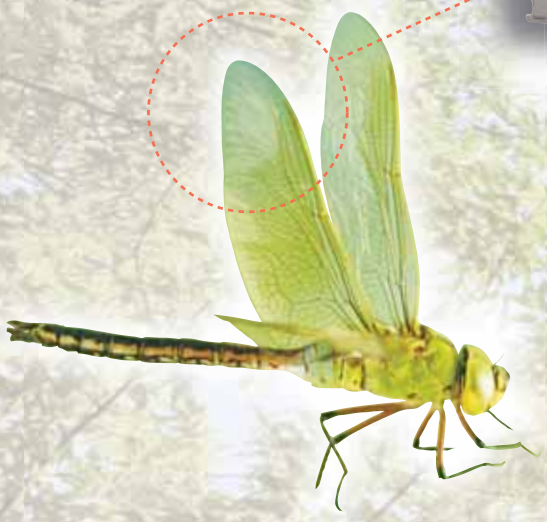
Nature Wing



Indoor unit

Air circulation efficiency boosted by approx. 30%*1

(comparison by Sharp)



Dragonfly wings reduce air friction

A dragonfly's wings have ridged surfaces that generate miniscule air eddies during flight. These eddies function like ball bearings to make flight smoother with less effort. The cross flow fans in indoor units feature blades modeled to this shape, which optimally harness the flow of air to boost air circulation efficiency.

Cross-section of new dragonfly-wing-shaped fan blade

Ridges on surface generate air eddies that function like ball bearings

Maximizing energy efficiency through proprietary energy-saving technologies

Outdoor unit

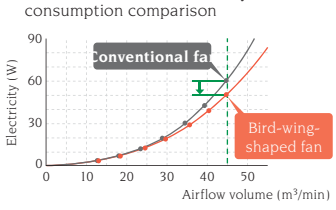
Lighter-weight fan can handle more powerful airflow

The fan blade modeled to dragonfly wings expels air efficiently, enabling a lighter-weight fan that at the same time can handle a powerful airflow. The design reduces resource consumption as well.

Less consumption of electricity for more air

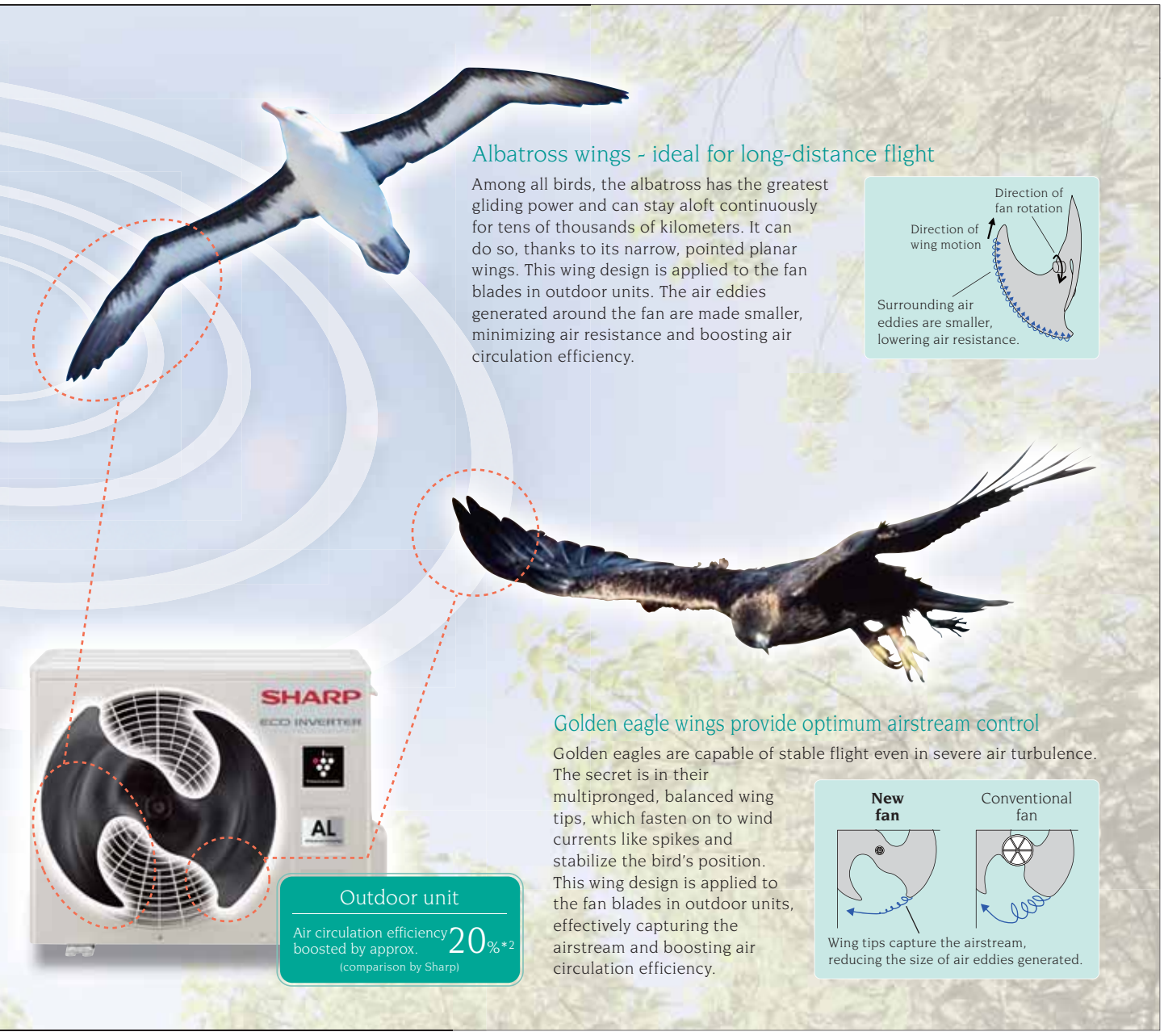
With improved air circulation efficiency, electricity consumption is reduced by approximately 20% at the same airflow volume.

■ Airflow volume and electricity consumption comparison



■ Descriptions on this page primarily apply to the A-SX Series. *1 Comparison of electricity used for motor in conventional model and A-SX Series with the same airflow volume. (Conventional model: 51 W; A-SX: 36 W)

for increased circulation efficiency



Albatross wings - ideal for long-distance flight

Among all birds, the albatross has the greatest gliding power and can stay aloft continuously for tens of thousands of kilometers. It can do so, thanks to its narrow, pointed planar wings. This wing design is applied to the fan blades in outdoor units. The air eddies generated around the fan are made smaller, minimizing air resistance and boosting air circulation efficiency.

Outdoor unit

Air circulation efficiency boosted by approx. 20%*2
(comparison by Sharp)

Golden eagle wings provide optimum airstream control

Golden eagles are capable of stable flight even in severe air turbulence. The secret is in their multipronged, balanced wing tips, which fasten on to wind currents like spikes and stabilize the bird's position. This wing design is applied to the fan blades in outdoor units, effectively capturing the airstream and boosting air circulation efficiency.

Wing tips capture the airstream, reducing the size of air eddies generated.

Nature Wing technology has been highly acclaimed by multiple evaluators in Japan.

The Promotion Foundation for Electrical Science and Engineering, 2010
OHM Technology Award

For development of an outdoor air conditioner unit propeller fan with lighter weight and greater efficiency through adaptation of planar forms of bird wings

(Awarded for A-SX Series, AY-A50VX/40VX models)

The Japan Society of Mechanical Engineers, 2010
Japan Society of Mechanical Engineers (Kansai Chapter) Engineering Award

For development of a lightweight, high-efficiency propeller fan through biometric science (adaptation of planar forms of bird wings)

(Awarded for A-SX Series, AY-A50VX/40VX models)

*2 Comparison of electricity used for motor in conventional fan and bird-wing-shaped fan with the same airflow volume. (Conventional fan: 61.4 W; bird-wing-shaped fan: 51 W)

Value 4

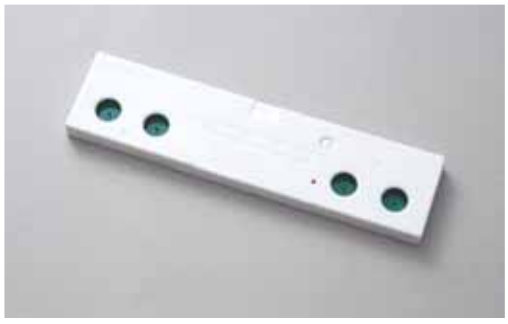
CLEANLINESS

Breathe clean with Plasmacluster Ion technology

While pushing the boundaries of technology,
Sharp is striving to design a comfortable future
as well as a more pleasant environment.
The result is a whole new world of freshness
that gives new meaning to the term “breathing room.”

Plasmacluster technology

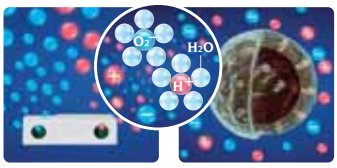
Plasma discharge generates and releases the same positive and negative ions that occur in nature. Sharp’s unique Plasmacluster bacteria-removing technology suppresses airborne viruses, and breaks down and removes airborne mold and other contaminants. Incorporated not only in a variety of Sharp products, the Plasmacluster Ion technology has also been adopted by many other industries in a variety of products, from automobiles to elevators and toilets.



Plasmacluster Ion Device

Plasmacluster Mechanism to Remove Microbes

The ions are long-lasting* because they are surrounded by water molecules.



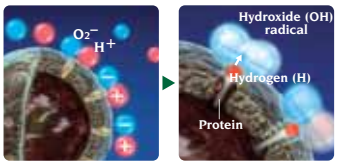
1 Ions are released

Plasmacluster Ions, the same positive and negative ions found in nature, are generated by plasma discharge and released into the air.

* Verified in Sharp test comparisons of ions not surrounded by water molecules.

3 The broken-down components return to the air as water.

The hydroxide (OH) radicals combine with hydrogen (H) to form water (H_2O), which return into the air.



2 The ions act on airborne microbes.

The ions form hydroxide (OH) radicals that are highly oxidizing only when they adhere to the surfaces of mold and viruses. They instantly remove the hydrogen from the surface proteins, breaking them down.

Air purifiers and ion generators with Plasmacluster technology can prevent the action of airborne viruses, as well as reduce the effects of suspended allergens generated by dust mite, feces and dead mites by breaking them down, but Plasmacluster cannot create a completely sterile environment, nor ensure prevention of infection.

The actual number of ions and effectiveness of microbe removing*1 and purifying*2 depend on the room conditions and the operation methods, including room size and shape, whether air conditioning or ventilation is used, product placement, direction of ion discharge, and operation mode.

*1 Airborne viruses are suspended in a $1m^3$ box, and the percentages of the viruses removed after 10 minutes are measured. Suspended microbes subjected to Plasmacluster air purification are measured after 38 minutes in a testing room of about 40 m^3.

Test results may differ from results in actual room conditions. *2 The effectiveness depends on the surrounding conditions (e.g., temperature, humidity and airflow), usage time and method.

Plasmacluster Ions

High-Density 7000*

* The number in this technology mark indicates an approximate number of ions supplied into air of 1 cm^3, which is measured around the center of a room (at 1.5 m height above the floor) at the maximum wind volume, when an air conditioner using the high-density Plasmacluster Ion device is placed at the mentioned floor area. This product is equipped with a device corresponding to this capacity.

Plasmacluster Ions spread throughout the whole room, cleaning the air.

Powerful "Plasmacluster Ion"

SUPER JET

POWERFUL JET

Using the Super Jet or Powerful Jet functions to deliver a powerful stream of air, to immediately send Plasmacluster Ions into every corner of the room, riding swiftly on the strong air current.

Plasmacluster Ions clean the air indoors as well as break down and remove unwanted odors.

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

The air inside a typical home contains a lot of mold and viruses

Value 4

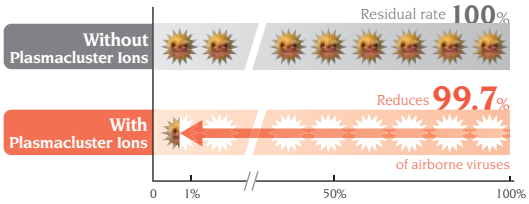
CLEANLINESS

Breathe clean with Plasmacluster Ion technology

Effective against Airborne Viruses

Effects on Airborne Viruses

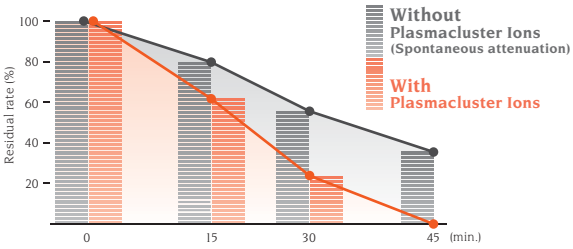
(Actual reduction rate may differ according to room conditions and the model in use)



- Test method : A Plasmacluster Ion generator is placed in a 1 m^3 box. Airborne viruses are suspended in the air inside the box followed by the release of Plasmacluster Ions.
- Reduction method: Generate Plasmacluster Ions in the air.
- Test performed by the Kitasato Institute Medical Center Hospital and Kitasato Research Center of Environmental Sciences in Japan.
- Test report No.: 00313

Effective against Airborne Mold Spores

Effects on Airborne Mold Spores



- Mode of operation: Plasmacluster Ion generator single operation in an experimental room of approximately 13.0 square meters.
- Temperature inside the room: 21°C, Humidity: 53% RH.
- Method of measurement: Air samples measuring the quantity of mold were taken from the center inside the room.
- Reduction method: Without filter, generate Plasmacluster Ions in the air.
- Test performed by the Ishikawa Health Service Association in Japan.
- Test report No.: 1503691

Self Cleaning Function

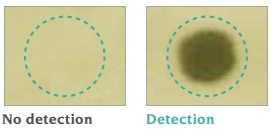
(Inverter and Super Deluxe models only)

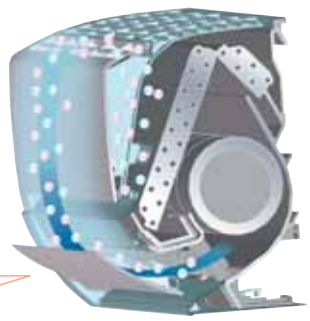
Plasmacluster Ions minimize the growth of mold inside the air conditioner.

While air blow and dry operations are performed for about 40 minutes, Plasmacluster Ions are blown through the interior of indoor equipments. This prevents odour-causing mold from growing on the surface of the heat exchanger.
(Note: Mold already formed cannot be removed)

Test method: Measurements taken at Sharp's laboratory using the AY-P28XC model (Japanese model). At an outdoor/room temp. of 27°C and humidity of 70%, a cycle consisting of one hour of cooling operation, 40 minutes of internal cleaning, and 20 minutes OFF was conducted for 14 days (40 cycles).
Visual mold sensor manufactured by the Institute of Environmental Biology.

Test results using a visual mold sensor





Count on Sharp for clean and healthy air

Proven at 13 Institutions in Japan and around the World

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

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

Japan

Takagi Award from the Society of Non-Traditional Technology

Japan

Kitasato Research Center of Environmental Sciences

Japan

Ishikawa Health Service Association

China

Shanghai Municipal Center for Disease Control and Prevention

Germany

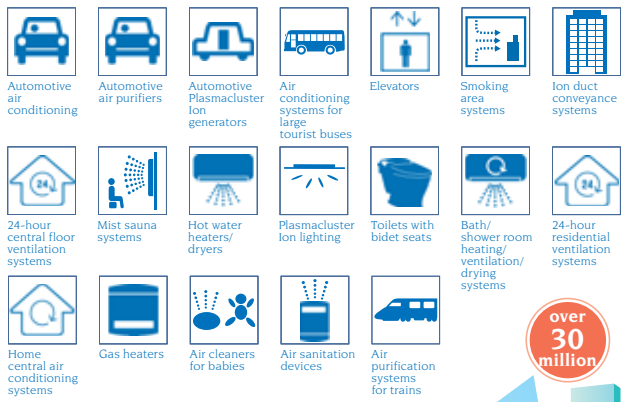
University of Lübeck

USA

Harvard School of Public Health

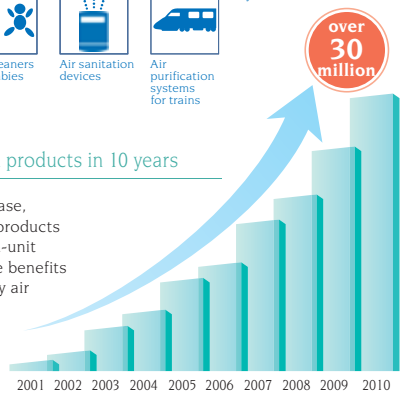
Used in a variety of industries

Plasmacluster Ion technology is recognized and used across a wide range of industries. In collaboration with a number of companies, Sharp has expanded the Plasmacluster Ion technology to the following industries:



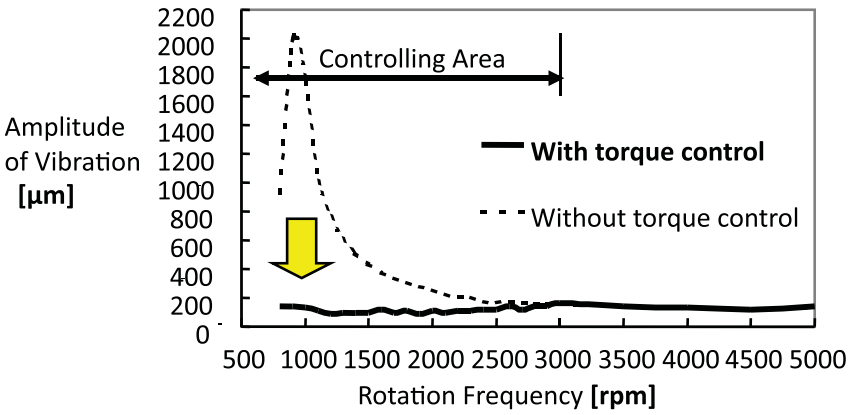
Used in over 30 million products in 10 years

In the ten years since its release, Plasmacluster Ion-equipped products have exceeded the 30-million-unit mark. Sharp aims to bring the benefits of Plasmacluster Ions to every air space.



Torque Control Technology

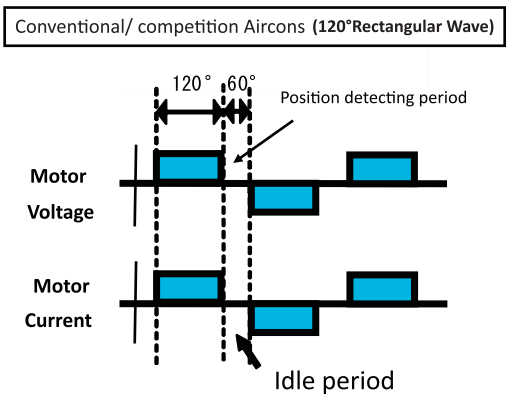
Controlling the load torque generated by the compressor rotation by combining it with the motor torque.



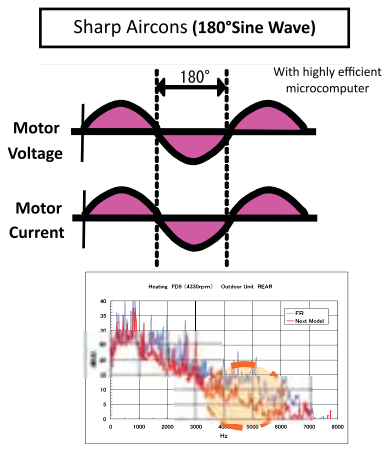
Substantial reduction of sound and vibration of Rotary compressor

Sine Wave Drive System

Conventional/ competition Aircons (120°Rectangular Wave)



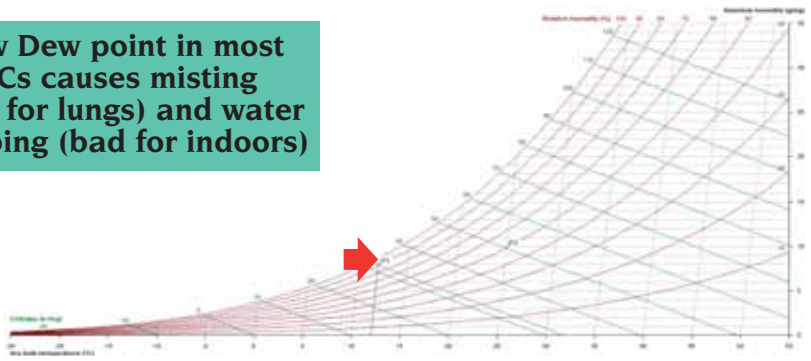
Sharp Aircons **(180°Sine Wave)**



(1) Improvement in Motor efficiency for greater **Energy Saving (2) Drastically reduced Mechanical sound at high RPM area**

Dew Point Temperature is the new High in Sharp ACs.

Low Dew point in most ACs causes misting (bad for lungs) and water dripping (bad for indoors)



High AirFlow in Sharp Machines = 913 CMH (Actual)

Lowest misting & water dripping in Sharp ACs

SPECIFICATION

TECHNICAL

		Normal						
		AH-A9LET	AH-A12LET	A-AP18NMT	AH-AP18NHT	AH-AP24NMT	AH-XP10LV	AH
TECHNICAL SPECIFICATIONS	APPEARANCE							
	OPEN COLOR PANEL	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	
	CAPACITY (TON)	0.75	1	1.5	1.5	1.5	0.8	
	STAR RATING	1	3	3	5	2	-	
	CAPACITY (W)	2560	3400	5200	5300	6200	2800	
	POWER INPUT (W)	960	1170	1750	1560	2190	735	
	EER (W/W)	2.67	2.91	2.97	3.40	2.83	3.81	
	Runing Current (A)	4.2	5	6.9	6.9	9.7	3.6	
	REFRIGERANT	R22	R22	R22	R22	R22	R410A	
	RATED POWER	230V/50HZ	230V/50HZ	230V/50HZ	230V/50HZ	230V/50Hz	220-240V/50Hz	220-
	SOUND LEVEL (db)	38	38	46	46	46	39	
	AIR FLOW RATE (CMH)	564	654	984	984	984	576	
	DIMENSIONS INDOOR UNIT (WXHXD)	860x292x205	860x292x205	965x313x250	1040x313x250	965x313x250	860x292x205	860
	DIMENSIONS OUTDOOR UNIT (WXHXD)	598x495x265	730x540x269	780x540x269	850x710x330	890x800x320	730x540x250	730
	Net Weight (Indoor) (Kg)	8.5	9	13	13	14	8.5	
	Net Weight (Outdoor) (Kg)	22	29	35	35	54	27	
ENERGY SAVING FEATURES	ECO MODE / INSTANT LOW WATTAGE (2 STEPS)	-	-	-	-	-	• (1step)	•
	TORQUE CONTROLLED TECHNOLOGY	-	-	-	-	-	•	
	SINE WAVE DRIVEN SYSTEM	-	-	-	-	-	•	
AIR QUALITY	PLASMACLUSTER ION	-	-	•	•	•	•	
	ANTI-MOLD, DETACHABLE & WASHABLE AIR FILTER	•	•	•	•	•	•	
	SELF CLEANING	-	-	-	-	-	•	
OPERATIONAL FEATURES	GENTLE COOL AIR SYSTEM	Coanda	Coanda	Coanda	Coanda	Coanda	Coanda	C
	INVERTER CONTROLLED OPERATIONS	-	-	-	-	-	•	
	POWERFUL JET	•	•	-	-	-	•	
	SUPER JET / TURBO JET	-	-	•	•	•	-	
	COMPUTERIZED DRY MODE OPERATIONS	•	•	•	•	•	•	
	AUTO & 3-STEP FAN SPEED SETTINGS	•	•	•	•	•	•	
	AUTO RESTART FUNCTION	•	•	•	•	•	•	
	SLEEP MODE	•	•	•	•	•	•	
	QUIET OPERATIONS	•	•	•	•	•	•	
	MICRO COMPUTER CONTROL	•	•	•	•	•	-	
	LCD WIRELESS REMOTE CONTROL	•	•	•	•	•	•	
	LED DIGITAL DISPLAY	-	-	-	-	-	-	
	ON/OFF TIMER	•	•	•	•	•	•	
	4- WAY AUTO AIR SWING	-	-	-	-	-	-	
	HORIZONTAL AIR SWING	•	•	•	•	•	•	
	LOW VOLTAGE WORKING	198 V	198 V	198 V	198 V	198 V	198 V	
	HIGH MAX OPERATING TEMPERATURE DEGREE	@46°C	@46°C	@48°C	@48°C	@48°C	@46°C	(
SAFETY FEATURES	NYLON+ SELF LOCKING THUMBLE (Wiring Harness)	•	•	•	•	•	•	
	PROTECTION FROM LIGHTING SURGE	•	•	•	•	•	•	
	SHEET METAL CONTROL BOX	•	•	•	•	•	•	
	FIRE RETARDANT GRADE EPS	•	•	•	•	•	•	

1) For selected Inverter Models, EER is calculated as "EER Weighted" as per Singapore Test Standard (As Indian Test Standard doesn't exist for Inverter Models)
2) For continous improvement time to time, All specifications mentioned above can be changed without prior notice.
3) Appearance depicted above might be different in original model.

SPECIFICATION

Inverter									Multi Split	Window
-XP13LV	AH-X13PET	AH-XP13PMT	AH-XP13PHT	AH-XP18MV	AH-X18PET	AH-XP18PMT	AH-XP18PHT	AH-XP24MV	AU-X3M24LV	AF-A18PT
										
WHITE	WHITE	WHITE	SILVER	SILVER	WHITE	WHITE	SILVER	SILVER	WHITE	WHITE
1.1	1.1	1.1	1.1	1.5	1.5	1.5	1.5	2	2.5	1.5
-	-	-	-	-	-	-	-	-	-	2
3670	3670	3670	3670	5270	5270	5270	5270	6240	7000	4900
1010	1010	1010	1010	1440	1440	1440	1440	1880	1940	1850
3.63	4.01*	4.01*	4.01*	3.66	4.18*	4.18*	4.18*	3.32	3.61	2.65
4.8	7	7	7	7	7	7	7	8.9	8.6 (1.9 - 14.9)	7.9
R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R22
240V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	220-240V/50Hz	230V/50Hz	230V/50Hz	230V/50Hz	220-240V/50Hz	230V/50Hz	230V/50Hz
39	39	39	39	44	44	44	44	45	39	52
672	660	660	660	912	912	912	912	936	-	780
x292x205	920x290x240	920x290x240	920x290x240	1050x313x250	1050x313x250	1050x313x250	1050x313x250	1050x313x250	860x292x205	660x690x430
x540x250	730x540x250	730x540x250	730x540x250	780x540x269	780x540x269	780x540x269	780x540x269	850x710x330	850x710x330	N/A
9	9	9	9	12	11.5	11.5	11.5	12	9	53
28.5	30	30	30	31	32	32	32	42	49	-
(1step)	-	●	●	●	-	●	●	-	-	-
●	●	●	●	●	●	●	●	●	●	-
●	●	●	●	●	●	●	●	●	●	-
●	-	●	●	●	-	●	●	●	●	-
●	●	●	●	●	●	●	●	●	●	●
●	-	●	●	●	-	●	●	●	-	-
Coanda	Coanda	Coanda	Coanda	Coanda	Coanda	Coanda	Coanda	Coanda	Coanda	-
●	●	●	●	●	●	●	●	●	●	-
●	-	●	-	-	-	-	-	-	●	-
-	●	●	●	●	●	●	●	●	-	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	-
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
-	●	●	●	-	●	●	●	-	●	●
●	●	●	●	●	●	●	●	●	●	Non LCD
-	●	●	●	●	●	●	●	-	-	●
●	●	●	●	●	●	●	●	●	●	●
-	-	●	●	-	-	●	●	-	-	-
●	●	●	●	●	●	●	●	●	●	● (vertical)
198 V	190 V	190 V	190 V	198 V	190 V	190 V	190 V	198 V	198 V	187 V
@46°C	@48°C	@48°C	@48°C	@46°C	@48°C	@48°C	@48°C	@46°C	@46°C	@48°C
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●

3 indoor units with AU-X3M24MV

Indoor unit	Capacity class	Model
9	2.6 kW	AH-XPC9MV
12	3.4 kW	AH-XPC12MV
18	5.0 kW	AH-XPC18MV

Cool | Dry |

AU-X3M24MV Example of indoor unit combinations

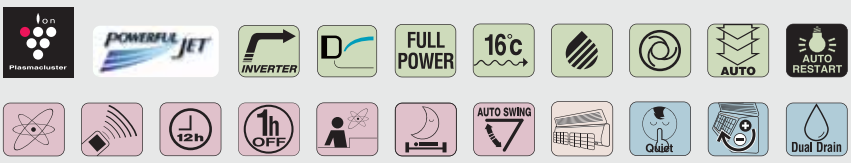
Indoor unit	Cooling Operation	
	Capacity (kW) (Min.-Max.)	**COP**
12 + 12 + 12	7.0 (2.1–8.9)	**3.61**
12 + 9 + 9	7.0 (2.1–8.9)	
9 + 9 + 9	7.0 (2.1–8.9)	

Specifications

Model	Indoor		AH-XPC12MV x 3
	Outdoor		AU-X3M24MV
Capacity *1 (Min.-Max.) Cool		kW	7.0 (2.10-8.90)
Power supply		V-ph-Hz	230-1ø-50
Voltage range		V	207-253
Running current	Cool	A	8.9 (2.4-14.9)
Power input	Cool	W	1,940 (410-3,300)
COP	Cool		3.61
Sound pressure level *2	Indoor (Hi)	dB	39
	Outdoor	dB	48
Airflow volume (Cool/Indoor)		m³/min	11.5 (per unit)
Dimensions (W x H x D)	Indoor	mm	860 x 292 x 223
	Outdoor	mm	850 x 710 x 330
Net weight	Indoor	kg	9
	Outdoor	kg	49
Pipe diameter	Liquid side	inch	1/4 x 3
	Gas side	inch	3/8 x 3
Min-Max pipe length		m	3-25 (per unit, total 60 m)
Maximum chargeless length		m	45
Maximum height difference		m	10
Refrigerant			R410A
Operating Range (Outdoor) Cool		°C	21–43

*1 Rating conditions
Inside air temperature: 27°C D.B. 19°C W.B.
Outside air temperature: 35°C D.B. 24°C W.B.
*2 Sound pressure level is measured according to JIS C 9612.

Features



Performance of Multi Type Capacity Table | 3-indoor units with AU-X3M24MV

Limiting current	Operating status	Indoor unit combination			Cooling capacity [kW]				Running current [A]	Power input (W)
		A	B	C	A	B	C	Rating (Min.–Max.)	Rating (Min.–Max.)	Rating (Min.–Max.)
Full	3-Room	18	12	12	3.0	2.0	2.0	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		18	12	09	3.2	2.2	1.6	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		18	09	09	3.5	1.8	1.8	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		12	12	12	2.3	2.3	2.3	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		12	12	09	2.5	2.5	1.9	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		12	09	09	2.8	2.1	2.1	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		09	09	09	2.3	2.3	2.3	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
	2-Room	18	12	OFF	4.2	2.8	OFF	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		18	09	OFF	4.7	2.3	OFF	7.0 (2.1–8.9)	8.9 (2.4–14.9)	1940 (410–3,300)
		12	12	OFF	3.3	3.3	OFF	6.6 (1.9–7.3)	8.7 (2.0–10.9)	1900 (340–2,410)
		12	09	OFF	3.4	2.6	OFF	6.0 (1.9–7.2)	7.5 (2.0–10.8)	1630 (340–2,390)
		09	09	OFF	2.7	2.7	OFF	5.3 (1.9–6.8)	6.4 (2.0–9.5)	1330 (340–2,100)
	1-Room	18	OFF	OFF	5.0	OFF	OFF	5.0 (1.5–6.4)	6.6 (1.8–10.4)	1370 (310–2,300)
		12	OFF	OFF	3.4	OFF	OFF	3.4 (1.5–4.5)	4.5 (1.8–6.4)	830 (310–1,330)
		09	OFF	OFF	2.6	OFF	OFF	2.6 (1.5–3.6)	3.5 (1.8–5.1)	600 (310–940)
11 A	3-Room	18	12	12	3.0	2.0	2.0	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		18	12	09	3.2	2.2	1.6	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		18	09	09	3.5	1.8	1.8	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		12	12	12	2.3	2.3	2.3	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		12	12	09	2.5	2.5	1.9	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		12	09	09	2.8	2.1	2.1	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		09	09	09	2.3	2.3	2.3	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)

Limiting current	Operating status	Indoor unit combination			Cooling capacity [kW]				Running current [A]	Power input (W)
		A	B	C	A	B	C	Rating (Min.–Max.)	Rating (Min.–Max.)	Rating (Min.–Max.)
11 A	2-Room	18	12	OFF	4.2	2.8	OFF	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		18	09	OFF	4.7	2.3	OFF	7.0 (2.1–7.7)	8.9 (2.4–10.9)	1940 (410–2,410)
		12	12	OFF	3.3	3.3	OFF	6.6 (1.9–7.3)	8.7 (2.0–10.9)	1900 (340–2,410)
		12	09	OFF	3.4	2.6	OFF	6.0 (1.9–7.2)	7.5 (2.0–10.8)	1630 (340–2,390)
		09	09	OFF	2.7	2.7	OFF	5.3 (1.9–6.8)	6.4 (2.0–9.5)	1330 (340–2,100)
	1-Room	18	OFF	OFF	5.0	OFF	OFF	5.0 (1.5–6.4)	6.6 (1.8–10.4)	1370 (310–2,300)
		12	OFF	OFF	3.4	OFF	OFF	3.4 (1.5–4.5)	4.5 (1.8–6.4)	830 (310–1,330)
		09	OFF	OFF	2.6	OFF	OFF	2.6 (1.5–3.6)	3.5 (1.8–5.1)	600 (310–940)
8.5 A	3-Room	18	12	12	3.0	2.0	2.0	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		18	12	09	3.2	2.1	1.6	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		18	09	09	3.5	1.7	1.7	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		12	12	12	2.3	2.3	2.3	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		12	12	09	2.5	2.5	1.9	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		12	09	09	2.8	2.1	2.1	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		09	09	09	2.3	2.3	2.3	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
	2-Room	18	12	OFF	4.2	2.8	OFF	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		18	09	OFF	4.7	2.3	OFF	6.9 (2.1–6.9)	8.4 (2.4–8.4)	1820 (410–1,820)
		12	12	OFF	3.3	3.3	OFF	6.4 (1.9–6.4)	8.4 (2.0–8.4)	1820 (410–1,820)
		12	09	OFF	3.4	2.6	OFF	6.0 (1.9–6.4)	7.5 (2.0–8.4)	1630 (340–1,820)
		09	09	OFF	2.7	2.7	OFF	5.3 (1.9–6.3)	6.4 (2.0–8.4)	1330 (340–1,820)
	1-Room	18	OFF	OFF	5.0	OFF	OFF	5.0 (1.5–6.0)	6.6 (1.8–8.4)	1370 (310–1,820)
		12	OFF	OFF	3.4	OFF	OFF	3.4 (1.5–4.5)	4.5 (1.8–6.4)	830 (310–1,330)
		09	OFF	OFF	2.6	OFF	OFF	2.6 (1.5–3.6)	3.5 (1.8–5.1)	600 (310–940)

FEATURE DESCRIPTIONS

Operation

Laundry Function (Powerful Dry and Deodorant)
To dry and deodorize hanging clothes inside the house with Powerful Jet and HD7000 PCI.

Nature Wing
The Nature Wing fan design is modeled after nature and creates a more efficient airflow that results in energy-saving operation (in both indoor and outdoor units).

Inverter Controlled Operation
This function features a quick cooling operation and decreases fluctuation in temperature and reduces power consumption.

Super Jet
Super Jet delivers powerful cool air downward and cools the room and your body quickly.

Powerful Jet
In this operation, the air conditioner delivers incredibly strong and cool air to cool the room instantly.

Powerful Swing
In this operation, the automatic louver swing delivers incredibly strong and cool air uniformly around the room.

Gentle Cool Air System (COANDA Technology)
This function provides cold air traveling up the ceiling during cooling operation in order to avoid direct airflow.

Low Wattage Type
Larger evaporators and condensers enable these models to operate with greater energy efficiency.

Full Power Mode
In this operation, the air conditioner works at the maximum power to rapidly cool the room.

Turbo Operation
In this operation, the air conditioner works at "Extra-high" speed to cool the room quickly.

Lower Room Temperature Setting (from 16˚C)
In cooling operation, room temperature can be set from 16˚C.

Lower Room Temperature Setting (from 18˚C)
In cooling operation, room temperature can be set from 18˚C.

Computerized Dry Mode Operation
The indoor fan motor and the compressor are controlled by the microcomputer to maintain room humidity without dropping the room temperature.

Auto Operation Mode
In the AUTO mode, the temperature setting and mode are automatically selected according to the room temperature.

Auto & 3-Step Fan Speed Settings
Auto fan speed and 3-step (HIGH/LOW/SOFT) manual fan speed are available.

Auto Restart Function
When power failure occurs and after power recovery, the unit will automatically restart in the same setting which was active before the power failure.

Filter Sign
This function indicates when it is time to clean the air filter.

Control Convenience

Microcomputer Control

LCD Wireless Remote Control

24-Hour ON/OFF Programmable Timer
The start and stop operations (hour and minute) can be set at the same time.

12-Hour ON/OFF Timer

1-Hour OFF Timer
When the ONE-HOUR OFF TIMER is set, the unit will automatically turn off after one hour.

"Awakening" Function
When the ON Timer is set, the unit will turn on prior to the set time to allow the room to reach the desired temperature by the programmed time.

Sleep Mode Function
This function alternates On and Off during Off-timer operation, so that it delivers comfortable cooling while sleeping. This function works with OFF Timer.

"Auto Sleep" Function
When the OFF Timer is set, the temperature setting is automatically adjusted to prevent the room from becoming excessively hot or cold while you sleep.

Instant Low Wattage Button
Pressing this button before the room temperature reaches the set temperature instantly puts the unit into low-power mode.

4-way Auto Air Swing
Automatic vertical & horizontal airflow is available in order to make the room uniformly cool.

Auto Swing Louver
Automatic vertical airflow is available in order to make the room uniformly cool.

Air Quality

High-Density Plasmacluster Ions
High-Density Plasmacluster Ions clean the room air powerfully and quickly. Plasmacluster technology is Sharp's original air purifying technology that removes suspended airborne mold and viruses.
*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 (at 1.5 m height above the floor) at the maximum wind volume, when an air conditioner using the high-density plasmacluster ion device is placed in a room with the applicable floor area. This product is equipped with a device corresponding to this capacity.

Plasmacluster Ion
Plasmacluster Ion generator inside the indoor unit releases positive and negative Plasmacluster Ions into the room and reduces some airborne mold and viruses.

Green Filter + Ag+
To inhibit bacterial growth on the filter.

Anti-Mold, Detachable & Washable Air Filter (for split & window ACs)

Additional Features

Quiet Operation

Self Cleaning Function
SELF CLEAN operation provides the effect of reducing the growth of mold, fungus, and dries the inside of the air conditioner unit with Plasmacluster Ions.

Dual Drain Setting
Rightward and Leftward Drain hose setting is available for easy installation.

Industry's Best Installation Kit

Sharp	Brand-D	Brand-L	Brand-S	Brand-H	Brand-P
4m Copper Tube	No	3m	4m	4m	3.5m
4m XPE Insulation(white)	No	3m,(Grey)	4m,XPE	4m(Black)	3.5m XPE
4m 4 core copper cables	No	3m,3core	4M, 3core	4m,3core	3.5m
4m Drain Pipe	No	No	No	No	No
Surgical Gloves	No	No	No	No	No
Cleaning Cloth	No	No	No	No	No
Packaging Box	No	Yes	No	No	No
Binders	No	No	No	No	No

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West: Mumbai: 022-42173100, 42173101, Pune: 020-25537911, 25520608, Ahmedabad: 079 30020630, 26304196,

South: Bangalore: 080-40823404, 22353535-38, Chennai: 044-28172538, Coimbatore: 0422 9940657627, Hyderabad: 040-66661001, 666661003-6, Kochi: 0484-4118222, 4118211

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