Capacity Table

4-indoor units with AE-XM24HR

Operating status	Indoor unit combination				Cooling capacity (kW)					Heating capacity (kW)					Power consumption (W)	Rating (Min.–Max.)
	A	B	C	D	A	B	C	D	Rating (Min.–Max.)	A	B	C	D	Rating (Min.–Max.)	Cool	Heat
4-indoor unit operation	12	9	7	7	2.40	1.80	1.40	1.40	7.0 (3.0–8.2)	2.74	2.06	1.60	1.60	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
	12	7	7	7	2.55	1.48	1.48	1.48	7.0 (3.0–8.2)	2.91	1.70	1.70	1.70	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
	9	9	9	9	1.75	1.75	1.75	1.75	7.0 (3.0–8.2)	2.00	2.00	2.00	2.00	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
	9	9	9	7	1.85	1.85	1.85	1.44	7.0 (3.0–8.2)	2.12	2.12	2.12	1.65	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
	9	9	7	7	1.97	1.97	1.53	1.53	7.0 (3.0–8.2)	2.25	2.25	1.75	1.75	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
	9	7	7	7	2.10	1.63	1.63	1.63	7.0 (3.0–8.2)	2.40	1.87	1.87	1.87	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
	7	7	7	7	1.75	1.75	1.75	1.75	7.0 (3.0–8.2)	2.00	2.00	2.00	2.00	8.0 (3.0–9.2)	2,180 (600–2,980)	2,000 (560–2,560)
3-indoor unit operation	12	9	7	*	2.91	2.19	1.70	*	6.8 (2.7–7.4)	3.30	2.50	2.00	*	7.8 (2.4–8.8)	2,200 (530–2,900)	2,500 (520–2,650)
	12	7	7	*	3.14	1.83	1.83	*	6.8 (2.7–7.4)	3.60	2.10	2.10	*	7.8 (2.4–8.8)	2,200 (530–2,900)	2,500 (520–2,650)
	9	9	9	*	2.27	2.27	2.27	*	6.8 (2.7–7.4)	2.60	2.60	2.60	*	7.8 (2.4–8.8)	2,200 (530–2,900)	2,500 (520–2,650)
	9	9	7	*	2.45	2.45	1.90	*	6.8 (2.7–7.4)	2.80	2.80	2.20	*	7.8 (2.4–8.8)	2,200 (530–2,900)	2,500 (520–2,650)
	9	7	7	*	2.50	1.95	1.95	*	6.8 (2.7–7.4)	3.10	2.40	2.40	*	7.8 (2.4–8.8)	2,200 (530–2,900)	2,500 (520–2,650)
	7	7	7	*	1.97	1.97	1.97	*	5.9 (2.7–7.3)	2.40	2.40	2.40	*	7.1 (2.4–8.8)	1,750 (530–2,760)	2,180 (520–2,650)
2-indoor unit operation	12	9	*	*	3.20	2.40	*	*	5.6 (2.0–6.8)	4.20	3.10	*	*	7.3 (1.8–7.5)	1,820 (430–2,700)	2,400 (450–2,600)
	12	7	*	*	3.35	1.95	*	*	5.3 (2.0–6.7)	4.50	2.60	*	*	7.1 (1.8–7.5)	1,590 (430–2,630)	2,380 (450–2,600)
	9	9	*	*	2.50	2.50	*	*	5.0 (2.0–6.3)	3.20	3.20	*	*	6.4 (1.8–7.5)	1,400 (430–2,400)	2,050 (450–2,600)
	9	7	*	*	2.59	2.01	*	*	4.6 (2.6–5.9)	3.40	2.70	*	*	6.1 (1.8–7.5)	1,230 (430–2,000)	1,900 (450–2,600)
	7	7	*	*	2.00	2.00	*	*	4.0 (2.6–5.3)	2.70	2.70	*	*	5.3 (1.8–7.3)	1,040 (430–1,700)	1,580 (450–2,300)
1-indoor unit operation	12	*	*	*	3.40	*	*	*	3.4 (1.6–4.0)	3.80	*	*	*	3.8 (1.1–5.2)	900 (400–1,320)	1,750 (400–2,400)
	9	*	*	*	2.60	*	*	*	2.6 (1.6–3.3)	2.90	*	*	*	2.9 (1.1–4.0)	650 (400–930)	1,130 (400–2,050)
	7	*	*	*	2.00	*	*	*	2.0 (1.6–2.7)	2.40	*	*	*	2.4 (1.1–3.4)	500 (400–700)	800 (400–1,450)

*Connected but not operated

4-indoor units with AE-XM30GR

Operating status	Indoor unit combination				Cooling capacity (kW)					Heating capacity (kW)					Power consumption (W)	Rating (Min.–Max.)
	A	B	C	D	A	B	C	D	Rating (Min.–Max.)	A	B	C	D	Rating (Min.–Max.)	Cool	Heat
4-indoor unit operation	18	9	9	7	3.52	1.76	1.76	1.37	8.40 (4.30–9.00)	3.77	1.88	1.88	1.47	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	18	9	7	7	3.69	1.84	1.43	1.43	8.40 (4.30–9.00)	3.95	1.98	1.54	1.54	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	18	7	7	7	3.88	1.51	1.51	1.51	8.40 (4.30–9.00)	4.15	1.62	1.62	1.62	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	12	12	7	7	2.65	2.65	1.55	1.55	8.40 (4.30–9.00)	2.84	2.84	1.66	1.66	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	12	9	9	7	2.73	2.04	2.04	1.59	8.40 (4.30–9.00)	2.92	2.19	2.19	1.70	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	12	9	7	7	2.88	2.16	1.68	1.68	8.40 (4.30–9.00)	3.09	2.31	1.80	1.80	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	12	7	7	7	3.06	1.78	1.78	1.78	8.40 (4.30–9.00)	3.27	1.91	1.91	1.91	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	9	9	9	9	2.10	2.10	2.10	2.10	8.40 (4.30–9.00)	2.25	2.25	2.25	2.25	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	9	9	9	7	2.22	2.22	2.22	1.74	8.40 (4.30–9.00)	2.38	2.38	2.38	1.85	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	9	9	7	7	2.36	2.36	1.84	1.84	8.40 (4.30–9.00)	2.53	2.53	1.97	1.97	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	9	7	7	7	2.52	1.96	1.96	1.96	8.40 (4.30–9.00)	2.70	2.10	2.10	2.10	9.00 (4.40–10.60)	2,990 (1,070–3,490)	2,400 (940–3,060)
	7	7	7	7	2.00	2.00	2.00	2.00	8.00 (4.30–9.00)	2.13	2.13	2.13	2.13	8.50 (4.40–9.80)	2,780 (1,070–3,490)	2,230 (940–2,850)
3-indoor unit operation	18	12	7	*	4.04	2.69	1.57	*	8.30 (4.30–8.90)	4.33	2.89	1.68	*	8.90 (4.40–10.50)	2,990 (1,070–3,490)	2,400 (940–3,060)
	18	9	9	*	4.15	2.08	2.08	*	8.30 (4.30–8.90)	4.45	2.33	2.33	*	8.90 (4.40–10.50)	2,990 (1,070–3,490)	2,400 (940–3,060)
	18	9	7	*	4.39	2.20	1.71	*	8.30 (4.30–8.90)	4.71	2.36	1.83	*	8.90 (4.40–10.50)	2,990 (1,070–3,490)	2,400 (940–3,060)
	18	7	7	*	4.67	1.82	1.80	*	8.30 (4.30–8.90)	5.01	1.95	1.95	*	8.90 (4.40–10.50)	2,990 (1,070–3,490)	2,400 (940–3,060)
	12	12	7	*	3.00	3.00	1.80	*	7.80 (3.60–8.40)	3.40	3.40	2.00	*	8.80 (3.60–10.00)	2,990 (880–3,300)	2,650 (830–3,150)
	12	9	9	*	3.20	2.30	2.30	*	7.80 (3.60–8.40)	3.60	2.60	2.60	*	8.80 (3.60–10.00)	2,990 (880–3,300)	2,650 (830–3,150)
	12	9	7	*	3.30	2.40	1.90	*	7.60 (3.60–8.40)	3.80	2.80	2.20	*	8.80 (3.60–10.00)	2,800 (880–3,300)	2,650 (830–3,150)
	12	7	7	*	3.40	1.90	1.90	*	7.20 (3.60–8.40)	3.90	2.30	2.30	*	8.50 (3.60–10.00)	2,550 (880–3,300)	2,500 (830–3,150)
	9	9	9	*	2.50	2.50	2.50	*	7.40 (3.60–8.40)	2.90	2.90	2.90	*	8.80 (3.60–10.00)	2,650 (880–3,300)	2,650 (830–3,150)
	9	9	7	*	2.50	2.50	2.00	*	7.00 (3.60–8.40)	3.00	3.00	2.20	*	8.20 (3.60–10.00)	2,400 (880–3,300)	2,400 (830–3,150)
	9	7	7	*	2.60	2.00	2.00	*	6.60 (3.60–8.20)	3.00	2.40	2.40	*	7.80 (3.60–9.40)	2,160 (880–3,200)	2,150 (830–2,990)
	7	7	7	*	2.00	2.00	2.00	*	6.00 (3.60–7.80)	2.40	2.40	2.40	*	7.10 (3.60–8.80)	1,920 (880–3,100)	1,870 (830–2,660)
2-indoor unit operation	18	12	*	*	4.56	3.04	*	*	7.60 (3.60–8.00)	4.86	3.24	*	*	8.10 (3.60–9.00)	2,990 (880–3,400)	2,450 (830–3,300)
	18	9	*	*	4.80	2.40	*	*	7.20 (3.60–8.00)	5.40	2.70	*	*	8.10 (3.60–9.00)	2,600 (880–3,400)	2,450 (830–3,300)
	18	7	*	*	4.90	1.90	*	*	6.80 (3.60–8.00)	5.54	2.16	*	*	7.70 (3.60–9.00)	2,350 (880–3,400)	2,200 (830–3,300)
	12	12	*	*	3.10	3.10	*	*	6.20 (2.60–7.50)	3.80	3.80	*	*	7.60 (2.60–8.00)	2,250 (700–3,700)	2,600 (730–2,900)
	12	9	*	*	3.20	2.40	*	*	5.60 (2.60–7.10)	3.80	2.90	*	*	6.70 (2.60–8.00)	1,950 (700–3,200)	2,250 (730–2,900)
	12	7	*	*	3.30	2.00	*	*	5.30 (2.60–6.80)	3.90	2.20	*	*	6.10 (2.60–8.00)	1,720 (700–2,770)	1,900 (730–2,900)
	9	9	*	*	2.50	2.50	*	*	5.00 (2.60–6.30)	2.90	2.90	*	*	5.80 (2.60–8.00)	1,630 (700–2,600)	1,850 (730–2,900)
	9	7	*	*	2.60	2.00	*	*	4.60 (2.60–5.90)	3.00	2.30	*	*	5.30 (2.60–7.30)	1,400 (700–2,250)	1,510 (730–2,400)
	7	7	*	*	2.00	2.00	*	*	4.00 (2.60–5.30)	2.40	2.40	*	*	4.80 (2.60–6.40)	1,200 (700–1,900)	1,350 (730–2,000)
1-indoor unit operation	18	*	*	*	5.00	*	*	*	5.00 (2.60–5.70)	6.20	*	*	*	6.20 (2.60–7.40)	1,600 (700–2,400)	2,200 (730–3,000)
	12	*	*	*	3.40	*	*	*	3.40 (1.80–4.00)	3.80	*	*	*	3.80 (1.80–5.20)	1,100 (630–1,450)	1,600 (640–2,200)
	9	*	*	*	2.60	*	*	*	2.60 (1.80–3.30)	2.90	*	*	*	2.90 (1.80–4.00)	790 (630–1,080)	1,130 (640–1,750)
	7	*	*	*	2.00	*	*	*	2.00 (1.80–2.70)	2.40	*	*	*	2.40 (1.80–3.40)	750 (630–850)	870 (640–1,350)

*Connected but not operated

*1 Rating Conditions
Standard: EN 14511; 230 V, 50 Hz (Except portable air conditioners)

Inside Air Temperature:	Outside Air Temperature:
27˚C D.B. 19˚C W.B. (Cooling)	35˚C D.B. 24˚C W.B. (Cooling)
20˚C D.B. (Heating)	7˚C D.B. 6˚C W.B. (Heating)

* Heating capacity is lowered with a decrease in outdoor temperature.
* Maximum data are measured under the test conditions listed right according to EN60335-2-40

Indoor units

7: AY-XPC7JHR, AY-XPC7JR, AY-XPM7FR
9: AY-XPC9JHR, AY-XPC9JR, AY-XPM9FR, GS-XPM9FGR
12: AY-XPC12JHR, AY-XPC12JR, AY-XPM12FR, GS-XPM12FGR
18: AY-XPM18HR, GS-XPM18FGR, AY-XPC18LR

* Design and specifications are current as of January 2010, but are subject to change without prior notice.
* Actual colors may differ slightly from colors in this catalog. Not all models are available in all countries.
The technical specifications were state of the art at the time of going to press and are subject to change without notice.

SHARP

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JAPANESE TECHNOLOGY INSIDE

Plasmacluster®

Plasmacluster is a trademark of Sharp Corporation.

Showing concern for the environment while providing you comfort and wellness.

Sharp—Creating an environmentally-friendly company with sincerity and creativity

Today's product development and manufacture must be carried out with a commitment to the environment. No matter how convenient the products, they are of no use if they harm the environment and human health.

Since 1998, Sharp has done its utmost to improve the environmental performance of products, efforts that the company has further expanded into the area of devices since 2004. In fiscal 2006, Sharp started full-scale operation of a system to assess the environmental impact over the life cycle of products and devices. This system works hand-in-hand with the incorporation of environmentally conscious design into the product-making process.

Since its foundation, Sharp has contributed to society by making never-before-seen products that meet the needs of the next generation and by creating totally new markets. Sharp will continue to fulfil its social mission in obedience to its business creed of "Sincerity and Creativity."

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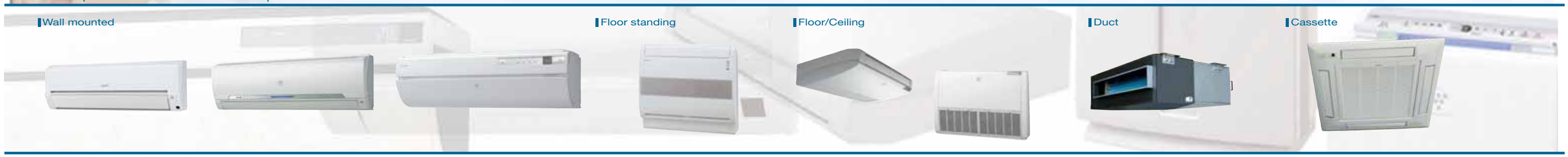
Sharp—Creating a people-friendly company Providing comfort and a healthy lifestyle

Sharp puts a high priority on increasing consumer convenience as well. We devote our efforts toward making sure that our products bring the most value to our customers in terms of health and comfort. This is what drove us to develop Plasmacluster technology—our unceasing drive to create products that improve the lives of those who buy them. This, combined with our efforts toward environmentally sustainable lifestyles, enables us to create a number of products and solutions for all of your lifestyle needs.

Sharp's air conditioner lineup



So what is Sharp Plasmacluster technology?

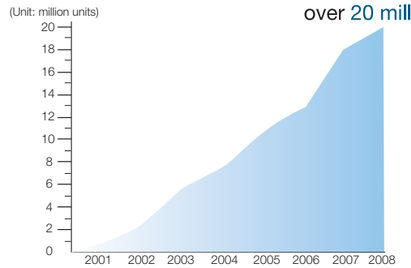
Plasmacluster Ions

Positive and negative ions are remarkably effective against harmful airborne mold spores, allergens (mite, pollen), and viruses. The effects have been proven at academic institutions around the world. Incorporated not only in a variety of Sharp's own products, from air conditioners to refrigerators, 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 generator

Used in over 20 million products in 8 years

In the eight years since its release, Plasmacluster Ion-equipped products have exceeded the 20-million-unit mark. Sharp aims to bring the benefits of Plasmacluster Ions to every air space.



Third-party Verifications for Plasmacluster Ion Technology

Takagi Award from the Society of Non-Traditional Technology.

Japan

Kitasato Research Center of Environmental Sciences

Ishikawa Health Service Association

China

Shanghai Municipal Center for Disease Control and Prevention

Germany

University Lübeck

Canada

Asthma Society of Canada (Air purifiers only.)

USA

Harvard School of Public Health

Schematic Illustration of the Effects of Plasmacluster Ions against Airborne Allergens

Positive and negative cluster ions aggregate on the surface of airborne allergens.

The ions react on the surface of the allergen and are transformed into powerful active substances in the form of hydroxyl radicals (OH).

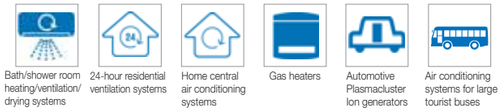
The hydroxyl radicals extract hydrogen atoms from inside the allergen resulting in the destruction of proteins and the formation of water.

* Prevents an allergic reaction from occurring by stopping the allergen (antigen) from combining with the IgE antibody.

■Test method: A Plasmacluster Ion generator is placed in a 1 m³ box. Mite powder is then suspended in the air inside the box followed by the release of Plasmacluster Ions. The action of the allergens in the air is then measured. ■Test performed by the Graduate School of Advanced Sciences of Matter at Hiroshima University in Japan.

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:



Bath/shower room heating/ventilation/ drying systems
24-hour residential ventilation systems
Home central air conditioning systems
Gas heaters
Automotive Plasmacluster Ion generators
Air conditioning systems for large tourist buses

Automotive air conditioning
Automotive air purifiers
Hot water heaters/dryers
Elevators
Smoking area systems
Air cleaners for babies

24-hour central floor ventilation systems
Ion duct conveyance systems
Mist sauna systems
Plasmacluster Ion lighting
Toilets with bidet seats

Proven in 13 Institutions in Japan and around the World

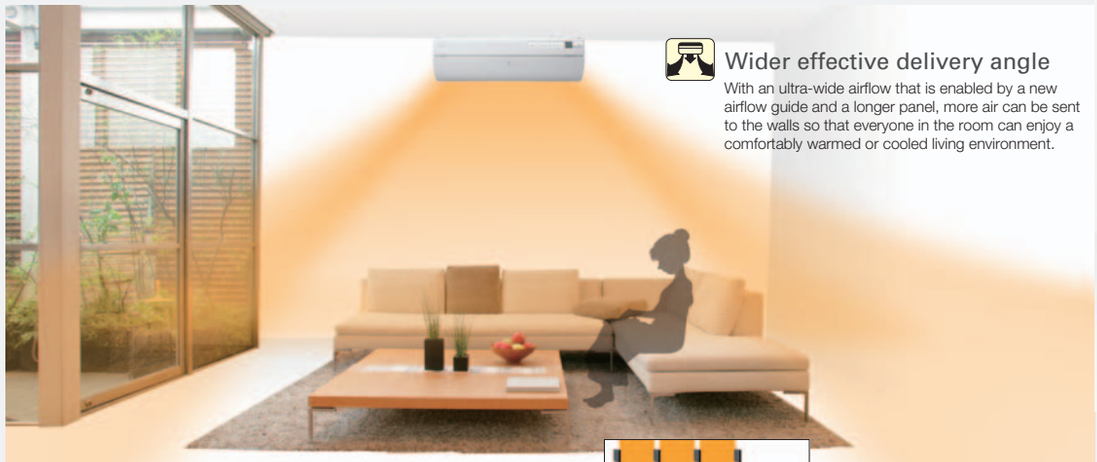
Test substance	Tested by:
Airborne viruses	• Kitasato Research Center of Environmental Sciences (Japan) • Seoul University (Korea) • Shanghai Municipal Center for Disease Control and Prevention • Kitasato Institute Medical Center Hospital, Kitasato University (Japan) • Retroscreen Virology, Ltd. (UK)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

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

Delivering Comfort

To a greater effective area, using precision tech nology

An increased effective area and precise airflow control envelop you in comfortable air, when you need it



Wider effective delivery angle

With an ultra-wide airflow that is enabled by a new airflow guide and a longer panel, more air can be sent to the walls so that everyone in the room can enjoy a comfortably warmed or cooled living environment.

In the wintertime
Warm air, sent down toward the floor and outward to the walls, warms the entire room evenly.

In the summertime
Cool air, sent up toward the ceiling and outward to the walls, cools the entire room gently.

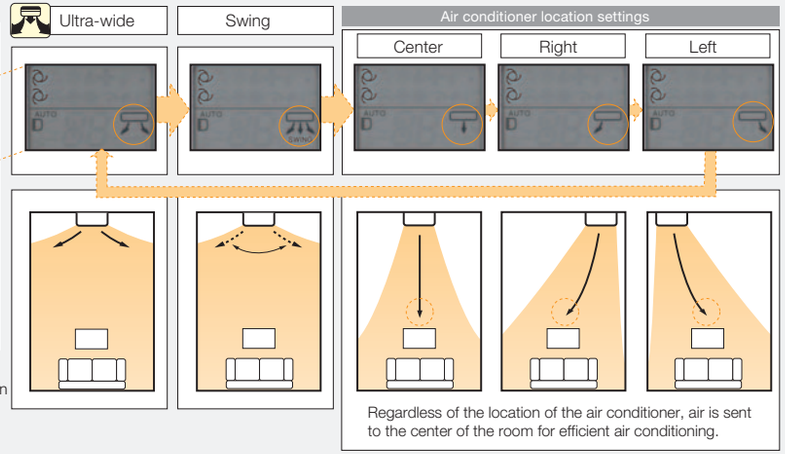
A new airflow guide creates a smoother flow of air, minimizing losses in air volume.

A longer panel means a larger amount of air can be sent toward the walls, keeping the air from pooling near the panel and becoming inactive.

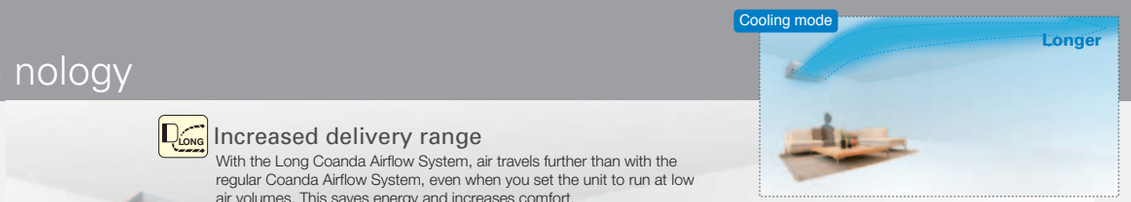
Air flows are easily recognized and controlled

Airflow patterns can be changed to offer precise control over any type of living space.

You can switch between modes by pressing this button.

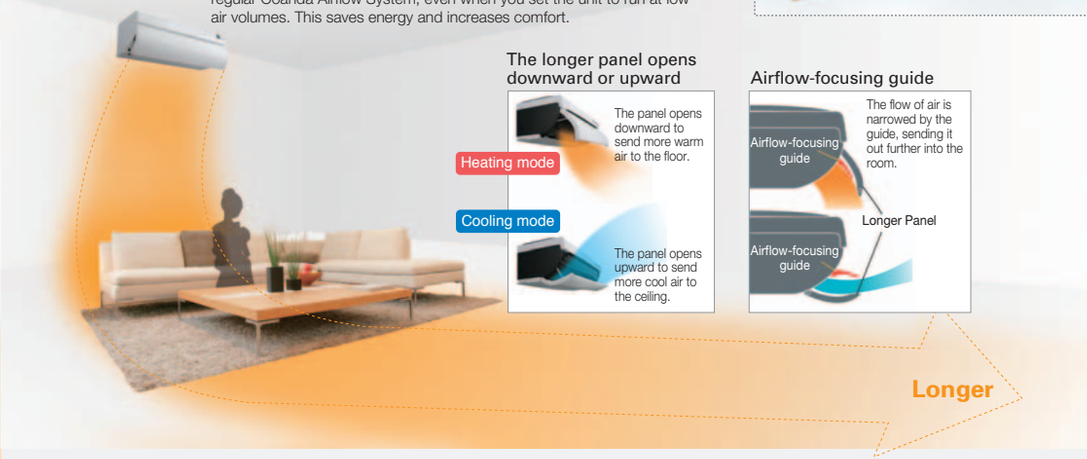


Regardless of the location of the air conditioner, air is sent to the center of the room for efficient air conditioning.



Increased delivery range

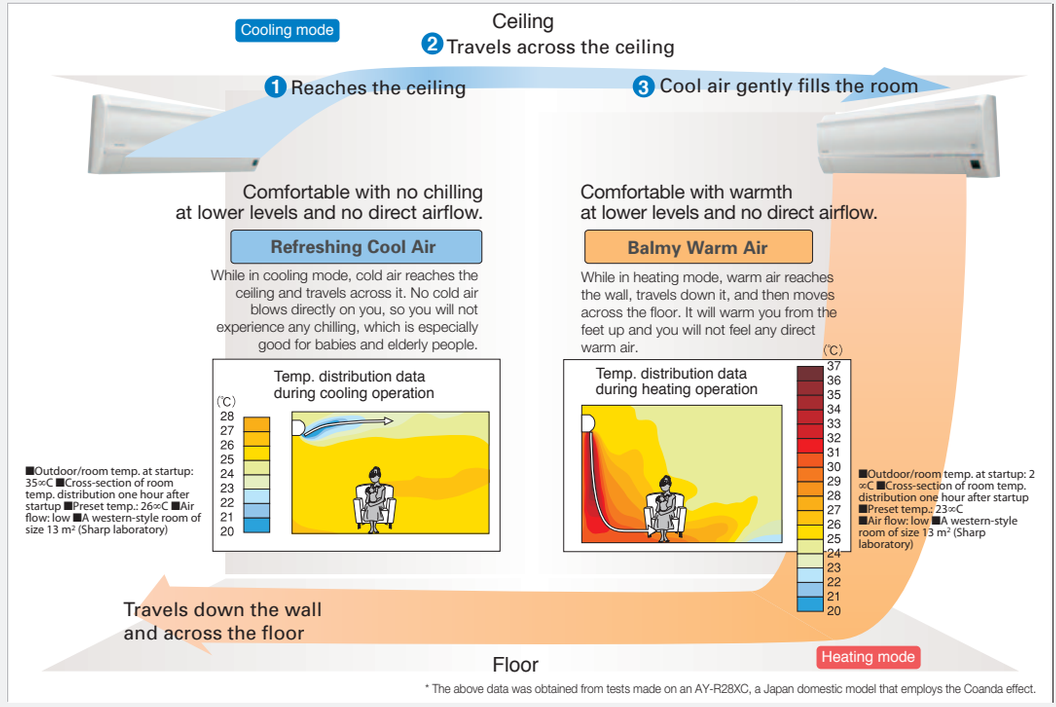
With the Long Coanda Airflow System, air travels further than with the regular Coanda Airflow System, even when you set the unit to run at low air volumes. This saves energy and increases comfort.



The Coanda Effect: Creating the most comfortable living space possible

Sharp's air conditioners take advantage of a tendency in nature that has been termed the "Coanda effect" to heat and cool air evenly. The Coanda effect is the observed tendency of moving gas or fluid leaving a nozzle of some kind to cling to and follow nearby sufaces. Sharp air conditioners utilize this tendency by aiming the airflow at room surfaces, such as walls or ceilings, to more precisely control and direct the flow of air.

* The Coanda effect was discovered in 1930 by the world-famous aerodynamicist H. M. Coanda, born in Romania in 1885.



* The above data was obtained from tests made on an AY-R28XC, a Japan domestic model that employs the Coanda effect.

Plasmacluster Ion Technology

Making the air you breathe safer and cleaner, for you and your family

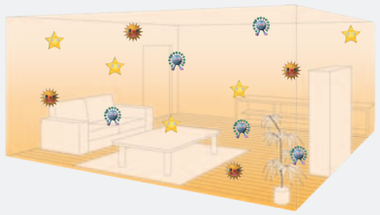
Plasmacluster Ions are effective against airborne contaminants and mold.

Sharp's Plasmacluster Ion system produces positive and negative ions, which are remarkably effective against a variety of airborne contaminants and impurities such as mold, viruses and allergens. In pursuit of cleanness and comfort, this outstanding system offers you the finest air quality for your living environment.

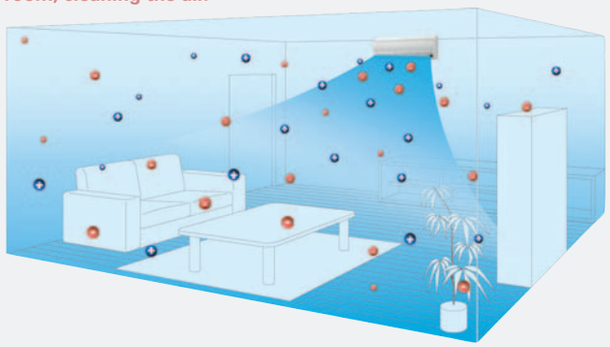
Airborne contaminants and mold reduced by Plasmacluster Ions

Airborne mold　Airborne allergens　Airborne viruses

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

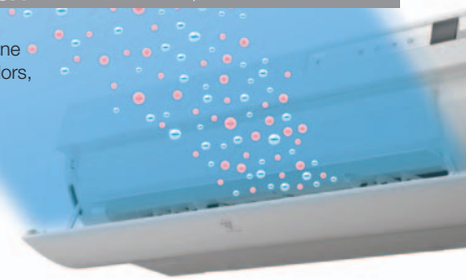


Plasmacluster Ions spread throughout the whole room, cleaning the air.

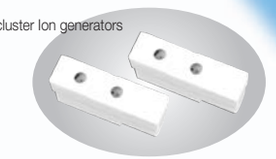


Twin Plasmacluster generators deliver twice the power! (AY-XPC7/9/12JHR only)

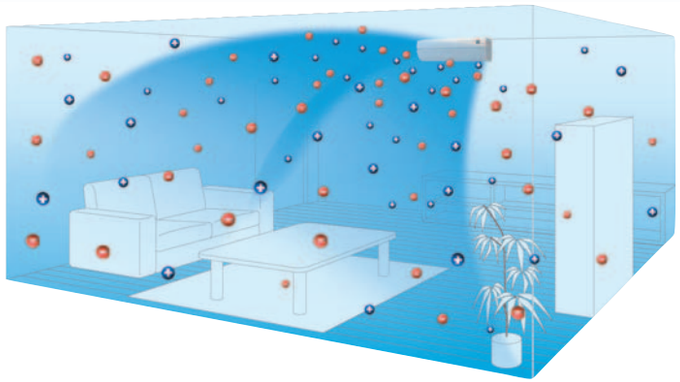
Two generators produce a much higher volume of Plasmacluster Ions than one alone. The ions spread out through the room, absorbing and deactivating odors, viruses, and mold to create a living environment, filled with fresh, clean air.



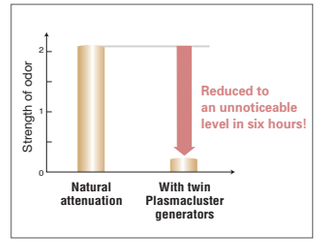
Twin Plasmacluster Ion generators



More Plasmacluster Ions fill the room!



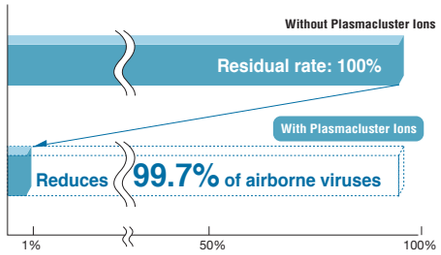
Reduction in clinging room odors using twin Plasmacluster generators



■Test method: Using a six-level odor intensity indication method, the effectiveness of deodorizing a piece of fabric impregnated with tobacco smoke odor was evaluated in an approx. 20 m² test chamber. ■Test performed by Japan Spinners Inspecting Foundation. ■Test report No.: 070356-2

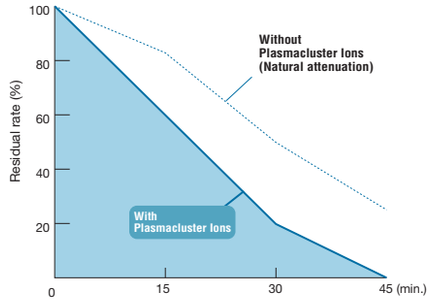
Effective against Airborne Viruses

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



Effective against Airborne Mold

Effects on Airborne Mold



While the Plasmacluster technology can remove suspended viruses and other contaminants, it cannot create a completely sterile environment. Sharp does not guarantee the ability of the Plasmacluster technology to prevent microbial infection.

■Test method: A Plasmacluster Ion generator is placed in a 1 m³ 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

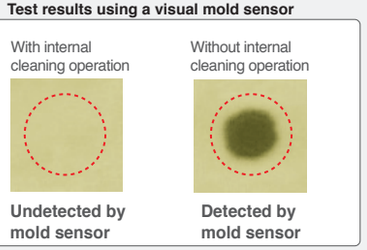
■Mode of operation: Plasmacluster Ion generator single operation in an experimental room of approximately 13.0 square meters. ■Temperature inside the room: 21°C, Humidity: 53% RH. ■Method of measurement: Air samples measuring the quantity of mold were taken from the center inside the room. ■Reduction 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

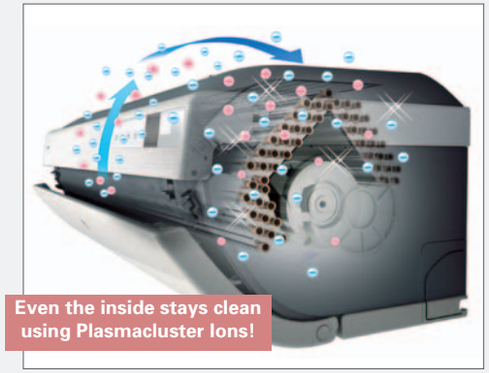
Plasmacluster Ions prevents the growth of mold inside the air conditioner.

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

Test results using a visual mold sensor



Test method: Measurements taken at Sharp's laboratory. 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.



Even the inside stays clean using Plasmacluster Ions!

Quiet, Environmentally Friendly Operation

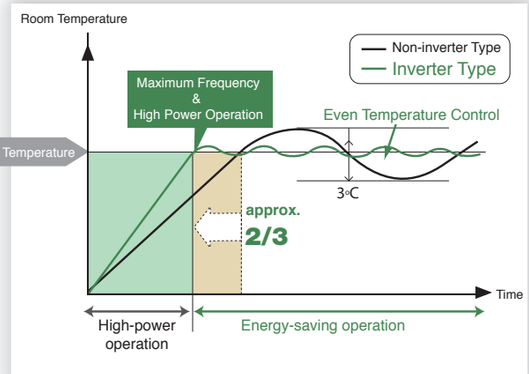
Increased efficiency and reduced power consumption put Sharp products in the industry's top class

Sharp's unsurpassed efforts resulted in the development of advanced technologies that contribute to highly efficient operation and drastically reduced energy consumption.

Inverter technology

■ Reaches preset temperatures in approx. 2/3 the time
(Chart below)

While inverter air conditioners have a full-output operation mode, they drastically reduce energy consumption when used in energy-saving operation mode. This is thanks to inverter circuitry, which modifies and maintains room temperature by switching the compressor between high and low operation modes, instead of switching it on and off completely as non-inverter models do. The inverter model keeps the compressor running and simply reduces output when the room reaches the target temperature, enabling comfortable, even temperature control.

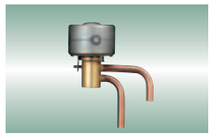


■ Reduces power consumption by approx. 50%
(Compared to Non-Inverter models)

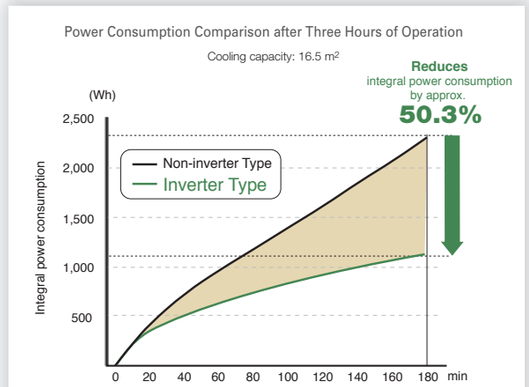
Inverter air conditioners go into energy-saving operation mode immediately once the set temperature is achieved. Sharp's inverter air conditioners reduce energy consumption to 52% of that of non-inverter models after three hours of operation, increasing performance efficiency using high-power **DC** motors for the compressor and outdoor fan, and a pulse linear expansion valve.

Electronic Digital Control

Pulse Linear Expansion Valve



* Except for the AE-X24GR model.



■ Quiet operation

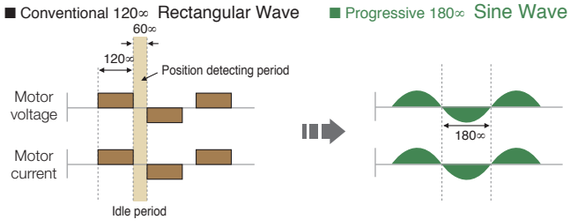
Operational noise produced when the compressor shuts down is not present with inverter models.

Sine wave drive compressor control system

Uses the improved compressor control technology, which adopts a 180∞ conductance sine wave instead of the conventional 120∞ conductance waveform, resulting in a smoothing of motor rotation. This greatly reduces energy loss, contributing to higher efficiency, and thus higher energy savings.

* For AE-X7JR, AE-X7HR, AE-X9HR, GU-X9FGR, AE-X2M18KR, AE-X3M18JR, AE-XM24HR models.

■ Conventional 120∞ Rectangular Wave ■ Progressive 180∞ Sine Wave

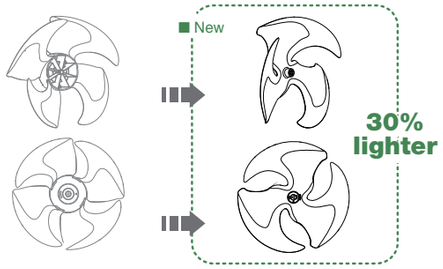


New type of outdoor fan

This large-size outdoor unit employs a new, unique fan shape that uses the latest aerodynamic and hydrodynamic technology to improve energy efficiency. The new model using this fan achieves approximately **15% less** input values based on airflow for fan rotation than that of the conventional model. This new fan is also **30% lighter** than conventional fans. The amount of resin used as material has been reduced, making the fan more environmentally friendly and reducing the load on the motor.

* For AE-A18KR, AE-A24KR, AE-X2M18KR models.

■ Conventional ■ New



Sharp's single-type air conditioning models offer the power and functionality you need. Choose the best fit for your home from wall-mounted, floor standing, floor/ceiling, and portable models.

Single Split Type

Wall mounted
Floor standing
Floor/Ceiling
Duct/Cassette

Wall mounted

Super Deluxe Inverter — AY-XPC7/9/12JHR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XPC7JHR	2.10 (0.90–2.50)	4.04 A	2.40 (0.90–3.50)	4.85 A
AY-XPC9JHR	2.50 (0.90–3.00)	4.00 A	3.20 (0.90–5.00)	4.21 A
AY-XPC12JHR	3.50 (0.90–3.80)	3.21 A	4.00 (0.90–5.50)	3.92 A

- Twin Plasmacluster Ion
- Ultra-wide Airflow
- Long Coanda Airflow System
- Can be used singly or in a multi split system
- Self Cleaning Function with Plasmacluster Ions
- Anti-bacterial Air Purifying Filter
- 24-Hour ON/OFF Programmable Timer

AE-X7JR
AE-X9JR
AE-X12JR

Super Deluxe Inverter (Top Class EER/COP) — AY-XP9/12GHR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XP9GHR	2.50 (0.90–3.00)	4.63 A	3.20 (0.90–5.00)	4.57 A
AY-XP12GHR	3.50 (0.90–4.00)	3.89 A	4.20 (0.90–6.00)	4.33 A

- Plasmacluster Ion
- Top Class EER/COP in Cooling and Heating Operation
- Deluxe Silver Panel
- Coanda Airflow System
- Self Cleaning Function with Plasmacluster Ions
- Washable Deodorizing Filter
- 24-Hour ON/OFF Programmable Timer

AE-X9GHR
AE-X12GHR

Deluxe Inverter — AY-XPC7/9/12JR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XPC7JR	2.10 (0.90–2.50)	4.04 A	2.40 (0.90–3.50)	4.85 A
AY-XPC9JR	2.50 (0.90–3.00)	4.00 A	3.20 (0.90–5.00)	4.21 A
AY-XPC12JR	3.50 (0.90–3.80)	3.21 A	4.00 (0.90–5.50)	3.92 A

- Plasmacluster Ion
- Coanda Airflow System
- Can be used singly or in a multi split system
- Self Cleaning Function with Plasmacluster Ions
- Deodorizing Filter
- 24-Hour ON/OFF Programmable Timer

AE-X7JR
AE-X9JR
AE-X12JR

Single Split Type

Wall mounted
Floor standing
Floor/Ceiling
Duct/Cassette

Wall mounted

Deluxe Inverter — AY-XP7/9/12HR

* For the AY-XP7/9HR models only.

AY-XP7/9/12HR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XP7HR	2.10 (0.90–2.50)	4.04 A	2.40 (0.90–3.40)	4.53 A
AY-XP9HR	2.50 (0.90–3.00)	4.00 A	3.20 (0.90–5.00)	4.21 A
AY-XP12HR	3.50 (0.90–4.00)	3.50 A	4.00 (0.90–6.00)	3.92 A

- Plasmacluster Ion
- Powerful Jet
- Coanda Airflow System
- Self Cleaning Function with Plasmacluster Ions
- Anti-bacterial Air Purifying Filter
- 24-Hour ON/OFF Programmable Timer
- 4-way Auto Air Swing

AE-X7HR
AE-X9HR
AE-X12HR

Deluxe Inverter — AY-XP9/12LSR

AY-XP9/12LSR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XP9LSR	2.50 (0.90–3.00)	3.25 A	2.90 (0.90–3.70)	3.72 A
AY-XP12LSR	3.50 (0.90–3.80)	3.24 A	4.00 (0.90–4.70)	3.72 A

- Plasmacluster Ion
- Coanda Airflow System
- Self Cleaning Function with Plasmacluster Ions
- Air Purifying Filter
- 12-Hour ON/OFF Programmable Timer

AE-X9LSR
AE-X12LSR

Deluxe Inverter — AY-XPC18LR/AY-XP24LR

*AY-XPC18LR only

AY-XPC18LR/AY-XP24LR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XPC18LR	5.00	3.25 A	5.70	3.73 A
AY-XP24LR	3.50	3.24 A	7.50	3.72 A

- Plasmacluster Ion
- Coanda Airflow System
- Self Cleaning Function with Plasmacluster Ions
- 24-Hour ON/OFF Programmable Timer
- Winter Cool Function
- Spot Air
- Energy Saving (Eco Program)

AE-X18LR

AE-X24LR

Sales Start May 2010. Product information is tentative.

Deluxe Inverter — AY-XP18/24GR

AY-XP18/24GR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
AY-XP18GR	5.00 (0.90–5.70)	3.01	5.70 (0.90–7.70)	3.61 A
AY-XP24GR	7.00 (1.60–7.70)	2.81	7.50 (1.80–9.50)	3.22

- Plasmacluster Ion
- Coanda Airflow System
- Self Cleaning Function with Plasmacluster Ions
- Air Purifying Filter
- 24-Hour ON/OFF Programmable Timer

AE-X18GR

AE-X24GR

Single Split Type

Wall mounted
Floor standing
Floor/Ceiling
Duct/Cassette

Floor standing

Inverter — GS-XP9/12/18FGR

* For the GS-XP9FGR model only.

GS-XP9/12/18FGR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
GS-XP9FGR	2.50 (0.90–3.00)	4.07 A	3.40 (0.90–5.00)	4.36 A
GS-XP12FGR	3.50 (0.90–4.00)	3.26 A	4.50 (0.90–6.00)	3.66 A
GS-XP18FGR	5.00 (0.90–5.70)	3.01	5.70 (0.90–7.70)	3.61 A

- Plasmacluster Ion
- Washable Deodorizing Filter
- 24-Hour ON/OFF Programmable Timer

GU-X9FGR
GU-X12FGR

AE-X18GR

Floor/Ceiling

Inverter — GS-XP07/09/12FR, GS-XP18/24/27FR

GS-XP07/09/12FR, GS-XP18/24/27FR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW) (Min.- Max.)	EER	Heating Operation Capacity (kW) (Min.- Max.)	COP
GS-XP07FR	2.10 (0.90–2.90)	3.75 A	2.40 (0.90–3.80)	4.71 A
GS-XP09FR	2.64 (0.90–3.40)	3.38 A	3.10 (0.90–4.50)	4.25 A
GS-XP12FR	3.50 (0.90–4.00)	3.21 A	4.00 (0.90–5.80)	3.88 A
GS-XP18FR	5.00 (1.70–6.10)	3.21 A	6.20 (1.70–7.50)	3.65 A
GS-XP24FR	7.00 (2.40–8.00)	3.21 A	8.00 (2.80–9.00)	3.62 A
GS-XP27FR	8.00 (2.40–8.50)	2.61	9.00 (2.80–10.00)	3.42

- Plasmacluster Ion
- 24-Hour ON/OFF Programmable Timer

AE-X7FR
AE-X9FR
AE-X12FR

GU-XR18FR
GU-XR24FR
GU-XR27FR

Deluxe ON/OFF — AY-AP9/12KR, AY-AP18/24KR

AY-AP9/12KR

AY-AP18/24KR

Cool/Dry/Heat

Model	Cooling Operation Capacity (kW)	EER	Heating Operation Capacity (kW)	COP
AY-AP9KR	2.64	3.22 A	2.9	3.63 A
AY-AP12KR	3.50	3.21 A	3.8	3.62 A
AY-AP18KR	5.00	3.01	5.6	3.41
AY-AP24KR	6.50	3.01	7.7	3.41

- Plasmacluster Ion
- Coanda Airflow System
- Turbo Cooling & Heating Operation

AE-A9KR
AE-A12KR

AE-A18KR
AE-A24KR

Simple construction for easy, flexible interior coordination with new compact Duct and Cassette type air conditioner.

Indoor Unit

Duct Type Unit

GB-X18JR
GB-X24JR
GB-X36JR

GB-X18JR

- Compact design for easy installation
- Low noise level
- Drain pump with 1,100 mm lift head (for GB-X24JR and GB-X36JR)
- Wired control
- Wireless remote control
- Energy save setting
- Sleep function

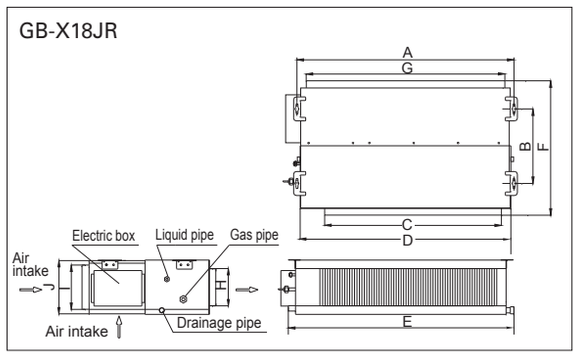
Controllers

Wired controller

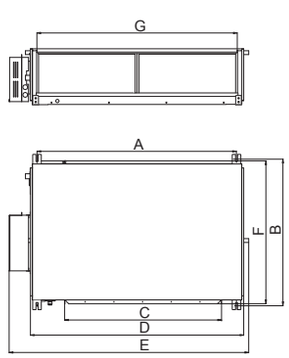
Remote controller

Installation dimensions

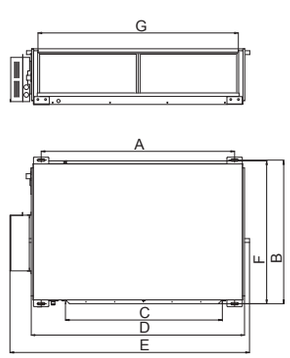
GB-X18JR

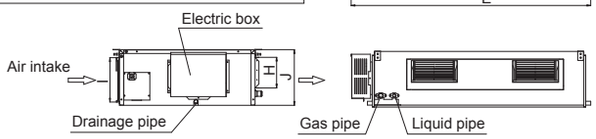


GB-X24JR



GB-X36JR





(Unit: mm)

Item / Model	A	B	C	D	E	F	G	H	I	J	Connecting pipe (liquid pipe)	Connecting pipe (gas pipe)	Drainage pipe (outer diameter × wall thickness)
GB-X18JR	932	430	738	894	1,012	736	738	125	207	266	1/4"	1/2"	ϕ30 × 1.5
GB-X24JR	1,101	515	820	1,159	1,270	504	1,002	160	235	268	3/8"	5/8"	ϕ20 × 1.5
GB-X36JR	1,011	748	820	1,115	1,251	744	980	160	231	290	1/2"	3/4"	ϕ20 × 1.5

Indoor Unit

Cassette Type Unit

GX-X18JR
GX-X24JR
GX-X36JR

GX-X24/36JR

- Compact design for easy installation
- Low noise level
- Wired control
- Wireless remote control
- Energy save setting
- Sleep function
- Automatic swing louvers

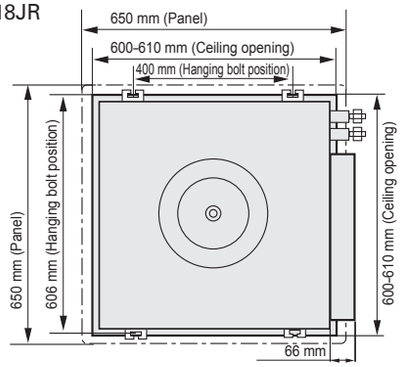
Controllers

Wired controller

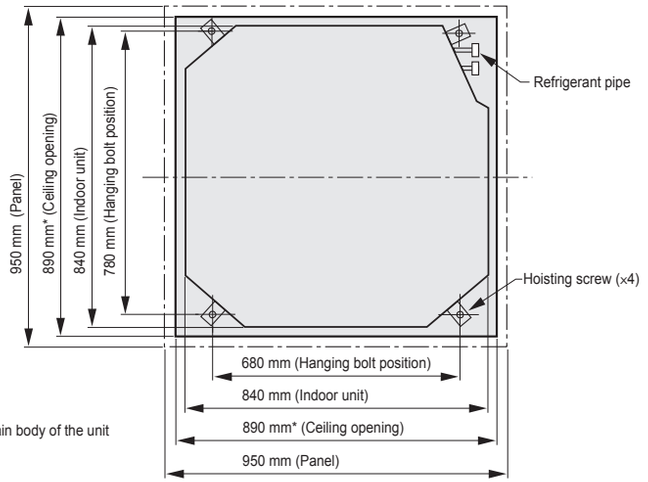
Remote controller

Installation dimensions

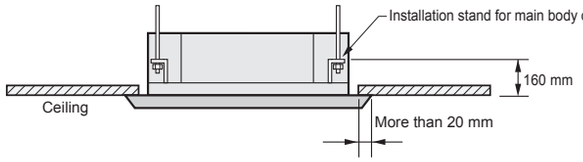
GX-X18JR



GX-X24/36JR



GX-X24/36JR



NOTE:
- The drilling of holes in the ceiling must be done by professional personnel.
- The dimension for the ceiling openings with "*" marks can be as large as 910 mm, but the overlapping sections of the ceiling and the panels should be maintained at no less than 20 mm.

Multi Split Type

Connectable 2 indoor units
Connectable 3 indoor units
Connectable 4 indoor units

A wide variety of choices for indoor units

Sharp's multi-split air conditioning systems allow you to combine up to four indoor units with a single outdoor unit. The indoor units can be wall mounted types, or floor standing types. This wide-ranging choice of indoor units offers you more flexible coordination for each room.

You can combine 10 types of indoor units.

These models can be used singly or in a multi split system.

Indoor unit	Capacity class	(Wall mounted type)				(Floor standing type)
7	2.1 kW	—		AY-XPC7JHR	AY-XPC7JR	—
9	2.6 kW	—		AY-XPC9JHR	AY-XPC9JR	GS-XPM9FGR
12	3.5 kW	—		AY-XPC12JHR	AY-XPC12JR	GS-XPM12FGR
18	5.0 kW	AY-XPM18HR	AY-XPC18LR	—	—	GS-XPM18FGR

2 indoor units with AE-X2M18KR

Inverter

Outdoor unit: System 2

NEW

AE-X2M18KR

Connectable indoor units (2 units)

AY-XPC7JHR
AY-XPC9JHR
AY-XPC12JHR

AY-XPC7JR
AY-XPC9JR
AY-XPC12JR

GS-XPM9FGR
GS-XPM12FGR

* Two indoor units must be connected. * See the capacity table on page 20 for permissible combinations.

AE-X2M18KR Cool/Dry/Heat
Example of indoor unit combinations

Indoor unit	Cooling Operation		Heating Operation	
	Capacity (kW) (Min.-Max.)	EER	Capacity (kW) (Min.-Max.)	COP
12 + 7	5.2 (1.8–6.0)	3.40*1	5.8 (1.9–7.3)	4.00*1
9 + 9	5.2 (1.8–6.0)		5.8 (1.9–7.3)	
9 + 7	4.7 (1.8–5.6)		5.4 (1.9–7.0)	

*1 Representative connection (9 + 9)

For AY-XPC7/9/12JHR

For GS-XPM9/12FGR

For AY-XPC7/9/12JR

3 indoor units with AE-X3M18JR

Inverter

Outdoor unit: System 3

AE-X3M18JR

You can choose any combination of 3 indoor units from those shown on the right. See the capacity table on back page for permissible combinations.

Indoor units (3 units)

AY-XPC7JHR
AY-XPC9JHR
AY-XPC12JHR

AY-XPC7JR
AY-XPC9JR
AY-XPC12JR

GS-XPM9FGR
GS-XPM12FGR

* At least two indoor units must be connected.

AE-X3M18JR Cool/Dry/Heat
Example of indoor unit combinations

Indoor unit	Cooling Operation		Heating Operation	
	Capacity (kW) (Min.-Max.)	EER	Capacity (kW) (Min.-Max.)	COP
12 + 7 + 7	5.2 (2.2–7.2)	3.69*1	6.8 (2.2–8.4)	4.10*1
9 + 9 + 7	5.2 (2.2–7.2)		6.8 (2.2–8.4)	
9 + 7 + 7	5.2 (2.2–7.2)		6.8 (2.2–8.4)	
7 + 7 + 7	5.2 (2.2–7.0)		6.8 (2.2–8.4)	

*1 Representative connection (7 + 7 + 7)

For AY-XPC7/9/12JHR

For GS-XPM9/12FGR

For AY-XPC7/9/12JR

3 indoor units with AE-XM24FR

Inverter

Outdoor unit: System 3

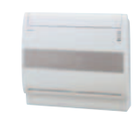
AE-XM24FR

You can choose any combination of 3 indoor units from those shown on the right. See the capacity table on back page for permissible combinations.

Indoor units (3 units)

AY-XPC7JHR
AY-XPC9JHR
AY-XPC12JHR

AY-XPC7JR
AY-XPC9JR
AY-XPC12JR



GS-XPM9FGR
GS-XPM12FGR

* For GS-XPM9FGR/12FGR models, only one unit can be connected to this system. * At least two indoor units must be connected.

AE-XM24FR Cool/Dry/Heat
Example of indoor unit combinations

Indoor unit	Cooling Operation		Heating Operation	
	Capacity (kW) (Min.-Max.)	EER	Capacity (kW) (Min.-Max.)	COP
12 + 7 + 7	7.00 (1.70–7.30)	2.88*2	7.80 (1.70–8.20)	3.15*2
9 + 9 + 7	7.00 (1.70–7.30)		7.80 (1.70–8.20)	
9 + 7 + 7	6.90 (1.70–7.30)		7.80 (1.70–8.20)	
7 + 7 + 7	6.10 (1.70–7.30)		7.10 (1.70–8.20)	

*2 Representative connection (9 + 9 + 7)

For AY-XPC7/9/12JHR

For GS-XPM9/12FGR

For AY-XPC7/9/12JR

Lineup

These models can be used singly or in a multi split system.

Indoor unit	Capacity class	(Wall mounted type)			(Floor standing type)
7	2.1 kW	—	AY-XPC7JHR	AY-XPC7JR	—
9	2.6 kW	—	AY-XPC9JHR	AY-XPC9JR	GS-XPM9FGR
12	3.5 kW	—	AY-XPC12JHR	AY-XPC12JR	GS-XPM12FGR
18	5.0 kW	AY-XPM18HR/AY-XPC18LR	—	—	GS-XPM18FGR

4 indoor units with AE-XM24HR — Inverter

Plasmacluster · INVERTER · HIGH EER · HIGH COP · R410A

Outdoor unit: System 4

AE-XM24HR

You can choose any combination of 4 indoor units from those shown on the right. See the capacity table on back page for permissible combinations.

Indoor units (4 units)

AY-XPC7JHR
AY-XPC9JHR
AY-XPC12JHR

AY-XPC7JR
AY-XPC9JR
AY-XPC12JR

GS-XPM9FGR
GS-XPM12FGR

* At least three indoor units must be connected.

AE-XM24HR Cool/Dry/Heat

Example of indoor unit combinations

Indoor unit	Cooling Operation		Heating Operation	
	Capacity (kW) (Min.-Max.)	EER	Capacity (kW) (Min.-Max.)	COP
12 + 7 + 7 + 7	7.00 (3.00–8.20)	3.21*1	8.00 (3.00–9.20)	4.00*1
9 + 9 + 7 + 7	7.00 (3.00–8.20)		8.00 (3.00–9.20)	
9 + 7 + 7 + 7	7.00 (3.00–8.20)		8.00 (3.00–9.20)	
7 + 7 + 7 + 7	7.00 (3.00–8.20)		8.00 (3.00–9.20)	

***1 Representative connection (7 + 7 + 7 + 7)**

For AY-XPC7/9/12JHR

For GS-XPM9/12FGR

For AY-XPC7/9/12JR

4 indoor units with AE-XM30GR — Inverter

Plasmacluster · INVERTER · HIGH COP · R410A

Outdoor unit: System 4

AE-XM30GR

You can choose any combination of 4 indoor units from those shown on the right. See the capacity table on back page for permissible combinations.

Indoor units (4 units)

AY-XPC7JHR
AY-XPC9JHR
AY-XPC12JHR

AY-XPC7JR
AY-XPC9JR
AY-XPC12JR

AY-XPM18HR

AY-XPC18LR

GS-XPM9FGR
GS-XPM12FGR
GS-XPM18FGR

* When using GS-XPM18FGR or AY-XPM18HR models, only one such 5.0 kW class unit can be used within the system.
* At least three indoor units must be connected.

AE-XM30GR Cool/Dry/Heat

Example of indoor unit combinations

Indoor unit	Cooling Operation		Heating Operation	
	Capacity (kW) (Min.-Max.)	EER	Capacity (kW) (Min.-Max.)	COP
18 + 7 + 7 + 7	8.40 (4.30–9.00)	2.81*2	9.00 (4.40–10.60)	3.75*2
12 + 7 + 7 + 7	8.40 (4.30–9.00)		9.00 (4.40–10.60)	
9 + 9 + 7 + 7	8.40 (4.30–9.00)		9.00 (4.40–10.60)	
9 + 7 + 7 + 7	8.40 (4.30–9.00)		9.00 (4.40–10.60)	
7 + 7 + 7 + 7	8.00 (4.30–9.00)		8.50 (4.40–9.80)	

For AY-XPC7/9/12JHR

For GS-XPM9/12/18FGR

For AY-XPC7/9/12JR, AY-XPM18HR/AY-XPC18LR

***2 Representative connection (9 + 7 + 7 + 7)**

Specifications

Wall mounted

Model	Indoor		AY-XPC7JHR	AY-XPC9JHR	AY-XPC12JHR	AY-XP9GHR	AY-XP12GHR	AY-XPC7JR	AY-XPC9JR	AY-XPC12JR	AY-XP7HR	AY-XP9HR	AY-XP12HR	AY-XP9LSR	AY-XP12LSR	AY-XPC18LR	AY-XP24LR	AY-XP18GR	AY-XP24GR
	Outdoor		AE-X7JR	AE-X9JR	AE-X12JR	AE-X9GHR	AE-X12GHR	AE-X7JR	AE-X9JR	AE-X12JR	AE-X7HR	AE-X9HR	AE-X12HR	AE-X9LSR	AE-X12LSR	AE-X18LR	AE-X24LR	AE-X18GR	AE-X24GR
Capacity *1	Cool (Min. - Max.)	kW	2.10 0.90–2.50	2.50 0.90–3.00	3.50 0.90–3.80	2.50 0.90–3.00	3.50 0.90–4.00	2.10 0.90–2.50	2.50 0.90–3.00	3.50 0.90–3.80	2.10 0.90–2.50	2.50 0.90–3.00	3.50 0.90–4.00	2.50 0.90–3.00	3.50 0.90–3.80	5.00 1.5–7.5	7.00 1.6–8.0	5.00 0.90–5.70	7.00 1.60–7.70
	Heat (Min. - Max.)	kW	2.40 0.90–3.50	3.20 0.90–5.00	4.00 0.90–5.50	3.20 0.90–5.00	4.20 0.90–6.00	2.40 0.90–3.50	3.20 0.90–5.00	4.00 0.90–5.50	2.40 0.90–3.40	3.20 0.90–5.00	4.00 0.90–6.00	2.90 0.90–3.70	4.00 0.90–4.70	5.70 1.5–8.0	7.50 1.8–9.5	5.70 0.90–7.70	7.50 1.80–9.50
Power supply		V-ph-Hz	220-240-1ø-50			220-240-1ø-50		220-240-1ø-50			220-240-1ø-50			220-240-1Ø-50		220-240-1Ø-50		220-240-1Ø-50	
Running current *1	Cool	A	2.7	3.1	4.9	2.8	4.3	2.7	3.1	4.9	2.7	3.2	5.0	4.0	5.4	•	•	7.4	11.0
	Heat	A	2.6	3.7	4.6	3.4	4.5	2.6	3.7	4.6	2.8	4.0	5.1	4.0	5.4	•	•	7.0	10.3
Power input *1	Cool (Min. - Max.)	W	520 200–720	625 200–900	1,090 200–1,300	540 150–750	900 150–1,300	520 200–720	625 200–900	1,090 200–1,300	520 200–700	625 200–900	1,000 200–1,350	700 240–1,100	1,080 240–1,250	1,540 •	2,160 •	1,660 330–2,190	2,490 500–2,900
	Heat (Min. - Max.)	W	495 180–890	760 180–1,450	1,020 180–1,620	700 130–1,300	970 130–1,700	495 180–890	760 180–1,450	1,020 180–1,620	530 200–920	760 200–1,450	1,020 220–1,750	780 220–1,200	1,075 220–1,470	1,530 •	2,015 •	1,580 330–2,400	2,330 500–3,170
EER *1	Cool		4.04	4.00	3.21	4.63	3.89	4.04	4.00	3.21	4.04	4.00	3.50	3.25	3.24	3.25	3.24	3.01	2.81
COP *1	Heat		4.85	4.21	3.92	4.57	4.33	4.85	4.21	3.92	4.53	4.21	3.92	3.72	3.72	3.72	3.72	3.61	3.22
Energy efficiency class *1	Cool		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	C
	Annual Energy Consumption	kWh	260	313	545	270	450	260	313	545	260	313	500	385	540	770	1,080	830	1,245
	Heat		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	C
Sound pressure level (Cool) *2	Indoor (Hi/Lo)	dB(A)	36/26	37/26	40/27	42/26	43/27	36/26	37/26	40/27	35/24	37/24	38/26	37	40	43/33	47/35	43/33	47/36
	Outdoor	dB(A)	45	45	48	46	49	45	45	48	45	45	46	45	48	51	55	49	55
Sound power level (Cool)	Indoor (Hi)	dB(A)	51	52	56	56	57	51	52	56	51	52	54	51	54	•	•	57	62
	Outdoor	dB(A)	58	58	61	59	62	58	58	61	59	59	60	60	62	•	•	65	69
Airflow volume	Indoor (Hi, Cool)	m³/min.	8.0	8.4	9.7	10.3	10.7	8.9	9.1	10.5	8.6	9.1	10.9	9.1	11.2	•	•	15.4	18.3
Dimensions	Indoor W	mm	798	798	798	790	790	790	790	790	860	860	860	860	860	1,040	1,040	1,040	1,040
	Indoor H	mm	260	260	260	278	278	278	278	278	292	292	292	292	292	325	325	325	325
	Indoor D	mm	290	290	290	198	198	198	198	198	198	198	198	205	205	222	222	229	229
	Outdoor W	mm	730	730	730	780	780	730	730	730	730	730	730	730	730	850	850	780	890
	Outdoor H	mm	540	540	540	540	540	540	540	540	540	540	540	540	540	710	710	540	800
	Outdoor D	mm	250	250	250	265	265	250	250	250	250	250	250	250	250	330	330	265	320
Net weight	Indoor	kg	11	11	11	10	10	10	10	10	8.5	8.5	9	8.5	9.0	12	13	16	16
	Outdoor	kg	31	33	33	37	37	31	33	33	33	34	34	29	32	49	53	37	61
Pipe diameter	Liquid side	inch	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3/8
	Gas side	inch	3/8	3/8	3/8	3/8	1/2	3/8	3/8	3/8	3/8	3/8	1/2	3/8	1/2	1/2	5/8	1/2	5/8
Min-Max pipe length		m	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-15	1-20	1-20	1-20	1-30
Maximum chargeless length		m	10	10	10	10	10	10	10	10	10	10	10	7.5	7.5	10	10	20	20
Maximum height difference		m	7	7	7	7	7	7	7	7	7	7	7	7	7	10	10	10	10
Refrigerant			R410A			R410A		R410A			R410A			R410A		R410A		R410A	
Operating Range (Outdoor)	Cool	°C	-10–46			-10–46		-10–46			-10–46			-21–43		-10–46	-10–46	-10–46	21–46
	Heat	°C	-15–24			-15–24		-15–24			-15–24			-7–24		-15–24		-15–24	

Floor standing / Floor/Ceiling

Model	Indoor		AY-AP9KR	AY-AP12KR	AY-AP18KR	AY-AP24KR	GS-XP9FGR	GS-XP12FGR	GS-XP18FGR	GS-XP07FR	GS-XP09FR	GS-XP12FR	GS-XP18FR	GS-XP24FR	GS-XP27FR
	Outdoor		AE-A9KR	AE-A12KR	AE-A18KR	AE-A24KR	GU-X9FGR	GU-X12FGR	AE-X18GR	AE-X7FR	AE-X9FR	AE-X12FR	GU-XR18FR	GU-XR24FR	GU-XR27FR
Capacity *1	Cool (Min. - Max.)	kW	2.64	3.50	5.00	6.50	2.50 0.90–3.00	3.50 0.90–4.00	5.00 0.90–5.70	2.10 0.90–2.90	2.64 0.90–3.40	3.50 0.90–4.00	5.00 1.70–6.10	7.00 2.40–8.00	8.00 2.40–8.50
	Heat (Min. - Max.)	kW	2.90	3.80	5.60	7.70	3.40 0.90–5.00	4.50 0.90–6.00	5.70 0.90–7.70	2.40 0.90–3.80	3.10 0.90–4.50	4.00 0.90–5.80	6.20 1.70–7.50	8.00 2.80–9.00	9.00 2.80–10.00
Power supply		V-ph-Hz	220-240-1Ø-50		220-240-1Ø-50		220-240-1ø-50			220-240-1Ø-50			220-240-1Ø-50		
Running current *1	Cool	A	3.7	4.9	7.6	10.0	2.9	5.0	7.4	2.7	3.6	5.0	7.2	10.0	14.0
	Heat	A	3.6	4.7	7.5	10.5	3.6	5.7	7.0	2.4	3.5	4.7	7.8	10.1	12.1
Power input *1	Cool (Min. - Max.)	W	820	1,090	1,660	2,160	615 200–890	1,075 230–1,320	1,660 260–2,190	560 230–760	780 230–960	1,090 230–1,300	1,560 370–2,650	2,180 630–3,120	3,065 630–3,750
	Heat (Min. - Max.)	W	800	1,050	1,640	2,260	780 200–1,400	1,230 230–1,730	1,580 260–2,400	510 250–860	730 250–1,120	1,030 250–1,560	1,700 370–2,200	2,210 730–2,800	2,630 730–3,400
EER *1	Cool		3.22	3.21	3.01	3.01	4.07	3.26	3.01	3.75	3.38	3.21	3.21	3.21	2.61
COP *1	Heat		3.63	3.62	3.41	3.41	4.36	3.66	3.61	4.71	4.25	3.88	3.65	3.62	3.42
Energy efficiency class *1	Cool		A	A	B	B	A	A	B	A	A	A	A	A	D
	Annual Energy Consumption	kWh	410	545	830	1,080	308	538	830	280	390	545	780	1,090	1,530
	Heat		A	A	B	B	A	A	A	A	A	A	A	A	B
Sound pressure level (Cool) *2	Indoor (Hi/Lo)	dB(A)	38/28	40/29	41/34	45/37	37/22	38/23	44/33	37/28	39/28	41/29	43/34	46/34	47/34
	Outdoor	dB(A)	45	48	52	54	45	46	49	45	45	48	54	55	56
Sound power level (Cool)	Indoor (Hi)	dB	54	55	57	61	53	53	60	51	52	54	57	60	61
	Outdoor	dB	59	62	68	69	61	62	65	58	59	60	67	69	69
Airflow volume	Indoor (Hi, Cool)	m³/min.	9.1	10.6	15.0	16.4	9.9	10.5	14.2	11.0	11.0	12.0	17.0	19.0	20.0
Dimensions	Indoor W	mm	860	860	1,040	1,040	750	750	750	1,025	1,025	1,025	1,300	1,300	1,300
	Indoor H	mm	292	292	325	325	670	670	670	680	680	680	680	680	680
	Indoor D	mm	198	198	222	222	235	235	235	212	212	212	212	212	212
	Outdoor W	mm	730	730	890	890	730	730	780	730	730	730	890	890	890
	Outdoor H	mm	540	540	645	645	540	540	540	540	540	540	800	800	800
	Outdoor D	mm	250	250	327	327	250	250	265	250	250	250	320	320	320
Net weight	Indoor	kg	8.5	9	14	14	17	17	17	31	31	31	34	36	36
	Outdoor	kg	27	29	43	53	33	33	37	33	33	37	57	65	65
Pipe diameter	Liquid side	inch	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3/8	3/8
	Gas side	inch	3/8	1/2	1/2	1/2	3/8	3/8	1/2	3/8	3/8	3/8	1/2	5/8	5/8
Min-Max pipe length		m	1-10	1-15	1-15	1-15	1-20	1-20	1-30	1-15	1-15	1-15	1-30	1-30	1-30
Maximum chargeless length		m	7.5	7.5	7.5	7.5	15	15	30	10	10	10	30	30	30
Maximum height difference		m	5	7	10	10	7	7	10	7	7	7	20	20	20
Refrigerant			R410A		R410A		R410A			R410A			R410A		
Operating Range (Outdoor)	Cool	°C	21–46		21–46		-10–46			-10–46			-10–46		
	Heat	°C	-7–24		-7–24		-15–24			-15–24			-15–24		

Technical data AY-XPC18LR/AY-XP24LR are tentative and not complete. Sales start May 2010.

Outdoor units

System			2-indoor operation	3-indoor operation	3-indoor operation	4-indoor operation	4-indoor operation
Model	Outdoor		AE-X2M18KR	AE-X3M18JR	AE-XM24FR	AE-XM24HR	AE-XM30GR
	Indoor unit combination *4		9 + 9	7+ 7 + 7	9 + 9 + 7	7 + 7 + 7 + 7	9+ 7 + 7 + 7
Capacity *1	Cool (Min. - Max.)	kW	5.20 1.80–6.00	5.20 2.20–7.00	7.00 1.70–7.30	7.00 3.00–8.20	8.40 4.30–9.00
	Heat (Min. - Max.)	kW	5.80 1.90–7.30	6.80 2.20–8.40	7.80 1.70–8.20	8.00 3.00–9.20	9.00 4.40–10.60
Power supply		V-ph-Hz	230-1Ø-50	230-1Ø-50	230-1Ø-50	230-1Ø-50	230-1Ø-50
Running current *1	Cool	A	7 (1.6–9.4)	6.5 (2.2–11.3)	10.7 (3.1–12.2)	10.0 (2.7–13.6)	13.7 (4.9–16.0)
	Heat	A	6.7 (1.7–9.6)	7.6 (1.9–11.4)	10.9 (3.0–11.9)	9.2 (2.6–11.7)	11.0 (4.3–14.0)
Power input *1	Cool (Min. - Max.)	W	1,530 350–2,050	1,410 430–2,460	2,430 700–2,775	2,180 600–2,980	2,990 1,070–3,490
	Heat (Min. - Max.)	W	1,450 370–2,100	1,660 420–2,480	2,475 685–2,710	2,000 560–2,560	2,400 940–3,060
EER *1	Cool		3.40	3.69	2.88	3.21	2.81
COP *1	Heat		4.00	4.10	3.15	4.00	3.75
Energy efficiency class *1	Cool		A	A	C	A	C
	Annual Energy Consumption	kWh	765	705	1,215	1,090	1,495
	Heat		A	A	D	A	A
Sound pressure level*2 (Cool) (Outdoor)		dB (A)	46	46	56	49	57
Sound power level	(Cool) (Outdoor)	dB	62	62	71	65	68
Dimensions (Outdoor)	W	mm	890	890	890	890	890
	H		645	645	645	800	800
	D		290	290	290	320	320
Net weight (Outdoor)		kg	55	53	56	64	70
Pipe diameter	Liquid side	inch	1/4 × 2	1/4 × 3	1/4 × 3	1/4 × 4	1/4 × 4
	Gas side	inch	3/8 × 2	3/8 × 3	3/8 × 3	3/8 × 4	3/8 × 3, 3/8 or 1/2 × 1
Min-Max pipe length (per indoor unit)		m	1–25	1–25	1–20	1–20	1–20
Maximum length (total)		m	40	50	40	50	50
Maximum chargeless length (total)		m	25	40	40	40	50
Maximum height difference		m	10	10	10	10	10
Drain joint		mm	O.D. Ø 18	O.D. Ø 18	O.D. Ø 18	O.D. Ø 18	O.D. Ø 18
Refrigerant			R410A	R410A	R410A	R410A	R410A
Operating Range (Outdoor)	Cool	°C	-10–43	21–43	21–43	21–43	21–43
	Heat	°C	-15–24	-15–24	-15–24	-15–24	-15–24

Indoor units

Model			AY-XPC7/9/12JHR	AY-XPC7/9/12JR	AY-XPM18HR	AY-XPC18LR	GS-XPM9/12/18FGR
Sound pressure level *2 (Cool)	(Hi/Lo)	dB (A)	7JHR: 36/26, 9JHR: 37/26, 12JHR: 40/27	7JR: 36/26, 9JR: 37/26, 12JR: 40/27	43/33	•	9FGR:38/25, 12FGR:40/26, 18FGR:44/35
Sound power level (Cool)	(Hi)	dB	7JHR: 51, 9JHR: 52, 12JHR: 56	7JR: 51, 9JR: 52, 12JR: 56	57	•	9FGR:53, 12FGR:54, 18FGR:60
Airflow volume (Cool)	(Hi)	m³/min.	7JHR: 8.0, 9JHR: 8.4, 12JHR: 9.7	7JR: 8.9, 9JR: 9.1, 12JR: 10.5	15.4	•	9FGR: 9.3, 12FGR: 10.6 18FGR: 14.2
Dimensions	W	mm	798	790	1,040	1,040	750
	H		260	278	325	325	670
	D		290	198	229	222	235
Net weight		kg	11	10	16	13	17

*1 Rating Conditions, Standard: EN 14511; 230 V, 50 Hz (Except portable air conditioners)
Inside Air Temperature:
27˚C D.B. 19˚C W.B. (Cooling)
20˚C D.B. (Heating)
Outside Air Temperature:
35˚C D.B. 24˚C W.B. (Cooling)
7˚C D.B. 6˚C W.B. (Heating)

* Heating capacity is lowered with a decrease in outdoor temperature.
* Maximum data are measured under the test conditions listed right according to EN60335-2-40

*2 Sound pressure level is measured according to JIS C 9612.
*3 For portable air conditioners, operating range is based on indoor temperature.
*4 7: AY-XPC7JHR, AY-XPC7JR
9: AY-XPC9JHR, AY-XPC9JR, GS-XPM9FGR

Outdoor Unit

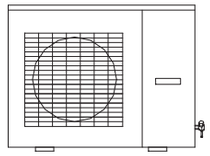
- DC Inverter technology
- Common outdoor unit to be used for both duct and cassette application

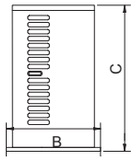

GU-X18JR

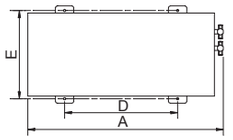

GU-X24JR


GU-X36JR

Installation dimensions

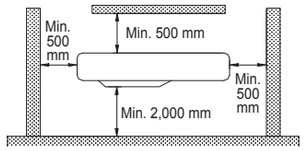


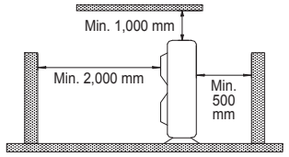




(Unit: mm)

Model \ Item	A	B	C	D	E
GU-X18JR	848	320	540	548	286
GU-X24JR	913	378	680	548	340
GU-X36JR	1,032	412	1,250	572	378





Specifications

Type				Duct	Cassette	Duct	Cassette	Duct	Cassette
Model Name	Indoor Unit			GB-X18JR	GX-X18JR	GB-X24JR	GX-X24JR	GB-X36JR	GX-X36JR
	Panel for Cassette Unit			-	AZ-X18J	-	AZ-X24J	-	AZ-X24J
	Outdoor Unit			GU-X18JR		GU-X24JR		GU-X36JR	
System	Capacity *1	Cooling	KW	5.0 (1.54–5.0)	5.0 (1.16–5.0)	7.0 (1.55–7.0)	7.0 (1.73–7.0)	10.0 (3.48–10.0)	10.0 (4.48–10.0)
		Heating	KW	5.8 (1.24–5.8)	5.8 (1.02–5.8)	8.0 (1.22–8.0)	8.0 (1.24–8.0)	12.0 (3.62–12.0)	12.0 (3.50–12.0)
	Power Supply		V-Ph-Hz	220–240 V - Single - 50 Hz		220–240 V - Single - 50 Hz		220–240 V - Single - 50 Hz	
	Power Input *1	Cooling	KW	1.57 (0.45–1.57)	1.71 (0.50–1.71)	2.41 (0.74–2.41)	2.49 (0.75–2.49)	3.50 (1.68–3.5)	3.50 (1.68–3.5)
		Heating	KW	1.53 (0.46–1.53)	1.93 (0.51–1.93)	2.28 (0.70–2.28)	2.31 (0.70–2.31)	3.80 (1.60–3.8)	3.80 (1.60–3.8)
	Rated Input (Max.)*1 *2	Cooling	W	2,200		3,200		4,600	
		Heating	W	2,600		3,500		5,700	
	Running Current *1	Cooling	A	8.3	8.9	13.2	13.6	17.5	
		Heating	A	7.9	10.0	12.2	11.2	19.1	
	EER/COP *1	Cooling		B - 3.18	C - 2.92	C - 2.90	C - 2.81	C - 2.86	C - 2.86
		Heating		A - 3.79	D - 3.01	B - 3.51	B - 3.46	D - 3.16	D - 3.16
	Refrigerant Type			R-410A		R-410A		R-410A	
	Refrigerant Volume		kg	1.5		1.8		4.0	
Indoor Unit	Airflow Volume		m³/h	840	680	1,400	1,180	2,000	1,600
	Dehumidification		L/H	1.2	1.2	1.5	1.5	2.5	2.5
	External Static Pressure		Pa	60–40	-	80–60	-	150–100	-
	Sound Pressure Level (Hi/Lo)		dB(a)	42/38	47/42	44/40	47/42	48/44	53/50
	Dimensions	W x H x D	mm	1,012 x 266 x 736	600 x 230 x 600	1,270 x 268 x 504	840 x 260 x 840	1,251 x 290 x 744	840 x 320 x 840
	Package Size	W x H x D	mm	1,120 x 308 x 795	848 x 310 x 678	1,345 x 278 x 594	960 x 310 x 960	1,335 x 300 x 834	960 x 394 x 960
	Net Weight		kg	36	20	37	30	57	38
Panel	Dimensions	W x H x D	mm	-	650 x 50 x 650	-	950 x 60 x 950	-	950 x 60 x 950
	Package Size	W x H x D	mm	-	730 x 102 x 670	-	1,025 x 115 x 1,040	-	1,025 x 115 x 1,040
Outdoor Unit	Sound Pressure Level		dB(a)	56		59		62	
	Dimensions	W x H x D	mm	848 x 540 x 320		913 x 680 x 378		1,032 x 1,250 x 412	
	Package Size	W x H x D	mm	878 x 590 x 360		994 x 750 x 428		1,110 x 1,385 x 450	
	Net Weight		kg	36		51		128	
Piping	Liquid Pipe		inch	1/4"		3/8"		1/2"	
	Gas Pipe		inch	1/2"		5/8"		3/4"	
	Min./Max. Length		m	5/20		5/30		5/50	
	Max. Chargeless Length		m	5		5		5	
	Max. Height Difference		m	15		15		30	
Outdoor Operating Temperature		Cooling	∞C	+21 to +43	+21 to +43	+21 to +43	+21 to +43	+21 to +43	+21 to +43
		Heating	∞C	-7 to +24	-7 to +24	-7 to +24	-7 to +24	-7 to +24	-7 to +24

*1 Data collected at 230 V, 50 Hz. *2 The maximum power input per IEC Standards.

Model lineup/Functions

	Single Type							Single Type				Multi Type			
	Inverter									ON/OFF		Inverter			
	Wall mounted							Floor standing	Floor/Ceiling	Wall mounted		Wall mounted			Floor standing
	Super Deluxe	Super Deluxe	Deluxe	Deluxe	Deluxe	Deluxe	Deluxe			Deluxe	Deluxe	Super Deluxe	Deluxe	Deluxe	
Capacity class	Single Multi		Single Multi									Single Multi	Single Multi	Single Multi	
2.1 kW	AY-XPC7JHR		AY-XPC7JR	AY-XP7HR					GS-XP07FR			AY-XPC7JHR	AY-XPC7JR		
2.6 kW	AY-XPC9JHR	AY-XP9GHR	AY-XPC9JR	AY-XP9HR	AY-XP9LSR			GS-XP9FGR	GS-XP09FR	AY-AP9KR		AY-XPC9JHR	AY-XPC9JR		GS-XPM9FGR
3.5 kW	AY-XPC12JHR	AY-XP12GHR	AY-XPC12JR	AY-XP12HR	AY-XP12LSR			GS-XP12FGR	GS-XP12FR	AY-AP12KR		AY-XPC12JHR	AY-XPC12JR		GS-XPM12FGR
5.0 kW						AY-XP18GR	AY-XPC18LR	GS-XP18FGR	GS-XP18FR		AY-AP18KR			AY-XPM18HR/ AY-XPC18LR	GS-XPM18FGR
7.0 kW						AY-XP24GR	AY-XP24LR		GS-XP24FR		AY-AP24KR				
8.0 kW									GS-XP27FR						
page	8	8	8	9	9	9	9	10	10	10	10	13-15			
Powerful Jet				●											
FULL POWER	●	●	●		●	●	●	●	●			●	●	●	●
Turbo Turbo Cooling & Heating Operation										●	●				
18°C Lower Room Temperature Setting (from 18°C)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Computerized Dry Mode Operation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Auto Operation Mode	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Auto & 3-Step Fan Speed Settings	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Auto Restart Function	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cool Heat Auto Changeover				●		●		●	●						
Cool Winter Cool Function	●	●	●	●		● *AY-XP18GR only	●	●	●			● only with AE-X2M18KR	● only with AE-X2M18KR		● only with AE-X2M18KR
Ultra-wide Airflow	●											●			
LONG Long Coanda Airflow System	●											●			
Coanda Airflow System		●	●	●	●	●	●			●	●		●	●	
4-WAY 4-way Auto Air Swing				●			●							● only with AY-XPC18LR	
AUTO SWING Auto Swing Louver	●	●	●		●	●		●	●	●	●	●	●	● only with AY-XPM18HR	●
Dual (Upper & Lower) Airflow System								●							●
Microcomputer Control	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
LCD Wireless Remote Control	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
24h 12h Timer Programmable 24-Hour ON/OFF or 12-Hour ON/OFF	● 24 H	● 24 H	● 24 H	● 24 H	● 12 H	● 24 H	● 24 H	● 24 H	● 24 H	● 12 H	● 12 H	● 24 H	● 24 H	● 24 H	● 24 H
1h OFF 1-Hour OFF Timer	●	●	●	●	●	●	● (1/2/3/5 hr)	●	●	●	●	●	●	● / ● (1/2/3/5 hr)	●
"Awakening" Function	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
"Auto Sleep" Function	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Plasmacluster Ion	● Twin	●	●	●	●	●	●	●	●	●	●	● Twin	●	●	●
Anti-Mold, Detachable & Washable Air Filter	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air Purifying Filter	Anti-bacterial Air Purifying Filter	Washable Deodorizing Filter	Deodorizing Filter	Anti-bacterial Air Purifying Filter		Air Purifying Filter	Air Purifying Filter	Washable Deodorizing Filter				Anti-bacterial Air Purifying Filter	Deodorizing Filter	Air Purifying Filter	Washable Deodorizing Filter
Quiet Operation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Self Cleaning Function	●	●	●	●	●	●	●					●	●	●	
Dual Drain Setting	●	●	●	●	●		●	●	●	●		●	●		●

Specifications AY-XPC18LR/AY-XP24LR are tentative and might change. Sales start May 2010.

* Specifications are subject to change without prior notice due to product development.

Feature Descriptions

Operation

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

Powerful Jet
In this operation, the air conditioner works at the maximum power and optimum louver direction to rapidly cool or heat the room.

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

Turbo Operation
In this operation, the air conditioner fan works at “Extra-high” fan speed with a setting temperature of 15∞C in COOL & DRY and 32∞C in HEAT mode to rapidly cool or heat the room.

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.

Auto Changeover
During AUTO MODE operation, the mode will automatically switch between HEAT and COOL mode to maintain a comfortable room temperature.

Winter Cool Function
Cooling operation is available during winter season down to -10∞C outside temperature.

Air Quality

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.

Air Purifying Filter

Deodorizing Filter

Washable Deodorizing Filter

Anti-bacterial Air Purifying Filter

Anti-Mold, Detachable & Washable Air Filter

Airflow

Ultra-wide Airflow
This function provides much wider airflows to deliver Plasmacluster ions and cold or warm air to every corner of the room.

Long Coanda Airflow System
This function provides much longer airflows to deliver Plasmacluster ions and cold or warm air farther from the unit.

Coanda Airflow System
This function provides warm air traveling down the wall to the floor during heating operation and cold air traveling up the ceiling during cooling operation in order to avoid direct air flow.

4-way Auto Air Swing
Automatic Vertical & Horizontal Air Flow is available in order to make the room uniformly cool or warm.

Auto Swing Louver
Automatic Vertical Air Flow is available in order to make the room uniformly cool or warm.

Dual (Upper & Lower) Airflow System
Dual (Upper & Lower) Airflow System is for maintaining a comfortable room; the air outlet is selected automatically according to room conditions, such as cold or hot.

Control Convenience

Microcomputer Control

LCD Wireless Remote Control

24-Hour ON/OFF Programmable Timer
The start or stop operation (hour and minute) can be set at 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.

“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.

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.

Single/Multi Unit
Units with this feature can be used singly or in a multi split system.

Capacity Table

Performance of Multi Inverter Type Capacity Table

*When the Multi inverter type is used to operate two or more indoor units simultaneously, the capacity of each indoor unit may be lower than that when operating only one indoor unit. Be sure to refer to the capacity table to select the appropriate models.

Indoor units

7: AY-XPC7JHR, AY-XPC7JR
9: AY-XPC9JHR, AY-XPC9JR, GS-XPM9FGR
12: AY-XPC12JHR, AY-XPC12JR, GS-XPM12FGR
18: AY-XPM18HR, GS-XPM18FGR, AY-XPC18LR

2-indoor units with AE-X2M18KR

Operating status	Indoor unit combination		Cooling capacity (kW)			Heating capacity (kW)			Power consumption (W) Rating (Min.–Max)	
	A	B	A	B	Rating (Min.–Max.)	A	B	Rating (Min.–Max.)	Cool	Heat
2-indoor unit operation	12	12	2.6	2.6	5.2 (1.8–6.0)	2.9	2.9	5.8 (1.9–7.3)	1,530 (350–2,050)	1,450 (370–2,100)
	12	9	3.0	2.2	5.2 (1.8–6.0)	3.3	2.5	5.8 (1.9–7.3)	1,530 (350–2,050)	1,450 (370–2,100)
	12	7	3.3	1.9	5.2 (1.8–6.0)	3.7	2.1	5.8 (1.9–7.3)	1,530 (350–2,050)	1,450 (370–2,100)
	9	9	2.6	2.6	5.2 (1.8–6.0)	2.9	2.9	5.8 (1.9–7.3)	1,530 (350–2,050)	1,450 (370–2,100)
	9	7	2.6	2.1	4.7 (1.8–5.6)	3.0	2.4	5.4 (1.9–7.0)	1,340 (350–1,830)	1,310 (370–2,030)
	7	7	2.1	2.1	4.2 (1.8–5.2)	2.5	2.5	5.0 (1.9–6.3)	1,120 (350–1,540)	1,170 (370–1,700)
1-indoor unit operation	12	*	3.4	*	3.4 (1.4–4.0)	4.0	*	4.0 (1.2–5.2)	950 (320–1,350)	1,240 (320–1,900)
	9	*	2.6	*	2.6 (1.4–3.3)	3.0	*	3.0 (1.2–4.2)	680 (320–950)	830 (330–1,440)
	7	*	2.0	*	2.0 (1.4–2.7)	2.4	*	2.4 (1.2–3.3)	510 (320–700)	680 (320–1,050)

*When connected indoor unit is not in operation.

3-indoor units with AE-X3M18JR

Operating status	Indoor unit combination			Cooling capacity (kW)				Heating capacity (kW)				Power consumption (W) Rating (Min.–Max.)	
	A	B	C	A	B	C	Rating (Min.–Max.)	A	B	C	Rating (Min.–Max.)	Cool	Heat
3-indoor unit operation	12	9	7	2.2	1.7	1.3	5.2 (2.2–7.2)	2.9	2.2	1.7	6.8 (2.2–8.4)	1,410 (430–2,560)	1,660 (420–2,480)
	12	7	7	2.4	1.4	1.4	5.2 (2.2–7.2)	3.1	1.8	1.8	6.8 (2.2–8.4)	1,410 (430–2,560)	1,660 (420–2,480)
	9	9	9	1.7	1.7	1.7	5.2 (2.2–7.2)	2.3	2.3	2.3	6.8 (2.2–8.4)	1,410 (430–2,560)	1,660 (420–2,480)
	9	9	7	1.9	1.9	1.5	5.2 (2.2–7.2)	2.4	2.4	1.9	6.8 (2.2–8.4)	1,410 (430–2,560)	1,660 (420–2,480)
	9	7	7	2.0	1.6	1.6	5.2 (2.2–7.2)	2.7	2.1	2.1	6.8 (2.2–8.4)	1,410 (430–2,560)	1,660 (420–2,480)
	7	7	7	1.7	1.7	1.7	5.2 (2.2–7.0)	2.3	2.3	2.3	6.8 (2.2–8.4)	1,410 (430–2,460)	1,660 (420–2,480)
2-indoor unit operation	12	9	*	2.9	2.1	*	5.0 (1.9–6.5)	3.8	2.9	*	6.7 (1.6–8.0)	1,400 (350–2,400)	1,970 (380–2,670)
	12	7	*	3.2	1.8	*	5.0 (1.9–6.4)	4.2	2.4	*	6.6 (1.6–8.0)	1,400 (350–2,380)	1,970 (380–2,670)
	9	9	*	2.5	2.5	*	4.9 (1.9–6.2)	3.1	3.1	*	6.2 (1.6–8.0)	1,380 (350–2,200)	1,800 (380–2,670)
	9	7	*	2.5	2.0	*	4.5 (1.9–5.7)	3.2	2.5	*	5.6 (1.6–7.3)	1,190 (350–1,870)	1,550 (380–2,310)
	7	7	*	2.0	2.0	*	4.0 (1.9–5.2)	2.5	2.5	*	5.0 (1.6–6.4)	1,000 (350–1,550)	1,320 (380–1,910)
1-indoor unit operation	12	*	*	3.4	*	*	3.4 (1.4–4.0)	4.0	*	*	4.0 (1.1–5.2)	950 (320–1,350)	1,400 (330–2,150)
	9	*	*	2.6	*	*	2.6 (1.4–3.3)	3.0	*	*	3.0 (1.1–4.2)	680 (320–950)	970 (330–1,570)
	7	*	*	2.0	*	*	2.0 (1.4–2.7)	2.4	*	*	2.4 (1.1–3.3)	520 (320–710)	720 (330–1,130)

*Connected but not operated

3-indoor units with AE-XM24FR

Operating status	Indoor unit combination			Cooling capacity (kW)				Heating capacity (kW)				Power consumption (W) Rating (Min.–Max.)	
	A	B	C	A	B	C	Rating (Min.–Max.)	A	B	C	Rating (Min.–Max.)	Cool	Heat
3-indoor unit operation	12	12	9	2.55	2.55	1.91	7.00 (1.70–7.30)	2.84	2.84	2.13	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	12	12	7	2.71	2.71	1.58	7.00 (1.70–7.30)	3.02	3.02	1.76	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	12	9	9	2.80	2.10	2.10	7.00 (1.70–7.30)	3.09	2.36	2.36	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	12	9	7	2.98	2.28	1.75	7.00 (1.70–7.30)	3.30	2.50	2.10	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	12	7	7	3.20	1.90	1.90	7.00 (1.70–7.30)	3.40	2.20	2.20	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	9	9	9	2.33	2.33	2.33	7.00 (1.70–7.30)	2.60	2.60	2.60	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	9	9	7	2.53	2.53	1.94	7.00 (1.70–7.30)	2.76	2.76	2.28	7.80 (1.70–8.20)	2,430 (700–2,775)	2,475 (685–2,710)
	9	7	7	2.70	2.10	2.10	6.90 (1.70–7.30)	3.00	2.40	2.40	7.80 (1.70–8.20)	2,400 (700–2,775)	2,475 (685–2,710)
	7	7	7	2.03	2.03	2.03	6.10 (1.70–7.30)	2.36	2.36	2.36	7.10 (1.70–8.20)	1,920 (700–2,775)	2,050 (685–2,710)
2-indoor unit operation	12	9	*	3.40	2.60	*	6.00 (1.40–7.10)	3.80	2.90	*	6.50 (1.40–8.10)	2,065 (590–2,635)	2,010 (580–2,890)
	12	7	*	3.40	2.00	*	5.40 (1.40–7.10)	3.70	2.30	*	6.00 (1.40–7.80)	1,670 (590–2,635)	1,760 (580–2,700)
	9	9	*	2.60	2.60	*	5.20 (1.40–5.60)	2.90	2.90	*	5.80 (1.40–7.20)	1,570 (590–1,800)	1,665 (580–2,580)
	9	7	*	2.60	2.00	*	4.60 (1.40–5.50)	2.90	2.40	*	5.30 (1.40–7.20)	1,340 (590–1,670)	1,440 (580–2,580)
	7	7	*	2.00	2.00	*	4.00 (1.40–5.20)	2.40	2.40	*	4.80 (1.40–6.40)	1,180 (590–1,545)	1,150 (580–1,910)
1-indoor unit operation	12	*	*	3.40	*	*	3.40 (1.10–4.00)	3.80	*	*	3.80 (1.10–5.20)	1,045 (500–1,480)	1,355 (515–2,305)
	9	*	*	2.60	*	*	2.60 (1.10–3.30)	2.90	*	*	2.90 (1.10–4.00)	770 (470–1,095)	1,070 (520–1,735)
	7	*	*	2.00	*	*	2.00 (1.10–2.70)	2.40	*	*	2.40 (1.10–3.40)	675 (440–895)	910 (540–1,385)

*Connected but not operated