

CHU/CU Series

SHARP
Wall Mounted Heat Pump Systems
Simply Better Living

Powerful Cooling & Heating
For Year-Round Comfort



- Energy Star Cold Climate Certified
- Available in Single & Multi Zone Variant
- Equipped with Motion Sensor (CHU Variant)
- 50ft long "Coanda Airflow"
- Spot Air Function (CHU Variant)
- Multi Space Function
- Safe "Hot Gas Pipe" de-icing system

Cooling & Heating
12,000 ~ 24,000 BTU



Creating a better environment one step at a time



Long History of HVAC Product Development

Ever since developing our first air conditioner in **1958**, we have been committed to creating original products and delivering the best solutions to enhance our customers' quality of life. After introducing **Airest**, the world's first mini-split system equipped with certified MERV 14 filters, we continue to work tirelessly to develop the next generation of air conditioners and heat pumps that meet evolving needs and set new standards around the world.



Comfort Airflow Technology

Throughout the development of our products and evolving customer needs, we have engineered key airflow technologies integrated across various models. These include **Coanda Airflow Technology**, delivering air up to 50 feet to cover wide areas; the **Multi Space** Function, which maintains consistent airflow across connected spaces like living rooms and hallways; and the **Spot Air** Function, designed to direct cool or warm air precisely where it's needed for targeted comfort.



Smart and Functional Unit Design

Sharp combines advanced airflow technology with smart, functional design that seamlessly blends into any room. Featuring clean lines, subtle curves, and a minimalist profile, each unit complements a variety of interiors while showcasing quality and durability. This thoughtful design ensures efficient performance and natural integration, enhancing comfort both visually and physically in your living space.



Easy Maintenance & Troubleshooting

Sharp HVAC systems are designed with ease of maintenance in mind, not only for homeowners but also for technicians. With built-in system indicators and self-diagnostic capabilities, the unit can detect and display specific error codes that help identify problems quickly. These features significantly reduce troubleshooting time, allowing technicians to resolve issues efficiently and helping users avoid prolonged discomfort or unnecessary repairs.

Control the Air The way you like it

Hassle-Free Cleaning Fresh Air Everyday

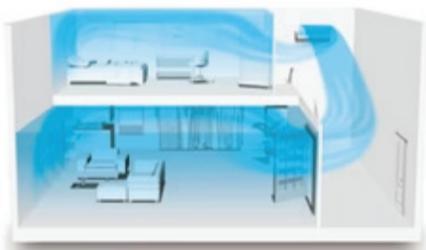
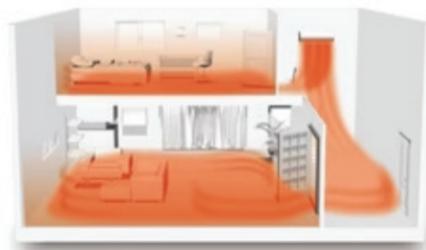
Wide-Area Coanda Airflow

With **Coanda Airflow technology**, the CHU/CU heat pump delivers airflow as far as **50 ft** across large spaces. During cooling, the louvers face upward to guide air along the ceiling, while in heating mode, the louvers face downward to channel warm air along the floor. This technology distributes gentle comfort air without blowing it directly onto your body.



Expand Comfort with Multi Space

The **Multi Space** function allows one indoor unit to extend airflow beyond the main room, providing comfort to connected spaces such as living rooms and hallways. While effectiveness depends on room layout and structure, the system can adjust airflow direction and fan speed to help reach adjacent areas. This makes it particularly beneficial in open layouts or homes with limited installation space, as it may reduce the need for multiple units while still providing comfort.



Easy Way to Clean

The new CHU/CU heat pump is designed with easy cleaning in mind, so you can keep it in top condition without hassle. In many conventional heat pumps, removing the air filter can be a hassle, often requiring the removal of several other parts first. With the CHU/CU, the filter can be taken out in seconds and cleaned with a simple hand vacuum. You can also wipe down the indoor unit with a soft cloth to keep it looking fresh and dust-free. Thanks to these thoughtful design details, regular maintenance is quick, convenient, and stress-free, ensuring you enjoy clean, comfortable air all year round.



AFTER CARE Feature

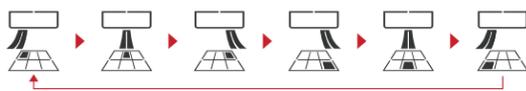
With the **AFTER CARE** feature, keeping your unit in excellent condition is effortless. After each COOL or DRY operation, the indoor unit automatically uses fan mode to gently dry its interior, helping to reduce odors and prevent mold growth. By minimizing the need for frequent manual cleaning, AFTER CARE ensures a healthier, fresher environment while giving you peace of mind that your air conditioner is always operating at its best.



Targeted Airflow by Spot Air

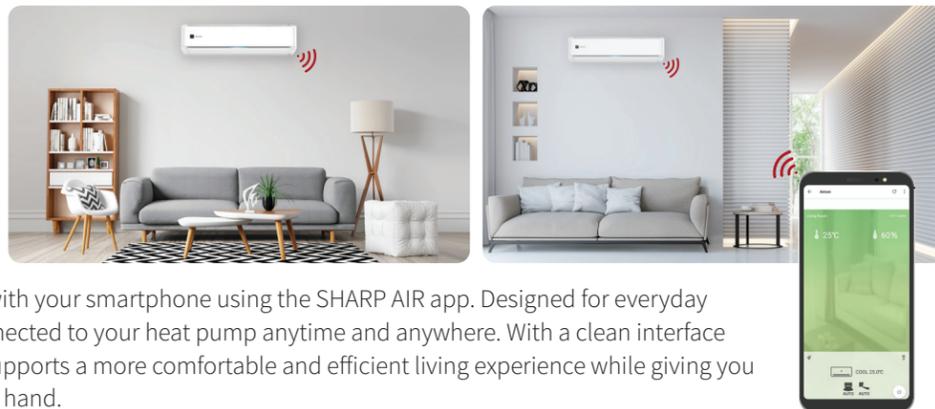
The **Spot Air** function delivers a concentrated stream of air directly to a specific area in the room for instant cooling or heating. By dividing the room into six zones and allowing users to select the desired area via remote control, this function enables quick and focused comfort.

(CHU Series Only)



Full Control Right from your Phone

SHARP AIR Mobile App



Effortlessly control your heat pump with your smartphone using the SHARP AIR app. Designed for everyday convenience, the app keeps you connected to your heat pump anytime and anywhere. With a clean interface and smart connectivity, SHARP AIR supports a more comfortable and efficient living experience while giving you greater control from the palm of your hand.

Comfort on the Go

Stay effortlessly connected to your heat pump even when you're away. Switch to your desired mode and change the temperature to get your home ready before you arrive so it's always comfortable when you walk in.

Track your Energy

Keep track of your daily energy usage with ease. The system provides a clear view of how much power your heat pump consumes, helping you understand patterns and make smarter choices to improve energy efficiency and reduce electricity costs over time.

Schedule with Confidence

Set customized schedules to fit your routine and have your home at the perfect temperature when you need it. Automated settings provide comfort and save energy without manual adjustments.

Cleaning Alert

Get timely reminders when it's time to clean your filters. This helps maintain your heat pump's performance and keeps the air quality fresh, making upkeep simple.

Maintain with Confidence



AHA! Air History Analyzer

Heat Pump Maintenance Companion App
(For Contractors)

With the Air History Analyzer, technicians can confidently and efficiently pinpoint errors and malfunctions on Sharp-branded heat pumps, delivering faster, more precise service. Customers can rest assured their heat pump will be back to peak performance in no time.

※ Smartphone with Android OS are needed



Quick Diagnose

With Quick Diagnostics, technicians can identify issues in the four main heat pump components in under 30 minutes, enabling faster troubleshooting and a higher success rate in service and maintenance.

Unit Status

The app also provides technicians with a useful Unit Status screen that displays real-time sensor readings from the unit, such as heat exchanger temperatures, compressor RPM, and other operational data.

Graph Analysis

Technicians can analyze graphs that clearly display system performance data, making it easier to spot patterns and diagnose issues quickly. The visual insight helps speed up troubleshooting and improve service accuracy.

Other Features

- Gas Leak Detection Tool
- Troubleshooting Guide

This software is exclusively distributed to Contractors in partnership to Sharp Corporation. For further question and availability of this app please contact your local Sharp representative or use the contact below.
minisplit@sharp.co.jp



Overcoming Cold Environment

Tested for Harsh Cold Climate

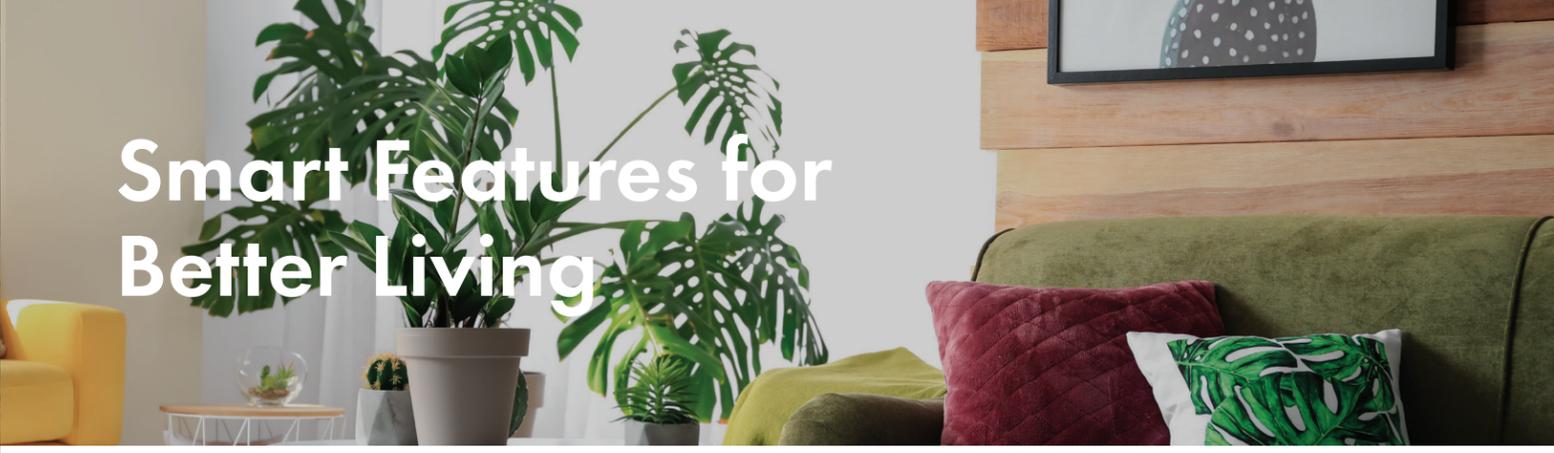
When expanding beyond the Japanese market, we developed specialized versions of our heat pump products to meet the demands of regions known for their harsh winters. We entered Northern Europe in 1995, followed by Canada in 2012. With over 30 years of experience designing heat pump units for extreme climates, we ensure every product undergoes rigorous testing to guarantee stable performance. Today, our heat pumps operate reliably even in temperatures as low as -22°F.



Figure 1: The outdoor unit tested can withstand -22°F cold environment

Cold-Resistant Technology

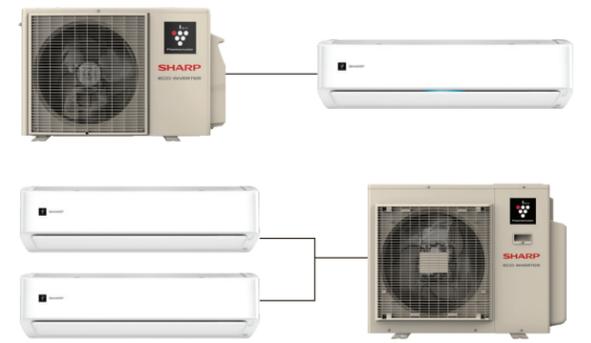
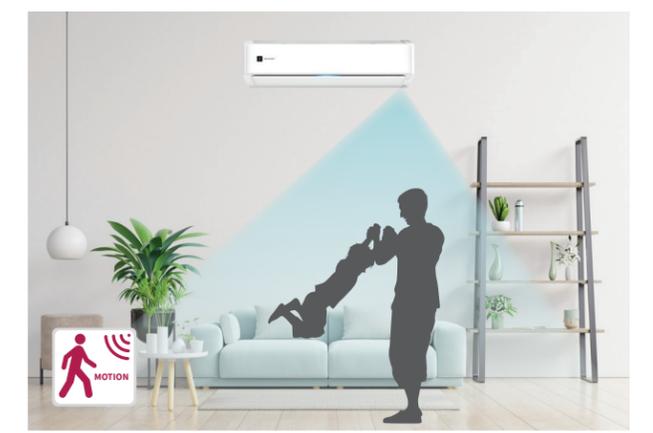
Built for reliability, the unit delivers stable performance in extreme temperatures, from 115°F for cooling to -22°F for heating. The outdoor unit is equipped with Sharp's patented **Hot Gas Pipe** which utilizes unused heat generated from heating to keep the outdoor unit from freezing. Because it does not require a separate electric heat source, this system is safe and energy-efficient. (For AE-X12CU model can only withstand down to -17°F)



Smart Features for Better Living

Motion Sensor Technology

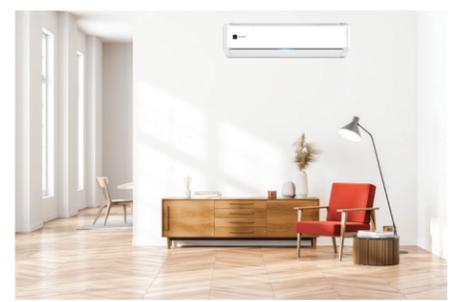
The built-in Motion Sensor intelligently detects human activity in the room and adjusts operation for greater comfort and efficiency. When no movement is detected for a certain period of time, the unit automatically reduces cooling or heating to save energy. As soon as someone enters the room, it quickly returns to the original settings, ensuring the space is immediately brought back to your preferred comfort level. With this smart function, you enjoy consistent comfort while reducing unnecessary energy consumption. (CHU Series Only)



Single & Multi-Zone Configuration

Our system offers both single-zone and multi-zone configurations, providing flexibility to suit different needs. A single-zone setup works best for efficiently conditioning one room or area, while the multi-zone option connects up to three indoor units to a single outdoor unit. This adaptable design allows you to create customized comfort solutions that align seamlessly with various building layouts, from homes to offices and commercial spaces.

Comes in White & Black



CHU Series | Single Zone Model

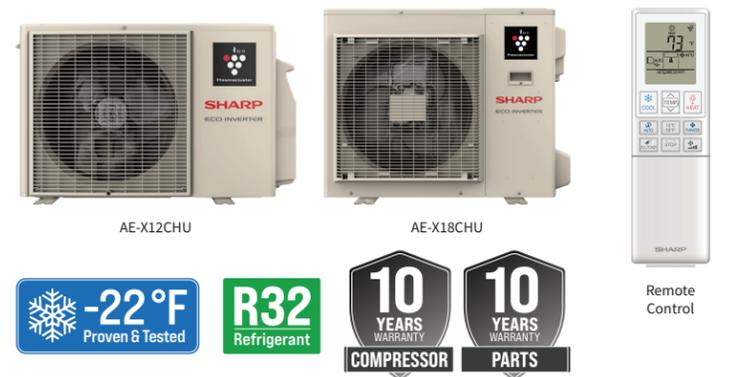
Indoor Unit



Features

- Coanda Airflow** (LONG): Direct warm air downward and cool air upward, no direct wind to your face.
- Spot Air**: Airflow toward your desired spot saves total energy consumption.
- Multi Space**: Circulate the conditioned air in order to balance the room temperature in adjacent rooms.
- 4-way Auto Louver** (4-WAY): Automatic vertical and horizontal airflow is available.
- 50°F (10°C) Function** (50°F): Keeps room temperature at 50°F (10°C) to prevent freezing of the room when you are away from home for a long time.
- Full Power Mode** (FULL POWER): Air conditioner works at maximum power for rapid room cooling and heating.
- Auto Restart** (AUTO RESTART): Automatically restart with the same setting as before the power was cut.
- Eco Mode** (ECO): Air conditioner operates with lower power consumption than usual in this mode.
- After Care**: Dries out the inside of the unit to reduce the chance of mold growth and odor.
- OD Slient**: Keeps down the operation sound of the outdoor unit.
- Timer** (24Hour): In addition to 24H On/Off timer, 1-2-3-5h Off timer allow you to turn off the unit at your desired time easily.
- Hot Gas Pipe**: Utilize unused heat generated from heating to keep the outdoor unit from freezing.

Outdoor Unit



CU Series | Single Zone Model

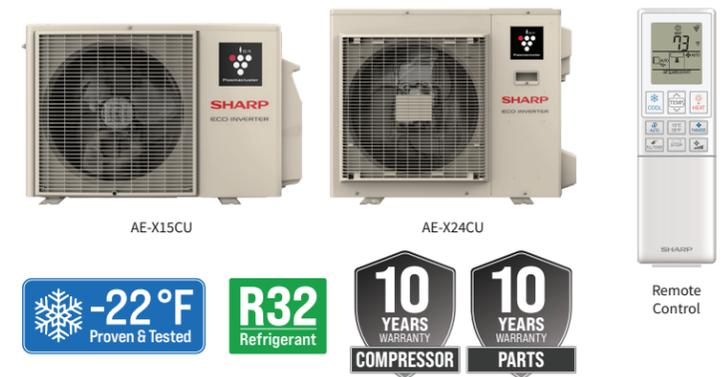
Indoor Unit



Features

- Coanda Airflow** (LONG): Direct warm air downward and cool air upward, no direct wind to your face.
- Multi Space**: Circulate the conditioned air in order to balance the room temperature in adjacent rooms.
- 50°F (10°C) Function** (50°F): Keeps room temperature at 50°F (10°C) to prevent freezing of the room when you are away from home for a long time.
- 2-way Auto Louver** (2-WAY): Automatic vertical airflow is available.
- Full Power Mode** (FULL POWER): Air conditioner works at maximum power for rapid room cooling and heating.
- Auto Restart** (AUTO RESTART): Automatically restart with the same setting as before the power was cut.
- Eco Mode** (ECO): Air conditioner operates with lower power consumption than usual in this mode.
- After Care**: Dries out the inside of the unit to reduce the chance of mold growth and odor.
- OD Slient**: Keeps down the operation sound of the outdoor unit.
- Timer** (24Hour): In addition to 24H On/Off timer, 1-2-3-5h Off timer allow you to turn off the unit at your desired time easily.
- Hot Gas Pipe**: Utilize unused heat generated from heating to keep the outdoor unit from freezing.

Outdoor Unit



Specifications < Single Zone Model >

	Indoor Unit		Outdoor Unit	
	AY-XP12CHU AY-XP18CHU	AY-XP12CHU-B AY-XP18CHU-B	AE-X12CHU	AE-X18CHU
AHRI Number	217512736 (AY-XP12CHU) 217512733 (AY-XP12CHU-B)		217508925	
Rated cooling capacity	12,000 (3,500 - 14,000)		18,000 (5,000 - 21,600)	
Rated heating (federal)	16,000 (3,100 - 22,850)		21,600 (5,500 - 30,000)	
Rated heating at 17°F (-8.3°C)	18,900		22,600	
Max heating capacity	at 5°F (-15°C)		19,500	
	at -4°F (-20°C)		17,100	
	at -13°F (-25°C)		14,800	
	at -17°F (-27°C)		12,700	
	at -22°F (-30°C)		11,800	
EER2	16.0		13.0	
SEER/SEER2	25.0 / 25.0		24.0 / 25.0	
HSPF/HSPF2 (IV)	12.0 / 11.0		13.0 / 11.5	
HSPF/HSPF2 (V)	9.6 / 9.0		10.0 / 9.0	
COP at 5°F (-15°C)	2.1		2.2	
Power Supply	208 / 230V, 1-Phase, 60Hz		208 / 230V, 1-Phase, 60Hz	
Max Fuse Size (A)	20A		25A	
Sound Pressure (dB)	Cooling (IDU)		43 / 40 / 36 / 28 / 24	
	Cooling (ODU)		49	
	Heating (IDU)		44 / 40 / 35 / 29 / 22	
	Heating (ODU)		50	
			52	
Airflow Rate (cfm)	Cooling		597 / 519 / 403 / 290 / 212	
	Heating		636 / 558 / 466 / 374 / 212	
Operating Range	Cooling		14 to 115°F (-10 to 46°C)	
	Heating		-22 to 75°F (-30 to 24°C)	
Pipe diameter	1/4 x 3/8		1/4 x 3/8	
Refrigerant	R32		R32	
Refrigerant volume oz (g)	36 (1020)		49 (1390)	
Pipe length ft (m)	10 (3) - 25 (7.6)		10 (3) - 25 (7.6)	
w/ add. refrigerant	25 (7.6) - 66 (20)		25 (7.6) - 66 (20)	
Max height difference ft (m)	33 (10)		33 (10)	
Add charge oz/ft (g/m)	0.16 (15)		0.16 (15)	

Measurements

		AY-XP12CHU AY-XP12CHU-B	AE-X12CHU	AY-XP18CHU	AE-X18CHU
		Unit Dimension	Width in (mm)	41 27/64 (1052)	30 23/32 (780)
	Height in (mm)	12 7/16 (316)	21 1/4 (540)	12 7/16 (316)	27 15/16 (710)
	Depth in (mm)	9 51/64 (249)	10 19/32 (269)	9 51/64 (249)	13 (330)
	Net Weight lbs (kg)	31 (14)	67 (30)	31 (14)	95 (43)
Package Dimensions	Width in (mm)	43 13/16 (1113)	36 5/16 (922)	43 13/16 (1113)	38 11/32 (974)
	Height in (mm)	12 23/32 (323)	23 3/4 (603)	12 23/32 (323)	30 13/16 (783)
	Depth in (mm)	15 5/16 (389)	15 15/32 (393)	15 5/16 (389)	16 31/32 (431)
	Gross Weight lbs (kg)	35 (16)	73 (33)	35 (16)	104 (47)

Specifications < Single Zone Model >

	Indoor Unit		Outdoor Unit	
	AY-XP15CU AY-XP24CU	AY-XP15CU-B AY-XP24CU-B	AE-X15CU	AE-X24CU
AHRI Number	217512734 (AY-XP15CU) 217508926 (AY-XP15CU-B)		217508895	
Rated cooling capacity	15,000 (5,000 - 17,000)		22,000 (6,000 - 24,000)	
Rated heating (federal)	18,000 (4,500 - 21,800)		24,000 (5,500 - 27,100)	
Rated heating at 17°F (-8.3°C)	18,100		22,400	
Max heating capacity	at 5°F (-15°C)		19,000	
	at -4°F (-20°C)		16,400	
	at -13°F (-25°C)		13,900	
	at -17°F (-27°C)		12,300	
	at -22°F (-30°C)		10,500	
EER2	13.4		10.0	
SEER/SEER2	24.0 / 24.0		19.0 / 22.0	
HSPF/HSPF2 (IV)	11.8 / 11.0		12.3 / 11.0	
HSPF/HSPF2 (V)	9.5 / 8.7		9.6 / 8.5	
COP at 5°F (-15°C)	2.1		2.2	
Power Supply	208 / 230V, 1-Phase, 60Hz		208 / 230V, 1-Phase, 60Hz	
Max Fuse Size (A)	20A		25A	
Sound Pressure (dB)	Cooling (IDU)		46 / 42 / 38 / 30 / 26	
	Cooling (ODU)		49	
	Heating (IDU)		46 / 42 / 36 / 30 / 23	
	Heating (ODU)		50	
			54	
Airflow Rate (cfm)	Cooling		636 / 558 / 441 / 328 / 251	
	Heating		674 / 597 / 505 / 413 / 251	
Operating Range	Cooling		14 to 115°F (-10 to 46°C)	
	Heating		-22 to 75°F (-30 to 24°C)	
Pipe Diameter	1/4 x 3/8		1/4 x 3/8	
Refrigerant	R32		R32	
Refrigerant volume oz (g)	36 (1020)		49 (1390)	
Pipe length ft (m)	10 (3) - 25 (7.6)		10 (3) - 25 (7.6)	
w/ add. refrigerant	25 (7.6) - 66 (20)		25 (7.6) - 66 (20)	
Max height difference ft (m)	33 (10)		33 (10)	
Add charge oz/ft (g/m)	0.16 (15)		0.16 (15)	

Measurements

		AY-XP15CU AY-XP15CU-B	AE-X15CU	AY-XP24CU	AE-X24CU
		Unit Dimension	Width in (mm)	41 27/64 (1052)	30 23/32 (780)
	Height in (mm)	12 7/16 (316)	21 1/4 (540)	12 7/16 (316)	27 15/16 (710)
	Depth in (mm)	9 51/64 (249)	10 19/32 (269)	9 51/64 (249)	13 (330)
	Net Weight lbs (kg)	31 (14)	67 (30)	31 (14)	95 (43)
Package Dimensions	Width in (mm)	43 13/16 (1113)	36 5/16 (922)	43 13/16 (1113)	38 11/32 (974)
	Height in (mm)	12 23/32 (323)	23 3/4 (603)	12 23/32 (323)	30 13/16 (783)
	Depth in (mm)	15 5/16 (389)	15 15/32 (389)	15 5/16 (389)	16 31/32 (431)
	Gross Weight lbs (kg)	35 (16)	73 (33)	35 (16)	104 (47)

CU Series | Single & Multi Zone Model

Indoor Unit



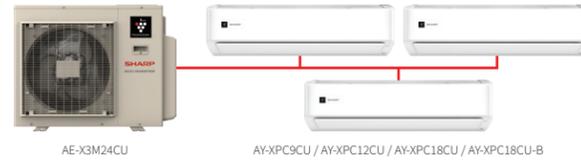
Outdoor Unit



Features



Connectable to up to 3 Indoor Units



Combination Table

< Indoor Unit Combination for AE-X3M24BU Outdoor Unit >

1 st IDU	9,000	9,000	9,000	12,000	9,000	12,000	18,000
2 nd IDU	9,000	9,000	12,000	12,000	18,000	18,000	18,000
3 rd IDU	9,000	12,000	12,000	12,000	—	—	—

— : no unit is connected

Specifications

	< Single Zone Model >		< Single Zone Model >		< Multi Zone Model >	
	Indoor Unit AY-XPC12CU	Outdoor Unit AE-X12CU	Indoor Unit AY-XPC18CU AY-XPC18CU-B	Outdoor Unit AE-X18CU	Indoor Unit AY-XPC12CU (3 unit)	Outdoor Unit AE-X3M24CU
AHRI Number	217512740		217508915 (AY-XPC18CU) 217508914 (AY-XPC18CU-B)		217512785	
Rated cooling capacity	12,000 (2,800 - 13,600)		18,000 (6,000 - 21,600)		24,000 (5,500 - 27,000)	
Rated heating (federal)	14,000 (3,200 - 19,000)		21,600 (5,500 - 27,000)		26,000 (8,800 - 30,000)	
Rated heating at 17°F (-8.3°C)	15,000		22,400		25,000	
Max heating capacity	at 5°F (-15°C)		12,700		19,000	
	at -4°F (-20°C)		10,700		15,000	
	at -13°F (-25°C)		9,000		12,000	
	at -17°F (-27°C)		8,000		11,500	
	at -22°F (-30°C)		9,200		13,000	
EER2	12.5		13.0		14.0	
SEER/SEER2	21.0 / 22.0		24.0 / 24.0		25.0 / 24.0	
HSPF/HSPF2 (IV)	12.5 / 11.0		13.0 / 11.0		12.0 / 11.5	
HSPF/HSPF2 (V)	9.6 / 9.0		10.0 / 9.0		9.7 / 9.0	
COP at 5°F (-15°C)	2.1		2.2		2.3	
Power Supply	208 / 230V, 1-Phase, 60Hz		208 / 230V, 1-Phase, 60Hz		208 / 230V, 1-Phase, 60Hz	
Max Fuse Size (A)	15A		25A		25A	
Sound Pressure (dB)	Cooling (IDU)		42 / 39 / 34 / 27 / 23		45 / 43 / 38 / 31 / 28	
	Cooling (ODU)		49		52	
	Heating (IDU)		43 / 40 / 35 / 28 / 23		49 / 47 / 41 / 31 / 25	
	Heating (ODU)		50		52	
Airflow Rate (cfm)	Cooling		438 / 385 / 307 / 219 / 145		636 / 597 / 480 / 328 / 251	
	Heating		438 / 385 / 318 / 254 / 145		752 / 713 / 558 / 403 / 290	
Operating Range	Cooling		14 to 115°F (-10 to 46°C)		14 to 115°F (-10 to 46°C)	
	Heating		-17 to 75°F (-27 to 24°C)		-22 to 75°F (-30 to 24°C)	
Pipe diameter	1/4 x 3/8		1/4 x 3/8		1/4 x 3/8 x 3	
Refrigerant	R32		R32		R32	
Refrigerant volume (g)	33.2 (940)		49 (1390)		77.6 (2200)	
Pipe length ft (m)	10 (3) - 25 (7.6)		10 (3) - 25 (7.6)		10 (3) - 98 (30)	
w/ add. refrigerant	25 (7.6) - 66 (20)		25 (7.6) - 66 (20)		per IDU 10(3) - 82(25), total 30(9) - 230(70)	
Max height difference ft (m)	33 (10)		33 (10)		IDU/IDU 33 (10), IDU/ODU 49(15)	
Add charge oz/ft (g/m)	0.16 (15)		0.16 (15)		0.11 (10)	

Measurements

	AY-XPC12CU	AE-X12CU	AY-XPC18CU AY-XPC18CU-B	AE-X18CU	AY-XPC9CU	AE-X3M24CU	
Unit Dimension	Width in (mm)	34 39/64 (879)	30 23/32 (780)	41 27/64 (1052)	33 15/32 (850)	33 15/32 (850)	
	Height in (mm)	11 3/8 (289)	21 1/4 (540)	12 7/16 (316)	27 15/16 (710)	27 15/16 (710)	
	Depth in (mm)	9 1/64 (229t)	10 19/32 (269)	9 51/64 (249)	13 (330)	9 1/64 (229)	13 (330)
Net Weight lbs (kg)	22 (10)	67 (30)	31 (14)	95 (43)	22 (10)	115 (52)	
Package Dimensions	Width in (mm)	37 3/32 (942)	36 5/16 (922)	43 13/16 (1113)	38 11/32 (974)	37 3/32 (942)	38 11/32 (974)
	Height in (mm)	11 3/32 (282)	23 3/4 (603)	12 23/32 (323)	30 13/16 (783)	11 3/32 (282)	30 13/16 (783)
	Depth in (mm)	13 15/32 (342)	15 15/32 (393)	15 5/16 (389)	16 31/32 (431)	13 15/32 (342)	16 31/32 (431)
Gross Weight lbs (kg)	24 (11)	71 (32)	35 (16)	104 (47)	24 (11)	126 (57)	



- Please read the Installation Manual carefully before installing the unit, and the Operating Manual before using it.
- The content of this catalogue are accurate as of January 2026.
- Due to printing paper, actual colors may vary slightly from those shown.
- All graphics are provided solely for the purpose of illustrating a point.

Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for damage or deterioration in safety due to usage of other refrigerant.