Mr.SLIM<sup>®</sup>



**P-SERIES** 

HEAT PUMPS & AIR CONDITIONERS



MITSUBISHIELECTRIC.CA

OUR MOST ADVANCED LINEUP YET, USING LOW GLOBAL WARMING POTENTIAL (GWP) R-454B REFRIGERANT







## **Environmental Sustainability Vision 2050**

#### **Environmental Declaration**

Protect the air, land, and water with our hearts and technologies to sustain a better future for all.



To solve various factors that lead to environment issues, the Mitsubishi Electric Group shall unite the wishes of each and every person, and strive to create new value for a sustainable future.

### R-454B Refrigerant

Our all-electric HVAC systems using R-454B refrigerant are designed to deliver reliable comfort with a lower environmental impact. R-454B supports energy efficiency and sustainability, aligning with our commitment to innovation. Like other common household systems—such as gas furnaces and stoves—R-454B is safely used thanks to strict safety standards and advanced engineering. Our systems are built with robust safeguards, and many include smart refrigerant monitoring for added peace of mind. With R-454B, you're choosing a modern, responsible solution that reflects the safety, reliability, and environmental care built into every product we offer.



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## RELIABILITY FACTS

### **ALWAYS QUALITY FIRST**

Cutting-edge technologies and uncompromising commitment to quality and reliability have made Mitsubishi Electric one of the world's most trusted brands in air-conditioning and refrigeration equipment and service.

#### **DEVELOPMENT**

## Operating Tests in Harsh Conditions

Harsh environmental conditions of cold regions are simulated for the development of our air conditioners. This is another reason customers in severely cold regions rely on Mitsubishi Electric for comfortable heating.





#### Combustion Test

Products are subjected to a wide range of tests including combustion test and salt damage test - all to confirm safe operation under a variety of conditions.

Combustion test is done by assuming accidental firing and replicating abnormal conditions that would cause breakage of pressure components.



Combustion test



Explosion-proof chamber

#### Shock Resistance

On the assumption of many different kinds of logistics environments in the world,

we perform drop/strength tests, transport vibration tests, and many other product checks to assure that the quality and performance are maintained when the product reaches the user's application.



Drop/strength test



Transport vibration test

#### Waterproof Test

Since the outdoor unit is subject to rain and wind, potential problems are checked by tests such as showering the unit for a certain amount of time.



#### Operation Noise Test

Operation noise tests are performed in an anechoic chamber with an extremely low 10dB of background noise. This is just one of the ways Mitsubishi Electric ensures its customers enjoy extremely quiet air conditioners with a minimum operation noise of 19dB (sound pressure level).



Anechoic chamber

#### **DESIGN**

## Designed to create and maintain a comfortable environment

To improve the quality of our products, the engineers strive to achieve its philosophy of combining ecology and comfort to an even higher level. Therefore, we are working to further improve quality at all stages from development to production.



#### **PRODUCTION**

#### Each and every unit is checked and double-checked by experienced professionals

Every air conditioner goes through rigorous electrical inspection on the manufacturing line. In final test, our experienced inspectors listen for even the faintest operation noise to detect any fault.





Mitsubishi Electric inverters ensure superior performance including the optimum control of operation frequency. As a result, optimum power is applied in all heating/cooling ranges and maximum comfort is achieved while consuming minimal energy. Fast, comfortable operation and amazingly low running cost — That's the Mitsubishi Electric promise.

#### INVERTERS — HOW THEY WORK

Inverters electronically control the electrical voltage, current and frequency of electrical devices such as the compressor motor in an air conditioner. They receive information from sensors monitoring operating conditions, and adjust the revolution speed of the compressor, which directly regulates air conditioner output. Optimum control of operation frequency results in eliminating the consumption of excessive electricity and providing the most comfortable room environment.

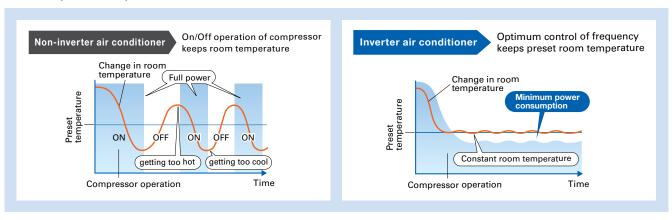
#### **ECONOMIC OPERATION**

Impressively low operating cost is a key advantage of inverter air conditioners. We've combined advanced inverter technologies with cutting-edge electronics and mechanical technologies to achieve a synergistic effect that enables improvements in heating/cooling performance efficiency. Better performance and lower energy consumption are the result.

#### TRUE COMFORT

Below is a simple comparison of air conditioner operation control with and without an inverter.

#### ■ Inverter operation comparison



The compressors of air conditioners without an inverter start and stop repeatedly in order to maintain the preset room temperature. This repetitive on/off operation uses excessive electricity and compromises room comfort. The compressors of air conditioners equipped with an inverter run continuously; the inverter quickly optimizing the operating frequency according to changes in room temperature. This ensures energy-efficient operation and a more comfortable room.

#### Point 1 Quick & Powerful

Increasing the compressor motor speed by controlling the operation frequency ensures powerful output at start-up, brings the room temperature to the comfort zone faster than units not equipped with an inverter. Hot rooms are cooled, and cold rooms are heated faster and more efficiently.

#### Point 2 Room Temperature Maintained

The compressor motor operating frequency and the change of room temperature are monitored to calculate the most efficient waveform to maintain the room temperature in the comfort zone. This eliminates the large temperature swings common with non-inverter systems, and guarantees a pleasant, comfortable environment.

#### **KEY TECHNOLOGIES**

#### Our Rotary Compressor

Our rotary compressors use our original "Poki-Poki Motor" and "Heat Caulking Fixing Method" to realize downsizing and higher efficiency, and are designed to match various usage scenes in residential to commercial applications. Additionally, development of an innovative production method known as "Divisible Middle Plate" realizes further size/weight reductions and increased capacity while also answering energy-efficiency needs.

#### Our Scroll Compressor

Our scroll compressors are equipped with an advanced frame compliance mechanism that allows self-adjustment of the position of the orbiting scroll according to pressure load and the accuracy of the fixed scroll position. This minimizes gas leakage in the scroll compression chamber, maintains cooling capacity and reduces power loss.

#### MORE ADVANTAGES WITH MITSUBISHI ELECTRIC



#### Joint Lap DC Motor

Mitsubishi Electric has developed a unique motor, called the "Poki-Poki Motor" in Japan, which is manufactured using a joint lapping technique. This innovative motor operates based on a highdensity, high-magnetic force, leading to extremely high efficiency and reliability.







#### Magnetic Flux Vector Sine Wave Drive

This drive device is actually a microprocessor that converts the compressor motor's electrical current waveform from a conventional waveform to a sine wave (180°conductance) to achieve higher efficiency by raising the motor winding utilisation ratio and reducing energy loss.



#### Reluctance DC Rotary Compressor

Powerful neodymium magnets are used in the rotor of the reluctance DC motor. More efficient operation is realized by strong magnetic and reluctance torques produced by the magnets.





#### Heat Caulking Fixing Method

To fix internal parts in place, a "Heat Caulking Fixing Method" is used, replacing the former arc spot welding method. Distortion of internal parts is reduced, realizing higher efficiency.





#### DC Fan Motor

A highly efficient DC motor drives the fan of the outdoor unit. Efficiency is much higher than an equivalent AC motor.



#### Vector-Wave Eco Inverter

This inverter monitors the varying compressor motor frequency and creates the most efficient waveform for the motor speed. As the result, operating efficiency in all speed ranges is improved, less power is used and annual electricity cost is reduced.

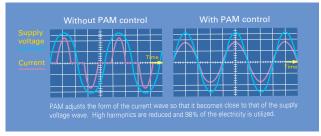
#### Smooth wave pattern

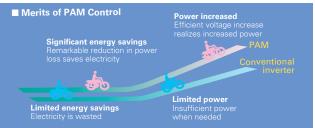
Inverter size has been reduced using insertmolding, where the circuit pattern is molded into the synthetic resin. To ensure quiet operation, soft PWM control is used to prevent the metallic whine associated with conventional inverters



#### PAM PAM (Pulse Amplitude Modulation)

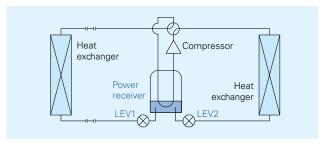
PAM is a technology that controls the current waveform so that it resembles the supply voltage wave, thereby reducing loss and realizing more efficient use of electricity. Using PAM control, 98% of the input power supply is used effectively.





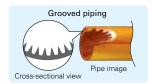
#### Power Receiver and Twin LEV Control

Mitsubishi Electric has developed a power receiver and twin linear expansion valves (LEVs) circuit that optimize compressor performance. This technology ensures optimum control in response to operating waveform and outdoor temperature. Operating efficiency has been enhanced by tailoring the system to the characteristics of R454B refrigerant.





High-performance grooved piping is used in heat exchangers to increase the heat exchange area.



## **FEATURES**

#### **ENERGY-SAVING**



#### Econo Cool Energy-Saving Feature

"Econo Cool" is an intelligent temperature control feature that adjusts the amount of air directed towards the body based on the air-outlet temperature. The setting temperature can be raised by as much as 4°F without any loss in comfort, thereby realizing a 20% gain in energy efficiency. (Function only available during manual cooling operation.)

	Conventional	Econo Cool
Ambient temperature	95°F	95°F
Set temperature	77°F	81°F
Perceived temperature	86°F	85°F

#### Econo Cool Mode

A comfortable room environment is maintained even when setting the temperature 4°F higher than the conventional cooling mode.

Econo Cool on

Temperature distribution (°F)





Conventional cooling mode



#### Double Vane

61 64 68 72 75 79 82

Double vane separates the airflow in the different directions to deliver airflow not only across a wide area of the room, but also simultaneously to two people in different locations.



#### Natural Flow Operation

Airflow will become more like natural wind. An occupant will not be directly exposed to the airflow and feel more comfortable.



#### Indirect/Direct Mode

This mode offers finely-tuned operation by locating where an occupant is in the room and sends the air directly or indirectly according to the selected



#### Powerful Operation

The air conditioner will automatically adjust the fan speed and set temperature for 15 minutes. Rapid cooling and heating will make the room comfortable more quickly.



Especially beneficial for large spaces, helping to ensure that the air is well circulated and reaches every corner of the room. Select the desired airflow pattern and it will distribute air horizontally over a wide-ranging 150° in heating mode and 100° in cooling mode.



#### Blue Fin Condenser

Anti-corrosion treatment is done to the heat exchanger of the outdoor units. This coating prevents the corrosion of the aluminum fins caused by salt in the air especially in coastal areas. (Corrosion of the heat exchanger will effect the efficiency and performance of the air conditioner.)

#### **AIR DISTRIBUTION**



### Horizontal Vane

The air outlet vane swings up and down so that the airflow is spread evenly throughout the room.



#### Vertical Vane

The air outlet fin swings from side to side so that the airflow reaches every part of the room.

#### High Ceiling Mode

In the case of rooms with high ceilings, the outlet-air volume can be increased to ensure that air is circulated all the way to the floor.



#### Low Ceiling Mode

If the room has a low ceiling, the airflow volume can be reduced for less draft.

#### 😘 Auto Fan Speed Mode

The airflow speed mode adjusts the fan speed of the indoor unit automatically according to the present room conditions.

#### Auto Vane Control

Outlet vanes can be moved left and right, and up and down using the remote controller. This improved airflow control feature solves the problem of drafts.

#### **AIR QUALITY**



#### Nano Platinum Filter

This filter has a large capture area and incorporates nanometer-sized platinum-ceramic particles that work to kill bacteria and deodorize the circulating air.



#### Catechin Filter

Catechin is a bioflavonoid by-product of green tea with both antiviral and antioxidant qualities. In addition to improving air quality, it prevents the spreading of bacteria and viruses throughout the room, and also has an excellent deodorizing effect.



#### Air Filter

This filter can remove dust particles from the air.

#### Deodorizing Filter

#### Deodorizing Filter

The catalyst coating on the honeycomb-structured frame captures small foul-smelling substances in the air, then breaks down the source of the odors with the power of the ozone generated in a plasma electrode unit.



#### Electrostatic Anti-Allergy Enzyme Filter

This filter is charged with static electricity, enabling it to attract and capture dust particles that regular filters cannot capture. This filter can also trap allergens such as molds and bacteria and decompose them using enzymes retained in the filter.

#### Anti-allergy Enzyme

#### Anti-allergy Enzyme Filter

This filter works to trap allergens such as molds and bacteria and decompose them using enzymes retained in the filter.



#### Air Purifying Filter

The filter has a large capture area and deodourise the circulating air.

#### Micropartic Catching Filt

#### Microparticle Catching Filter

The Filter effectively catches floating PM2.5 particles to maintain clean air in the room.



#### Fresh-air Intake

Indoor air quality is enhanced by the direct intake of fresh exterior air.



#### High-efficiency Filter

This high-performance filter has a much finer mesh compared to standard filters, and is capable of capturing minute particulates floating in the air that were not previously caught.



#### Long-life Filter

A special process for the entrapment surface improves the filtering effect, making the maintenance cycle longer than that of units equipped with conventional filters



#### Filter Check Signal

Air conditioner operating time is monitored, and the user is notified when filter maintenance is necessary.

#### Dual Barr Coating

#### **Dual Barrier Coating**

Dual Barrier Coating prevents dust and greasy dirt from getting into the air conditioner.

#### V Air Filter

#### **VAir Filter**

New Anti-Virus Pre-Filter is available (standard built-in), which has suppressing effect even for SARS-CoV-2.\*1 (Test result)

\*1 Tested Organization: Japan Textile Products Quality and Technology Center Test Report No.21KB-080331-2 Test Method: JIS L 1922 Test result: Neutralised 99% of SARS-CoV-2 in 2 hours

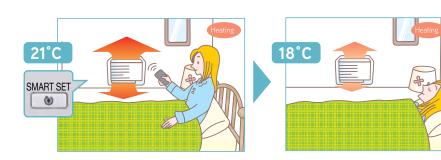
#### **CONVENIENCE**



#### Smart Set

"Smart Set" is a simplified setting function that recalls the preferred (preset) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting.

Using this function contributes to comfortable waste-free operation, realizing the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.





#### Çi≑Ö

#### Auto Changeover

The air conditioner automatically switches between heating and cooling modes to maintain the desired temperature.



#### Low-temperature Cooling

Intelligent fan speed control in the outdoor unit ensures optimum performance even when the outside temperature is low.



#### Ampere Limit Adjustment

Dip switch settings can be used to adjust the maximum electrical current for operation. This function is highly recommended for managing energy costs.

\*Maximum capacity is lowered with the use of this function.



#### Auto Restart

Especially useful at the time of power outages, the unit turns back on automatically when power is restored.



#### Operation Lock (Outdoor unit)

To accommodate specific-use applications, cooling or heating operation can be specified when setting the control board of the outdoor unit. A convenient option when a system needs to be configured for exclusive cooling or heating service.



#### Sleep Mode

When Sleep Mode is activated using the wireless remote controller, it will switch to the settings described below.

- After 30 minutes, the set temperature will automatically change to the sleep mode set temperature which the user can set beforehand.
- The fan speed will immediately change to low fan speed.



#### On/Off Operation Timer

Use the remote controller to set the times of turning the air conditioner On/Off.

#### Smart Dry

#### Smart Dry Mode

The new Smart Dry mode provides a more comfortable dehumidification solution than previous models.

Improved dehumidification performance is achieved by optimizing the control of the indoor fan, compressor, and heat exchanger.

### Weekly Timer Function

Easily set desired temperatures and operation ON/OFF times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

#### ■ Example Operation Pattern (Winter/Heating mode)

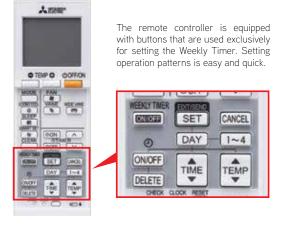
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
5.00	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C	ON 20°C
6:00 AM			Automatically chang	ges to high-power operation	on at wake-up time		
8:00 am							
10:00 AM	OFF	OFF	OFF	OFF	OFF	ON 17°C	ON 17°C
12:00 AM 2:00 PM		Automat	ically turned off during wo	ork hours		Midday is warmer, so the temperature is	s set lower
4:00 pm							
Б:00 <sub>РМ</sub>	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C	ON 22°C
8:00 <sub>PM</sub>		Automatically tu	ırns on, synchronized with	arrival at home		Automatically raises temporated time when outside-	
10:00 PM							
(during sleeping hours)	ON 17°C	ON 17°C	ON 17°C	ON 17°C	ON 17°C	ON 17°C	ON 17°C
		Au	itomatically lowers temper	ature at bedtime for energ	gy-saving operation at nig	ght	

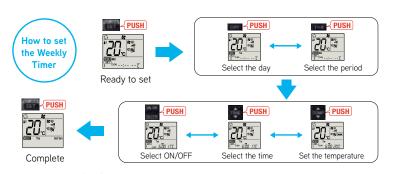
Settings

Pattern Settings: Input up to four settings for each day

**Settings:** •Start/Stop operation •Temperature setting \*The operation mode cannot be set.

#### ■ Easy set-up using dedicated buttons





- Start by pushing the "SET" button and follow the instructions to set the desired patterns. Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the "SET" button one more time. (Push the "SET" button only after inputting all of the desired patterns into the remote controller memory. Pushing the "CANCEL" button will end the set-up process without sending the operation patterns to the indoor unit).
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.

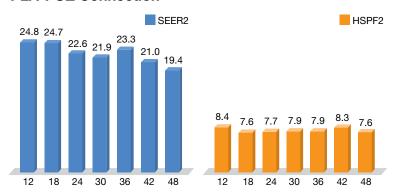
The P Series is designed to achieve industry-leading seasonal energy-efficiency through use of new technologies and high-performance compressors. Installation is easy thanks to outdoor units with a side-flow configuration, a maximum piping length of 225ft (245ft for 48,000 Btu/h) PUY only and pipe-replacement technologies.



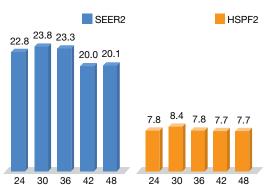
#### **Industry Leading Energy Efficiency**

Industry-leading energy efficiency has been achieved through optimisation of a newly designed compressor and the use of the latest energy-saving technologies. All compressors offer high performance due to advanced variable-speed INVERTER-drive technology, which varies the compressor speed dynamically to continuously adapt to the conditioning requirements of the room.

#### **PLA-PUZ Connection**



#### **PLA-PUZ NLHZ Connection**



#### Advanced Energy-saving Technology

#### ADVANCED ENERGY-SAVING TECHNOLOGIES

#### Highly efficient fan for outdoor unit

Fan opening of 21-3/4 in. < AK36-48NL, AK24-48NLHZ>

The opening for the fan in the outdoor unit is 21-3/4in. in diameter. By exchanging heat more efficiently, this will contribute to energy-saving and low noise level.



#### Improved fan <AK36-48NL, AK24-48NLHZ>

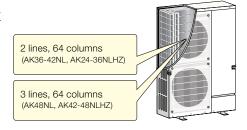
A newly designed fan has been adopted, increasing airflow capacity and reducing operation noise.



#### Highly efficient heat exchanger

High-density heat exchanger < AK36-48NL, AK24-48NLHZ>

AK36-48NL, AK24-48NLHZ use 0 5/tein.-diameter pipe. The high-density heat exchanger contributes to efficient heat exchange and reduces the amount of refrigerant used, which is better for the environment.



### **SELECTION**

P series line-up consists of 6 types of indoor units. Choose the model that best matches room conditions.





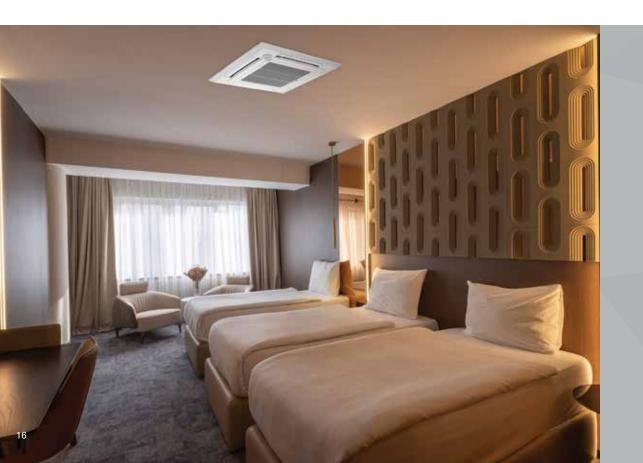
PUZ-AK24/30/36/42/48NLHZ

# **INDOOR MODELS**

## **P**SERIES

COOLING ONLY Models

Model Name		9,000 Btu/h	12,000 Btu/h	18,000 Btu/h	24,000 Btu/h	30,000 Btu/h	36,000 Btu/h	42,000 Btu/h	48,000 Btu/h	Page
	T	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	1-phase	
4-way casette	PLA Series		V	V	V	V	V	V	V	23
Wall-mounted	PKA Series		V	V	V	V	V			29
Multi position AHU	PVA Series		V	V	V	V	V	V		33
Hybrid Heating & Cooling	PAA Series			V	V	V	V	V		37
Ceiling-concealed	PEAD Series	V	V	V	V	V	V	V		41
Ceiling-suspended	PCA Series				V	V	V	V		45



# **INDOOR MODELS**

## **P**SERIES

COLD CLIMATE HYPER HEAT Models

Model Name		12,000 Btu/h 1-phase	18,000 Btu/h 1-phase	24,000 Btu/h 1-phase	30,000 Btu/h 1-phase	36,000 Btu/h 1-phase	42,000 Btu/h 1-phase	48,000 Btu/h 1-phase	- Page
4-way casette	PLA Series			V	V	V	V	V	23
Wall-mounted	PKA Series	V	V	V	V	V			29
Multi position AHU	PVA Series	V	V	V	V	V	~		33
Hybrid Heating & Cooling	PAA Series			V	V	V	V		37
Ceiling-concealed	PEAD Series	V	V	V	V	V	V		41
Ceiling-suspended	PCA Series			V	V	V	V		45



# The Ultimate Technology For Server Room Cooling and Light Commercial HVAC Applications

For more than 30 years, Mitsubishi Electric has been a leader in Canada providing the most energy-efficient, environmentally friendly HVAC products.

Mitsubishi Electric's advanced technologies include INVERTER-driven compressor systems which use only the exact amount of energy needed to heat or cool an area. This feature provides users with energy and cost savings while experiencing precise control over their personal comfort year-round.

#### PROTECTING DATA HAS NEVER BEEN MORE IMPORTANT

The -40°C/F unit is the market leader in low-ambient cooling. Keeping server/equipment rooms cool is vital to the protection and availability of sensitive and highly confidential information. The P-Series cooling systems feature proven Low and Ultra Low Ambient cooling operation that is specifically designed for the Canadian climate. They continue to operate efficiently and effectively even when outside temperatures reach as low as -40°C/F.

#### ZONE CONTROL PLUS PERSONAL CONTROL

Split ductless, low-profile ducted and multi-position ducted systems use refrigerant lines to connect outdoor units to indoor air handlers. The result: the capacity within any space with an indoor unit installed can be controlled to provide the perfect temperature. Along with the capability to provide precise temperature control for any space, Mitsubishi Electric systems also offer the unique ability to condition only those spaces in use at any given time.

#### STATE-OF-THE-ART DESIGN AND SMARTER FUNCTIONALITY

When you choose Mitsubishi Electric P-Series products for server room protection, light commercial and large-scale residential applications, you're making an excellent choice that users will appreciate for its intelligent function and the personalized comfort control it delivers.

#### **QUALITY**

Mitsubishi Electric is consistently recognized by HVAC contractors as the #1 preferred ductless brand with the highest quality rating among manufacturers. Our products provide extraordinary service life extending years beyond the norm.

#### **EXPLORE PERFORMANCE**

Mitsubishi Electric delivers a complete range of compact and powerful heating and cooling products that are intelligent, energy-efficient and whisper quiet.

#### **EXPLORE TRAINING**

Comprehensive product and application instruction is provided through Mitsubishi Electric Heating & Cooling.

## PROTECT YOUR MOST VALUABLE ASSETS

## Low Ambient Cooling

## The -40°C/F unit: The market leader in low-ambient cooling

There's a reason the P-Series is known as THE -40°C/F unit – in fact, there are several. Mitsubishi Electric has an immaculate track record of cooling server rooms in outdoor temperatures as low as -40°C/F for over 25 years. Systems are installed in Canada's coldest climates and have been operating in extreme conditions. There are P-Series units that have been in continuous cooling operation in Canada for over two decades – that's 175,000 running hours and still counting!

# Protecting your valuable information

Keeping server/equipment rooms cool is vital to the protection and availability of sensitive and highly confidential valuable information.

Mitsubishi Electric's precision cooling products are designed to deliver equipment room cooling, maintaining the separation of hot and cold aisle.

The cold air discharged from the cooling equipment is directed to the front intake of the server and expelled through the rear exhaust side. The circulation of air through the servers in this manner ensures that it stays cool.

Heat generated from equipment is regarded as sensible heat (changes the temperature of an object) containing no moisture. Static electricity is generated when the air stream is dry, and damage to servers can be caused under this type of condition. Precision cooling equipment, such as Mitsubishi Electric's P-series models, provides a high rate of sensible cooling (removal of sensible heat) with little moisture removal, helping to keep static charge condition at a minimum.

Equipment rooms, including server rooms, require year round cooling and Mitsubishi Electric's products are suited to operate in varying outdoor temperatures ranging from 45°C to -40°C/F.

# Designed and built for 24/7/365 cooling



The P-Series true commercial grade cooling systems feature proven Low and Ultra Low Ambient cooling operation that is specifically designed for the Canadian climate. They continue to operate efficiently and effectively even when outside temperatures reach as low as -40°C/F.

The compressors in residential grade cooling systems are not designed to deliver 24/7 cooling in Canadian winters. Running them continuously during extreme cold conditions can lead to excessively low condensing pressure, which can result in a series of malfunctions and premature compressor failures. The P-Series cooling units feature fast auto restart functionality which allows the system to cool immediately where conventional residential systems require a minimum off time. This feature guarantees cooling when you need it.



# Cooling Only PUY SERIES



#### High Reliability and Performance in Low Ambient Conditions

By changing the fan speed control in low ambient temperatures, the PUY Series can offer stable operation down to -28.8 °C. This series is well suited for cooling needs in cold regions.

#### Low ambient cooling operation range

#### PUY-AK/H\*\*NL





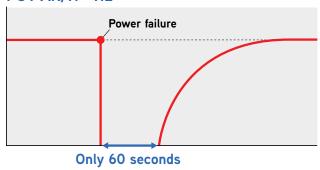




#### Quick auto restart after power failure

In case of power failures, it takes only 60 seconds to get restarted automatically. The unit will quickly restart with the same operation mode as before the power failure. The graph below for illustration purposes only. Actual operation may vary.

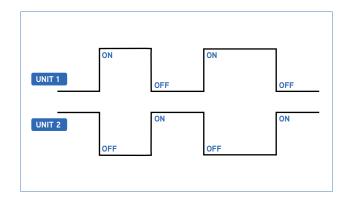
#### PUY-AK/H\*\*NL



#### Backup rotation function

The two units can operate alternately, thus maintaining their quality for a longer period of time. This allows for unit backup should one encounter any issues.

\*Can only be used with PAR-42MAACAB controller



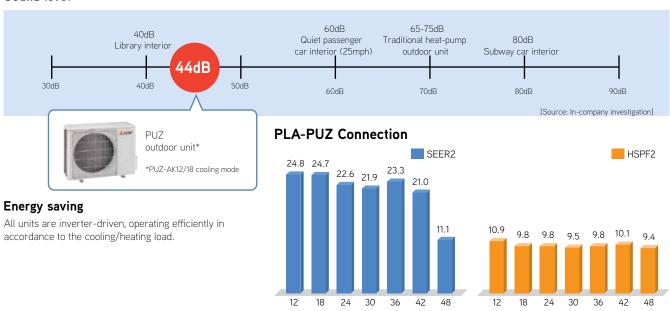
<sup>\*</sup>Optional Air Protection Guide/Wind Baffle is needed when ambient temperature is under-5 °C.

# Heat Pump PUZ SERIES



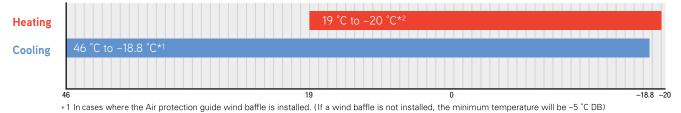
#### **Quiet and Comfort**

#### Sound level



#### Wide Operation Range

Due to the wide operation range, the units can be used in many different climates.



#### Flexible Installation

#### Long piping length

The long piping length allows for installation in places such as rooftops.

	Pip	ing
	Length (ft)	Height (ft)
PUZ-AK12NL	100	100
PUZ-AK18NL	100	100
PUZ-AH24NL	165	100
PUZ-AH30NL	165	100
PUZ-AK36NL	165	100
PUZ-AK42NL	165	100
PUZ-AK48NL	245	100

#### Various types of indoor units

With various types of indoor units, there is a perfect match for any type of application, starting from residential homes to restaurants and offices.

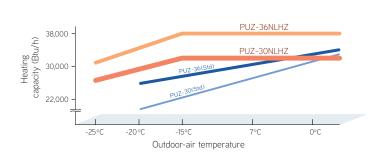


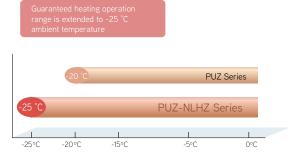
# Cold Climate Hyper Heat PUZ-NLHZ SERIES



#### **Improved Heating Performance**

Mitsubishi Electric's unique "Flash Injection" circuit achieves remarkably high heating performance. This technology has resulted in an excellent heating capacity rating in outdoor temperatures as low as -15 °C, and the guaranteed heating operation range of the heating mode has been extended to -25 °C. As a result, the cold climate PUZ is perfect for warming homes in the coldest of regions.



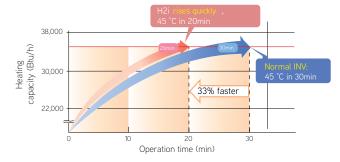


#### **Enhanced Comfort**

"Flash Injection" circuit improves start-up and recover from the defrosting operation. These features enable the temperature to reach the set temperature more quickly, and contribute to maintaining it at the desired setting.

#### Quick Start-up

■Operation at -20 °C outdoor temperature





PLA-AE12/18/24/30/36/42/48NL

et and the "3D i-see Sensor"
comfort throughout the room.



Offering superior energy savings, the incorporation of a wide air-outlet and the "3D i-see Sensor" enhances airflow distribution control, achieving an enhanced level of comfort throughout the room. The synergy of higher energy effciency and a more comfortable room environment results in the utmost user satisfaction.

#### 4-way Cassette Line-up

For users seeking further energy savings, Mitsubishi Electric offers a wide line-up from 12,000 to 48,000 Btu capacities.

#### **■**Line-up

Model Series	12	18	24	30	36	42	48
4-way Cassette (PLA)	PLA-AE12NL	PLA-AE18NL	PLA-AE24NL	PLA-AE30NL	PLA-AE36NL	PLA-AE42NL	PLA-AE48NL

#### ■ Key Technologies for Higher Energy Efficiency

#### 3D Turbo Fan

By optimizing the fan wing design using a three-dimensional shape, efficiency has been improved and operating noise reduced.

#### ■Indoor/Outdoor Unit Combinations









PUY/PUZ-AK36/42/48NL PUZ-AK24/30/36/42/48NLHZ

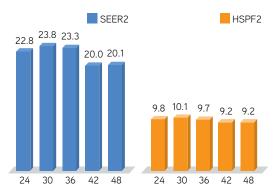
#### **Energy-saving Performance**

Industry-leading energy-saving features.

#### **PLA-PUZ Connection**



#### **PLA-PUZ NLHZ Connection**



#### **Horizontal Airflow**

#### Draft reduction vane setting

The new "Draft reduction" features a manual vane setting that makes the airflow direction more horizontal than the standard horizontal vane setting. This dramatically reduces drafts.

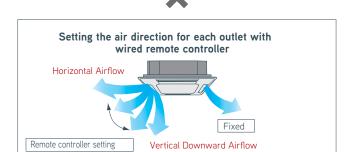
 $\mbox{\ensuremath{^{\star}}}\mbox{The draft reduction can be set for only 1 vane. PAR-42MAACAB is required for this setting.$ 

#### Individual Vane Settings

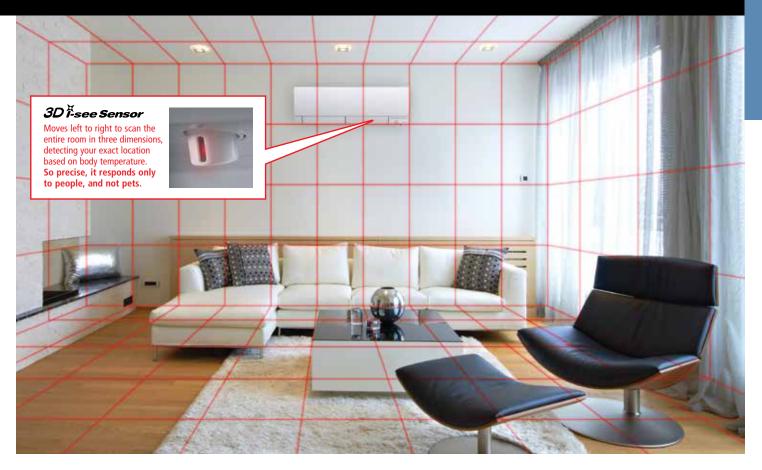
#### 72 patterns of airflow to accommodate any room layout

The number of outlets can be set to 4, 3, or 2. Flexible airflow is available by fixing the up-down airflow direction of the outlet with a wired remote controller (or manually).

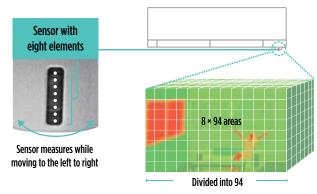
# \*Optional parts air outlet shutter plate is required for 2- or 3- way outlet selection.



# NEXT LEVEL PRECISION COMFORT: 3D Fisee Sensor



A Mitsubishi Electric-exclusive innovation, the 3D i-see Sensor delivers precision comfort to where it matters most. An infrared ray sensor measures the temperature at distant positions. While moving to the left and right, eight vertically arranged sensor elements analyze the room temperature in three dimensions. This detailed analysis makes it possible to judge where people are in the room, thus allowing creation of features such as "Indirect airflow", which helps prevent air from blowing directly onto individuals, while "direct airflow" ensures air is delivered precisely to areas where people are present.

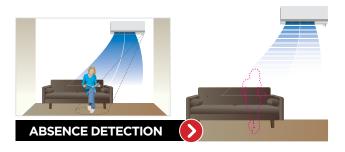




The indirect airflow setting can be used when the flow of air feels too strong or direct. For example, it can be used during cooling to avert airflow and prevent body temperature from becoming excessively cooled.



This setting can be used to directly target airflow at people for immediate comfort when coming indoors on a hot (cold) day.



The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.

The *3D i-see Sensor* detects people's absence and the power consumption is automatically reduced by approximately 10% after 10 minutes and 20% after 60 minutes.

## **SERIES SELECTION** PAM Power Receiver **Outdoor Unit PLA Series** Indoor Unit Cooling Only PUY-AH24/30NL Heat Pump PLA-AE12/18/24/30/36/42/48NL PUZ-AH24/30NL Cold Climate Hyper Heat Panel with i-see Sensor PLP-41EAEU PUZ-AK24/30/36/42/48NLHZ Remote Controller Optional Optional Optional



Туре							Cooling only					
Indoor Uni	t			PLA-AE12NL	PLA-AE18NL	PLA-AE24NL	PLA-AE30NL	PLA-AE36NL	PLA-AE42NL	PLA-AE48NL		
Outdoor U	Init			PUY-AK12NL	PUY-AK18NL	PUY-AH24NL	PUY-AH30NL	PUY-AK36NL	PUY-AK42NL	PUY-AK48NL		
Power	Source						R454B					
Supply	Outdoor (Phase, Hz, V	)			1-phase, 60Hz, 208/230							
	Recommended Break	er Size	A	20		2	25	3	35	40		
Cooling	Capacity	Rated *1	Btu/h	12,000	18,000	24,000	27,000	36,000	42,000	48,000		
		Min-Max*1	Btu/h	4,900-12,400	5,000-18,500	10,300-24,500	10,300-30,000	14,300-36,600	15,400-42,500	17,000-49,000		
	SEER2	<u> </u>	<u> </u>	24.8	24.7	22.6	21.6	23.3	21.0	19.4		
	EER2		Btu/h/W	17.1	13.7	13.2	11.7	13.7	12.0	10.4		
	Moisture Removal	,	Pints/h	1.1	3.8	4.0	9.0	8.0	10.9	14.6		
	SHF (RH50%)			0.97	0.83	0.89	0.84	0.84	0.79	0.75		
Indoor	MCA		A	1.0	1.0	1.0	1.0	2.0	2.0	2.0		
Unit	Dimensions W Inch [mn			33-1/10	5[840.0]		•	33-1/16[840.0]				
	D Inch [mr			33-1/16[840.0]		33-1/16[840.0]						
		Н	Inch [mm]	10-3/10	3[258.0]			11-3/4[298.0]				
	Weight		lbs [kg]	46	[21]			57[26]				
	Air Volume at Cooling (Lo-M2-M1-Hi) CFM		370-460-490-530	460-490-570-600	530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200	740-920-1060-1200			
	Sound Level (Lo-M2-N	/11-Hi)	dB (A)	26-27-29-30	28-29-31-32	28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45	34-38-42-45		
Outdoor	MCA	· ·	A	1	6	2	22	3	34	38		
Unit	MOCP		A	2	7	37		56		67		
	Dimensions	W	Inch [mm]	31-13/16 + 2-	7/16 [809+62]	37-13/32 [950]		41-11/32 [1050]				
		D	Inch [mm]	11-3/1	6 [300]	13-63/64 [330 + 25]		63/64+12-63/64 [25+130]		[0]		
		Н	Inch [mm]	24-13/	16 [630]	37-1/	8 [943]		52-43/64 [1338]			
	Weight	,	lbs [kg]	99	[45]	155	[70]	224	[102]	265 [120]		
	Air Volume		CFM	15	90	19	940	3,9	910	4,020		
	Sound Level	Cooling	dB (A)	4	4	4	19	5	52	60		
		Heating	dB (A)	4	6	Ę	52		53	62		
Piping	Diameter	Gas	Inch [mm]	1/2 [	12.7]			5/8 [15.88]				
		Liquid	Inch [mm]	1/4 [	6.35]			3/8 [9.52]				
	Max. Length		ft [m]	165	[50]		225	[69]		245 [75]		
	Height		ft [m]				100 [30]					
Guarantee	d Operation Range	Cooling	°F[0°C]			23	~ 115°F DB [-5 ~ 46°C	DB]				
		Heating	°F[0°C]									

## PLA SERIES STANDARD HEAT PUMP

Туре							Standard			
Indoor Unit	i			PLA-AE12NL	PLA-AE18NL	PLA-AE24NL	PLA-AE30NL	PLA-AE36NL	PLA-AE42NL	PLA-AE48NL
Outdoor U	nit			PUZ-AK12NL	PUZ-AK18NL	PUZ-AH24NL	PUZ-AH30NL	PUZ-AK36NL	PUZ-AK42NL	PUZ-AK48NL
Power	Source						R454B			
Supply	Outdoor (Phase, Hz, V)					-	1-phase, 60Hz, 208/23	30		
	Recommended Breaker	Size	A	20		25		35		40
Cooling	Capacity	Rated *1	Btu/h	12,000	18,000	24,000	27,700	36,000	42,000	48,000
		Min-Max*1	Btu/h	4,900-12,400	5,000-18,500	10,300-24,500	10,300-30,000	14,300-36,600	15,400-42,500	17,000-49,000
	SEER2			24.8	24.7	22.6	21.9	23.3	21.0	19.4
	EER2 Btu/h/W		Btu/h/W	17.1	13.7	13.2	11.7	13.7	12.0	10.4
	Moisture Removal		Pints/h	1.1	3.8	4.0	9.0	8.0	10.9	14.6
	SHF (RH50%)			0.97	0.83	0.89	0.84	0.84	0.79	0.75
Heating	Capacity	Rated *1	Btu/h	14,000	19,000	26,000	32,000	38,000	45,000	54,000
		Min-Max*1	Btu/h	4,200-20,000	4,200-24,000	8,400-31,600	8,400-34,600	13,000-40,000	13,200-49,600	16.600-60000
		Max at -8°C*2	Btu/h	10,700	11,700	15,700	17,700	23,600	29,400	33,400
		Max at -15°C*3	Btu/h	8,800	9,400	11,500	12,800	20,000	25,400	23,000
	HSPF2 IV			10.9	9.8	9.8	10.3	9.8	10.1	9.4
	HSPF2 V			8.4	7.6	7.7	7.9	7.9	8.3	7.6
Indoor	MCA		Α	1.0	1.0	1.0	1.0	2.0	2.0	2.0
Unit	Dimensions	W	Inch [mm]	33-1/16	5[840.0]	33-1/16[840.0]				
		D	Inch [mm]	33-1/16	5[840.0]			33-1/16[840.0]		
	Н		Inch [mm]	10-3/16[258.0] 11-3/4[298.0]						
	Weight	·	lbs [kg]	46.0	[21.0]			57.0[26.0]		
	Air Volume at Cooling (Lo-M2-M1-Hi)	DRY	CFM	370-460-490-530	460-490-570-600	530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200	740-920-1060-1200
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	26-27-29-30	28-29-31-32	28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45	34-38-42-45
Outdoor	MCA	· ·	Α	1	6	2	22	3	34	38
Unit	MOCP		Α	2	7	3	37	5	56	67
	Dimensions	W	Inch [mm]	31-13/16 + 2-	7/16 [809+62]	37-13/	32 [950]		41-11/32 [1050]	
		D	Inch [mm]	11-3/1	6 [300]	13-63/64	[330 + 25]	6	3/64+12-63/64 [25+33	30]
		Н	Inch [mm]	24-13/	16 [630]	37-1/8	8 [943]		52-43/64 [1338]	
	Weight		lbs [kg]	99	[45]	155	[70]	224	[102]	265 [120]
	Air Volume		CFM	15	90	19	940		910	4020
	Sound Level	Cooling	dB (A)	4	4	4	19	5	52	60
		Heating	dB (A)	4	6	5	52	5	53	62
Piping	Diameter	Gas	Inch [mm]	1/2 [	12.7]			5/8 [15.88]		
		Liquid	Inch [mm]	1/4 [6.35]				3/8 [9.52]		
	Max. Length		ft [m]	100	[30]		165	[50]		245 [75]
	Height		ft [m]				100 [30]			
Guarantee	d Operation Range	Cooling	°F[0°C]			23	~ 115°F DB [-5 ~ 46°C	DB]		
		Heating	°F[0°C]	-4 ~ 70°FDB [-20 ~ 21°CDB]						



PLA-RESNNL   PLA	Туре						Cold Climate					
Source   Source   R458B   Source   So	Indoor Unit				PLA-AE24NL	PLA-AE30NL	PLA-AE36NL	PLA-AE42NL	PLA-AE48NL			
Dutifor (Phase, R. L. V)	Outdoor U	nit			PUZ-AK24NLHZ	PUZ-AK30NLHZ	PUZ-AK36NLHZ	PUZ-AK42NLHZ	PUZ-AK48NLHZ			
Recommended Breeker Size	Power	Source				•	R454B					
Capacity	Supply	Outdoor (Phase, Hz, V)					1-phase, 60Hz, 208/230	,				
Min-Max*		Recommended Breaker	Size	A	25		30	4	10			
SEF12	Cooling	Capacity	Rated *1	Btu/h	24,000	30,000	36,000	42,000	48,000			
EER2			Min-Max*1	Btu/h	13,600-24,400	12,600-31,000	14,300-36,600	16,800-43,000	16,800-49,000			
Moisture Pernoval   Pintah   4.7   6.7   8.0   10.0   14.6		SEER2			22.8	23.8	23.3	20.0	20.1			
SHF (RHS0%)		EER2		Btu/h/W	16.1	14.0	13.7	11.8	10.5			
Rated		Moisture Removal		Pints/h	4.7	6.7	8.0	10.0	14,6			
Min-Max*1		SHF (RH50%)			0.87	0.81	0.84	0.80	0.80			
Max at -8°C°2   Btu/h   26,000   32,000   38,000   48,000   52,000	Heating	Capacity	Rated *1	Btu/h	26,000	32,000	38,000	48,000	52,000			
Max at -15°C°   Btu/h   26,000   32,000   38,000   48,000   5,200			Min-Max*1	Btu/h	13,200-28,000	11,500-34,000	13,000-40,000	16,000-54,000	16,000-60,000			
HSPF2   V			Max at -8°C*2	Btu/h	26,000	32,000	38,000	48,000	52,000			
HSPE2 V			Max at -15°C*3	Btu/h	26,000	32,000	38,000	48,000	5,200			
MCA		HSPF2 IV	·	•	9.8	10.1	9.7	9.2	9.2			
Dimensions   W   Inch [mm]   33-1/16[840.0]     D   Inch [mm]   33-1/16[840.0]     Weight   Ibs [kg]   57.0[26.0]     Air Volume at Cooling (Lo-M2-M1-Hi)   Cooling   dB (A)   28-30-33-36   28-32-35-38   32-37-41-44   34-38-42-45   34-38-42-45     Dimensions   W   Inch [mm]   41-11/32 [1050]     Dimensions   W   Inch [mm]   63/64+12-63/64 [25+130]     Dimensions   W   Inch [mm]   63/64+12-63/64 [25+30]     H   Inch [mm]   52-43/64 [1338]     Weight   Ibs [kg]   231 [105]   271 [123]     Air Volume   Cooling   dB (A)   53   60     Pleating   dB (A)   53   60     Pleating   dB (A)   53   60     Dimensions   Weight   Ibs [kg]   231 [105]   271 [123]     Air Volume   Cooling   dB (A)   52   60     Pleating   dB (A)   52   60     Pleating   dB (A)   53   62     Max. Length   Time   Time		HSPF2 V			7.8	8.4	7.8	7.7	7.7			
D	Indoor	MCA		A	1.0	1.0	2.0	2.0	2.0			
H	Unit	Dimensions	W	Inch [mm]			33-1/16[840.0]					
Weight			D	Inch [mm]			33-1/16[840.0]					
Air Volume at Cooling (Lo-M2-M1-Hi)		H Inch [mm]		Inch [mm]			11-3/4[298.0]					
(Lo-M2-M1-Hi)					57.0[26.0]							
(Lo-M2-M1-Hi)   Cooling   dB (A)   28-30-33-36   28-32-35-38   32-37-41-44   34-38-42-45   34-38-42-45   34-38-42-45     Dutdoor   MCA			DRY	CFM	530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200	740-920-1060-1200			
MOCP			Cooling	dB (A)	28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45	34-38-42-45			
Dimensions   W   Inch [mm]	Outdoor	MCA	*	A	24		29	3	35			
D	Unit	MOCP		Α	39		48	6	60			
H		Dimensions	W	Inch [mm]			41-11/32 [1050]					
Weight   Ibs [kg]   231 [105]   271 [123]     Air Volume   CFM   3740   4020     Sound Level   Cooling   dB (A)   52   60     Heating   dB (A)   53   62     Piping   Diameter   Gas   Inch [mm]   5/8 [15.88]     Liquid   Inch [mm]   3/8 [9.52]     Max. Length   ft [m]   165 [50]   245 [75]			D	Inch [mm]			63/64+12-63/64 [25+130]					
Air Volume			Н	Inch [mm]		-	52-43/64 [1338]					
Sound Level   Cooling   dB (A)   52   60     Heating   dB (A)   53   62     Plainter   Gas   Inch (mm)   5/8 [15.88]     Liquid   Inch (mm)   3/8 [9.52]     Max. Length   ft [m]   165 [50]   245 [75]		Weight		lbs [kg]		231 [105]		271	[123]			
Heating   dB (A)   53   62		Air Volume		CFM		3740		40	120			
Diameter   Gas   Inch [mm]   5/8 [15.88]		Sound Level	Cooling	dB (A)		52		6	60			
Liquid         Inch [mm]         3/8 [9.52]           Max. Length         ft [m]         165 [50]         245 [75]			Heating	dB (A)		53		6	52			
Max. Length ft [m] 165 [50] 245 [75]	Piping	Diameter	Gas	Inch [mm]			5/8 [15.88]	*				
			Liquid	Inch [mm]								
		Max. Length										
Height   ft [m]   100 [30]		Height		ft [m]		•	100 [30]					
Suaranteed Operation Range Cooling "F[0°C] 23 ~ 115" F DB [-5 ~ 46" C DB]	Guarantee	d Operation Range	Cooling	°F[0°C]			23 ~ 115°F DB [-5 ~ 46°C DB]					
Heating °F[0°C] -13 ~ 70°F DB [-25 ~ 21°C DB]			Heating	°F[0°C]			-13 ~ 70°FDB [-25 ~ 21°C DB	]				



The compact, wall-mounted indoor units offer the convenience of simple installation, and a large product line-up ensures a best-match solution. Designed for high efficiency and energy savings.



#### Flat Panel & Pure White Finish

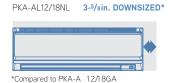
A flat panel layout has been adopted for all models. Pursuing a design that harmonizes with virtually any interior, the unit color has been changed from white to pure white.

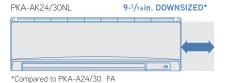


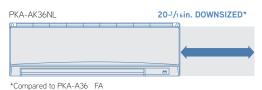


#### **Compact Indoor Units**

Indoor unit width has been reduced by as much as 20 -1/16 in. Units take up much less space, greatly increasing installation possibilities.







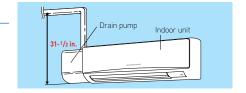
**Energy-saving Performance** 

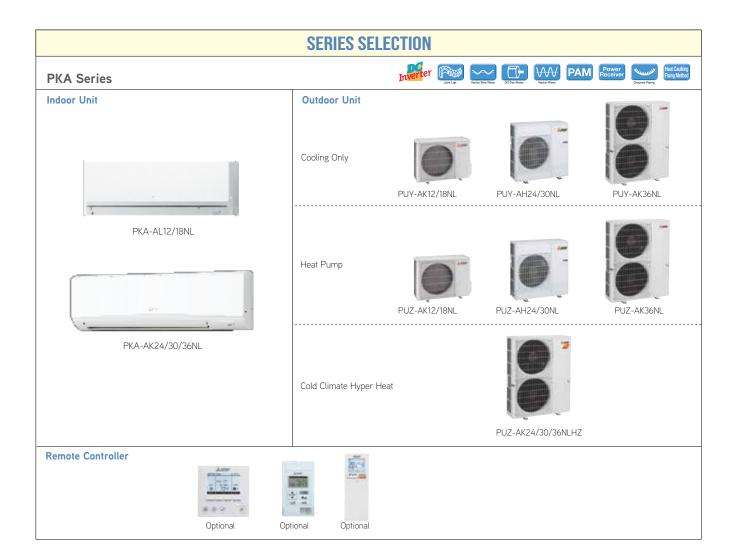
Energy-saving features

#### **PKA-PUZ Connection PKA-PUZ NLHZ Connection** SEER2 HSPF2 SEER2 HSPF2 23.2 22.1 21.8 20.3 19.5 19.7 9.4 10.1 9.9 9.4 9.6 9.2 9.2 12 18 12 18 30 36 30 30 24 30 36 24 24 36 24 36

#### **Drain Pump Option Available with All Models**

Installation of the drain pump enables a drain outlet as high as  $31-\frac{1}{2}$  in. above the base of the indoor unit. Drain water can be discharged easily even if the surface where the wall-mounted unit does not have direct access outside, increasing the degree of flexibility for installation.







Туре						Cooling only				
ndoor Unit		'		PKA-AL12NL	PKA-AL18NL	PKA-AK24NL	PKA-AK30NL	PKA-AK36NL		
utdoor Un	it			PUY-AK12NL	PUY-AK18NL	PUY-AH24NL	PUY-AH30NL	PUY-AK36NL		
ower	Source				·	R454B	•	•		
upply	Outdoor (Phase, Hz, V)			1-phase, 60Hz, 208/230						
	Recommended Breaker S	ize	A	20			25			
ooling	Capacity	Rated *1	Btu/h	12,000	18,000	24,000	30,000	33,400		
		Min-Max*1	Btu/h	4,300-12,200	4,300-18,000	10,100-24,500	10,100-30,400	13,200-36,000		
	SEER2			21.1	19.5	21.1	19.7	20.3		
	EER2		Btu/h/W	13.3	11.0	12.0	10.1	12.0		
	Moisture Removal		Pints/h	3.0	6.6	6.2	10.5	12.0		
	SHF (RH50%)	'		0.90	0.74	0.78	0.73	0.76		
door	MCA		A			1.0				
nit	Dimensions	W	Inch [mm]	35-11/3	32 [898]		46-1/16 [1170]			
		D	Inch [mm]	9-11/3	2 [237]		11-5/8 [295]			
		Н	Inch [mm]	11-25/3	32 [299]		14-3/8 [365]			
	Weight lbs [kg]		lbs [kg]	28 [	[12.7]		46 [21]			
	Air Volume at Cooling	DRY	051	265-290-325-385	265-310-375-450	635-705-775	635-705-775	705-810-920		
	(Lo-M2-M1-Hi)	WET	CFM	215-255-320-375	215-255-320-375	635-705-775	635-705-775	705-810-920		
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	34-39-44-48	34-39-44-48	39-42-45	39-42-45	43-46-49		
ıtdoor	MCA		A		16		22	34		
nit	MOCP		A		27		37	56		
	Dimensions	W	Inch [mm]	31-13/16 + 2-7	7/16 [809+62]	37-13/	41-11/32 [1050]			
		D	Inch [mm]	11-3/16	6 [300]	13-63/64	[330 + 25]	63/64+12-63/64 [25+130		
		Н	Inch [mm]	24-13/	16 [630]	37-1/	8 [943]	52-43/64 [1338]		
	Weight		lbs [kg]	99	[45]	155	[70]	224 [102]		
	Air Volume		CFM	15	590	19	940	3910		
	Sound Level	Cooling	dB (A)	4	44		49	52		
		Heating	dB (A)	4	46		52	53		
ping	Diameter	Gas	Inch [mm]	1/2	[12.7]		5/8 [15.88]			
		Liquid Inch [mm]		1/4 [6.35]			3/8 [9.52]			
	Max. Length ft [m]		ft [m]	165	[50]		225 [69]			
	Height		ft [m]			100 [30]				
uaranteed	Operation Range	Cooling	°F[0°C]			23 ~ 115°F DB [-5 ~ 46°C DB]	_			
		Heating	°F[0°C]			_				

## PKA SERIES STANDARD HEAT PUMP

Type Indoor Unit						Standard		
ndoor Uni	t			PKA-AL12NL	PKA-AL18NL	PKA-AK24NL	PKA-AK30NL	PKA-AK36NL
Outdoor U	nit			PUZ-AK12NL	PUZ-AK18NL	PUZ-AH24NL	PUZ-AH30NL	PUZ-AK36NL
ower	Source				,	R454B	•	
upply	Outdoor (Phase, Hz, V)					1-phase, 60Hz, 208/230		
	Recommended Breaker S	Size	А	2	20		25	40
Cooling	Capacity	Rated *1	Btu/h	12,000	18,000	24,000	30,000	33,400
		Min-Max*1	Btu/h	4,300-12,200	4,300-18,000	10,100-24,500	10,100-30,400	13,200-36,000
	SEER2	•		21.1	19.5	21.1	19.7	20.3
	EER2		Btu/h/W	13.3	11.0	12.0	10.1	12.0
	Moisture Removal		Pints/h	3.0	6.6	6.2	10.5	12.0
	SHF (RH50%)		•	0.90	0.74	0.78	0.73	0.76
eating	Capacity	Rated *1	Btu/h	14,000	19,000	26,000	32,000	38,000
		Min-Max*1	Btu/h	4,200-18,000	4,200-23,600	8,300-31,000	8,300-34,400	13,200-40,000
		Max at -8°C*2	Btu/h	9,400	11,700	15,300	18,700	23,200
		Max at -15°C*3	Btu/h	8,000	9,200	11,600	12,900	20,000
	HSPF2			10.1	8.9	9.2	9.2	9.4
door	MCA		А	1.0	1.0	1.0	1.0	1.0
nit	Dimensions	W	Inch [mm]	35-11/3	2 [898]		46-1/16 [1170]	
		D	Inch [mm]	9-11/32 [237]			11-5/8 [295]	
		Н	Inch [mm]	11-25/32 [299]			14-3/8 [365]	
	Weight lbs [kg]		lbs [kg]	28 [	12.7]		46 [21]	
	Air Volume at Cooling DRY		CFM	265-290-325-385	265-310-375-450	635-705-775	635-705-775	705-810-920
	(Lo-M2-M1-Hi)	WET	CFM	215-255-320-375	215-255-320-375	635-705-775	635-705-775	705-810-920
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	34-39-44-48	34-39-44-48	39-42-45	39-42-45	43-46-49
ıtdoor	MCA		А	1	6		34	
nit	MOCP		А	2	27	;	37	56
	Dimensions	W	Inch [mm]	31-13/16 + 2-7	7/16 [809+62]	37-13/	32 [950]	41-11/32 [1050]
		D	Inch [mm]	11-3/16	[300]	13-63/64	[330 + 25]	63/64+12-63/64 [25+13
		Н	Inch [mm]	24-13/1	16 [630]	37-1/	8 [943]	52-43/64 [1338]
	Weight		lbs [kg]	99	[45]	155	[70]	224 [102]
	Air Volume		CFM	15	90	19	940	3910
	Sound Level	Cooling	dB (A)		14		49	52
		Heating	dB (A)	4	46		52	53
oing	Diameter	Gas	Inch [mm]	1/2 [	12.7]		5/8 [15.88]	
		Liquid	Inch [mm]	1/4 [	6.35]		3/8 [9.52]	
	Max. Length		ft [m]	100	[30]		165 [50]	
	Height		ft [m]			100 [30]		
uarantee	d Operation Range	Cooling	°F[0°C]			23 ~ 115°F DB [-5 ~ 46°C DB]		
	_	Heating	°F[0°C]			-4 ~ 70°F DB [-20 ~ 21°C DB]		



Туре				Cold Climate					
Indoor Uni	t			PKA-AK24NL	PKA-AK36NL				
Outdoor U	nit			PKA-AK24NL         PKA-AK30NL           PUZ-AK24NLHZ         PUZ-AK30NLHZ		PUZ-AK36NLHZ			
Power	Source			*	R454B				
Supply	Outdoor (Phase, Hz. V)			1-phase, 60Hz, 208/230					
	Recommended Breaker Size		A	25 30					
Cooling	Capacity Rated *1		Btu/h	24,000	30,000	33,600			
	' '	Min-Max*1	Btu/h	13,600-25,000	12,600-31,000	14,200-36,000			
	SEER2			21.8	23.2	22.1			
	EER2		Btu/h/W	14.5	12.7	11.9			
	Moisture Removal		Pints/h	7.8	8.3	12.4			
	SHF (RH50%)			0.81	0.75	0.76			
Heating	Capacity	Rated *1	Btu/h	26,000	32,000	38,000			
Ü		Min-Max*1	Btu/h	12,800-28,000	11,500-34,000	13,000-40,000			
		Max at -8°C*2	Btu/h	26,000	32,000	38,000			
		Max at -15°C*3	Btu/h	26,000	32,000	38,000			
	HSPF2			9.4	9.9	9.6			
Indoor	MCA		A	1.0	1.0	1.0			
Unit	Dimensions	W	Inch [mm]	46-1/16 [1170]					
		D	Inch [mm]	11-5/8 [295]					
		Н	Inch [mm]	14-3/8 [365]					
	Weight		lbs [kg]	46 [21]					
	Air Volume at Cooling DRY		CFM	635-705-775	635-705-775	705-810-920			
	(Lo-M2-M1-Hi)	WET	CFM	635-705-775	635-705-775	705-810-920			
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	39-42-45	39-42-45	43-46-49			
Outdoor	MCA		А	24	29				
Unit	MOCP		A	39	9 48				
	Dimensions W		Inch [mm]	41-11/32 [1050]					
		D	Inch [mm]	63/64+12-63/64 [25+130]					
		Н	Inch [mm]	52-43/64 [1338]					
	Weight		lbs [kg]	231 [105]					
	Air Volume		CFM	3740					
	Sound Level Cooling Heating		dB (A)	52					
			dB (A)	53					
Piping	Diameter Gas Liquid		Inch [mm]	5/8 [15.88]					
			Inch [mm]	3/8 [9.52]					
	Max. Length		ft [m]	165 [50] 245 [75]					
	Height		ft [m]	100 [30]					
Guarantee	Guaranteed Operation Range Cooling °F[0°C]			23 ~ 115°F DB [-5 ~ 46°C DB]					
	Heating °F[0°C]				-13 ~ 70°F DB [-25 ~ 21°C DB]				

# PVA SERIES

The PVA air handler is truly multi-positional offering up, down, left or right airflow, making it ideal for tight and unique spaces.



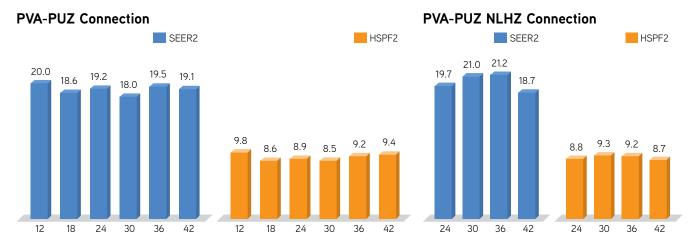
#### **Flexibility**

Installable in various positions.



#### **High Energy Efficiency**

The PVA Series has a high SEER2, and is very energy efficient compared to outdated indoor units.



#### **Interlocking Function**

The PVA Series has an output terminal which allows it to interlock with other appliances such as humidifiers and dehumidifiers.

#### **Durability**

The cabinet is made of galvanized metal with powder coated finish. The internal fan, coil, piping and circuitry are engineered and designed to work in harmony to provide years of reliable operation.

#### Thermostat Control (Optional)

Using the T-STAT interface, the user can replace their indoor unit without changing the remote controller.

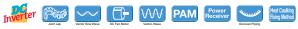


#### **SERIES SELECTION**

#### **Power Inverter Series**





















PVA-AA12/18/24/30/36/42NL

#### **Outdoor Unit**

Cooling Only



PUY-AK12/18NL



PUY-AH24/30NL



PUY-AK36/42NL

Heat Pump









Cold Climate Hyper Heat



PUZ-AK24/30/36/42NLHZ

Remote Controller







Optional



Туре				Cooling only						
Indoor Un	it			PVA-AA12NL	PVA-AA18NL	PVA-AA24NL	PVA-AA30NL	PVA-AA36NL	PVA-AA42NL	
Outdoor Unit				PUY-AK12NL	PUY-AK18NL	PUY-AH24NL	PUY-AH30NL	PUY-AK36NL	PUY-AK42NL	
ower	Source			R454B						
Supply	Outdoor (Phase, Hz, V)			1-phase, 60Hz, 208/230						
	Recommended Breaker Size		А	2	20	25		35		
Cooling	Capacity	Rated *1	Btu/h	12,000	18,000	23,400	30,000	36,000	42,000	
		Min-Max*1	Btu/h	4,500-12,400	4,700-18,300	10,200-24,000	10,200-30,600	13,400-37,000	14,100-44,000	
	SEER2			20.0	18.6	19.2	18.0	19.5	19.1	
	EER2		Btu/h/W	14.2	11.7	12.0	9.9	12.1	11.1	
	Moisture Removal		Pints/h	3.8	3.6	3.0	10.5	12.1	12.5	
	SHF (RH50%)			0.83	0.88	0.93	0.80	0.76	0.88	
ndoor	MCA		A	3.0	3.0	4.1	4.1	5.5	5.6	
Jnit	Dimensions	W	Inch [mm]	432[17]	432[17]	534[21]	534[21]	635[25]	635[25]	
		D	Inch [mm]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]	
		Н	Inch [mm]	1275[50-1/4]	1275[50-1/4]	1378[54-1/4]	1378[54-1/4]	1511[59-1/2]	1511[59-1/2]	
	Weight		lbs [kg]	113[51]	113[51]	141[64]	141[64]	172[78]	172[78]	
	Air Volume at Cooling (Lo-M2-M1-Hi)	DRY	CFM	280-340-400	515-625-735	613-744-875	613-744-875	788-956-1125	1040-1262-148	
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	31-35-38	31-36-40	34-40-44	34-40-44	38-43-43	45-48-52	
Outdoor	MCA		Α	16		22		34		
Init	MOCP		Α	27		37		56		
	Dimensions	W	Inch [mm]	31-13/16 + 2-7/16 [809+62]		37-13/32 [950]		41-11/32 [1050]		
		D	Inch [mm]	11-3/16 [300]		13-63/64 [330 + 25]		63/64+12-63/64 [25+130]		
		Н	Inch [mm]	24-13/16 [630]		37-1/8 [943]		52-43/64 [1338]		
	Weight lbs [kg		lbs [kg]	99 [45]		155 [70]		224 [102]		
	Air Volume		CFM	1590		1940		3910		
	Sound Level	Cooling	dB (A)	4	44		49		52	
		Heating dB (A) 46		52		53				
iping	Diameter	Gas	Inch [mm]	1/2 [12.7]		5/8 [15.88]				
		Liquid	Inch [mm]	1/4 [6.35]		3/8 [9.52]				
	Max. Length ft [		ft [m]	165 [50] 225 [69]						
	Height ft [m]		ft [m]	100 [30]						
Guaranteed Operation Range Cooling °F[0°C] Heating °F[0°C]			23 ~ 115°F DB [-5 ~ 46°C DB]							

## PVA SERIES STANDARD HEAT PUMP

Type Indoor Unit				Standard						
				PVA-AA12NL	PVA-AA18NL	PVA-AA24NL	PVA-AA30NL	PVA-AA36NL	PVA-AA42NL	
Outdoor Unit				PUZ-AK12NL	PUZ-AK18NL	PUZ-AH24NL	PUZ-AH30NL	PUZ-AK36NL	PUZ-AK42NL	
Power	Source			R454B						
Supply	Outdoor (Phase, Hz, V)			1-phase, 60Hz, 208/230						
	Recommended Breaker Size A		Α	2	20	25		35		
Cooling	Capacity	Rated *1	Btu/h	12,000	18,000	23,400	30,000	36,000	42,000	
· ·	, ,	Min-Max*1	Btu/h	4,500-12,400	4,700-18,300	10,200-24,000	10,200-30,600	13,400-37,000	14,100-44,000	
	SEER2			20.0	18.6	19.2	18.0	19.5	19.1	
	EER2		Btu/h/W	14.2	11.7	12.0	9.9	12.1	11.1	
	Moisture Removal		Pints/h	3.8	3.6	3.0	10.5	12.1	12.5	
	SHF (RH50%)			0.83	0.88	0.93	0.80	0.76	0.88	
leating	Capacity	Rated *1	Btu/h	14,000	19,000	26,000	32,000	38,000	46,000	
		Min-Max*1	Btu/h	4,200-19,000	4,200-24,000	8,400-31,800	8,400-34,400	13,300-40,000	13,300-49,700	
		Max at -8°C*2	Btu/h	10,200	12,100	15,200	18,200	23,600	29,600	
		Max at -15°C*3	Btu/h	8,500	9,500	11,500	12,800	20,000	25,400	
	HSPF2			9.8	8.6	8.9	8.5	9.2	9.4	
ndoor	MCA		Α	3.0	3.0	4.1	4.1	5.5	5.6	
Init	Dimensions	W	Inch [mm]	432[17]	432[17]	534[21]	534[21]	635[25]	635[25]	
		D	Inch [mm]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]	
		Н	Inch [mm]	1275[50-1/4]	1275[50-1/4]	1378[54-1/4]	1378[54-1/4]	1511[59-1/2]	1511[59-1/2]	
	Weight		lbs [kg]	113[51]	113[51]	141[64]	141[64]	172[78]	172[78]	
	Air Volume at Cooling (Lo-M2-M1-Hi)	DRY	CFM	280-340-400	515-625-735	613-744-875	613-744-875	788-956-1125	1040-1262-148	
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	31-35-38	31-36-40	34-40-44	34-40-44	38-43-43	45-48-52	
Outdoor	MCA		А	1	6	22		34		
Init	MOCP		Α	27		37		56		
	Dimensions	W	Inch [mm]	31-13/16 + 2-7/16 [809+62]		37-13/32 [950]		41-11/32 [1050]		
		D	Inch [mm]	11-3/16 [300]		13-63/64 [330 + 25]		63/64+12-63/64 [25+130]		
		Н	Inch [mm]	24-13/16 [630]		37-1/8 [943]		52-43/64 [1338]		
	Weight		lbs [kg]	99 [45]		155 [70]		224 [102]		
	Air Volume		CFM	1590		1940		3910		
	Sound Level	Cooling	dB (A)	44		49		52		
		Heating	dB (A)	46		52		53		
iping	Diameter Gas		Inch [mm]			5/8 [15.88]				
		Liquid	Inch [mm]			3/8 [9.52]				
	Max. Length		ft [m]	100 [30] 165 [50]						
	Height		ft [m]	100 [30]						
Guaranteed Operation Range			23 ~ 115°F DB [-5 ~ 46°C DB]							
				-4 ~ 70°F DB [-20 ~ 21°C DB]						



Туре				Cold Climate						
Indoor Uni	it	·		PVA-AA24NL	PVA-AA30NL	PVA-AA36NL	PVA-AA42NL			
Outdoor U	Init			PUZ-AK24NLHZ	PUZ-AK30NLHZ	PUZ-AK36NLHZ	PUZ-AK42NLHZ			
Power	Source			R454B						
Supply	Outdoor (Phase, Hz, V)			1-phase, 60Hz, 208/230						
	Recommended Breaker Size		A	25		40				
Cooling	Capacity	Rated *1	Btu/h	24,000	30,000	36,000	42,000			
		Min-Max*1	Btu/h	13,600-25,000	12,600-31,000	14,600-37,000	17,900-43,000			
	SEER2			19.7	21.0	21.2	18.7			
	EER2		Btu/h/W	13.6	13.5	12.1	11.4			
	Moisture Removal	Moisture Removal		6.7	6.6	11.8	6.6			
	SHF (RH50%)	SHF (RH50%)		0.89	0.8	0.82	0.89			
Heating	Capacity	Rated *1	Btu/h	26,000	32,000	38,000	48,000			
		Min-Max*1	Btu/h	12,800-28,000	11,500-34,000	13,000-40,000	16,100-54,000			
		Max at -8°C*2	Btu/h	26,000	32,000	38,000	48,000			
		Max at -15°C*3	Btu/h	26,000	32,000	38,000	48,000			
	HSPF2			8.8	9.3	9.2	8.7			
Indoor	MCA		А	4.1	4.1	5.5	5.6			
Unit	Dimensions	W	Inch [mm]	534[21]	534[21]	635[25]	635[25]			
		D	Inch [mm]	548[21-5/8]	548[21-5/8]	548[21-5/8]	548[21-5/8]			
		Н	Inch [mm]	1378[54-1/4]	1378[54-1/4]	1511[59-1/2]	1511[59-1/2]			
	Weight		lbs [kg]	141[64]	141[64]	172[78]	172[78]			
	Air Volume at Cooling (Lo-M2-M1-Hi)	DRY	CFM	613-744-875	613-744-875	788-956-1125	1040-1262-1485			
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	34-40-44	34-40-44	38-43-43	45-48-52			
Outdoor	MCA		A	24	35					
Unit	MOCP		A	39 48 60						
	Dimensions W		Inch [mm]	41-11/32 [1050]						
		D	Inch [mm]	63/64+12-63/64 [25+130]						
		Н	Inch [mm]	52-43/64 [1338]						
	Weight		lbs [kg]	231 [105] 271 [123]						
	Air Volume		CFM	3740 4020						
	Sound Level Cooling Heating		dB (A)	52 60						
			dB (A)	53 62						
Piping	Diameter Gas Liquid		Inch [mm]	5/8 [15.88]						
			Inch [mm]	3/8 [9.52]						
	Max. Length		ft [m]	165 [50] 245 [75]						
	Height		ft [m]	100 [30]						
Guarantee	Guaranteed Operation Range Cooling °F[0°C]			23 ~ 115°F DB [-5 ~ 46°C DB]						
	Heating °F[0°C]			-13 ~ 70°F DB [-25 ~ 21°C DB]						

# HYBRID HEATING & COOLING



Provides high-efficient heating and cooling through superior heat pump technology, using a furnace only as a backup heat source.

# Complete Comfort and Eco-efficiency

Mitsubishi Electric's Hybrid Heating & Cooling delivers cost-effective, eco-efficient, year-round heating and cooling. Variable speed technology and smart controls signi cantly reduce greenhouse gas emissions. Experience lower utility bills, a quieter outdoor environment and complete comfort in ambient temperatures as low as -25 °C.

# **Hybrid Heating & Cooling Line-up**

For user seeking further energy savings, Mitsubishi Electric offers a wide line-up from 18,000 to 42,000 Btu capacities.

Capacity	18	24	30	36	42
PAA-AA	•	•	•		
PAA-BA	•	•	•	•	•
PAA-CA				•	•

### **Greenhouse Gas Reduction**

Using the all-electric INVERTER-driven heat pump, your Hybrid Heating & Cooling system can match the heat load of your home for most of the heating season even in colder climates, significantly reducing direct and indirect carbon emissions.

# **Furnace Heating When Conditions Require**

Pair your heat pumps and furnace\* for reliable comfort and optimal energy savings. The heat pump automatically switches to the furnace when ambient temperatures are extremely low and when home heating load needs are high.

# **Cooling Only**

In summer, your heat pump's INVERTER-driven compressor provides superior cooling performance with impressive energy efficiency.

HYBRID HEATING & COOLING SYSTEM

<sup>\*</sup>Furnace must comply with the ANSI Z21.47.CSA2.3 standard. Excludes Oil or Drum type furnaces. Restrictions apply. See Installation Manual for further information.

# Power Inverter Series Series SELECTION Power Inverter Series Outdoor Unit Cooling Only PUY-AH2A/3ONL PAA-AA18/2A/3ONL PAA-AA18/2A/3ONL PAA-BA18/2A/3ONL PAA-BA18/2A/3ONL PAA-CA36/42NL Cold Climate Hyper Heat PUZ-AK24/3O/36/42NLHZ Remote Controller



Туре								Coolin	g only				
Indoor Uni				PAA-AA18NL	PAA-BA18NL	PAA-AA24NL	PAA-BA24NL	PAA-AA30NL	PAA-BA30NL	PAA-BA36NL	PAA-CA36NL	PAA-BA42NL	PAA-CA42NL
Outdoor U	nit			PUY-A	H24NL	PUY-A	H24NL	PUY-A	H30NL	PUY-A	K36NL	PUY-A	K42NL
Power	Source							R4	54B				
Supply	Outdoor (Phase, Hz, V)							1-phase, 60H	lz, 208/230				
	Recommended Breaker S	ize	A			2	25					35	
Cooling	Capacity	Rated *1	Btu/h	18,	000	23,	600	31,0	000	32,	000	42,	000
		Min-Max*1	Btu/h	9,500-	18,500	9,800-	24,000	10,100-	31,500	16,200	-36,000	15,400-	-43,000
	SEER2			17	7.9	17	7.8	16	p.1	18	3.1	17	'.1
	EER2		Btu/h/W	12	2.8	12	2.0	9	.9	11	.7	10	).3
	Moisture Removal		Pints/h	5	5.1	5	5.7	7	.7	6	.8	11	.1
	SHF (RH50%)			0	.78	0	.81	0.	78	0	.83	0.	.77
Indoor	MCA		A					C	1.2				
Unit	Dimensions	W	Inch [mm]	368[14.5]	445[17.5]	368[14.5]	445[17.5]	368[14.5]	445[17.5]	445[17.5]	533[21]	445[17.5]	533[21]
		D	Inch [mm]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]
		Н	Inch [mm]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	787[31]	787[31]	787[31]	787[31]
	Weight		lbs [kg]	54.10[24.59]	58.90[26.77]	64.60[29.36]	69.30[31.50]	64.40[29.27]	68.90[31.32]	78.20[35.55]	85.20[38.73]	78.20[35.55]	85.20[38.73]
	Air Volume at Cooling	DRY	CFM	525	525	700	700	875	875	1,050	1,050	1,225	1,225
Outdoor	MCA		A			2	22					34	
Unit	MOCP		A				37					56	
	Dimensions	W	Inch [mm]			37-13/3	32 [950]				41-11/32	2 [1050]	
		D	Inch [mm]			13-63/64	[330 + 25]				63/64+12-63	/64 [25+130]	
		Н	Inch [mm]			37-1/8	3 [943]				52-43/6	4 [1,338]	
	Weight		lbs [kg]				[70]				224	[102]	
	Air Volume		CFM				40					910	
	Sound Level	Cooling	dB (A)				19					52	
		Heating	dB (A)				52					53	
Piping	Diameter	Gas	Inch [mm]					5/8 [	15.88]				
		Liquid	Inch [mm]					3/8	9.52]				
	Max. Length		ft [m]					225	[69]				
	Height		ft [m]					100					
Guarantee	d Operation Range	Cooling	°F[0°C]					23 ~ 115°F DB [-	-5 ~ 46°C DB]				
		Heating	°F[0°C]						_				

# PAA SERIES STANDARD HEAT PUMP

Туре								Standard					
Indoor Unit	:			PAA-AA18NL	PAA-BA18NL	PAA-AA24NL	PAA-BA24NL	PAA-AA30NL	PAA-BA30NL	PAA-BA36NL	PAA-CA36NL	PAA-BA42NL	PAA-CA42NL
Outdoor Ur	nit			PUY-A	H24NL	PUY-A	H24NL	PUY-A	H30NL	PUY-A	K36NL	PUY-A	K42NL
Power	Source							R4	54B				
Supply	Outdoor (Phase, Hz, V)						-	1-phase, 60H	lz, 208/230	-		-	
	Recommended Breaker S	ize	А			25						35	
Cooling	Capacity	Rated *1	Btu/h	18,	000	23,	600	31,0	000	32,	000	42,	000
		Min-Max*1	Btu/h	9,500-	-18,500	9,800-	24,000	10,100-	31,500	16,200-	-36,000	15,400-	43,000
	SEER2			17	7.9	17	.8	16		18	3.1	17	.1
	EER2		Btu/h/W		2.8		2.0		.9	11	.7	10	).3
	Moisture Removal		Pints/h		5.1	5	.7	7	.7	6	.8	11	.1
	SHF (RH50%)			0	.78	0.	81	0.	78	0.	.83	0.	77
Heating	Capacity	Rated *1	Btu/h	19,	000	26,	000	32,	000	38,	000	46,	000
		Min-Max*1	Btu/h	11,400-	30,100	11,700-	31,400	10,100-	35,400	19,200-	-42,000	18,900-	50,000
		Max at -8°C*2	Btu/h		200	14,2			400		600	32,	
		Max at -15°C*3	Btu/h		300	13,5		15,0			400		600
	HSPF2			8	3.8	8	.7		.9	9	.4	9	.3
Indoor	MCA		А						.2				
Unit	Dimensions	W	Inch [mm]	368[14.5]	445[17.5]	368[14.5]	445[17.5]	368[14.5]	445[17.5]	445[17.5]	533[21]	445[17.5]	533[21]
		D	Inch [mm]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]
		Н	Inch [mm]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	787[31]	787[31]	787[31]	787[31]
	Weight		lbs [kg]	54.10[24.59]	58.90[26.77]	64.60[29.36]	69.30[31.50]	64.40[29.27]	68.90[31.32]	78.20[35.55]	85.20[38.73]	78.20[35.55]	85.20[38.73]
	Air Volume at Cooling	DRY	CFM	525	525	700	700	875	875	1,050	1,050	1,226	1,226
Outdoor	MCA		А				22					34	
Unit	MOCP		А				37					6	
	Dimensions	W	Inch [mm]			37-13/3					41-11/32	- ,	
		D	Inch [mm]			13-63/64					63/64+12-63		
		Н	Inch [mm]				3 [943]				52-43/6		
	Weight		lbs [kg]				[70]					[102]	
	Air Volume		CFM				40				3,0		
	Sound Level	Cooling	dB (A)				19					52	
		Heating	dB (A)				52					i3	
Piping	Diameter	Gas	Inch [mm]				·-	5/8 [		_		·-	
		Liquid	Inch [mm]				-		9.52]	_		-	
	Max. Length		ft [m]				_		[50]			_	
	Height		ft [m]						[30]				
Guarantee	d Operation Range	Cooling	°F[0°C]					23 ~ 115°F DB [-					
		Heating	°F[0°C]					-4 ~ 70°F DB [-	20 ~ 21°C DB]				



Туре								Cold Climate				
Indoor Unit	i			PAA-AA18NL	PAA-AA24NL	PAA-BA24NL	PAA-AA30NL	PAA-BA30NL	PAA-BA36NL	PAA-CA36NL	PAA-BA42NL	PAA-CA42NL
Outdoor Ur	nit				PUZ-AK24NLHZ		PUZ-AK	30NLHZ	PUZ-AK	(36NLHZ	PUZ-AK	42NLHZ
Power	Source							R454B				
Supply	Outdoor (Phase, Hz, V)						1-р	hase, 60Hz, 208/2	30			
	Recommended Breaker S	ize	А		25				30		4	10
Cooling	Capacity	Rated *1	Btu/h	18,000	24,	000	30,	000	32,	,000	42,	000
		Min-Max*1	Btu/h	13,100-19,000	14,100-	25,000	15,800-	-31,000	16,200	-36,000	17,300-	44,500
	SEER2			15.9	17	'.O	17	'.6	18	3.1	17	1.1
	EER2		Btu/h/W	11.7	12	2.1	11	.7	11	1.7	10	0.8
	Moisture Removal		Pints/h	4.8	6	.0	7	.6	6	5.8	11	.4
	SHF (RH50%)			0.73	0.	.79	0.	.79	0	.83	0.	75
Heating	Capacity	Rated *1	Btu/h	22,000	26,	000	32,	000	38,	,000	48,	000
		Min-Max*1	Btu/h	12,400-23,000	12,700-	27,900	14,900-	-35,800	19,200	-42,000	26,100-	54,000
		Max at -8°C*2	Btu/h	22,000		000		000		,000		000
		Max at -15°C*3	Btu/h	22,000		000	32,	000		,000	48,	000
	HSPF2			8.5	9	.4	9	.0	ç	9.4	8	.7
Indoor			А					0.2				
Unit	Dimensions	W	Inch [mm]	368[14.5]	368[14.5]	445[17.5]	368[14.5]	445[17.5]	445[17.5]	533[21]	445[17.5]	533[21]
		D	Inch [mm]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]	533[21]
		Н	Inch [mm]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	671[26.4]	787[31]	787[31]	787[31]	787[31]
	Weight		lbs [kg]	54.10[24.59]	64.60[29.36]	69.30[31.50]	64.40[29.27]	68.90[31.32]	78.20[35.55]	85.20[38.73]	78.20[35.55]	85.20[38.73]
	Air Volume at Cooling	DRY	CFM	525	700	700	875	8,75	1,050	1,050	1,225	1,225
Outdoor	MCA		А		24				29			85
Unit	MOCP		А		39				48			0
	Dimensions	W	Inch [mm]					41-11/32 [1 ,050				
		D	Inch [mm]				63/6	64+12-63/64 [25+				
		Н	Inch [mm]					52-43/64 [1,338]				
	Weight		lbs [kg]				231 [105]				271	
	Air Volume		CFM				3740					)20
	Sound Level	Cooling	dB (A)				52					00
		Heating	dB (A)				53					2
Piping	Diameter	Gas	Inch [mm]				-	5/8 [15.88]				-
		Liquid	Inch [mm]					3/8 [9.52]		(mg)		-
	Max. Length		ft [m]		165 [50]			100 (00)	245	5 [75]		
	Height	Ta ii	ft [m]					100 [30]	201			
Guaranteed	d Operation Range	Cooling	°F[0°C]	-				15°F DB [-5 ~ 46°C				
		Heating	°F[0°C]				-13 ~ 7	0°F DB [-25 ~ 21°0	DB]			



PEAD-AA12/18/24/30/36/42NL

answer for the heating and and wideranging external g electricity consumption

The thin, ceiling-concealed indoor units of this series are the perfect answer for the heating and cooling needs of buildings with minimum ceiling installation space and wideranging external static pressure. Energy-saving efficiency has been improved, reducing electricity consumption and contributing to a further reduction in operating cost.

# **Compact Indoor Units**

The height is only  $9-\frac{7}{8}$  in. for all models of the series from 12 to 42. This makes it possible for the unit to be installed in low ceilings with minimal clearance space.



# **External Static Pressure**

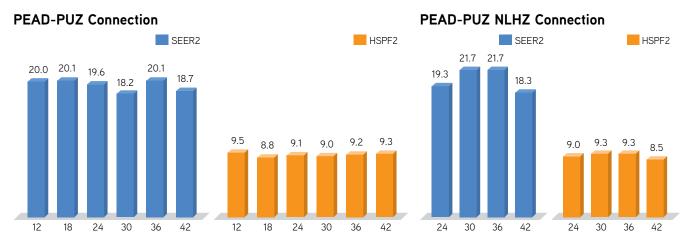
External static pressure conversion can be set up to five stages. Capable of being set to a maximum of 0.6 0 in. WG, units are applicable to a wide range of building types.

### ■External static pressure setting

Series	12	18	24	30	36	42
PEAD		0.14/0.2	0/0.28/	0.40/0.6	60in.WG	

# High Energy Efficiency

SEER2/HSPF2 has been greatly improved.



### **Built-in Drain Lift Mechanism**

All models feature a built-in drain lift mechanism for removal of condensation. The unit's fail-safe mechanism recognizes when there is a high liquid level in the condensate pan and turns off the indoor fan and the outdoor unit compressor to prevent overflow.

# SERIES SELECTION PEAD Series Indoor Unit Cooling Only PUY-AK12/IBNL PUY-AK24/30NL PUY-AK36/42NL Heat Pump PUZ-AK12/IBNL PUZ-AK12/IBNL PUZ-AK36/42NL Cold Climate Hyper Heat PUZ-AK24/30/36/42/4BNLHZ

Optional



Туре						Coolir	g only		
Indoor Unit				PEAD-AA12NL	PEAD-AA18NL	PEAD-AA24NL	PEAD-AA30NL	PEAD-AA36NL	PEAD-AA42NL
Outdoor Ur	nit			PUY-AK12NL	PUY-AH18NL	PUY-AH24NL	PUY-AH30NL	PUY-AK36NL	PUY-AK42NL
ower	Source					R4	54B		
upply	Outdoor (Phase, Hz, V)					1-phase, 60l	Hz, 208/230		
	Recommended Breaker S	Size	А	Ź	20		25		35
ooling	Capacity	Rated *1	Btu/h	12,000	18,000	21,200	27,000	36,000	42,000
		Min-Max*1	Btu/h	4,400-12,400	4,700-18,500	9,900-24,000	9,800-30,000	13,500-37,000	14,200-44,000
	SEER2			20.0	20.1	19.6	18.2	20.1	18.7
	EER2		Btu/h/W	14.4	11.7	12.0	9.9	12.5	11.1
	Moisture Removal		Pints/h	3.0	5.9	2.9	9.7	11.8	10.8
	SHF (RH50%)			0.87	0.79	0.91	0.83	0.85	0.91
door	MCA		A	2.50	2.25	2.25	2.25	3.50	4.25
nit	Dimensions	W	Inch [mm]	35-7/1	6 [900]	43-5/1	6 [1100]	55-1/8	8 [1400]
		D	Inch [mm]			28-7/	8 [732]		
		Н	Inch [mm]			9-7/	3 [250]		
	Weight		lbs [kg]	58 [26]	60 [27]	67	[30]	82 [37]	86 [39]
	Air Volume at Cooling (Slo-Lo-Mid-Hi)	DRY	CFM	353-388-424-494	403-424-512-600	512-565-636-742	618-671-742-883	848-936-1024-1201	1042-1148-1254-148
	Sound Level (Slo-Lo-Mid-Hi)	Cooling	dB (A)	27-29-31-34	28-29-34-37	27-29-31-35	30-32-34-38	34-36-38-42	37-39-41-45
tdoor	MCA	Ÿ.	A	1	16		22		34
it	MOCP		A	2	27		37		56
	Dimensions	W	Inch [mm]	31-13/16 + 2-7	7/16 [809+62]	37-13/	32 [950]	41-11/3	2 [1050]
		D	Inch [mm]	11-3/16	5 [300]	13-63/64	[330 + 25]	63/64+12-63	3/64 [25+130]
		Н	Inch [mm]	24-13/	16 [630]	37-1/	8 [943]	52-43/	64 [1338]
	Weight		lbs [kg]	99	[45]	155	[70]	224	[102]
	Air Volume		CFM	15	590	19	940	3	910
	Sound Level	Cooling	dB (A)	4	44		49		52
		Heating	dB (A)	4	46		52		53
ing	Diameter	Gas	Inch [mm]	1/2	[12.7]		5/8	[15.88]	
		Liquid	Inch [mm]	1/4 [	[6.35]		3/8	[9.52]	
	Max. Length		ft [m]	165	[50]		22	5 [69]	
	Height		ft [m]			100	[30]		
uaranteed	Operation Range	Cooling	°F[0°C]			23 ~ 115°F DB	-5 ~ 46°C DB]		
	-	Heating	°F[0°C]				_		



Туре						Standard			
ndoor Unit	t			PEAD-AA12NL	PEAD-AA18NL	PEAD-AA24NL	PEAD-AA30NL	PEAD-AA36NL	PEAD-AA42NL
outdoor Ur	nit			PUZ-AK12NL	PUZ-AK18NL	PUZ-AH24NL	PUZ-AH30NL	PUZ-AK36NL	PUZ-AK42NL
ower	Source					R4:	54B		
upply	Outdoor (Phase, Hz, V)					1-phase, 60H	lz, 208/230		
	Recommended Breaker S	ize	А	:	20	2	5		35
Cooling	Capacity	Rated *1	Btu/h	12,000	18,000	21,200	27,000	36,000	42,000
		Min-Max*1	Btu/h	4,400-12,400	4,700-18,500	9,900-24,000	9,800-30,000	13,500-37,000	14,200-44,000
	SEER2			20.0	20.1	19.6	18.2	20.1	18.7
	EER2		Btu/h/W	14.4	11.7	12.0	9.9	12.5	11.1
	Moisture Removal		Pints/h	3.0	5.9	2.9	9.7	11.8	10.8
	SHF (RH50%)			0.87	0.79	0.91	0.83	0.85	0.91
eating	Capacity	Rated *1	Btu/h	14,000	19,000	26,000	30,800	38,000	45,000
		Min-Max*1	Btu/h	4,200-18,000	4,200-22,000	8,300-31,400	8,300-34,400	13,200-40,000	13,300-49,700
		Max at -8°C*2	Btu/h	9,200	11,600	15,300	18,000	23,400	29,600
		Max at -15°C*3	Btu/h	7,900	9,100	11,500	12,900	20,000	25,400
	HSPF2			9.5	8.8	9.1	9.1	9.2	9.3
ndoor	MCA	,	А	2.50	2.25	2.25	2.25	3.50	4.25
nit	Dimensions	W	Inch [mm]	35-7/1	6 [900]	43-5/16	[1100]	55-1/8	3 [1400]
		D	Inch [mm]			28-7/	3 [732]		
		Н	Inch [mm]			9-7/8	[250]		
	Weight	Weight		58 [26]	60 [27]	67	[30]	82 [37]	86 [39]
	Air Volume at Cooling (Slo-Lo-Mid-Hi)	DRY	CFM	353-388-424-494	403-424-512-600	512-565-636-742	618-671-742-883	848-936-1024-1201	1042-1148-1254-148
	Sound Level (Slo-Lo-Mid-Hi)	Cooling	dB (A)	27-29-31-34	28-29-34-37	27-29-31-35	30-32-34-38	34-36-38-42	37-39-41-45
utdoor	MCA	·	А	1	16	2	2		34
nit	MOCP		А	1	27	3	7	!	56
	Dimensions	W	Inch [mm]	31-13/16 + 2-7	'/16 [809+62]	37-13/3	2 [950]	41-11/3	2 [1050]
		D	Inch [mm]	11-3/16	5 [300]	13-63/64	330 + 25]	63/64+12-63	3/64 [25+130]
		Н	Inch [mm]	24-13/	16 [630]	37-1/8	[943]	52-43/6	64 [1338]
	Weight		lbs [kg]	99	[45]	155	[70]	224	[102]
	Air Volume		CFM	15	90	19	40	39	910
	Sound Level	Cooling	dB (A)	4	44	4	9		52
		Heating	dB (A)	4	46	5	2		53
iping	Diameter	Gas	Inch [mm]	1/2	[12.7]		5/8	[15.88]	
		Liquid	Inch [mm]	1/4	[6.35]		3/8	[9.52]	
	Max. Length		ft [m]	100	[30]		165	5 [50]	
	Height		ft [m]			100	[30]		
Guaranteed	d Operation Range	Cooling	°F[0°C]			23 ~ 115°F DB [-	5 ~ 46°C DB]		<u> </u>
		Heating	°F[0°C]			-4 ~ 70°F DB [-	20 - 21°C DD1		



Туре					Cold C	limate	
Indoor Unit	t			PEAD-AA24NL	PEAD-AA30NL	PEAD-AA36NL	PEAD-AA42NL
Outdoor Ur	nit			PUZ-AK24NLHZ	PUZ-AK30NLHZ	PUZ-AK36NLHZ	PUZ-AK42NLHZ
Power	Source				R4	154B	•
Supply	Outdoor (Phase, Hz, V)				1-phase, 60	Hz, 208/230	
	Recommended Breaker S	iize	A	25		30	40
Cooling	Capacity	Rated *1	Btu/h	24,000	30,000	36,000	42,000
		Min-Max*1	Btu/h	12,700-24,800	12,200-30,800	14,600-37,000	18,000-43,000
	SEER2			19.3	21.7	21.7	18.3
	EER2		Btu/h/W	13.4	12.5	12.5	11.0
	Moisture Removal		Pints/h	8.2	6.9	11.8	6.6
	SHF (RH50%)			0.80	0.80	0.85	0.89
Heating	Capacity	Rated *1	Btu/h	25,000	32,000	38,000	48,000
		Min-Max*1	Btu/h	12,800-28,000	11,500-34,000	13,000-40,000	16,100-54,000
		Max at -8°C*2	Btu/h	25,000	32,000	38,000	48,000
		Max at -15°C*3	Btu/h	25,000	32,000	38,000	48,000
	HSPF2			9.0	9.3	9.3	8.5
Indoor	MCA		A	2.25	2.25	3.50	4.25
Unit	Dimensions	W	Inch [mm]	43-5/16	[1100]	55-1/-	8 [1400]
		D	Inch [mm]		28-7,	/8 [732]	
		Н	Inch [mm]		9-7/	8 [250]	
	Weight		lbs [kg]	67	[30]	82 [37]	86 [39]
	Air Volume at Cooling (Slo-Lo-Mid-Hi)	DRY	CFM	512-565-636-742	618-671-742-883	848-936-1024-1201	1042-1148-1254-1483
	Sound Level (Slo-Lo-Mid-Hi)	Cooling	dB (A)	27-29-31-35	30-32-34-38	34-36-38-42	37-39-41-45
Outdoor	MCA		A	24		29	35
Unit	MOCP		A	39		48	60
	Dimensions	W	Inch [mm]		41-11/3	2 [1050]	
		D	Inch [mm]		63/64+12-63	3/64 [25+130]	
		Н	Inch [mm]		52-43/	64 [1338]	
	Weight		lbs [kg]		231 [105]		271 [123]
	Air Volume		CFM		3740		4020
	Sound Level	Cooling	dB (A)		52		60
		Heating	dB (A)		53		62
Piping	Diameter	Gas	Inch [mm]		5/8	[15.88]	
		Liquid	Inch [mm]		3/8	[9.52]	
	Max. Length		ft [m]	165 [50]		245 [75]	
	Height		ft [m]		100	[30]	
Guaranteed	d Operation Range	Cooling	°F[0°C]		23 ~ 115°F DB	[-5 ~ 46°C DB]	
		Heating	°F[0°C]	<u> </u>	-13 ~ 70°F DB [	-25 ~ 21°C DB]	



A stylish indoor unit design and airflow settings for both high and low-ceiling interiors expand installation possibilities.



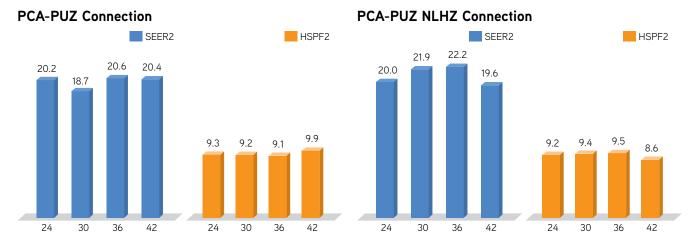
# Stylish Indoor Unit Design

A stylish, sleek design blends easily with the ceiling.



# **High Energy Efficiency**

SEER2/HSPF2 has been greatly improved, realizing industry-leading energy-saving features.

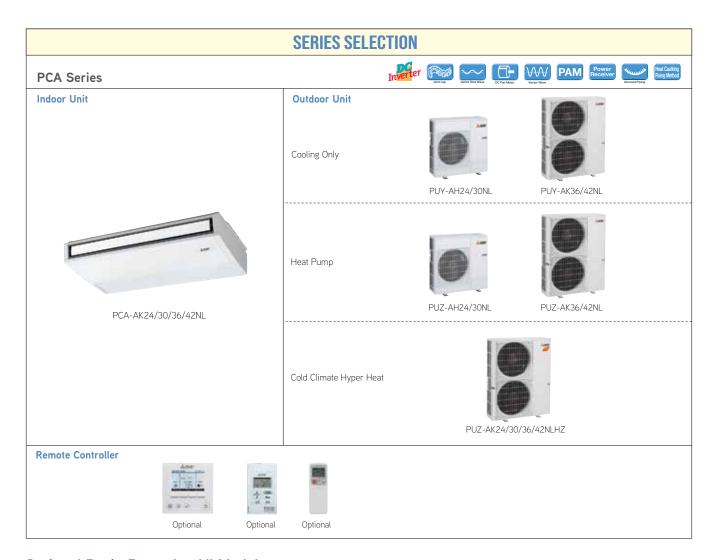


# **Equipped with Automatic Air-speed Adjustment**

In addition to the conventional 4-speed setting, units are now equipped with an automatic air-speed adjustment mode. This setting automatically adjusts the air-speed to conditions that match the room environment. At the start of heating/cooling operation, the airflow is set to high-speed to quickly heat/cool the room. When the room temperature reaches the desired setting, the airflow speed is decreaseautomatically for stable comfortable heating/cooling operation.



45



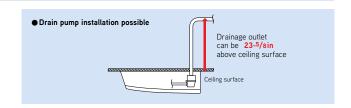
# **Optional Drain Pump for All Models**

The pumping height of the optional drain pump has been increased from 15–3/4 in to 23-5/8 in, expanding flexibility in unit location selection during installation work.

# **Equipped with High and Low-ceiling Modes**

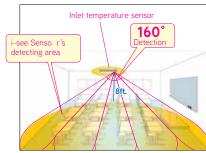
Units are equipped with high and low-ceiling operation modes that make it possible to switch the airflow volume to match room height. The ability to choose the optimum airflow volume makes it possible to optimize the breezy sensation felt throughout the room.

Capacity (Btu)	High ceiling (ft)	Standard ceiling (ft)	Low ceiling (ft)
24	11.5	8.9	8.2
30	11.5	8.9	8.2
36	13.8	9.8	8.5
42	13.8	9.8	8.5



# i-see Sensor (Optional)

The i-see Sensor, an infrared-ray sensor that detects floor temperature enables to improve the unevenness in room temperature. When cooling and heating, it also saves energy while keeping a comfortable effective temperature.





Туре					Coolin	g only	
idoor Unit				PCA-AK24NL	PCA-AK30NL	PCA-AK36NL	PCA-AK42NL
utdoor Ur	nit			PUY-AH24NL	PUY-AH30NL	PUY-AK36NL	PUY-AK42NL
ower	Source				R4	54B	
upply	Outdoor (Phase, Hz, V)				1-phase, 60H	Hz, 208/230	
	Recommended Breaker S	ize	A	2	5		35
ooling	Capacity	Rated *1	Btu/h	21,800	28,200	36,000	42,000
		Min-Max*1	Btu/h	9,800-24,000	9,800-30,000	13,500-37,000	13,600-42,500
	SEER2		·	20.2	18.7	20.6	20.4
	EER2		Btu/h/W	12.0	9.8	12.2	10.9
	Moisture Removal		Pints/h	4.0	9.9	12.7	15.4
	SHF (RH50%)			0.86	0.79	0.77	0.77
door	MCA		А	1.0	1.0	2.0	2.0
nit	Dimensions	W	Inch [mm]	50-3/8	[1280]	63 [	1600]
		D	Inch [mm]		26-3/	4 [680]	
		Н	Inch [mm]		9-1/16	[230]	
Air	Weight		lbs [kg]	71 [	32]	79 [36]	86 [39]
	Air Volume at Cooling	DRY	CELL	530-565-600-670	565-600-635-705	775-850-920-990	810-885-955-1025
	(Lo-M2-M1-Hi)	WET	CFM	495-530-565-635	530-565-600-670	705-775-850-920	740-810-885-955
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	33-35-37-40	35-37-39-41	37-39-41-43	39-41-43-45
utdoor	MCA	*	A	2	2		34
nit	MOCP		A	3	7		56
	Dimensions	W	Inch [mm]	37-13/3	2 [950]	41-11/3	2 [1050]
		D	Inch [mm]	13-63/64	330 + 25]	63/64+12-63	3/64 [25+130]
		Н	Inch [mm]	37-1/8	[943]	52-43/	64 [1338]
	Weight	·	lbs [kg]	155	[70]	224	[102]
	Air Volume		CFM	19	40	3	910
	Sound Level	Cooling	dB (A)	4	9		52
		Heating	dB (A)		2		53
iping	Diameter	Gas	Inch [mm]		5/8[	15.88]	
		Liquid	Inch [mm]		3/8	[9.52]	
	Max. Length	·	ft [m]		225	[69]	
	Height	,	ft [m]		100	[30]	
iuaranteed	Operation Range	Cooling	°F[0°C]		23 ~ 115°F DB [	-5 ~ 46°C DB]	
	_	Heating	°F[0°C]				

# PCA SERIES STANDARD HEATING PUMP

Туре					Standard				
ndoor Uni	:			PCA-AK24NL	PCA-AK30NL	PCA-AK36NL	PCA-AK42NL		
Outdoor U	nit			PUZ-AK24NL	PUZ-AK30NL	PUZ-AK36NL	PUZ-AK42NL		
ower	Source				R4	54B			
upply	Outdoor (Phase, Hz, V)				1-phase, 60H	Hz, 208/230			
	Recommended Breaker S	ize	A	2	25		35		
Cooling	Capacity	Rated *1	Btu/h	21,800	28,200	36,000	42,000		
		Min-Max*1	Btu/h	9,800-24,000	9,800-30,000	13,500-37,000	13,600-42,500		
	SEER2			20.2	18.7	20.6	20.4		
			Btu/h/W	12.0	9.8	12.2	10.9		
	Moisture Removal		Pints/h	4.0	9.9	12.7	15.4		
	SHF (RH50%)			0.86	0.79	0.77	0.77		
eating	Capacity	Rated *1	Btu/h	26,000	32,000	38,000	45,000		
		Min-Max*1	Btu/h	8,300-28,000	8,300-34,000	13,200-40000	13,300-49,400		
		Max at -8°C*2	Btu/h	15,300	18,700	23,200	29,600		
		Max at -15°C*3	Btu/h	11,600	12,900	20,000	25,400		
	HSPF2			9.3	9.2	9.1	9.9		
door	MCA		A	1.0	1.0	2.0	2.0		
	Dimensions	W	Inch [mm]	50-3/8	3 [1280]	63 [	1600]		
		D	Inch [mm]		26-3/-	4 [680]			
	Н		Inch [mm]		9-1/16	[230]			
	Weight		lbs [kg]	71	[32]	79 [36]	86 [39]		
	Air Volume at Cooling	DRY	CFM	530-565-600-670	565-600-635-705	775-850-920-990	810-885-955-1025		
	(Lo-M2-M1-Hi)	WET	CFM	495-530-565-635	530-565-600-670	705-775-850-920	740-810-8 <del>55</del> -955		
	Sound Level (Lo-M2-M1-Hi)	Cooling	dB (A)	33-35-37-40	35-37-39-41	37-39-41-43	39-41-43-45		
utdoor	MCA	*	A	2	22		34		
nit	MOCP		A	3	37	!	56		
	Dimensions	W	Inch [mm]	37-13/3	32 [950]	41-11/3	2 [1050]		
		D	Inch [mm]	13-63/64	[330 + 25]	63/64+12-63	3/64 [25+130]		
		Н	Inch [mm]	37-1/8	3 [943]	52-43/6	64 [1338]		
	Weight		lbs [kg]	155	[70]	224	[102]		
	Air Volume		CFM	19	40	39	910		
	Sound Level	Cooling	dB (A)	4	19	!	52		
		Heating	dB (A)	5	52		53		
ping	Diameter	Gas	Inch [mm]		5/8 [	15.88]	,		
		Liquid	Inch [mm]		3/8	9.52]			
	Max. Length		ft [m]	165 [50]					
	Height		ft [m]		100	[30]			
iuarantee	Operation Range	Cooling	°F[0°C]		23 ~ 115°F DB [-	-5 ~ 46°C DB]			
		Heating	°F[0°C]		-4 ~ 70°F DB [-	20 ~ 21°C DB]			

# **CONTROLLERS & INTERFACES**

# SYSTEM CONTROL



# PAR-42MAACAB/PAC-YT53CRA

Units are compatible for use with the PAR-42MAACAB or PAC-YT53CRA remote controller, which has a variety of management functions.



# System Group Control

The same remote controller is capable of controlling the operational status of up to 16 refrigerant systems.



# M-NET Connection

Units can be connected to MELANS system controllers (M-NET controllers) such as the AE-C400.



# MXZ Connection

Connection to the MXZ multi-split outdoor unit is possible.



### Wireless Interface

Along with your smartphone or tablet device, you can manage your system in multiple venues, such as home, work and vacation locations. You can control functions like turning on/off, fan speed, and vane direction.



# **SCAN** the **QR** Code

To access full product details and specifications





### **Deluxe MA Controller**

PAR-42MAA

Use the Deluxe MA zone controller to adjust mode, fan speed, airflow, and many more advanced settings. Temperature sensing can be configured to read at the controller or the indoor unit. This controller also features scheduling capabilities and an easy-to-navigate screen.

- Controls up to 16 zones
- Large easy-to-see back lit LCD with two display modes: Full or Basic
- Interlock and control Lossnay units
- Controls air direction (vane direction and ventilation)
- Dual set point functionality



# MHK2

The MHK2 wireless remote controller can be mounted onto any wall, without the need to pull a wire toward hard-to-reach locations. Set custom schedules and easily change mode between Cool, Heat, Dry and Fan.

- Large, back lit, easy-to-read touchscreen display
- Fahrenheit or Celsius
- Dual set point control with system change over
- Works with Wireless Interface
   2 on all CITY MULTI<sup>®</sup> and P-Series indoor units



# **Touch MA Controller**

PAR-CT01MAU-SB

The Touch MA zone controller boasts a 180 options touchscreen user interface that is simple to use. Personalize the home screen with a company logo.

- Controls up to 16 indoor units
- Back lit LCD

- On/Off timer: turns on and off daily at a set time
- Bluetooth® app for users & installer



# Simple MA Controller

PAC-YT53CRAU

Use the Simple MA remote controller to adjust mode, fan speed, airflow, and more. Temperature sensing can be configured to read at the controller or the indoor unit. This controller allows group operation for up to 16 indoor units.

 Operation modes of Cool, Heat, Dry, Fan, Auto, Ventilation, and Setback (depending on connected equipment) Back lit LCD



# Wireless Interface 2

PAC-USWHS002

This device allows for a Mitsubishi Electric indoor unit to communicate with web service.

- Connection via Wi-Fi network
- Connected to indoor unit by CN105
- One Wireless Interface required per connected indoor unit

# CITY MULTI® CONTROLS

# Centralized Controllers



# **AE-C400**

The AE-C400 combines the power of a touch screen with the remote capabilities of an internet browser interface. The AE-C400 is our most advanced central controller for managing your CITY MULTI®, P-Series, Nv-Series, and peripheral systems.

- AE-C400 is the Master Controller
- Master Controller can operate and monitor up to 50 indoor units
- Up to 2000 indoor units can be controlled from a web browser
- Network up to three AE-50A or EW-50A to one AE-C400 to allow the AE-C400 to manage up to 400 indoor units



# **EW-C50**

The EW-C50 is the Expansion Controller that operates and monitors up to 50 indoor units via a web browser when added to an AE-C400 Main Central Controller network. A single network, comprised of one central controller and seven expansion controllers, can manage and monitor a maximum of 400 different indoor units.

- EW-C50 can be a Master Controller or Expansion Controller
- Master Controller can operate and monitor up to 50 indoor units
- Expansion Controller can expand an AE-C400 to operate and monitor up to 50 additional indoor units through the touch screen or web browser
- Network up to seven EW-C50 to one AE-C400 to allow the AE-C400 to manage up to 400 indoor units

# **Zone Controllers**



# **Smart ME Controller**

PAR-U01MEDU-K

The Smart ME features basic functions such as operating and monitoring air conditioning units and schedule-control functions. This controller has four built-in sensors (temperature, humidity, occupancy, brightness), enabling integrated system control.

- Intuitive back lit touch screen
- Group control up to 16 indoor units in a single zone
- Supports dual set point and setback functions
- Color glow status indicator LED bar

# **CONTROL TECHNOLOGIES**

# User-friendly Deluxe Remote Controller with Excellent Operability and Visibility



PAR-42MAACAB

# Easy To Read & Easy To Use

# Inverted display screen

The screen background colour can be set to black to suit the atmosphere of the installation location.



# Full Dot Liquid-crystal Display Adopted

Easier to read thanks to use of a full dot liquid-crystal display with backlight, and easier to use owing to adopting a menu format that has reduced the number of operating buttons.

### Display Example [Operation Mode]

Full Dot LCD



# Multi-language Display



### Control panel operation in 3 different languages

Choose the desired language, among the following languages.

English

French

Spanish

# AHRI1380 Demand Response



AHRI 1380 (I-P) is a standard for Demand Response (DR) with variable capacity HVAC systems in residential and small commercial settings. It covers communication, infrastructure, and functionality for energy management in HVAC systems with capacities up to 65,000 Btu/hr. DR-ready HVAC systems can adjust their operations based on grid signals during peak demand, enhancing energy efficiency and grid stability by reducing peak loads and avoiding the need for additional power plants.

The series described in the figure to the right are corresponded to AHRI1380 Demand Response by primary current control.

\*Demand operations from the cloud app cannot be executed while a peak cut operation is being carried out by the centralized remote controller.

### **Certified Series**

- FX series
- S series
- MXZ series
- PUMY series

Auto-return

Prevents wasteful operation by automatically returning to the preset temperature after specified operating time

After adjusting the temperature for initial heating in winter or cooling on a hot summer day, it is easy to forget to return the temperature setting to its original value. The Auto-return function automatically resets the temperature back to the original setting after a specified period of time, thereby preventing overheating/overcooling. The Auto-return activation time can be set in 10-minute units, in a range between 30 and 120 minutes.

\*Auto-return cannot be used when Temperature Range Restrictions is in use.

Night Setback

Keep desired room temperatures automatically

This function monitors the room temperature and automatically activates the heating mode when the temperature drops below the preset minimal temperature setting. It has the same function for cooling, automatically activating the cooling mode when the temperature rises above the preset maximum temperature setting.

Auto-off Timer Turns heating/cooling off automatically after preset time elapses

When using Auto-off Timer, even if one forgets to turn off the unit, operation stops automatically after the preset time elapses, thereby preventing wasteful operation. Auto-off Timer can be set in 10-minute units, in a range between 30 minutes and 4 hours. Eliminates all anxiety about forgetting to turn off the unit.

Recommended for Meeting room Changing room

Operation Lock Fixed temperature setting promotes energy savings

In addition to operation start/stop, the operation mode, temperature setting and airflow direction can be locked. Unwanted adjustment of temperature settings is prevented and an appropriate temperature is constantly maintained, leading to energy savings. This feature is also useful in preventing erroneous operation or tampering.

Recommended for

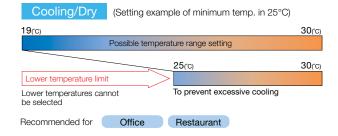
Office School Public hall
Hospital Computer server facility

Temperature Range Restriction

Temperature Range Restriction prevents overheating/overcooling

Using a temperature that is 1°C lower/higher for heating/cooling results in a 10% reduction in power consumption.\* Temperature Range Restriction limits the maximum and minimum temperature settings, contributing to the prevention of overheating/overcooling.

settings, contributing to the prevention of overheating/overcooling



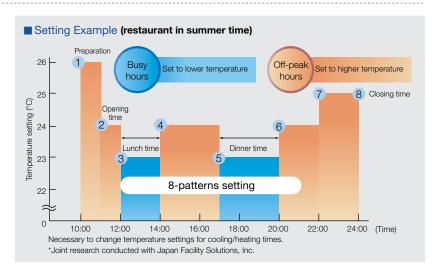


Weekly Timer with Two Types of Settings

Weekly schedule timer can save two different settings which can be easily switched according to different seasons.

In addition, it offers eight different pattern setting per day. (on, off and temperature setting)

\*Weekly Timer cannot be used when On/Off Timer is in use.



# **Environmental Sustainability Vision 2050**

Protect the air, land and water with our hearts and technologies to sustain a better future for all.



To solve various factors that lead to environment issues, the Mitsubishi Electric Group shall unite the wishes of each and every person, and strive to create new value for a sustainable future.

# NOTICE

- Do not install indoor units in areas (e.g. mobile phone base stations) where the emission of VOCs such as phthalate compounds and formaldehyde is known to be high as this may result in a chemical reaction.
- Our air-conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R454B.
- When installing or relocating or servicing our air-conditioning equipment, use only the specified refrigerant (R454B) to charge the refrigerant lines.

  Do not mix it with any other refrigerant and do not allow air to remain in the lines. If air is mixed with the refrigerant, then it can be the cause of abnormal high pressure in the refrigerant lines, and may result in an explosion and other hazards. The use of any refrigerant other than that specified for the system will cause mechanical failure, system malfunction or unit breakdown. In the worst case, this could lead to a serious impediment to securing product safety.

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