

COMFORT TAKES ON NEW MEANING WITH THE POWER OF TECHNOLOGY

Our technologically advanced Mr. Slim Power Inverter systems improve comfort, operate with significantly less noise, and provide increased energy savings.

Mr. SLIM

NEW REFRIGERANT

R410A

Our air conditioners use R410A, HFC refrigerant.

Advanced Power Inverter

Mitsubishi Electric's new Power Inverter systems drastically reduce power consumption

To better meet the needs of shops and offices, our outdoor units are now offered in three-phase power supply models in addition to the existing line-up of single-phase models. Select the model to best match your needs from our expanded model range.



Outdoor Line-up (PUHZ-RPseries)							
	71	100	125	140	170	200	250
Single-phase	●	●	●	●	●		
Three-phase		●	●	●	●	●	●

Silent Operation

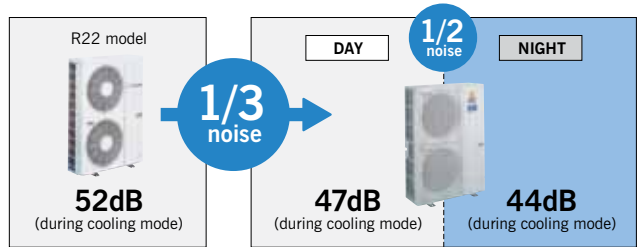
Technological Improvements for Super Quiet Operation

Exceptionally Quiet Operation: Top Class in the Industry

Newly designed fan blades and grille shape realise ultra-quiet operation. In low-noise mode, which activates automatically when the outside temperature drops, Power Inverter units are even quieter, with operating noise reduced by 3dB.

Low-noise Priority Function

A low-noise priority function is available when a commercially available timer or selection switch is connected. When a signal is received from the timer or switch, the unit begins running in the low-noise priority mode. (The switch must be set when installed.)



	R22	R410A	
	Non-inverter units	Inverter units (PUHZ-RP)	
		Normal	Low-noise Mode
71class	52	47	44
100class	54	49	46
125class	55	50	47
140class	56	50	48

*Sound pressure level (dBA)

Longer Maximum Piping Length

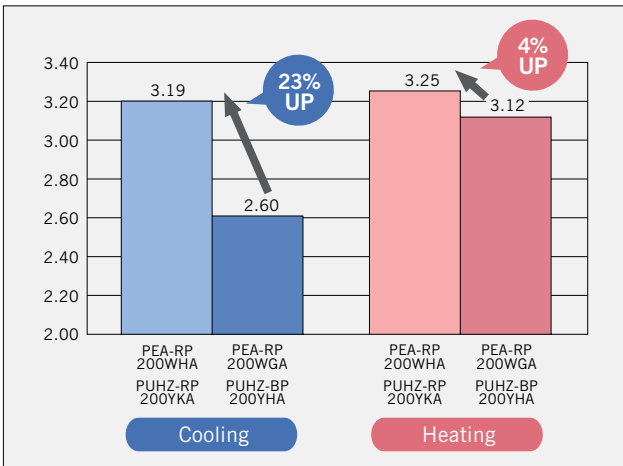
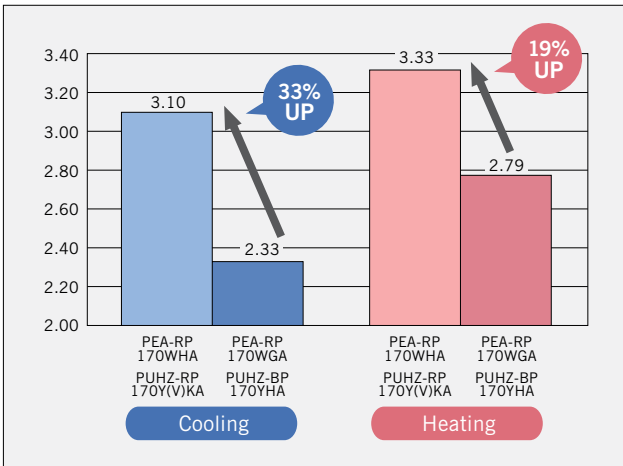
As a result of increasing the volume of refrigerant, piping length has been increased to a maximum of 75m, expanding the range of layout possibilities for unit installation.

Max.piping length	can be stretched to 75m	
	Max.height difference	Max.piping length
PUHZ-RP71	30m	50m
PUHZ-RP 100/125/140/170/200/250	30m	75m

High Energy Efficiency

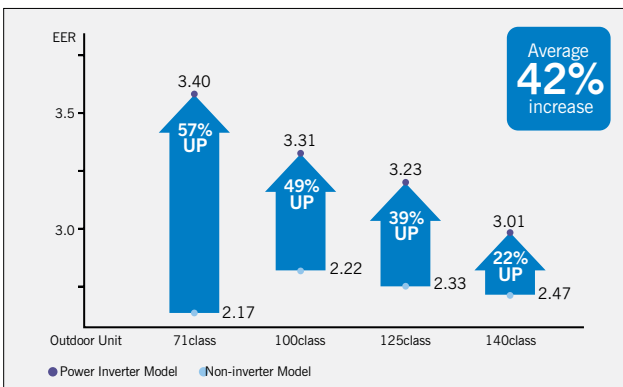
Improved EER/COP

The latest inverter technology improves the energy efficiency of heating/cooling operation from the previous model, realising further reductions in power consumption.



Comparison of EER(cooling mode)

Comparison of EER between non-inverter and Power Inverter (4-way cassette) models.



High Power

More Power for Faster Cooling/Heating

Improved Cooling/Heating Performance

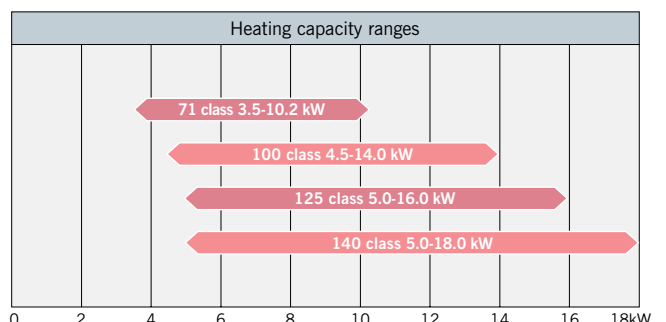
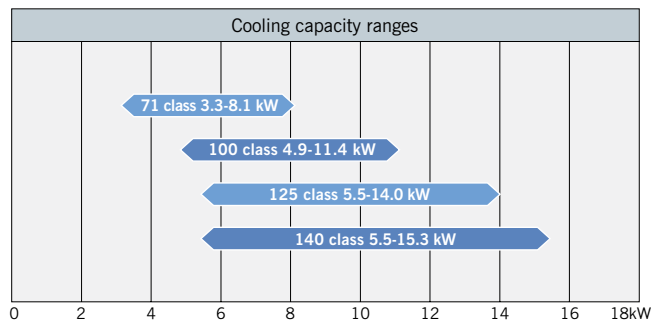
The maximum operating speed and cooling/heating capacity of the new Mr. Slim Power Inverter units have been improved by as much as 33% (compared to conventional non-inverter models) when operating in either low or high outdoor temperatures.

	Cooling capacity		4way cassette
	R22 Non-inverter	R410A Power inverter max. (PUHZ-RP)	
71	7.7	8.1	105%
100	9.7	11.4	118%
125	12.4	14.0	113%
140	14.0	15.3	109%

	Heating capacity		R410A Power inverter max. (PUHZ-RP)
	R22 Non-inverter	R410A Power inverter max. (PUHZ-RP)	
71	8.4	10.2	121%
100	10.4	14.0	135%
125	14.0	16.0	114%
140	16.1	18.0	112%

Wider Performance Range

Operation is now possible at lower speeds, thus cutting energy losses produced by the repeated On/Off operation of non-inverter models. Comfort is improved while power consumption is reduced.



Advanced Energy-saving Technologies

Highly efficient fan and grille for outdoor unit

The shapes of the fan and grille of the outdoor unit were redesigned, realising an increase in blowing capacity and more efficient heat exchange while maintaining the same operating noise level.

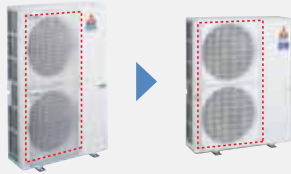
Outdoor unit fan opening increased <PUHZ-RP170/200>

The diameter of the opening for the fan in the outdoor unit has been increased from 490 to 550mm. Blowing capacity has been increased while maintaining the same fan rotation speed.



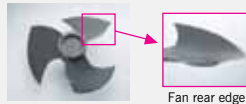
Grille shape changed <PUHZ-RP170/200>

The shape of the air outlet grille has been changed to reduce pressure loss. This has helped improve heat exchange performance.



Inflexed fan <PUHZ-RP170/200>

Adoption of a fan with improved ventilation characteristics and a newly designed rear edge that suppresses wind turbulence raises fan operation efficiency.



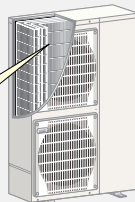
Highly efficient heat exchanger

A high density and increase in surface area have improved the heat-exchange efficiency of the heat exchanger.

High-density heat exchanger <PUHZ-RP170/200>

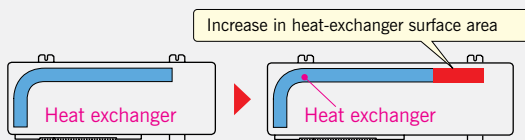
The pipe diameter has been changed from 9.52 to 7.94mm, resulting in a high-density heat exchanger.

2 lines, 52 columns
↓
2 lines, 64 columns (RP170)



Heat-exchange surface area increased <PUHZ-RP170/200>

Heat exchanger size extended horizontally, increasing the surface area.



Advanced Technology for High Efficiency

Numerous Leading-edge Technologies Assure High Efficiency

Reluctance DC Rotary Compressor (PUHZ-RP71)

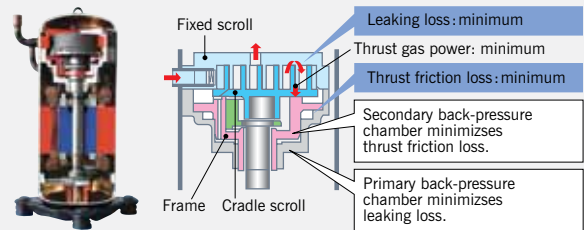
The reluctance DC motor has a rotor equipped with powerful neodymium magnets. The magnetic torque produced by the neodymium magnets and reluctance torque results in more efficient operation.

DC compressor motor (rotor)



Highly Efficient Scroll Compressor (PUHZ-RP100/125/140/170/200)

Higher efficiency has been achieved by adding a frame compliance mechanism to the DC scroll compressor. The mechanism allows movement in the axial direction of the frame supporting the cradle scroll, thereby greatly reducing the leakage and friction loss, and ensuring extremely high efficiency at all speeds.



DC Fan Motor (PUHZ-RP71/100/125/140/170/200)

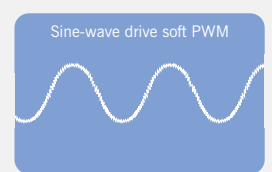
A highly efficient DC motor has been installed to drive the fan of outdoor units, realising up to 60% higher efficiency when compared to an equivalent AC motor.

Vector-Wave Eco Inverter

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

Smooth AC wave pattern

The inverter has been made more compact by inserting the circuitry inside a synthetic resin molding. To ensure quiet operation, soft PWM control is used to prevent the metallic whine associated with conventional inverters.

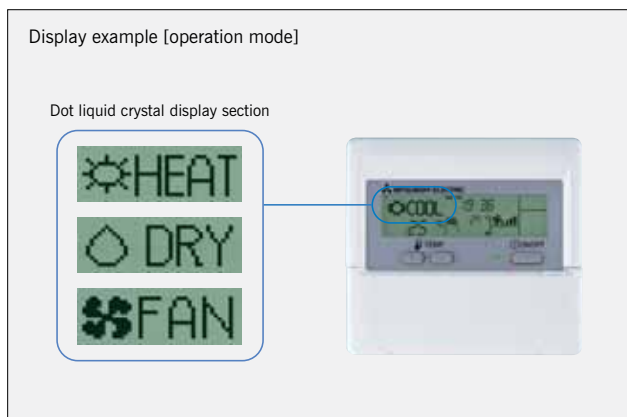


Power Receiver and Twin LEV Control (PUHZ-RP71/100/125/140/170/200)

Mitsubishi Electric has developed a power receiver and twin linear expansion valves (LEVs) that optimise the performance of the compressor. By ensuring optimum control in response to the operating waveform and outdoor temperature, this technology is tailored to the characteristics of the new refrigerant to enhance operating efficiency.

Dot Liquid-crystal Display Adopted

The adoption of dot liquid-crystal display (LCD) technology and a large display screen for the control panel optimises visibility. Operation and control status are easily read at a glance.



Easy to Read/Easy to Use

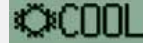
Industry First! Multi-language Display

Multi-language

Operations can be shown in eight languages. The display can be switched easily to any of the compatible languages.



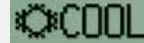
[English]



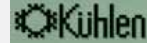
[Spanish]



[Italian]



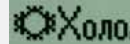
[German]



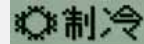
[French]



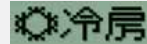
[Russian]



[Chinese]



[Japanese]



Energy-efficient Control

Operation Control Function

Limited Temperature Range Settings

Air conditioner operation restricted to within a specified operating range

The upper and lower limits for the temperature range during operation can be set. This prevents excessive heating or cooling, leading to increased energy savings.

COOL / DRY

19(°C)

30(°C)

Possible temperature range setting

Lower limit temperature

25(°C)

30(°C)

Lower temperatures cannot be selected.

To prevent excessive cooling

Recommend for use in

Office

Restaurant

Auto-off Timer

Automatically turns off air conditioner

Set the time for the air conditioner to turn off automatically. The timer can be set in the range from 30 minutes up to 4 hours in 30-minute intervals.

* The "Simple Timer," which can be set at one-hour intervals, is set at the time of shipment from the factory. It can be changed to the "Auto-off Timer" function using the remote controller.

Recommend for use in

Meeting room

Operation Lock

Prevent operation settings from being changed

Units can be set so that the operation mode cannot be changed. When "Operation Lock" is activated, new temperature setting commands are not accepted, thereby ensuring that the unit runs in the specified (locked in) temperature range. This promotes energy savings and prevents erroneous or mischievous operation.

* Only the administrator can change settings when using the Operation Lock mode.

Recommend for use in

Office

School / Private school

Public facility like public hall

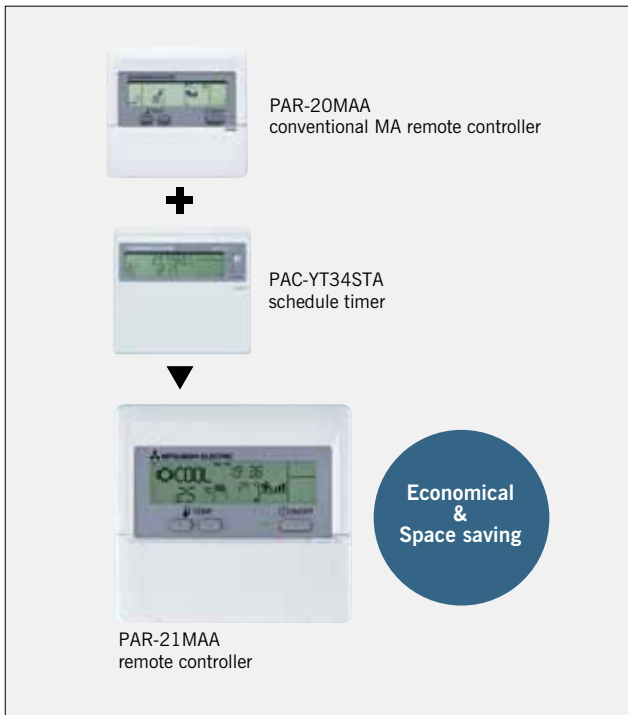
Hospital

Server room

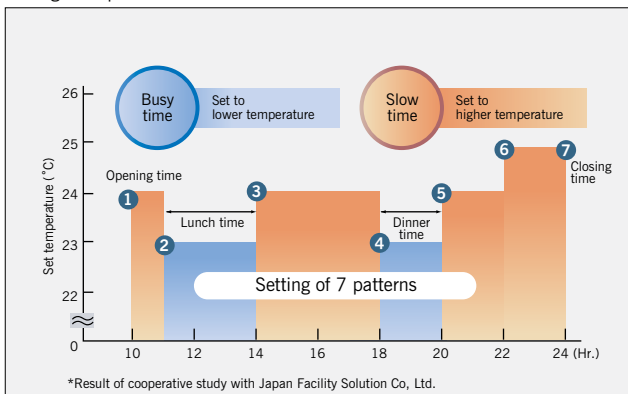
Weekly Timer – Introduced in Response to Market Demand

Control temperature on a weekly basis

Temperature settings and On/Off control can be managed over a period of one week using the Weekly Timer. Up to eight setting patterns per calendar day are possible.



Setting example (restaurant in summer time)



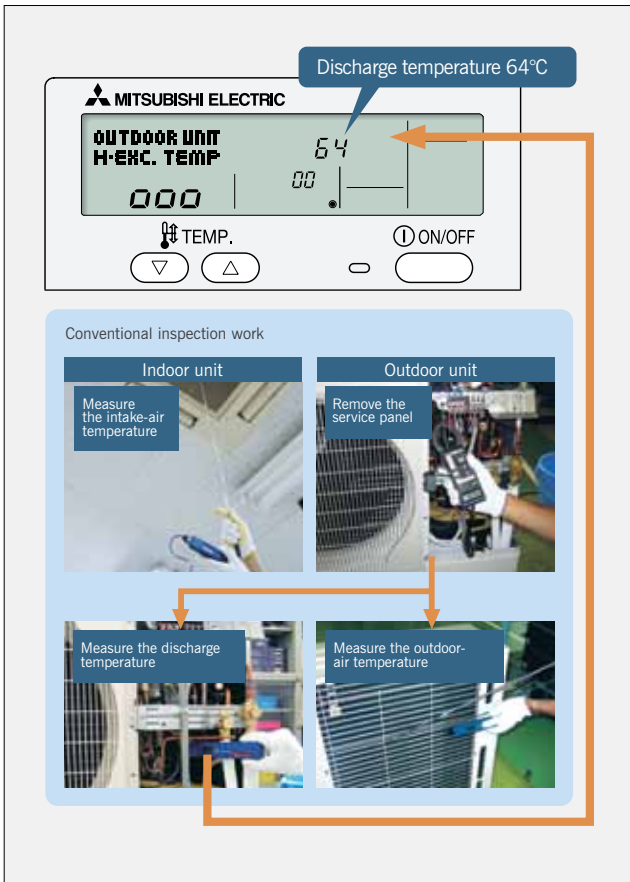
Setting the temperature 1°C higher for cooling and 1°C lower for heating results in an energy savings of approximately 10%.

Approximate 10%* Energy Savings

*Based on in-house calculations.

Easy Maintenance Function (Mr. SLIM Power Inverter only)

- Nearly maintenance-free operation
- Monitor operation data of the indoor and outdoor units via the remote controller. The remote controller also lets you set the operating frequency, allowing easier inspection.



Easy maintenance information

Compressor	Outdoor unit	Indoor unit
Accumulated operating time (x10hours)	④ Heat exchanger temperature (°C)	⑦ Intake-air temperature (°C)
Number of On/Off times (x100 times)	⑤ Discharge temperature (°C)	⑧ Heat exchanger temperature (°C)
Operating current (A)	⑥ Outdoor-air temperature (°C)	⑨ Filter operating time* (hr)

*The filter operating time is the time elapsed since the filter was reset.

Refrigerant Leakage Check (Mr. SLIM Power Inverter only)

Mr. Slim Power Inverter units come equipped with a useful new “Refrigerant Leakage Check” function. Using a wired remote controller, it is easy to check if refrigerant has been lost over a long period of use. This reduces service time and gives an added sense of safety.

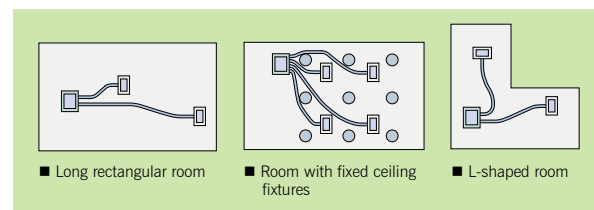


PEA SERIES

For elegance and style, the PEA Series compliments the room environment with aesthetically pleasing ceiling installation and a vast line-up of performance functions.

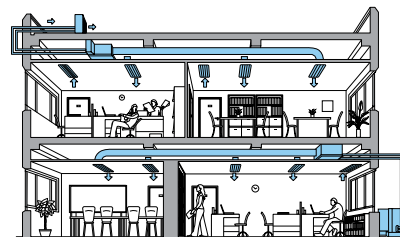
Freedom in Installation

Versatile and easy installation is possible; for example, it is possible to adjust the distance between the air-intake and air-outlet vents to create the optimal airflow configuration.



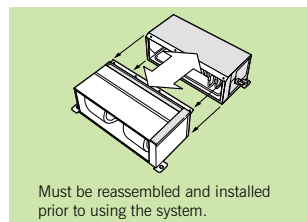
Flexible Duct Design Enables Use of High-pressure Static Fan

A flexible duct design and 150Pa external static high-pressure are incorporated. The increased variation in airflow options ensures operation that best matches virtually all room layouts.



Easier Handling

The new ducted fan coil unit (PEA-RP170/200/250WHA*) now has a two piece construction. This allows separation of the indoor unit heat exchanger and the fan deck assembly for easier handling into the roof space.



*Not available in New Zealand

Computerised Dehumidification

The fan speed is controlled electronically in dehumidifying mode, increasing the range and efficiency of dehumidification.



PEA-RP71EA/100EA2



PEA-RP125EA/140EA2

NEW

PEA-RP170/200/250WHA




Not available in New Zealand





Specifications: Ceiling-concealed (PEA)											Not available in New Zealand				
Indoor unit		PEA-RP71EA		PEA-RP100EA2		PEA-RP125EA		PEA-RP140EA2		PEA-RP170WHA		PEA-RP200WHA		PEA-RP250WHA	
Outdoor unit		PUHZ-RP71VHA3		PUHZ-RP100V/YHA2		PUHZ-RP125V/YHA2		PUHZ-RP140V/YHA2		PUHZ-RP170V/YKA		PUHZ-RP200YKA		PUHZ-RP250YHM-A	
Function		Cooling Heating		Cooling Heating		Cooling Heating		Cooling Heating		Cooling Heating		Cooling Heating		Cooling Heating	
Capacity (min.-max.) (kW)		7.1 (3.3-8.1) 8.4 (3.5-10.2)		10.0 (4.9-11.4) 11.2 (4.5-14.0)		12.5 (5.5-14.0) 14.0 (5.0-16.0)		14.0 (5.5-15.3) 16.0 (5.0-18.0)		17.0 (9.0-20.0) 20.0 (9.5-22.4)		18.9 (9.0-22.4) 22.4 (9.5-25.0)		22.0 (11.2-27.0) 25.0 (12.5-29.0)	
Input (kW)		2.48 2.51		3.25 3.20		4.42 4.22		5.03 4.51		5.48 6.00		5.92 6.89		7.21 8.06	
Rated EER/COP*		2.86 3.35		3.08 3.50		2.83 3.32		2.78 3.35		3.10 3.33		3.19 3.25		3.05 3.10	
Indoor unit		PEA-RP71EA		PEA-RP100EA2		PEA-RP125EA		PEA-RP140EA2		PEA-RP170WHA		PEA-RP200WHA		PEA-RP250WHA	
Power supply		V: Single-phase, 50Hz, 230V Y: Three-phase, 50Hz, 400V													
Airflow (Lo-Hi)		CMM		22-27		27-34		34-42		48-60		50-61-72 (Lo-Mid-Hi)		58-71-84 (Lo-Mid-Hi)	
		L/S		367-450		450-567		567-700		800-1000		833-1017-1200		967-1183-1400	
External static pressure Pa		125													
Sound pressure level (dB)		52-55		54-58		51-55		35-38-41		37-40-43					
Dimensions		Height (mm)		428											
		Width (mm)		785		1,055		1,255		1,415		1,370		1,120	
		Depth (mm)		690											
Weight (kg)		46		59		72		76		108					

*Rated EER/COP for PEA-RP170/200/250WHA are measured at ESP 75 Pa.

Specifications: Outdoor Unit

Outdoor unit						
	SUZ-KA25VA2	SUZ-KA35VA2	SUZ-KA50VA2	SUZ-KA60VA2	SUZ-KA71VA2	
External finish	Munsell 3.OY 7.8/1.1					
Power supply	Single-phase, 50Hz, 230V					
Compressor output (kW)	0.55	0.65	0.85		1.2	
Airflow (cooling/heating) CMM (L/S)	34 (568)/32 (534)		33 (551)		50 (835)/48 (800)	
Sound pressure level (dB)	Cooling mode	46	47	53		55
	Heating mode	46	48	55		55
Sound level (dB)	59		61		69	
Dimensions	Height (mm)	550		850		880
	Width (mm)	800		840		840
	Depth (mm)	285		330		330
Weight (kg)	33	37	53		53	
Chargeless piping length (m)	7					
Max. piping length (m)	20			30		
Breaker size (A)	10			20		

*Above specifications are for outdoor units only.

Outdoor unit					
	PUHZ-RP71VHA3	PUHZ-RP100V/YHA2	PUHZ-RP125V/YHA2	PUHZ-RP140V/YHA2	
External finish	Munsell 3.OY 7.8/1.1				
Power supply	V: Single-phase, 50Hz, 230V Y: Three-phase, 50Hz, 400V				
Compressor output (kW)	1.6	1.9	2.4	2.9	
Airflow (cooling/heating) CMM (L/S)	55 (920)		100 (1670)		
Sound pressure level (dB)	Cooling mode	47	49	50	
	Silent mode	44	46	47	
	Heating mode	48	51	52	
Sound level (dB)	66		69		71
Dimensions	Height (mm)	943	1350		
	Width (mm)	950	950		
	Depth (mm)	330+30	330+30		
Weight (kg)	75	121	116		
Chargeless piping length (m)	30		30		
Max. piping length (m)	50		75		
Protection device	Discharge thermo, HP switch		Discharge thermo, HP switch		
Rated running current (cooling/heating) (A)	8.04/9.74	V: 12.53/12.39 Y: 4.08/4.03	V: 15.53/15.98 Y: 5.04/5.20	V: 19.65/19.92 Y: 6.37/6.46	
Breaker size (A)	25	V: 32 Y: 16	V: 32 Y: 16		V: 40 Y: 16

*Above specifications are for outdoor units only.