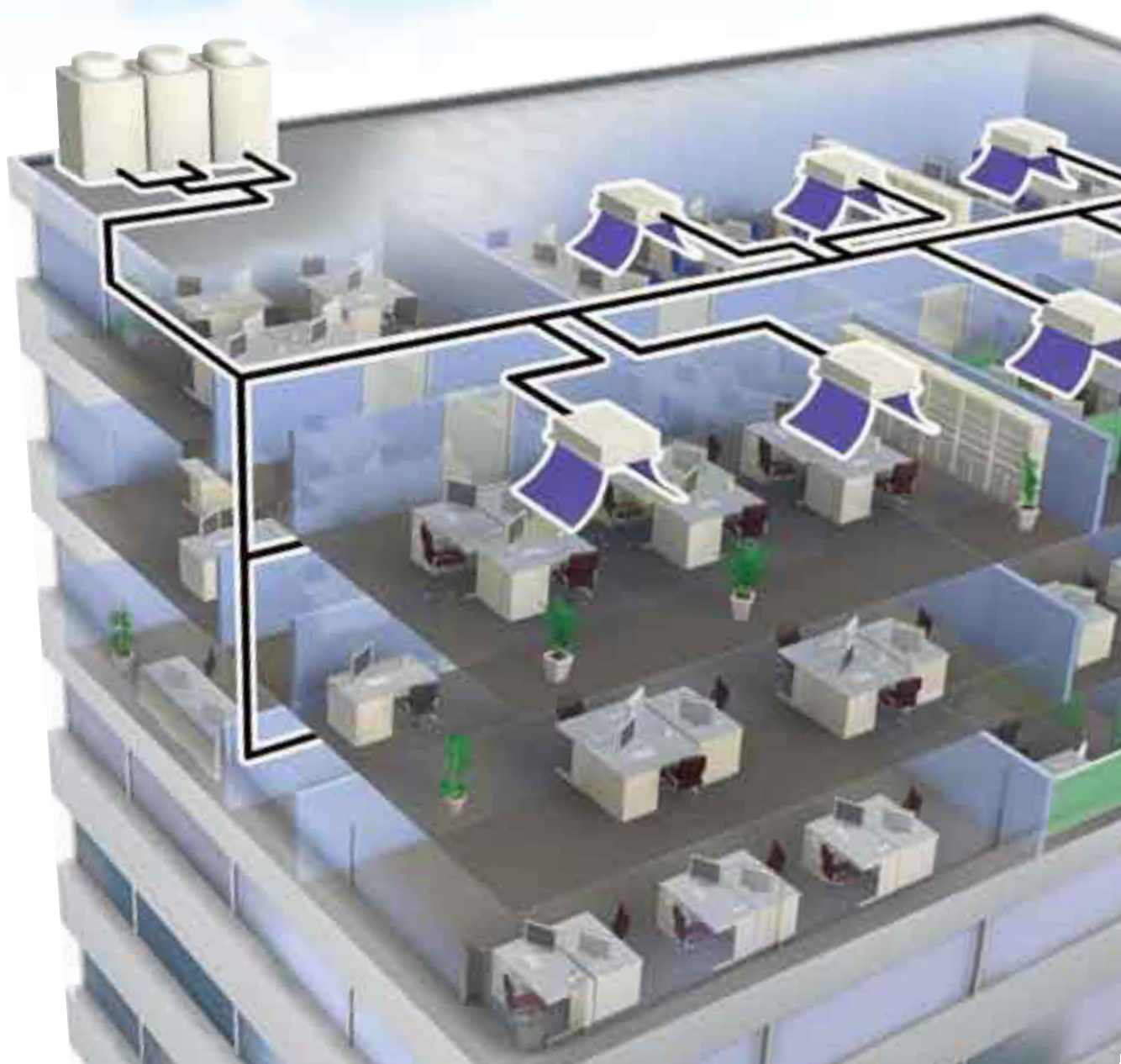


REPLACE MULTI



MITSUBISHI ELECTRIC

Conscious of the environment

Mitsubishi Electric, as a world leading manufacturer, we acknowledge that in the recent years, with the acceleration of global warming, the need to be more energy conscious and environmentally responsible has become increasingly important to us all.

Aware of market R22 phase out movement

"From 1 January 2010, the use of virgin hydrochlorofluorocarbons shall be prohibited in the maintenance and servicing of refrigeration and air-conditioning equipment existing at that date; all hydrochlorofluorocarbons shall be prohibited from 1 January 2015."

-Excerpt from REGULATION (EC) No 2037/2000 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 June 2000 on substances that deplete the ozone layer

As the regulation states, virgin R22 refrigerant within the European countries are banned. Mitsubishi Electric recognize this as an important action to reduce potential damage of our ozone layer from use of HCFCs.

Understand the fiscal situation

On the other hand, we are also aware of the fiscally conservative situation the market is facing; budgets cuts on capital investment. Amid the situation, owners of R22 system will need to make a decision to replace their air-conditioning system.

➡ REPLACE MULTI

All these concerns are taken into consideration with Mitsubishi Electric's new Replace Multi system. Since 2001 in Japanese market and from 2004 in overseas market, Mitsubishi Electric has taken a lead in introducing the replacement technology. As a solution to meet and exceed demands placed on today's market, we are proud to introduce our advanced Replace Multi system.

Replace Multi is designed to simply replace the existing R22 / R407C VRF equipment. With a unique technology, reusing of existing refrigerant pipework on R22 VRF system, and charging correct volume of new refrigerant is easily possible without any use of special kit.

Introduction to REPLACE MULTI series

Replace Multi

Technology

Mineral oil collection flow

Other features

Case study

Outdoor unit lineup

Piping length

Indoor unit lineup

Specification

● Replace Multi

Mitsubishi Electric's Replace Multi, with three outstanding features to Reuse, Replace, and Renewal, presents a new solution to the market when replacing air conditioners.

Instead of completely replacing all the units and piping in the system, the launch of Mitsubishi Electric's Replace Multi enables a new option to reuse the existing components in a system.

This relieves owners from constraints they had to consider when replacement of air conditioners takes place; for example, new piping, tearing walls, and business closing during construction.

Three main features of Replace Multi

Reuse

Reusing previously installed equipments

- less resource
- less waste

Replace

Short and quick replacement

- shorter time
- less cost

Renewal

Renew systems for greater performance

- high energy efficiency
- wider range and possibility

R reuse equipment

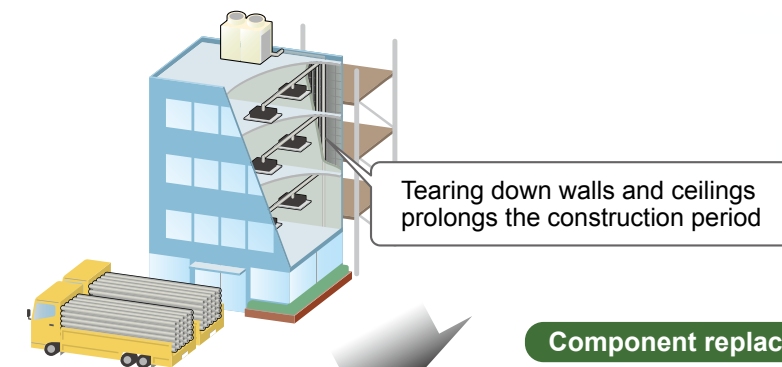
Replace Multi is equipped with a special technology which allows replacement of R22/R407C VRF system to a R410A system reusing the existing equipment. Not only are pipes, but also power supply, wiring, breaker, transmission line, and wiring for controller are not wasted. There is even a possibility to reuse existing indoor units, or replacing other manufacturers' VRF products depending on installation conditions and unit models.

	Refrigerant pipes	Power supply and wiring	Breaker	Transmission line	Wiring for controller	Indoor Unit	Outdoor Unit
Reuseability	✓	✓	✓	✓	✓	✓*	✗

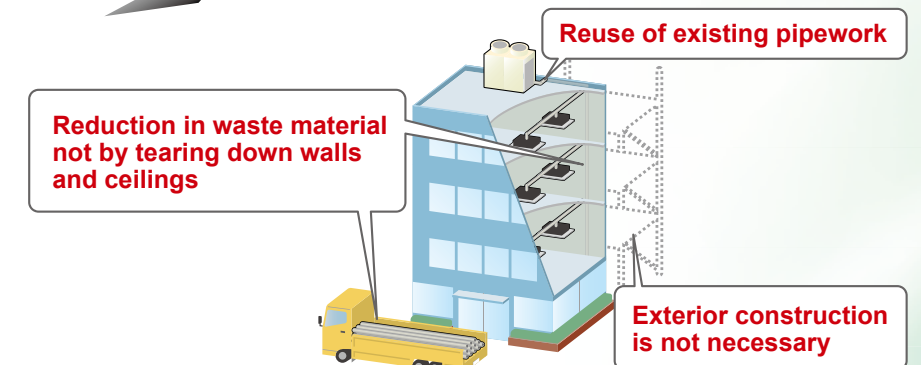
NOTE : Reusable items depend on system condition and existing infrastructure.

*Reusable indoor units depend on the model. For details, please contact your local sales office.

Total system replacement



Component replacement with Replace Multi



R

replace

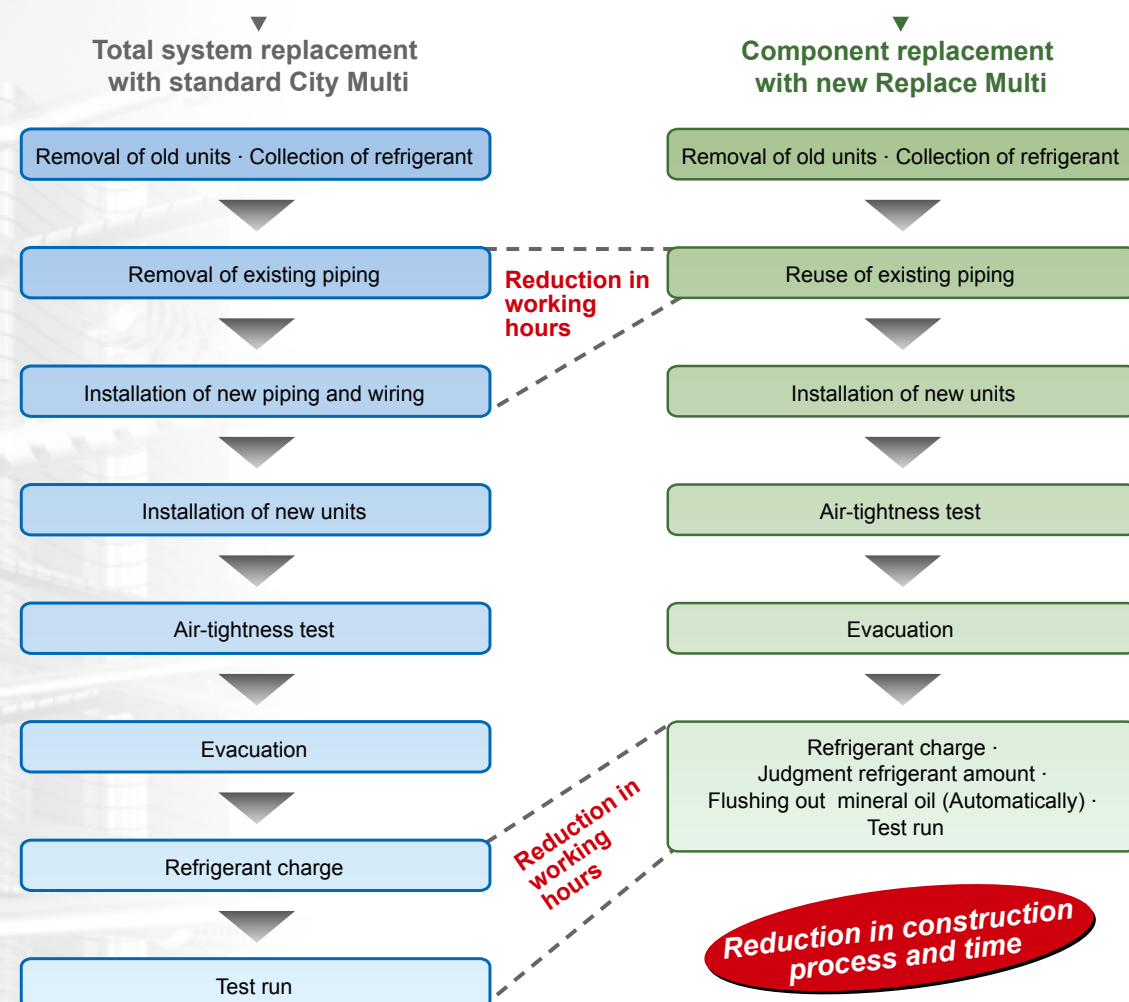
with smooth installation

Time

Short and quick construction process and time

Compared to the installation process and time to install a complete new system, Replace Multi offers shorter and quicker installation.

The key cause of this is because with Replace Multi, without any use of special kit, existing piping can be reused and works at rooftop or walls for new piping are not required. This results in reduced installation time and system downtime which is an attractive factor to minimize the effect on business working hours.



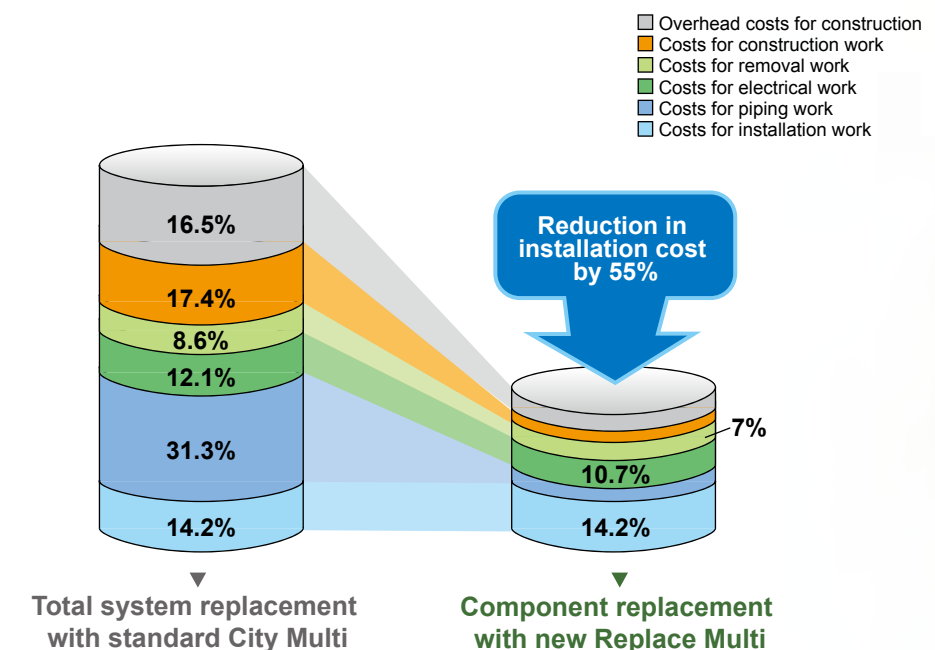
Cost

Low renewal cost (estimation)

Reduction in waste and time also results in minimized construction work cost by approximately 55% compared to the conventional total system replacement. (Estimated based on installation in Japan)

The major cutback achieved here is the pipe work costs by reusing existing piping which generally involves demolitions of exterior and interior walls, and rooftops.

Moreover, these features add up to not only less labor, materials, lower operating costs, but also reduce costs for waste disposal.



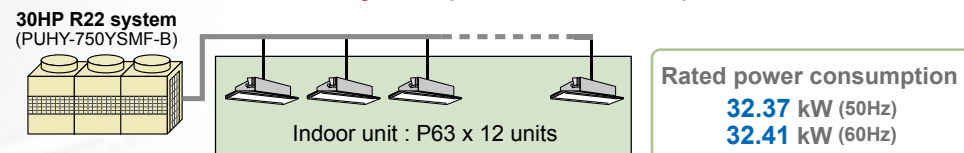
*Estimation based on installation in Japan.

Replacement example

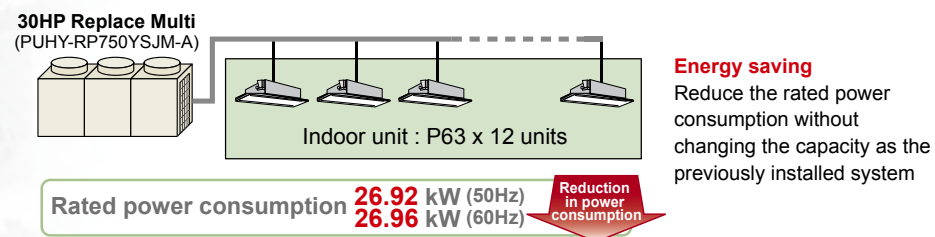
Replace Multi has an extensive lineup and offer higher performance that can be adapted to any demand and requirements in a building. Whether its performance, expansion of the system, or energy efficiency that needs to be considered, Replace Multi can meet all these demands. It can provide comfortable cooling and heating all year around with a reduction in power consumption compared to a R22 system 10 years ago.

Example

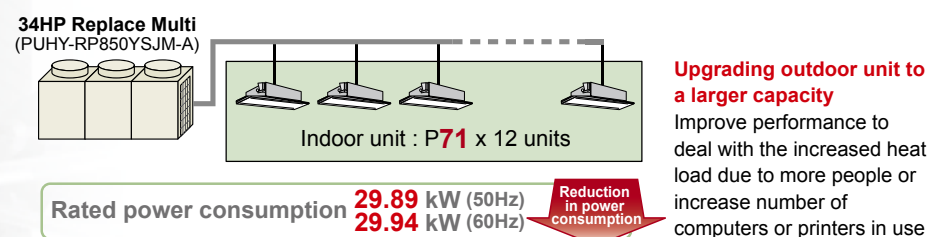
Our conventional 30HP R22 system (PUHY-750YSMF-B)



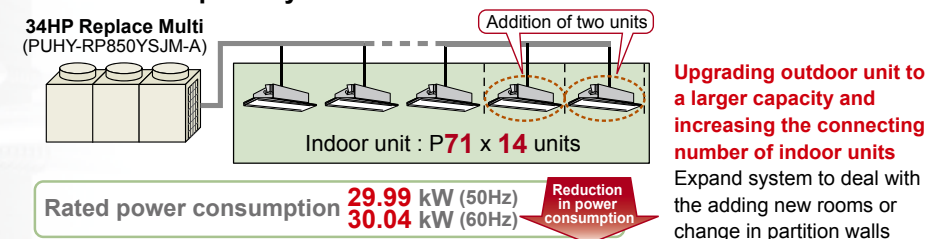
● Demand to reduce the power consumption



● Demand to improve performance



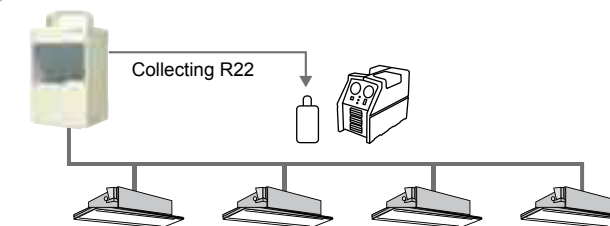
● Demand to expand system



5 steps to Replace Multi

Installing Replace Multi can be simply done in 5 steps.

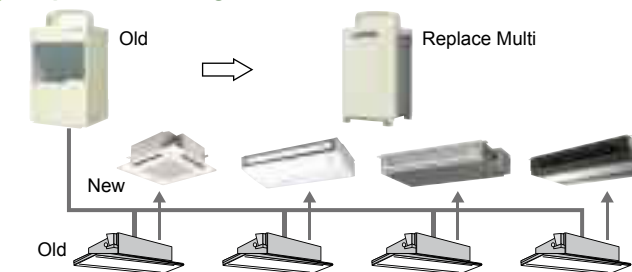
1 Collecting old refrigerant



STEP1 :

Locate existig pipework and collect R22 with a refrigerant recovery machine for safe disposal.

2 Replace existing outdoor and indoor unit



STEP2 :

Remove existing outdoor and indoor units to install new outdoor and indoor units. Indoor units that are compatible with R22/R407/R410A refrigerant does not require replacement and can be reused. For details, please contact your local sales office.

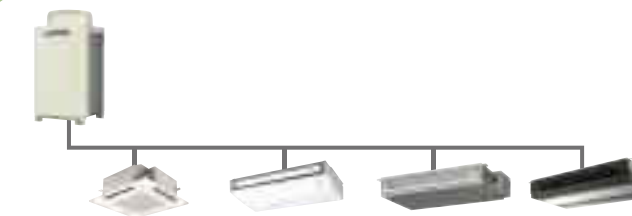
3 Charging new refrigerant



STEP3 :

Air tightness and evacuation. Conduct leak/pressure tests, evacuation and charging with R410A. Charge adequate amount of refrigerant automatically.

4 Mineral oil collection

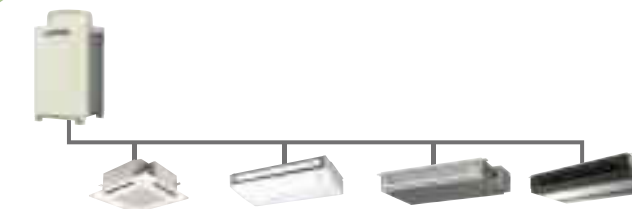


STEP4 :

Run system in cleaning mode (cooling or heating*) to automatically flush out mineral oil from pipework with Mitsubishi Electric's unique flushing operation. (45~120 minutes)

*Only cooling operation with R2 series

5 Test mode



STEP5 :

After completing the cleaning mode, restart system in test run.

Lineup comparison

Replace Multi lineup varies from 8HP to 36HP in Heat Pump series, and 8HP to 12HP in Heat Recovery series. The lineup offers flexibility to adapt to a broader range of applications.

		HP															
		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	
Unit 10 years ago*	Heat Pump	●	●			●		●		●	●	●	●				
	Heat Recovery	●	●														
Replace Multi	Heat Pump	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Heat Recovery	●	●	●													

*R22 system PUHY-Y(S)MF-B model.

High Efficiency

By installing energy efficient Replace Multi, it is possible to benefit from around 40% greater COP (Coefficient of Performance) compared to the R22 system 10 years ago.

Comparison of COP in cooling/heating average

		Heat Pump		Heat Recovery	
		8 HP	10 HP	8 HP	10 HP
Unit 10 years ago*		2.87	2.84	2.87	2.84
Replace Multi		4.16	3.70	4.29	3.96
Comparison		145%	130%	149%	139%

*R22 system PUHY-YMF-B model.

Low sound pressure level

Replace Multi managed to achieve not only higher performance but also lower sound pressure levels which is an important advantage compared with the R22 systems 10 years ago.

Comparison of sound pressure level

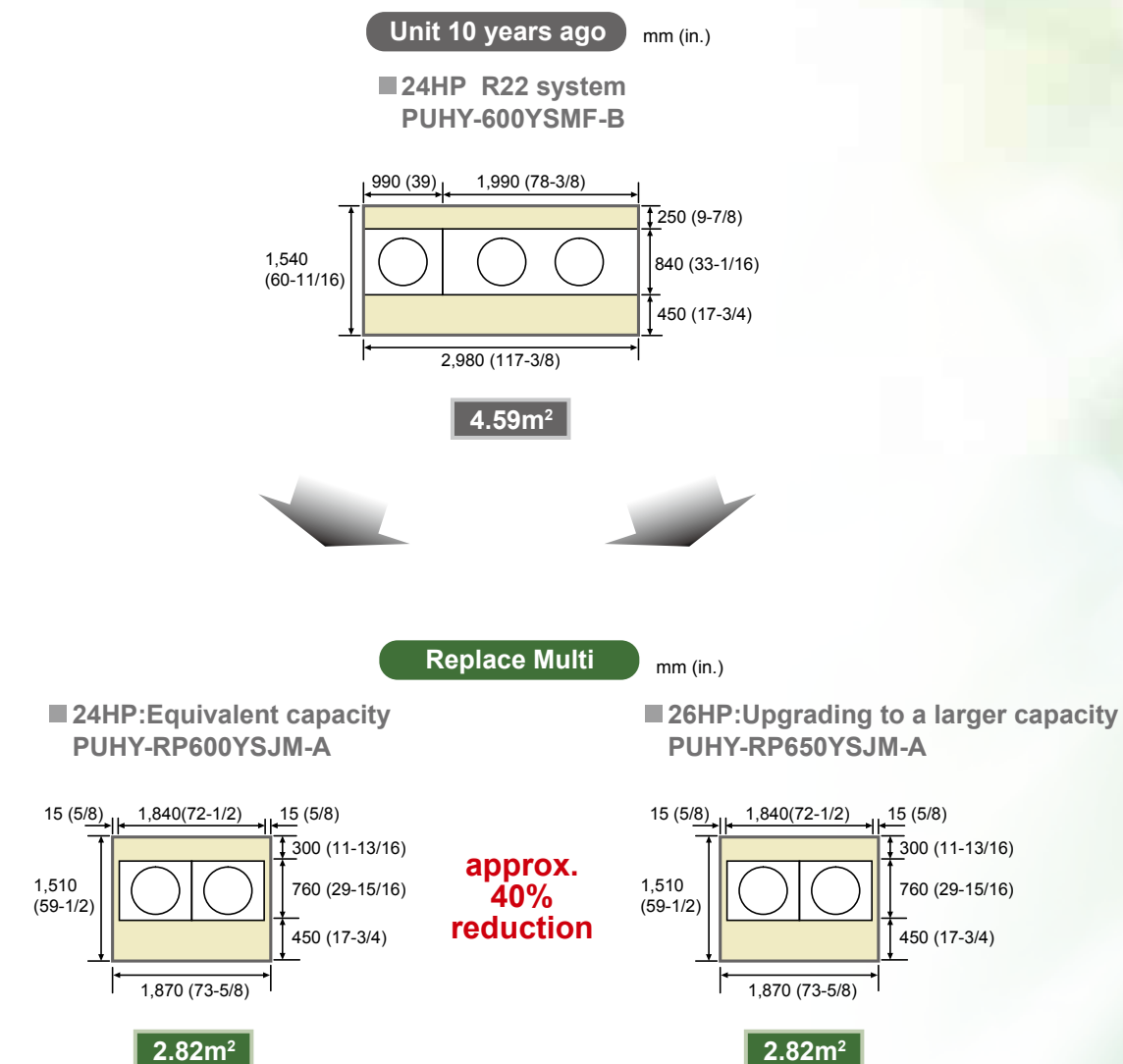
		Heat Pump		Heat Recovery	
		8 HP	10 HP	8 HP	10 HP
Unit 10 years ago*		57	58	57	58
Replace Multi		56	57	56	57

*R22 system PUHY-YMF-B model.

Space

Small installation space

Outdoor unit installation space is reduced by approximately 40% compared to the space required with R22 unit 10 years ago. This is possible both when installing a unit with equivalent capacity or even when upgrading units to a larger capacity.



●Technology

Mineral oil collection

Only with
MITSUBISHI ELECTRIC

At the core of the new innovative Replace Multi technology to reuse existing piping is the mineral oil collection to clean out the minerals in previously installed pipe work.

Mineral oil collection with Mitsubishi Electric's unique flushing operation is carried out after the new refrigerant is charged.

With this advance technology, the cleaning process is completed quickly, thoroughly and automatically to keep the air environment comfortable.

QUICK & AUTOMATIC → Quick and automatic mineral oil collection with simple step

COMFORT → Comfort not interrupted during the process

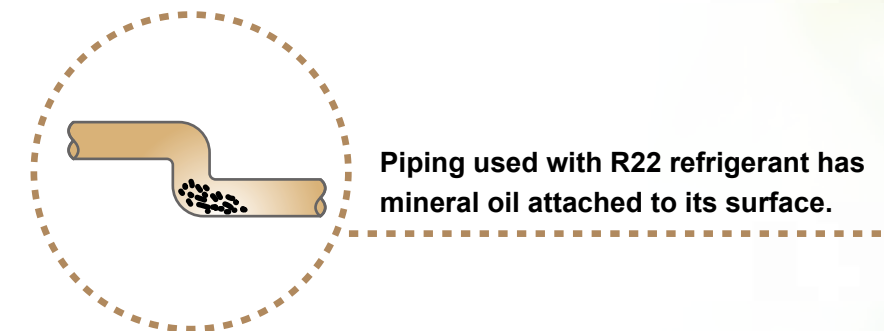
R22

R22 is a single hydrochlorofluorocarbon or HCFC compound known to have ozone depleting potential. R22 has been widely used in Air-Conditioning and Refrigeration equipment; however, virgin R22 refrigerant within the European countries are banned under European legislation driven by the Montreal Protocol.

R410A

R410A is a binary blend of hydrofluorocarbon or HFC compounds with ZERO ozone depleting potential. R410A is a more energy efficient refrigerant than R22 offering a greater heat transfer, which is one of the key elements to stop global warming.

Why mineral oil collection is required.



Refrigerant piping used for R22 requires treatment before it is reused.

Mineral oil in the piping must be removed or a new piping needs to be installed.

If the mineral oil in new refrigerant R410A refrigerant and R22 refrigerant are mixed, there is a possibility of sludge due to deterioration. When this occurs, mineral oil may not dissolve in the R410A refrigerant and lead to problems in compressor and LEV clogging.

Quick & Automatic

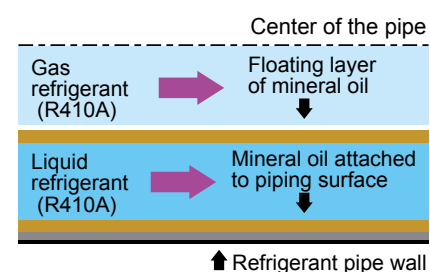
Facts

Quick and automatic mineral oil collection	Mineral oil can be collected in approximately 45~120 minutes. Y series Max.120 minutes(cooling) / Max.140 minutes(heating) R2 series Max.120 minutes(cooling)
Density of R410A refrigerant	R410A refrigerant < R22 refrigerant R410A gas refrigerant < mineral oil < R410A liquid refrigerant
Speed	R410A liquid refrigerant < R410A gas refrigerant

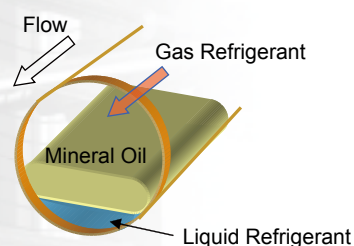
Principle of mineral oil collection

Mineral oil in R22 system is not soluble to the R410 refrigerant. When R410A two phase refrigerant flows through a pipework, shear force among the mineral oil and R410A refrigerant pushes out and strip off from the mineral oil attached to the piping surface. The mineral oil floats on the surface between gas and liquid refrigerant.

Flushing operation (sectional view)



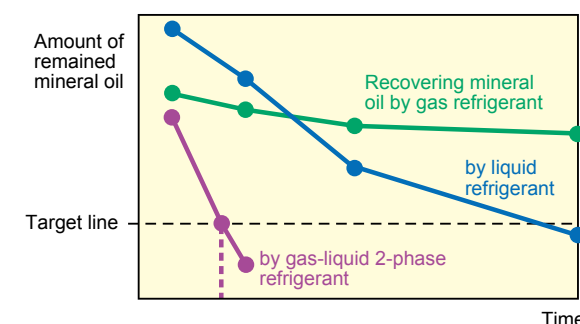
Flushing operation



If the refrigerant is 2 phase, liquid refrigerant speed is accelerated by the gas refrigerant flowing at high-speed in the center part of the pipeworks. With this acceleration, the mineral oil floating at the surface of liquid refrigerant also increases its speed and mineral oil collection can be finished smoothly and quickly in the existing refrigerant piping.

The amount of time required for mineral oil collection differs by the condition of refrigerant. The most effective and quickest result can be expected when 2 phase refrigerant is used.

Mineral oil collection speed comparison by refrigerant type



This mineral oil collection with 2 phase refrigerant is a **patented technology** of Mitsubishi Electric and was awarded by the Japanese Institute and Innovation in 2007.

Automatic refrigerant charge

Amount of refrigerant required for the system is automatically determined and charged after the mineral oil collection is completed.

Comfort

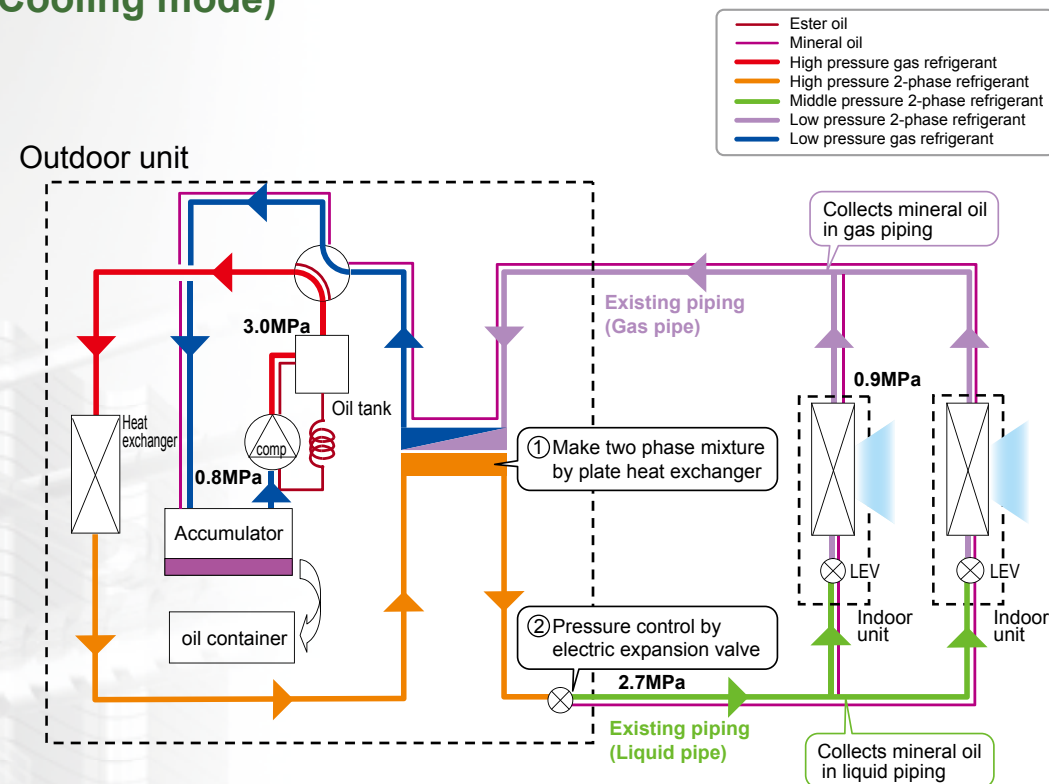
Automatically performed by just setting the dip switch, mineral oil collection can even be performed without turning off the air conditioners. Therefore, it can maintain a comfortable indoor air environment, cooling or heating operation with Y series outdoor unit, and cooling operation with R2 series.

*Only cooling operation with R2 series

Mineral oil collection flow

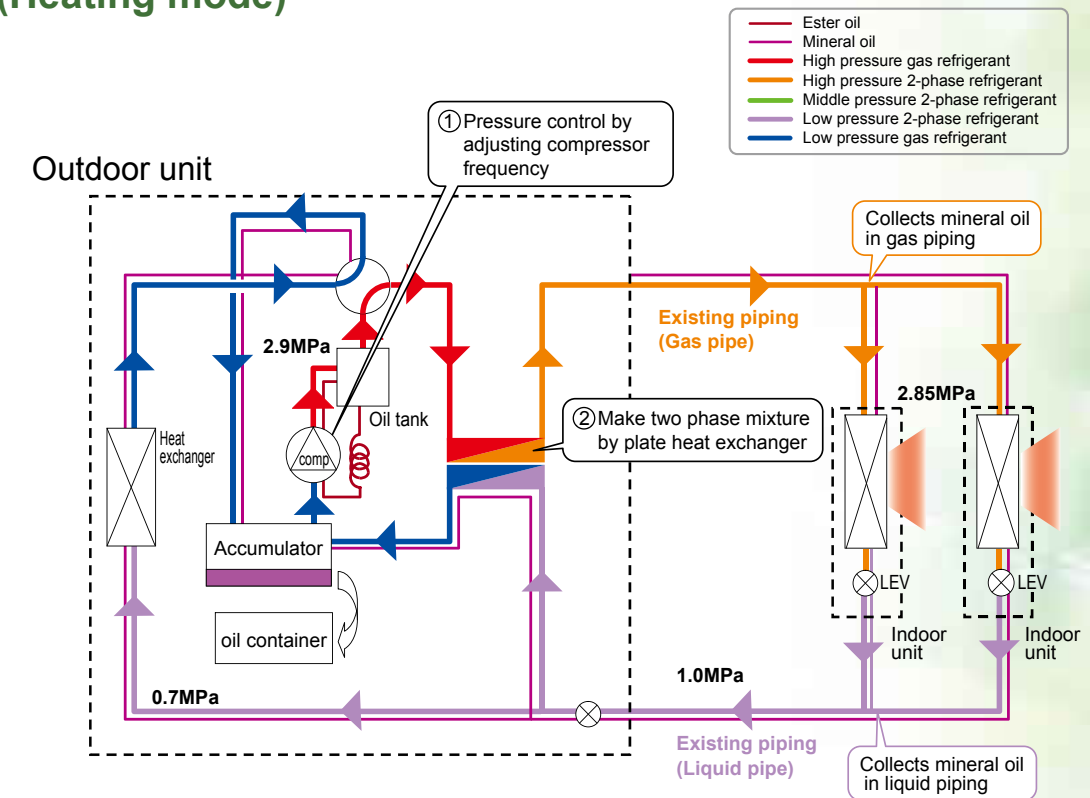
The following shows an overview of the mineral oil collection flow along with the refrigerant flow. During mineral oil collection, with Heat Pump outdoor unit, cooling or heating operation is available, and with Heat Recovery outdoor unit, only cooling operation is available. Mineral oil in the existing piping is collected along with the new refrigerant flow. At the end of each flow, the refrigerant returns to outdoor unit with mineral oil which is collected in an accumulator and automatically removed to an oil container in the outdoor unit.

Heat pump Y series outdoor unit (Cooling mode)



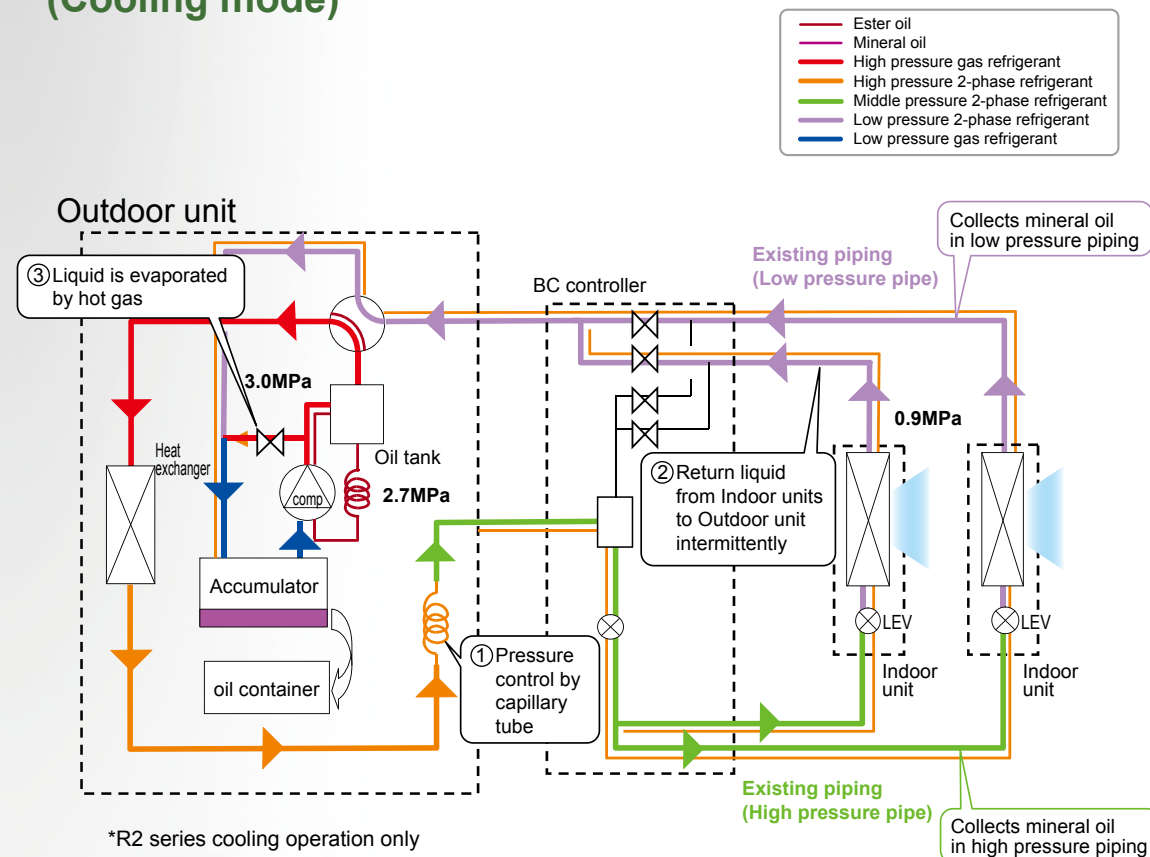
First, high pressure gas from the compressor is condensed to 2-phase refrigerant by plate heat exchanger① and reduces its pressure to middle pressure 2-phase refrigerant by a LEV②. It allows 2-phase refrigerant to flow in the existing R22/R407C piping. This 2-phase refrigerant (liquid refrigerant speed is accelerated by gas refrigerant) accelerates to peel off mineral oil in the existing liquid pipe. Then, middle pressure 2-phase refrigerant reduces its pressure to low pressure 2-phase refrigerant by an indoor unit LEV to collect mineral oil in the existing gas pipe. Lastly, the refrigerant returns to outdoor unit with mineral oil and heat exchanges to become low pressure gas refrigerant through heat exchanger. Mineral oil in gas refrigerant is separated at accumulator and only gas refrigerant returns to compressor. Mineral oil collected in accumulator is automatically removed to oil container in the outdoor unit.

Heat pump Y series outdoor unit (Heating mode)



First, high pressure gas refrigerant heat exchanges at the outdoor unit plate heat exchanger to become high pressure 2-phase refrigerant②. By regulating compressor frequency①, pressure of this 2-phase refrigerant is adjusted within the level that the EXISTING R22/R407C piping can stand (R22/R407C design pressure). This 2-phase refrigerant (liquid refrigerant speed is accelerated by gas refrigerant) accelerates to peel off mineral oil in the existing gas pipe. Then, refrigerant flowing out from indoor unit becomes low pressure 2-phase refrigerant by indoor unit LEV. This 2-phase refrigerant collects mineral oil in existing liquid pipe. Lastly, the refrigerant returns to outdoor unit with mineral oil distributing to plate heat exchanger and outdoor heat exchanger. Mineral oil in gas refrigerant is separated at accumulator and only gas refrigerant returns to compressor. Mineral oil collected in accumulator is automatically removed to oil container in the outdoor unit.

Heat pump R2 series outdoor unit (Cooling mode)



First, high pressure gas from the compressor is condensed to 2-phase refrigerant and reduces its pressure to middle pressure 2-phase refrigerant by an outdoor unit capillary tube①. It allows middle pressure 2-phase refrigerant to flow in the existing R22/R407C piping via BC controller. Within certain operating pressure, this 2-phase refrigerant (liquid refrigerant speed is accelerated by gas refrigerant) accelerates to peel off the mineral oil in the existing high pressure pipe. Then, middle pressure 2-phase refrigerant reduces its pressure to low pressure 2-phase refrigerant by indoor unit LEV. The 2-phase refrigerant is not completely gasified by controlling LEV at indoor unit. 2-phase refrigerant flows out to collect mineral oil in the low pressure pipe②. Lastly, the refrigerant returns to outdoor unit with mineral oil exchanges heat to become low pressure gas refrigerant and reaches accumulator after evaporated by hot gas③. Mineral oil in gas refrigerant is separated at accumulator and only gas refrigerant returns to compressor. Mineral oil collected in accumulator is automatically removed to oil container in the outdoor unit.

Other features

Reliable and Long Product Life Cycle

Y series only



Backup Function

(16HP~36HP models)

The combined modular Y series design ensures an exceptionally high level of reliability by utilizing a new backup function, which can be easily operated from an indoor unit remote controller in the unlikely case of a malfunction.

Y series only



Rotation Function

(16HP~36HP models)

Running outdoor units alternatively with 'Rotation Function', the system is able to ensure an optimum product life cycle for both of its component units.

30, 60Pa High Static Pressure

Both Y and R2 series correspond to high static pressure of 30Pa and 60Pa, ideal and flexible for wide range of application.

High heating performance at low ambient temperature

At default setting, high heating capacity at low ambient temperature is available.

Note: COP decreases at low ambient temperature.

Depending on customer requirement, COP preference mode is available by setting a DIP switch.

Cooling operation set temperature of 14°C

For applications requiring low setting temperature, cooling operation down to 14°C is available by selecting a dip switch on the unit.

Note: This function is available on PEFY/ PFFY series (excluding PEFY-P VMH-E-F, PFFY-P VKM) and PLFY-P VLMD.

● Case Study

Case Study
1

Application: Hotel “Kimiidera Garden Hotel Hayashi”

Country: Japan **Work:** May 2006

Installation: Outdoor unit : 2 x Y series Replace Multi 8HP unit
Indoor unit : 40 x Ceiling concealed unit
2 x Two way cassette unit etc.
(Total 74 indoor units)



The Challenge

Located at the foot of one of the historical temples (Kimiidera temple) in Wakayama, Japan, Kimiidera Garden Hotel Hayashi is a 120-year-old traditional hotel that can accommodate up to 350 people. The hotel has been seeking an advanced air conditioning system to offer the guests complete comfort; however, few hotels can afford a complete shut down while renewal construction is carried out. Kimiidera Garden Hotel Hayashi was not an exception. The hotel needed to stay open and air conditioners to continue operation throughout the whole renewal period.

The Solution

Other manufacturer's air conditioning systems had been previously installed. This was not a problem because Mitsubishi Electric's Replace Multi can also replace other manufactures' system by utilizing the existing piping and keeping the distracting construction noise to a minimum. What's more, the hotel owner did not have to worry about business closing because operation of air conditioners is not interrupted throughout the construction work. The system was gradually renewed by refrigerant systems to keep the effect on the guests to a minimum, and it took three months in total to complete the work.

Case Study
2

Application: Car equipment store “James”

Country: Japan **Work:** April 2009

Installation: Outdoor unit: 8 x Y series Replace Multi 10HP unit
Indoor unit: 3 x Ceiling suspended unit
1 x Ceiling concealed unit
17 x Ceiling cassette unit (Total 21 indoor units)



The Challenge

“James” is one of a famous car equipment store for automobile accessories and maintenance in Japan opening stores all around the country. In a store located in Hamamatsu City, Shizuoka prefecture, gas-driven air conditioning system had been installed for ten years. The system was old, required frequent maintenance and was giving trouble to the store owner. One summer, half of the system had a break down which greatly affected the customers and especially employees working in the car inspection pit where heat from maintenance tools and equipment is generated.


The Solution

To improve customer satisfaction and working environment without any affect on business itself, Mitsubishi Electric Replace Multi system was chosen. Renewal work was carried out only on shop holiday, and replacements of outdoor units were quickly completed in a day not affecting the opening hours of the store.

With the replacement of air conditioning units, not only were customer satisfaction and working environment were improved, but maintenance cost has been reduced. In addition, to improve running costs, a centralized controller G-50A was newly installed to efficiently control the system and air filter cleaning is carried out once a month.

Outdoor unit lineup

Y series Y series PUHY-RP YJM-A(-BS)



Horse Power	8	10	12	14
Capacity	P200	P250	P300	P350
Combination	Single module			

Y series Y series PUHY-RP YSJM-A(-BS)




Horse Power	16	18	20	22	24	26
Capacity	P400	P450	P500	P550	P600	P650
Combination	P200+ P200	P200+ P250	P250+ P250	P250+ P300	P300+ P300	P300+ P350

Y series Y series PUHY-RP YSJM-A(-BS)



Horse Power	28	30	32	34	36
Capacity	P700	P750	P800	P850	P900
Combination	P200+ P250	P250+ P250	P250+ P300	P250+ P300	P300+ P300

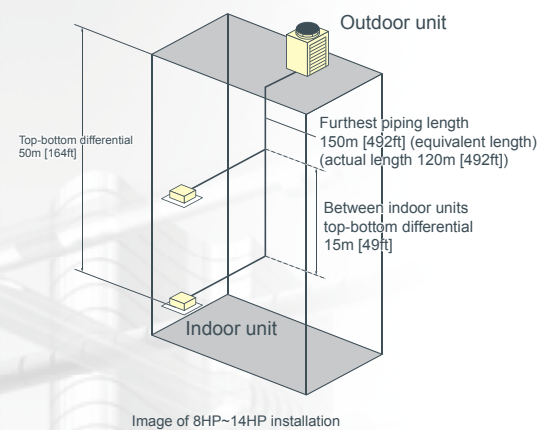
R2 series R2 series PURY-RP YJM-A(-BS)



Horse Power	8	10	12
Capacity	P200	P250	P300
Combination	Single module		

Piping length

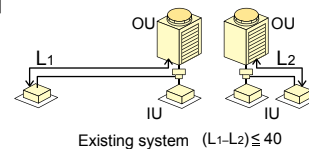
PUHY-RP200-550Y(S)JM-A



Refrigerant Piping Lengths Maximum meters [Feet]

Total length	300 [984]
Maximum allowable length	120 [393]
equivalent	150 [492]
Farthest indoor from first branch	40 [131]*

* Replace Multi can combine an existing multiple system if the length difference of farthest indoor from first branch is no larger than 40m.

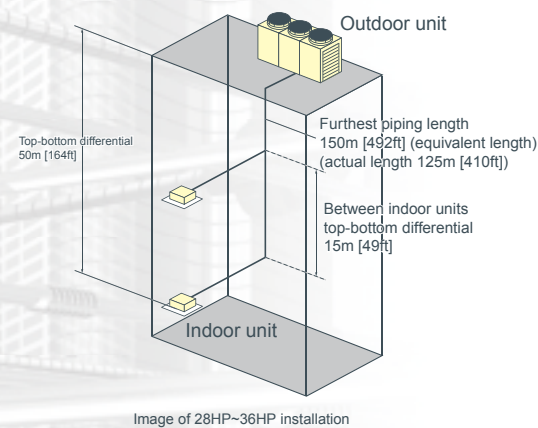


Vertical differentials between units Maximum meters [Feet]

Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]
Outdoor/outdoor*	0.1 [0.3]

* For models PUHY-RP400~RP550YSJM-A

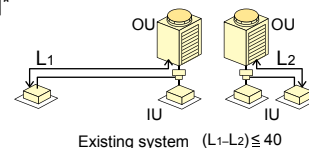
PUHY-RP600-900YSJM-A



Refrigerant Piping Lengths Maximum meters [Feet]

Total length	250 [820]
Maximum allowable length	100 [328]
equivalent	125 [410]
Farthest indoor from first branch	40 [131]*

* Replace Multi can combine an existing multiple system if the length difference of farthest indoor from first branch is no larger than 40m.

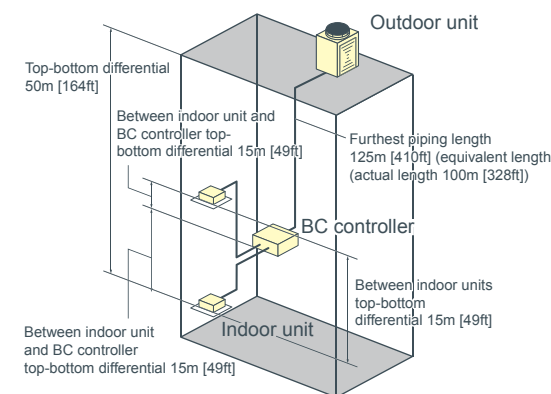


Vertical differentials between units Maximum meters [Feet]

Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/indoor	15 [49]
Outdoor/outdoor*	0.1 [0.3]

* For models PUHY-RP600~RP900YSJM-A

PURY-RP200-300YJM-A



Refrigerant Piping Lengths Maximum meters [Feet]

Total length	220 [721]
Maximum allowable length	100 (90) [328 (295)]*
equivalent	125 (115) [410 (377)] *
Farthest indoor from BC controller	30 [98]

* Values in () is applied when indoor total capacity exceeds 130% of outdoor unit capacity

Vertical differentials between units Maximum meters [Feet]

Indoor/outdoor (outdoor higher)	50 [164]
Indoor/outdoor (outdoor lower)	40 [131]
Indoor/BC controller (single/main)	15 (10) [49 (32)]*

* Maximum length between single/main BC controller and indoor is dependent upon the vertical differential between the single/main BC controller and the indoor unit.

Indoor/indoor	15 (10) [49 (32)]*
Main BC Controller/Sub BC Controller	15 (10) [49 (32)]*


* Values in () is applied when indoor total capacity exceeds 130% of outdoor unit capacity

Indoor unit lineup

Standard CITY MULTI indoor units can be connected to Replace Multi. CITY MULTI selection of indoor units provide a wide range of indoor units to meet the requirements of all room types. Units are available in Ceiling Cassette, Ceiling Concealed Ducted, Ceiling Suspended, and Wall Mounted & Floor mounted versions.

Ceiling cassette (4-way air flow)

PLFY-P VBM-E
PLFY-P VCM-E




Model	P20	P25	P32	P40	P50
Capacity	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW

Model	P63	P80	P100	P125
Capacity	7.1kW	9.0kW	11.2kW	14.0kW

Fresh Air Intake


PEFY-P VMH-E-F



Model	P80	P140	P200	P250
Capacity	9.0kW	16.0kW	22.4kW	28.0kW

Ceiling cassette (2-way air flow)

PLFY-P VLMD-E




Model	P20	P25	P32	P40	P50
Capacity	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW

Model	P63	P80	P100	P125
Capacity	7.1kW	9.0kW	11.2kW	14.0kW

Ceiling suspended


PCFY-P VKM-E



Model	P40	P63	P100	P125
Capacity	4.5kW	7.1kW	11.2kW	14.0kW

Ceiling cassette (1-way air flow)

PMFY-P VBM-E



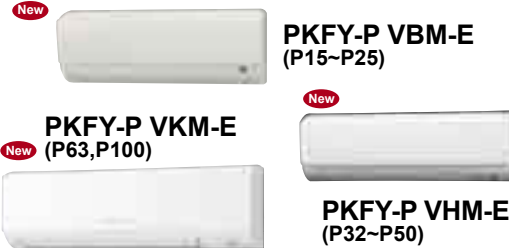
Model	P20	P25	P32	P40
Capacity	2.2kW	2.8kW	3.6kW	4.5kW

Wall mounted

PKFY-P VBM-E (P15~P25)

PKFY-P VKM-E (P63,P100)

PKFY-P VHM-E (P32~P50)



Model	P15	P20	P25	P32	P40	P50	P63	P100
Capacity	1.7kW	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW	7.1kW	11.2kW


Ceiling concealed

PEFY-P VMR-E-L/R (P20~P32)

PEFY-P VMA(L)-E (P20~P140)

PEFY-P VMS1(L)-E (P15~P63)

PEFY-P VMH-E (P40~P250)



Model	P15	P20	P25	P32	P40	P50	P63
Capacity	1.7kW	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW	7.1kW


Model	P71	P80	P100	P125	P140	P200	P250
Capacity	8.0kW	9.0kW	11.2kW	14.0kW	16.0kW	22.4kW	28.0kW

Floor standing / Floor mounted concealed

PFFY-P VLEM-E (P20~P40)

PFFY-P VKM-E (P20~P40)

PFFY-P VLRM-E
PFFY-P VLMM-E (P20~P63)



Model	P20	P25	P32	P40	P50	P63
Capacity	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW	7.1kW

Specification

Model		PUHY-RP200YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP300YJM-A(-BS)	PUHY-RP350YJM-A(-BS)	
Power source		3-phase 4-wire 380-400-415V 50/60Hz				
Cooling capacity (Nominal)	*1 kW	22.4	28.0	33.5	40.0	
	*1 kcal / h	19,300	24,100	28,800	34,400	
	*1 BTU / h	76,400	95,500	114,300	136,500	
	Power input kW	5.68	8.28	9.37	12.28	
	Current input A	9.5-9.1-8.7	13.9-13.2-12.7	15.8-15.0-14.4	20.7-19.6-18.9	
	COP	3.94	3.38	3.57	3.25	
Temp. range of cooling	Indoor W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
	Outdoor D.B.	-5.0~43.0°C (23~109°F)	-5.0~43.0°C (23~109°F)	-5.0~43.0°C (23~109°F)	-5.0~43.0°C (23~109°F)	
Heating capacity (Nominal)	*2 kW	25.0	31.5	37.5	45.0	
	*2 kcal / h	21,500	27,100	32,300	38,700	
	*2 BTU / h	85,300	107,500	128,000	153,500	
	Power input kW	5.69	7.83	9.86	13.12	
	Current input A	9.6-9.1-8.7	13.2-12.5-12.1	16.6-15.8-15.2	22.1-21.0-20.2	
	COP	4.39	4.02	3.80	3.42	
Temp. range of heating	Indoor D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	
	Outdoor W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~130 % of outdoor unit capacity				
	Model / Quantity	P15~P250 / 1~17	P15~P250 / 1~21	P15~P250 / 1~26	P15~P250 / 1~30	
Sound pressure level (measured in anechoic room)	dB<A>	56	57	59	60	
Refrigerant	Liquid pipe mm(in.)	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	15.88 (5/8) Brazed	
piping diameter	Gas pipe mm(in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	34.93 (1-3/8) Brazed	
FAN *3	Type x Quantity	Propeller fan x 1				
	Air flow rate	m³ / min	185	185	185	185
		L/s	3,083	3,083	3,083	3,083
		cfm	6,532	6,532	6,532	6,532
	Control, Driving mechanism	Inverter-control, Direct-driven by motor				
	Motor output kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
	External static press.	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	
Compressor	Type x Quantity	Inverter scroll hermetic compressor				
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION				
	Starting method	Inverter	Inverter	Inverter	Inverter	
	Motor output kW	4.8	6.8	8.2	9.9	
	Case heater kW	0.035 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	
	Lubricant	MEL32	MEL32	MEL32	MEL32	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>				
External dimension HxWxD	mm	1,710(1,650 without legs) x 920 x 760	1,710(1,650 without legs) x 920 x 760	1,710(1,650 without legs) x 920 x 760	1,710(1,650 without legs) x 920 x 760	
	in.	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15,3.3MPa (601,479 psi)				
	Inverter circuit (COMP. / FAN)	Over-heat protection, Over-current protection				
	Compressor	Over-heat protection				
	Fan motor	Thermal switch				
Refrigerant	Type x original charge	R410A x 6.5kg (15lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	
	Control	LEV and HIC circuit				
Net weight	kg(lbs)	230(508)	255 (563)	255 (563)	255 (563)	
Heat exchanger		Salt-resistant cross fin & copper tube				
Optional parts		Header: CMY-Y104/108/1010-G				

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

- Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

Model			PUHY-RP400YSJM-A (-BS)		PUHY-RP450YSJM-A (-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1	kW	45.0		50.0	
	*1	kcal / h	38,700		43,000	
	*1	BTU / h	153,500		170,600	
		Power input kW	11.87		14.40	
		Current input A	20.0-19.0-18.3		24.3-23.0-22.2	
		COP	kW/kW 3.79		3.47	
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Outdoor	D.B.	-5.0~43.0°C (23~109°F)		-5.0~43.0°C (23~109°F)	
Heating capacity (Nominal)	*2	kW	50.0		56.0	
	*2	kcal / h	43,000		48,200	
	*2	BTU / h	170,600		191,100	
		Power input kW	11.38		13.42	
		Current input A	19.2-18.2-17.5		22.6-21.5-20.7	
		COP	kW/kW 4.39		4.17	
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity			
	Model / Quantity		P15~P250 / 1~32		P15~P250 / 1~32	
Sound pressure level (measured in anechoic room)		dB<A>	59		59.5	
Refrigerant	Liquid pipe	mm(in.)	15.88 (5/8) Brazed		15.88 (5/8) Brazed	
piping diameter	Gas pipe	mm(in.)	34.93 (1-3/8) Brazed		34.93 (1-3/8) Brazed	
Set Model			PUHY-RP200YJM-A(-BS)	PUHY-RP200YJM-A(-BS)	PUHY-RP200YJM-A(-BS)	PUHY-RP250YJM-A(-BS)
FAN	*3	Type x Quantity	Propeller fan x 1			
		m³ / min	185	185	185	185
	Air flow rate	L/s	3,083	3,083	3,083	3,083
		cfm	6,532	6,532	6,532	6,532
	Control, Driving mechanism		Inverter-control, Direct-driven by motor			
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.		0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
Compressor	Type x Quantity		Inverter scroll hermetic compressor			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	4.8	4.8	4.8	6.8
	Case heater	kW	0.035 (240V)	0.035 (240V)	0.035 (240V)	0.045 (240V)
	Lubricant		MEL32	MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 760		1,710 (1,650 without legs) x 920 x 760	
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-15/16		67-3/8 (65 without legs) x 36-1/4 x 29-15/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15,3.3MPa (601,479 psi)			
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
	Fan motor		Thermal switch			
Refrigerant	Type x original charge		R410A x 6.5kg (15lbs)	R410A x 6.5kg (15lbs)	R410A x 6.5kg (15lbs)	R410A x 9.0kg (20lbs)
	Control		LEV and HIC circuit			
Net weight		kg(lbs)	230 (508)	230 (508)	230 (508)	255 (563)
Heat exchanger			Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	Liquid pipe	mm(in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed
	Gas pipe	mm(in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-RP100VBK Header: CMY-Y104/108/1010-G			

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

- 1.Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- 2.Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- 3.External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	

Model			PUHY-RP500YSJM-A (-BS)		PUHY-RP550YSJM-A (-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz			
Cooling capacity (Nominal)	*1	kW	56.0		63.0	
	*1	kcal / h	48,200		54,200	
	*1	BTU / h	191,100		215,000	
		Power input kW	16.96		18.58	
		Current input A	28.6-27.1-26.2		31.3-29.7-28.7	
		COP	kW/kW 3.30		3.39	
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Outdoor	D.B.	-5.0~43.0°C (23~109°F)		-5.0~43.0°C (23~109°F)	
Heating capacity (Nominal)	*2	kW	63.0		69.0	
	*2	kcal / h	54,200		59,300	
	*2	BTU / h	215,000		235,400	
		Power input kW	15.67		17.69	
		Current input A	26.4-25.1-24.2		29.8-28.3-27.3	
		COP	kW/kW 4.02		3.90	
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity			
	Model / Quantity		P15~P250 / 1~32		P15~P250 / 1~32	
Sound pressure level (measured in anechoic room)		dB<A>	60		61	
Refrigerant	Liquid pipe	mm(in.)	15.88 (5/8) Brazed		15.88 (5/8) Brazed	
piping diameter	Gas pipe	mm(in.)	34.93 (1-3/8) Brazed		34.93 (1-3/8) Brazed	
Set Model			PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP300YJM-A(-BS)
FAN	*3	Type x Quantity	Propeller fan x 1			
	Air flow rate	m³ / min	185	185	185	185
		L/s	3,083	3,083	3,083	3,083
		cfm	6,532	6,532	6,532	6,532
	Control, Driving mechanism		Inverter-control, Direct-driven by motor			
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1
	External static press.		0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
Compressor	Type x Quantity		Inverter scroll hermetic compressor			
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION			
	Starting method		Inverter	Inverter	Inverter	Inverter
	Motor output	kW	6.8	6.8	6.8	8.2
	Case heater	kW	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)
	Lubricant		MEL32	MEL32	MEL32	MEL32
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15,3.3MPa (601,479 psi)			
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection			
	Compressor		Over-heat protection			
	Fan motor		Thermal switch			
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)
	Control		LEV and HIC circuit			
Net weight		kg(lbs)	255 (563)	255 (563)	255 (563)	255 (563)
Heat exchanger			Salt-resistant cross fin & copper tube			
Pipe between unit and distributor	Liquid pipe	mm(in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed
	Gas pipe	mm(in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
Optional parts			Outdoor Twinning kit: CMY-RP100VBK Header: CMY-Y104/108/1010-G			

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

- 1.Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- 2.Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- 3.External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	

Model			PUHY-RP600YSJM-A(-BS)			PUHY-RP650YSJM-A(-BS)					
Power source			3-phase 4-wire 380-400-415V 50/60Hz								
Cooling capacity (Nominal)	*1	kW	69.0			73.0					
	*1	kcal / h	59,300			62,800					
	*1	BTU / h	235,400			249,100					
		Power input kW	19.94			22.00					
		Current input A	33.6-31.9-30.8			37.1-35.2-34.0					
		COP	kW/kW 3.46			3.31					
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)			15.0~24.0°C (59~75°F)					
	Outdoor	D.B.	-5.0~43.0°C (23~109°F)			-5.0~43.0°C (23~109°F)					
Heating capacity (Nominal)	*2	kW	76.5			81.5					
	*2	kcal / h	65,800			70,100					
	*2	BTU / h	261,000			278,100					
		Power input kW	20.13			22.70					
		Current input A	33.9-32.2-31.1			38.3-36.4-35.0					
		COP	kW/kW 3.80			3.59					
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)			15.0~27.0°C (59~81°F)					
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)			-20.0~15.5°C (-4~60°F)					
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity								
	Model / Quantity		P15~P250 / 1~32			P15~P250 / 1~32					
Sound pressure level (measured in anechoic room)		dB<A>	62			62.5					
Refrigerant	Liquid pipe	mm(in.)	19.05 (3/4) Brazed			19.05 (3/4) Brazed					
piping diameter	Gas pipe	mm(in.)	34.93 (1-3/8) Brazed			41.28 (1-5/8) Brazed					
Set Model			PUHY-RP300YJM-A(-BS)		PUHY-RP300YJM-A(-BS)		PUHY-RP300YJM-A(-BS)		PUHY-RP350YJM-A(-BS)		
FAN	*3	Type x Quantity		Propeller fan x 1							
			m³ / min	185		185		185		185	
			L/s	3,083		3,083		3,083		3,083	
		cfm	6,532		6,532		6,532		6,532		
	Control, Driving mechanism		Inverter-control, Direct-driven by motor								
		Motor output kW	0.92 x 1		0.92 x 1		0.92 x 1		0.92 x 1		
		External static press.	0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)		0 Pa (0 mmH ₂ O)		
Compressor	Type x Quantity		Inverter scroll hermetic compressor								
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION								
	Starting method		Inverter		Inverter		Inverter		Inverter		
		Motor output kW	8.2		8.2		8.2		9.9		
		Case heater kW	0.045 (240V)		0.045 (240V)		0.045 (240V)		0.045 (240V)		
		Lubricant	MEL32		MEL32		MEL32		MEL32		
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>								
External dimension HxWxD		mm in.	1,710 (1,650 without legs) x 920 x 760 67-3/8 (65 without legs) x 36-1/4 x 29-15/16	1,710 (1,650 without legs) x 920 x 760 67-3/8 (65 without legs) x 36-1/4 x 29-15/16	1,710 (1,650 without legs) x 920 x 760 67-3/8 (65 without legs) x 36-1/4 x 29-15/16	1,710 (1,650 without legs) x 920 x 760 67-3/8 (65 without legs) x 36-1/4 x 29-15/16					
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15,3.3MPa (601,479 psi)								
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection								
	Compressor		Over-heat protection								
	Fan motor		Thermal switch								
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)		R410A x 9.0kg (20lbs)		R410A x 9.0kg (20lbs)		R410A x 9.0kg (20lbs)		
	Control		LEV and HIC circuit								
Net weight		kg(lbs)	255 (563)		255 (563)		255 (563)		255 (563)		
Heat exchanger			Salt-resistant cross fin & copper tube								
Pipe between unit and distributor	Liquid pipe	mm(in.)	12.7 (1/2) Brazed		12.7 (1/2) Brazed		12.7 (1/2) Brazed		12.7 (1/2) Brazed		
	Gas pipe	mm(in.)	22.2 (7/8) Brazed		22.2 (7/8) Brazed		22.2 (7/8) Brazed		28.58 (1-1/8) Brazed		
Optional parts			Outdoor Twinning kit: CMY-RP100VBK Header: CMY-Y104/108/1010-G								

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

- Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	

Model			PUHY-RP700YSJM-A (-BS)			PUHY-RP750YSJM-A(-BS)			PUHY-RP800YSJM-A(-BS)					
Power source			3-phase 4-wire 380-400-415V 50/60Hz											
Cooling capacity (Nominal)	*1	kW	80.0			85.0			90.0					
	*1	kcal / h	68,800			73,100			77,400					
	*1	BTU / h	273,000			290,000			307,100					
		Power input	kW	23.59			25.70			27.19				
		Current input	A	39.8-37.8-36.4			43.3-41.2-39.7			45.9-43.6-42.0				
		COP	kW/kW			3.39			3.30			3.31		
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)			15.0~24.0°C (59~75°F)			15.0~24.0°C (59~75°F)					
	Outdoor	D.B.	-5.0~43.0°C (23~109°F)			-5.0~43.0°C (23~109°F)			-5.0~43.0°C (23~109°F)					
Heating capacity (Nominal)	*2	kW	88.0			95.0			100.0					
	*2	kcal / h	75,700			81,700			86,100					
	*2	BTU / h	300,300			324,100			341,200					
		Power input	kW	21.35			23.63			25.44				
		Current input	A	36.0-34.2-33.0			39.8-37.8-36.5			42.9-40.7-39.3				
		COP	kW/kW			4.12			4.02			3.93		
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)			15.0~27.0°C (59~81°F)			15.0~27.0°C (59~81°F)					
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)			-20.0~15.5°C (-4~60°F)			-20.0~15.5°C (-4~60°F)					
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity											
	Model / Quantity		P15~P250 / 1~32			P15~P250 / 1~32			P15~P250 / 1~32					
Sound pressure level (measured in anechoic room)	dB<A>		61.5			62			62.5					
Refrigerant	Liquid pipe	mm(in.)	19.05 (3/4) Brazed			19.05 (3/4) Brazed			19.05 (3/4) Brazed					
piping diameter	Gas pipe	mm(in.)	41.28 (1-5/8) Brazed			41.28 (1-5/8) Brazed			41.28 (1-5/8) Brazed					
Set Model			PUHY-RP200YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP250YJM-A(-BS)	PUHY-RP300YJM-A(-BS)			
FAN	*3	Type x Quantity		Propeller fan x 1										
		Air flow rate	m³ / min	185	185	185	185	185	185	185	185	185		
			L/s	3,083	3,083	3,083	3,083	3,083	3,083	3,083	3,083	3,083		
		cfm	6,532	6,532	6,532	6,532	6,532	6,532	6,532	6,532	6,532			
	Control, Driving mechanism		Inverter-control, Direct-driven by motor											
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1			
	External static press.		0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)			
Compressor	Type x Quantity		Inverter scroll hermetic compressor											
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION											
	Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter				
	Motor output	kW	4.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	8.2			
	Case heater	kW	0.035 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)			
	Lubricant		MEL32	MEL32	MEL32	MEL32	MEL32	MEL32	MEL32	MEL32				
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>											
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760				
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16			
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15,3.3MPa (601,479 psi)											
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection											
	Compressor		Over-heat protection											
	Fan motor		Thermal switch											
Refrigerant	Type x original charge		R410A x 6.5kg (15lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)			
	Control		LEV and HIC circuit											
Net weight			kg(lbs)	230 (508)	255 (563)	255 (563)	255 (563)	255 (563)	255 (563)	255 (563)	255 (563)			
Heat exchanger			Salt-resistant cross fin & copper tube											
Pipe between unit and distributor	Liquid pipe	mm(in.)	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	9.52 (3/8) Brazed	12.7 (1/2) Brazed				
	Gas pipe	mm(in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed				
Optional parts			Outdoor Twinning kit: CMY-RP200VBK Header: CMY-Y104/108/1010-G											

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

- Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)
- External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	

Model			PUHY-RP850YSJM-A(-BS)			PUHY-RP900YSJM-A(-BS)			
Power source			3-phase 4-wire 380-400-415V 50/60Hz						
Cooling capacity (Nominal)	*1	kW	96.0			101.0			
	*1	kcal / h	82,600			86,900			
	*1	BTU / h	327,600			344,600			
		Power input kW	28.57			29.61			
		Current input A	48.2-45.8-44.1			49.9-47.4-45.7			
		COP	3.36			3.41			
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)			15.0~24.0°C (59~75°F)			
	Outdoor	D.B.	-5.0~43.0°C (23~109°F)			-5.0~43.0°C (23~109°F)			
Heating capacity (Nominal)	*2	kW	108.0			113.0			
	*2	kcal / h	92,900			97,200			
	*2	BTU / h	368,500			385,600			
		Power input kW	27.97			29.73			
		Current input A	47.2-44.8-43.2			50.1-47.6-45.9			
		COP	3.86			3.80			
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)			15.0~27.0°C (59~81°F)			
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)			-20.0~15.5°C (-4~60°F)			
Indoor unit connectable	Total capacity		50~130 % of outdoor unit capacity						
	Model / Quantity		P15~P250 / 1~32			P15~P250 / 1~32			
Sound pressure level (measured in anechoic room)		dB<A>	63.5			64			
Refrigerant piping diameter	Liquid pipe	mm(in.)	19.05 (3/4) Brazed			19.05 (3/4) Brazed			
	Gas pipe	mm(in.)	41.28 (1-5/8) Brazed			41.28 (1-5/8) Brazed			
Set Model			PUHY-RP250YJM-A(-BS)	PUHY-RP300YJM-A(-BS)	PUHY-RP300YJM-A(-BS)	PUHY-RP300YJM-A(-BS)	PUHY-RP300YJM-A(-BS)	PUHY-RP300YJM-A(-BS)	
FAN	*3	Type x Quantity		Propeller fan x 1					
		Air flow rate	m³ / min	185	185	185	185	185	185
			L/s	3,083	3,083	3,083	3,083	3,083	3,083
			cfm	6,532	6,532	6,532	6,532	6,532	6,532
	Control, Driving mechanism		Inverter-control, Direct-driven by motor						
	Motor output	kW	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	0.92 x 1	
	External static press.		0 Pa (0 mmHzO)	0 Pa (0 mmHzO)	0 Pa (0 mmHzO)	0 Pa (0 mmHzO)	0 Pa (0 mmHzO)	0 Pa (0 mmHzO)	
	Compressor	Type x Quantity		Inverter scroll hermetic compressor					
Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION							
Starting method		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter		
Motor output		kW	6.8	8.2	8.2	8.2	8.2	8.2	
Case heater		kW	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	0.045 (240V)	
Lubricant		MEL32	MEL32	MEL32	MEL32	MEL32	MEL32		
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>						
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	1,710 (1,650 without legs) x 920 x 760	
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	67-3/8 (65 without legs) x 36-1/4 x 29-15/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15,3.3MPa (601,479 psi)						
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection						
	Compressor		Over-heat protection						
	Fan motor		Thermal switch						
Refrigerant	Type x original charge		R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	
	Control		LEV and HIC circuit						
Net weight		kg(lbs)	255 (563)	255 (563)	255 (563)	255 (563)	255 (563)	255 (563)	
Heat exchanger			Salt-resistant cross fin & copper tube						
Pipe between unit and distributor	Liquid pipe	mm(in.)	9.52 (3/8) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	12.7 (1/2) Brazed	
	Gas pipe	mm(in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed	
Optional parts			Outdoor Twinning kit: CMY-RP200VBK Header: CMY-Y104/108/1010-G						

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)

2.Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)

3.External static pressure option is available (30Pa, 60Pa / 3.1mmHzO, 6.1mmHzO).

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	

Model			PURY-RP200YJM-A (-BS)		PURY-RP250YJM-A (-BS)		PURY-RP300YJM-A (-BS)	
Power source			3-phase 4-wire 380-400-415V 50/60Hz					
Cooling capacity (Nominal)	*1	kW	22.4		28.0		33.5	
	*1	kcal / h	19,300		24,100		28,800	
	*1	BTU / h	76,400		95,500		114,300	
		Power input kW	5.23		7.28		8.83	
		Current input A	8.8-8.3-8.0		12.2-11.6-11.2		14.9-14.1-13.6	
		COP	kW/kW 4.28		3.84		3.79	
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Outdoor	D.B.	-5.0~43.0°C (23~109°F)		-5.0~43.0°C (23~109°F)		-5.0~43.0°C (23~109°F)	
Heating capacity (Nominal)	*2	kW	25.0		31.5		37.5	
	*2	kcal / h	21,500		27,100		32,300	
	*2	BTU / h	85,300		107,500		128,000	
		Power input kW	5.81		7.72		9.48	
		Current input A	9.8-9.3-8.9		13.0-12.3-11.9		16.0-15.2-14.6	
		COP	kW/kW 4.30		4.08		3.95	
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~150 % of outdoor unit capacity					
	Model / Quantity		P15~P250 / 1~20		P15~P250 / 1~25		P15~P250 / 1~30	
Sound pressure level (measured in anechoic room)		dB<A>	56		57		59	
Refrigerant piping diameter	High pressure	mm(in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed		19.05 (3/4) Brazed	
	Low pressure	mm(in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed	
FAN	Type x Quantity		Propeller fan x 1					
	Air flow rate	m³ / min	225		225		225	
		L/s	3,750		3,750		3,750	
		cfm	7,945		7,945		7,945	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor					
	Motor output	kW	0.92 x 1		0.92 x 1		0.92 x 1	
	External static press.		0 Pa (0 mmHzO)		0 Pa (0 mmHzO)		0 Pa (0 mmHzO)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor					
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION					
	Starting method		Inverter		Inverter		Inverter	
	Motor output	kW	5.4		6.8		7.8	
	Case heater	kW	0.035 (240V)		0.045 (240V)		0.045 (240V)	
	Lubricant		MEL32		MEL32		MEL32	
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1>					
External dimension HxWxD		mm	1,710(1,650 without legs) x 1,220 x 760		1,710(1,650 without legs) x 1,220 x 760		1,710(1,650 without legs) x 1,220 x 760	
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-15/16		67-3/8 (65 without legs) x 48-1/16 x 29-15/16		67-3/8 (65 without legs) x 48-1/16 x 29-15/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15, 3.6MPa (601,522 psi)					
	Inverter circuit (COMP. / FAN)		Over-heat protection, Over-current protection					
	Compressor		Discharge thermo protection, Over-current protection					
	Fan motor		Thermal switch					
Refrigerant	Type x original charge		R410A x 11.8kg (27lbs)		R410A x 11.8kg (27lbs)		R410A x 11.8kg (27lbs)	
	Control		Indoor LEV and BC controller					
Net weight		kg(lbs)	275 (607)		290 (640)		290 (640)	
Heat exchanger			Salt-resistant cross fin & copper tube					
Optional parts			BC controller: CMB-P104,105,106,108,1010,1013,1016V-G					
			Main BC controller: CMB-P108,1010,1013,1016V-GA					
			Sub BC controller: CMB-P104,108V-GB					

Remarks:

- ~ Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- ~ Due to continuing improvement, above specifications may be subject to change without notice.
- ~ Our company is unable to guarantee reliability of pre-existing pipes and pre-existing cables.

Notes:

1.Nominal cooling conditions (subject to JIS B8615-1)
Indoor : 27°CDB/19°CWB (81°FDB/66°FWB), Outdoor : 35°CDB (95°FDB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)

2.Nominal heating conditions (subject to JIS B8615-1)
Indoor : 20°CDB(68°FDB), Outdoor : 7°CDB/6°CWB (45°FDB/43°FWB)
Pipe length : 7.5m (24-9/16ft.), Level difference : 0m (0ft.)

Unit converter	
kcal	=kW × 860
BTU / h	=kW × 3,412
cfm	=m³ / min × 35.31
lb	=kg / 0.4536
* The specification data is subject to rounding variation.	



FM33568 / ISO 9001:2008

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

ISO Authorization System

The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



EC97J1227

051

The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).

 **MITSUBISHI ELECTRIC CORPORATION**