MITSUBISHI ELECTRIC

Changes for the Better

AIR CONDITIONING SYSTEMS

for a greener tomorrow eco Changes

CITY MULTI

CM11WD-I

Air conditioning is an ideal way of controlling the temperature, movement and cleanliness of air inside any building, large or small. With today's buildings being so well insulated and increasingly full of electronic equipment, the need for effective climate control is greater than ever. Not only does it cool in the summer months, but air conditioning can also heat, doing away with the need for separate heating systems altogether. More and more people today are enjoying the benefits of comfortable working and living environments made possible with air conditioning.

Our Latest Technologies

VRF system

VRF stands for Variable Refrigerant Flow.
A VRF air conditioning system modulates the flow of refrigerant depending upon the capacity requirements of the building. In its simplest form, a VRF system comprises an air-cooled outdoor unit and a series of indoor units that regulate the air temperature inside an internal space.

Intelligent Power Module (IPM) technology

The CITY MULTI range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology, highly efficient operation is possible with compact units closely matching building requirements.

Inverter driven technology

At Mitsubishi Electric we strive to continually meet the increasing demands of our customers, being the first in the industry to offer highly advanced ‘inverter driven’ systems. Using inverter technology our systems produce just the right amount of output to match the exact requirement of any building. These systems work so efficiently that they don’t waste valuable energy by over-heating or over-cooling, resulting in greatly reduced running costs. Alternative systems that may appear cheaper, can often cost substantially more to run, making us the most cost effective choice all round.

R410A refrigerant

As scientific evidence points to man-made chemicals for the damage caused to the ozone layer, we only use chlorine-free refrigerants that are safe with zero ODP (Ozone Depletion Potential). Accordingly, our systems require less energy to run, and have a significantly lower indirect global warming potential. In short, we produce the most efficient equipment possible, while helping to protect the environment.

Unsurpassed air conditioning from Mitsubishi Electric

Known the world over, the name Mitsubishi is a trusted household name associated with a variety of products and services. Founded in 1920, the company known today as Mitsubishi Electric, quickly rose to the forefront of the air conditioning industry - a position we still enjoy today. We pride ourselves on offering some of the most energy efficient systems available on the market.

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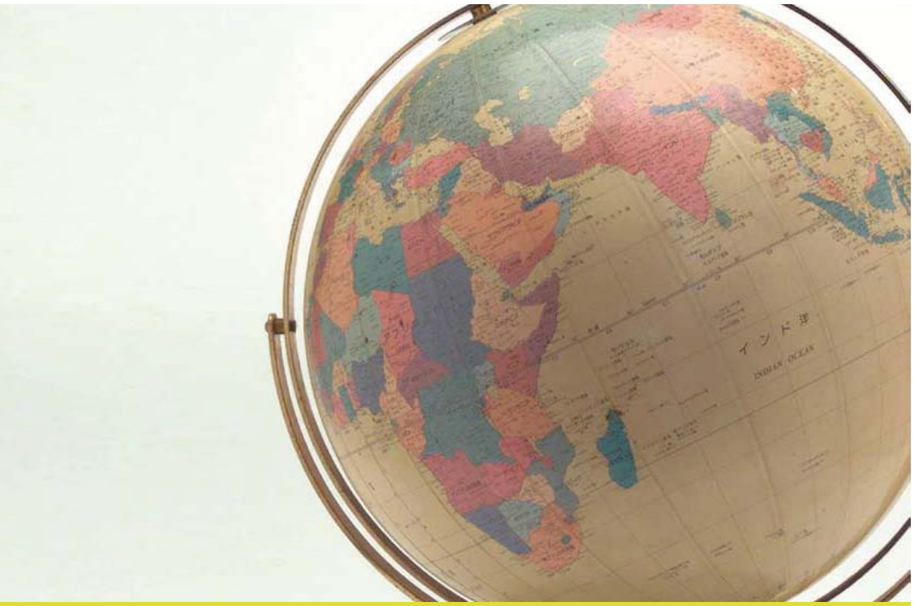


Sophisticated yet simple technology

Reliable

Designed and manufactured to the highest standards, the CITY MULTI range offers one of the most reliable air conditioning systems available. Simple to install and easy to maintain, this range provides ideal solutions you can trust to protect your investment.

PEFY-VMS1

PEFY-VMR

PFFY-VKM

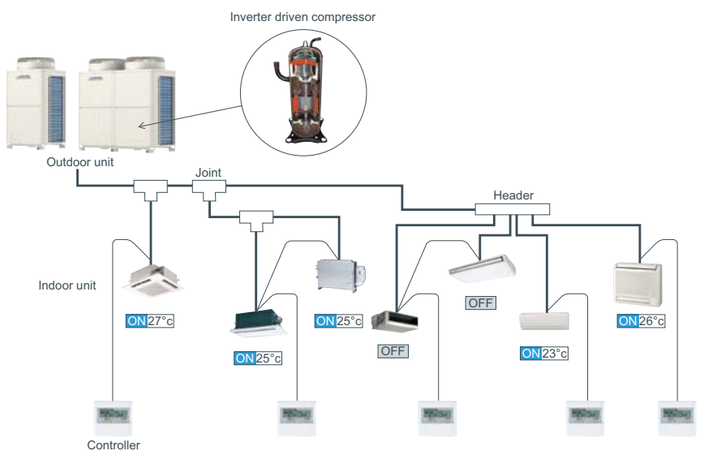
>All the CITY MULTI outdoor units are made in Japan under stringent control.

VRF system

Our answer to VRF

Mitsubishi Electric sets the boundaries of VRF technology with the CITY MULTI range, which is available using R410A refrigerant with zero ODP (Ozone Depletion Potential). The range has been specifically designed for today's building requirements and addresses key market issues such as energy efficiency, adaptability and reliability. With user friendly control systems utilizing internet technology and integrated cooling and ventilation indoor units, CITY MULTI is the benchmark and market leader in VRF technology.

VRF is a multi and direct expansion type air conditioning system where by one outdoor unit can be connected with multiples indoor units. The amount of refrigerant can be regulated freely according to the load on the indoor unit by the inverter driven compressor in the outdoor unit. Zoning in a small office is possible with a small capacity indoor unit. Energy conservation is easily handled because individual indoor units can stop and start their operation as needed. There are various indoor units available in order to suit various interior design needs.

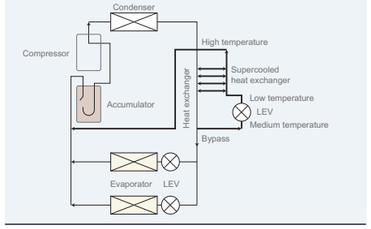


Unbeatable Efficiency

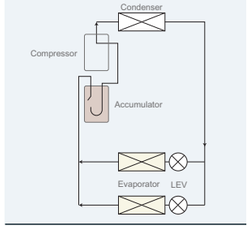
Heat Interchange Circuit

The unique Heat Interchange Circuit (HIC) enhances efficiency by providing additional sub-cooling and allows the expansion device to effectively control the refrigerant distribution, thereby increasing the operating efficiency and reducing the volume of refrigerant in each system.

CITY MULTI Refrigerant Circuit



Common Refrigerant Circuit



Inverter Driven Compressor Technology **- now up to 50HP**

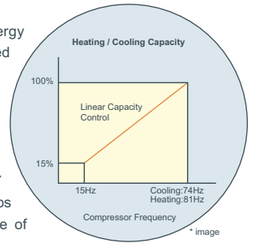
Low Starting Currents

Using inverter driven technology saves energy for several reasons:

The compressor varies its speed to match the indoor cooling or heating demand and therefore only consumes the energy that is required.

When an inverter driven system is operating at partial load, the energy efficiency of the system is significantly higher than that of a standard fixed speed, non inverter system.
The fixed speed system can only operate at 100%, however, partial load conditions prevail for the majority of the time. Therefore fixed speed systems cannot match the annual efficiencies of inverter driven systems.

Using proven single inverter driven compressor technology, the CITY MULTI range is favored by the industry for low starting currents (only 8 amps for a 16HP YJM-A outdoor unit), and smooth transition across the range of compressor frequencies.

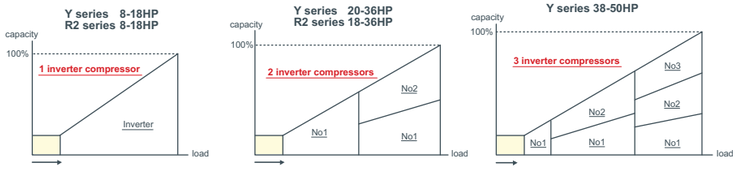


* The values vary depending on the actual conditions such as ambient temperature.

All CITY MULTI compressors are inverter-driven type.
-Capable of precisely matching a building's cooling and heating demands.

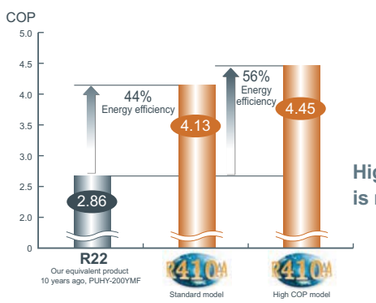
The outdoor unit combinations comprise 1 unit for 8-18HP systems (for Y and R2 series), 2 units for 20-36HP systems (for R2, 18-36HP) and 3 units for 38-50HP systems (Y series only). Each unit carries one inverter compressor making simple and highly reliable control possible.
Not only does it allow low starting currents, the inverter-driven compressor also provides precise indoor comfort and adapts to the air conditioning load.

Stable and smooth operation



Total Energy Conservation

Comparison of COP (energy efficiency) – 8HP system



High COP (Coefficient of Performance) is realized

* Average COP of cooling / heating
* The values were obtained under the standard conditions.

Intelligent Power Module (IPM) Technology

The YJM-A range from Mitsubishi Electric provides precise control of energy input, through utilization of its Intelligent Power Module (IPM) technology. By employing this technology it is possible to closely match the building requirements, achieving more accurate control of the occupied space. By using incremental 1Hz steps of capacity control, the amount of power input required is significantly reduced, resulting in greatly improved COP's.

In addition, IPM technology ensures effective performance under partial load conditions, a condition that most systems will be in for the majority of the normal working life cycle. By taking account the efficiency at both part load, and peak load conditions, R410A CITY MULTI is designed to provide unbeatable year round/seasonal efficiency.

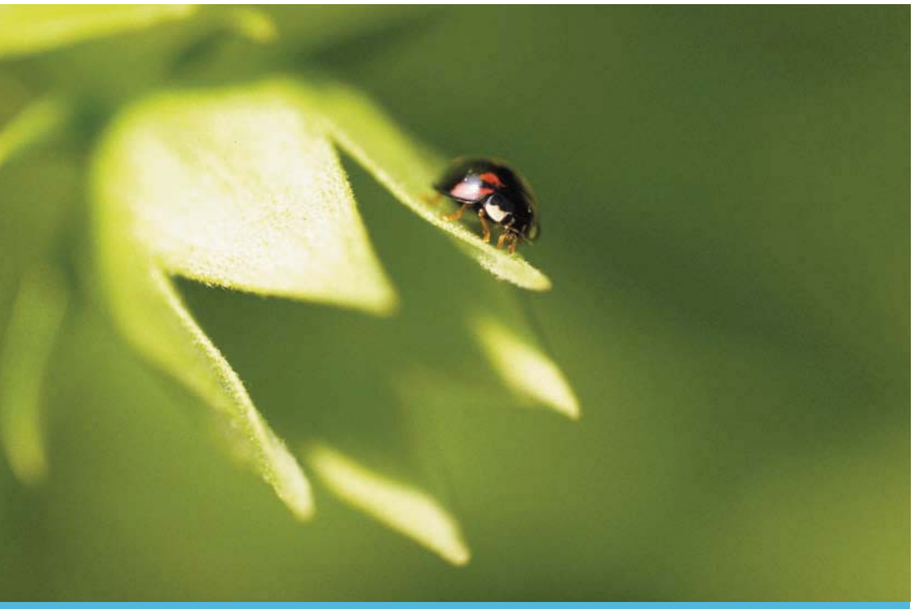
The difference between YJM-A and previous Mitsubishi Electric models

Technology is key when increased efficiency is demanded.
The CITY MULTI YJM-A range is able to deliver this in simple ways.

A highly efficient R410A scroll compressor design results in less friction losses at the motor. A simplified refrigerant circuit (low pressure loss) including a new accumulator design also adds a few more points to the efficiency scale. Enhancements to the heat interchange circuit, an inverter driven fan motor and a heat exchanger design again add vital increases to overall system efficiencies and COPs.

The importance of COP

COP stands for "Coefficient of Performance". It is a measure of the useful energy a system can deliver compared to the energy it consumes. It is calculated by dividing the energy output by the energy input of a system. The higher the figure then the more efficient the system is deemed to be. Mitsubishi Electric VRF models, the world's highest energy-efficient air-conditioners, will undoubtedly reduce millions of tons of CO_2 emissions.



For the Environment

Enhancing environmental care (measures for the RoHS Directive and the refrigerant reduction)
Every unit is in compliance with the RoHS Directive,* which stands for the Restriction of Hazardous Substances: Lead-free soldering is used to avoid Lead Groundwater Contamination on the print board. The amount of refrigerant on the unit has also been reduced to enhance environmental care.

* RoHS Directive: the restriction of the use of certain hazardous substances in electrical and electronic equipment that has been sold in EU since July 2006

Efficient R410A refrigerant

History of refrigerant

R22, an HCFC-based refrigerant, has been a popular choice for most chillers. R22 has been targeted by the Montreal Protocol to be phased out in new equipment. Additionally, governments in many countries are enforcing a ban of HCFC-based refrigerants for new installations.

Because of these restrictions, R410A refrigerants are desirable. R410A is a blend of HFCs, which do not deplete the ozone.

Technical aspects of refrigerant

R410A is a more efficient refrigerant as it has a higher specific heat capacity when compared to R407C or R22. This higher energy carrying capacity allows for smaller pipe sizes, longer pipe runs and reduces the volume of refrigerant within a system. This is a major factor when concerning safety and environmental requirements in the design, manufacture, installation, operation, maintenance and disposal or refrigerating systems.

New Design

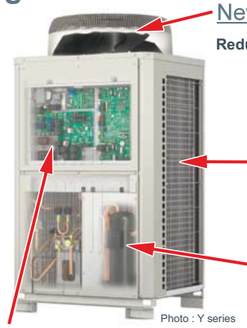


Photo : Y series

New fan design
Reduction of operation noise

New heat exchanger design
Improvement of COP

New inverter compressor
Improvement of COP

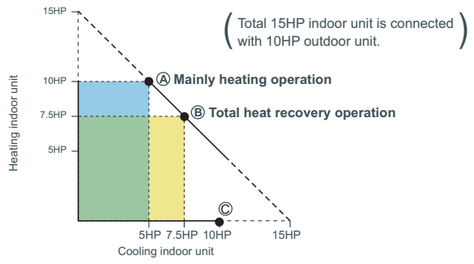
New Control Box design
Improvement of reliability and easy maintenance

Affordable & Effective

air conditioning you can rely on

By the heat recovery system, the more frequently cooling and heating simultaneous operation is carried out, the higher energy-saving effect becomes.

Operation pattern of CITY MULTI *R2/WR2* System

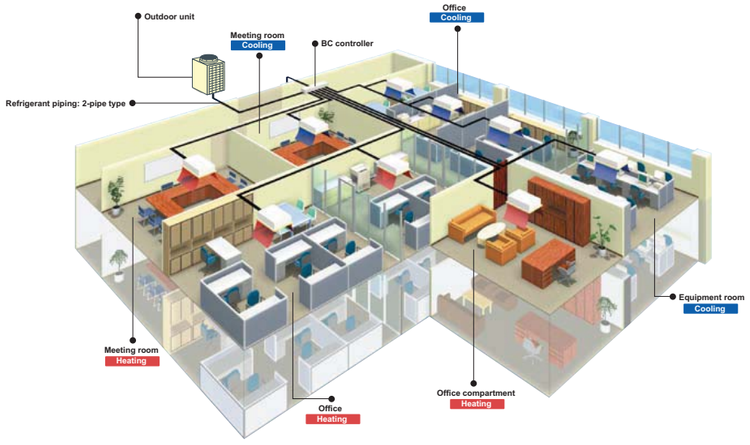


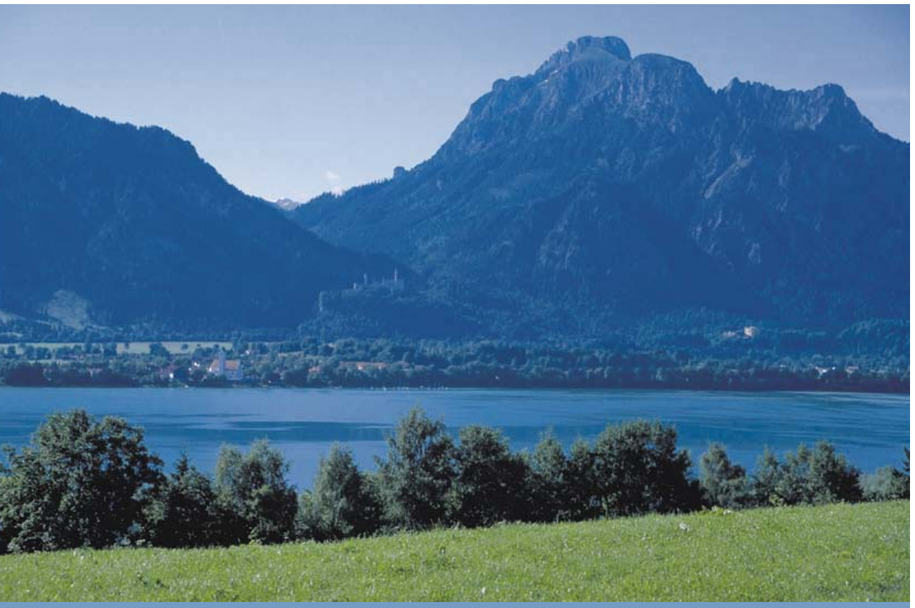
Unique technology

Unique to Mitsubishi Electric, our heat recovery technology uses just two pipes, as opposed to the market conventional three. Designed for effective simultaneous heating and cooling our R2 and WR2 systems offer substantial savings on installation and annual running costs.

Why Heat Recovery?

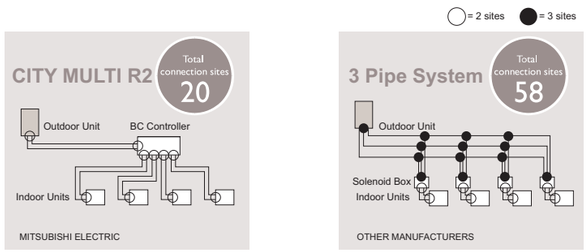
Flexibility and efficiency are key factors when selecting a heat recovery system. For example, while a heat pump system is adequate for a large open-plan office, an office that has a more partitioned structure will require the need to simultaneously heat or cool different sections of the office according to each user's individual preferences. The efficiency of this type of system comes from the ability to use the by-products of cooling and heating to transfer energy where it is required, thus acting as a balanced heat exchanger achieving up to 20% cost savings over a conventional heat pump system. The number of connection sites needed for a R2 / WR2 system are also significantly lower than those needed for a three pipe version. This helps to reduce installation costs, further increasing the savings associated with CITY MULTI.





“2-pipe” system provides Better Efficiency and Performance

Comparison example of piping connection sites



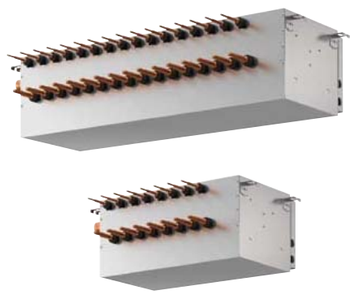
The world’s first and the only “2-pipe” system

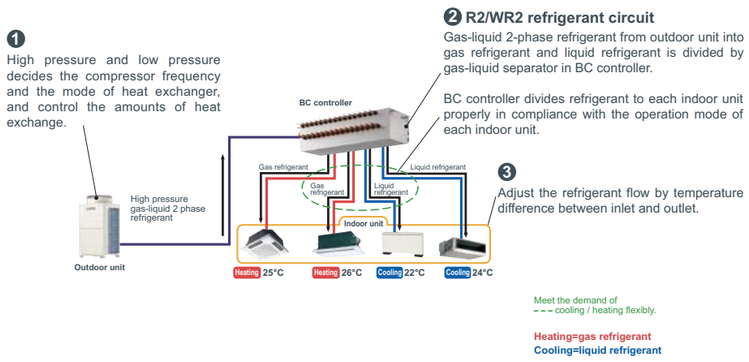
How does the R2/WR2 Heat Recovery System operate on 2 Pipe’s?

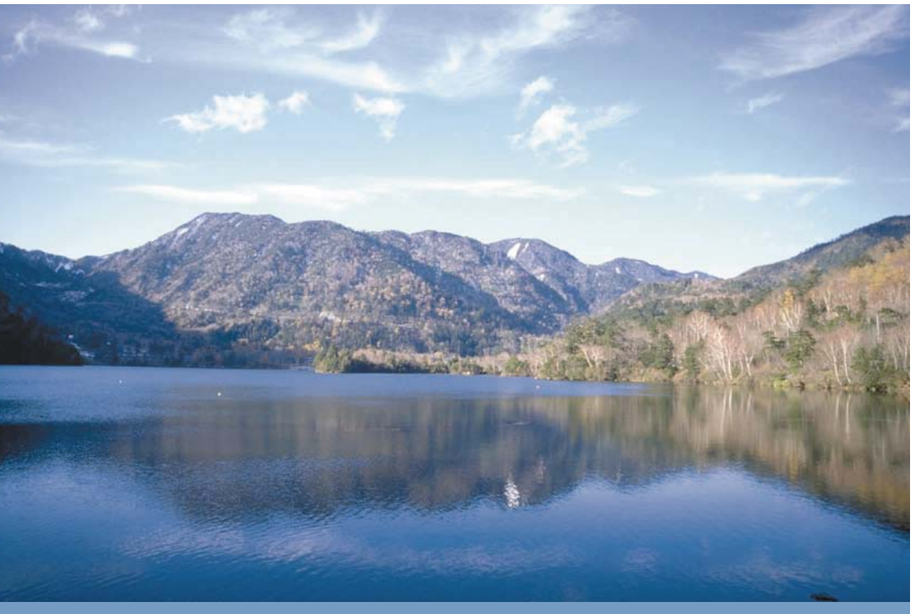
The secret of CITY MULTI heat recovery systems lies in the

BC Controller

The BC Controller houses a liquid/gas separator, allowing the outdoor unit to deliver a mixture (2 phase) of hot gas for heating and liquid for cooling, all through the same pipe. Three pipe systems allocate a pipe to each of these phases. When this mixture arrives at the BC Controller, it is separated and the correct phase delivered to each indoor unit depending on the individual requirement of either heating or cooling.

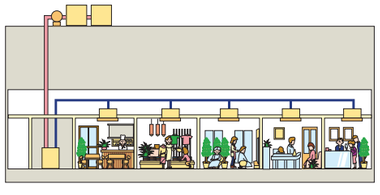






Water Cooled CITY MULTI Benefits

Water cooled systems are ideally suited for use in temperate and cooler climates since heat exchange with the outside air is not required.



Water cooled systems can be used even in buildings that are taller than 50m by running a main water pipe through each floor.

Any heat source system that can supply heat source water between 10°C~45°C can be used.

Simultaneous heating and cooling operation is available. (WR2 series)

It is suggested that Water-Cooled systems are used in the buildings in which there are heating and cooling needs as follows.

- **Buildings that require all year cooling**
  Example,
  - Tenant buildings in which kitchens and offices exist together
  - Buildings in which equipment rooms and offices exist together
- **Buildings in which there are large room temperature differences between sunny and unsunny rooms**
- **Hotels in which there are a lot of individual operation needs**

Energy Saving Technology

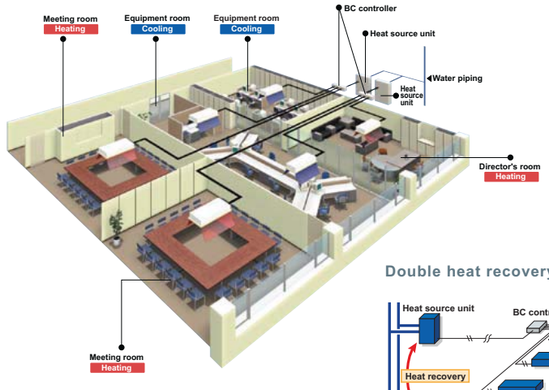
What is Water-Cooled?

>A unique offering from Mitsubishi Electric

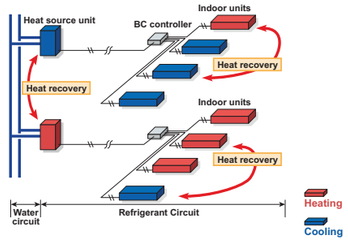
It is possible now to combine the features of VRF with a water circuit using CITY MULTI WR2/WY. In this case the heat is rejected to a water source rather than to the outside air.
The advantages of water cooled systems are that the water can be delivered at optimised temperatures and volumes, which allows even greater flexibility and increased COP.

WR2(Heat recovery type)

Mitsubishi Electric now offers double heat recovery operation.
The first heat recovery is within the refrigerant system. Simultaneous cooling and heating operation is available with heat recovery performed between indoor units.
The second heat recovery is within the water loop, where heat recovery is performed between the PQRY units.
This double heat recovery operation substantially improves energy efficiency and makes the system the ideal solution to the requirements of modern office buldings, where some areas require cooling even in winter.



Double heat recovery (WR2)



Remote Controller

- **Individual Remote Controller**
- **Centralized Remote Controller**

The importance of control

The need for control is paramount in order to optimise the performance of any air conditioning system and minimize its running costs. Mitsubishi Electric offers a wide range of control options designed to meet such needs.

Operating an air conditioning system without the right control can prove costly. It's therefore important to ensure that every system is correctly specified to the degree of control it requires. Mitsubishi Electric have a wide range of controls available 'off-the-shelf' and individual control systems can be specifically designed to match.

Good controls will benefit any application, large or small. Air conditioning products need to react to a variety of factors: different room sizes, usage and staff levels; changes in the climate; electronic equipment and lighting ...the list goes on. So whatever the application, optimum control of air conditioning systems is essential and will result in a constant, comfortable environment, which in turn is both energy and cost efficient.

A degree of difference

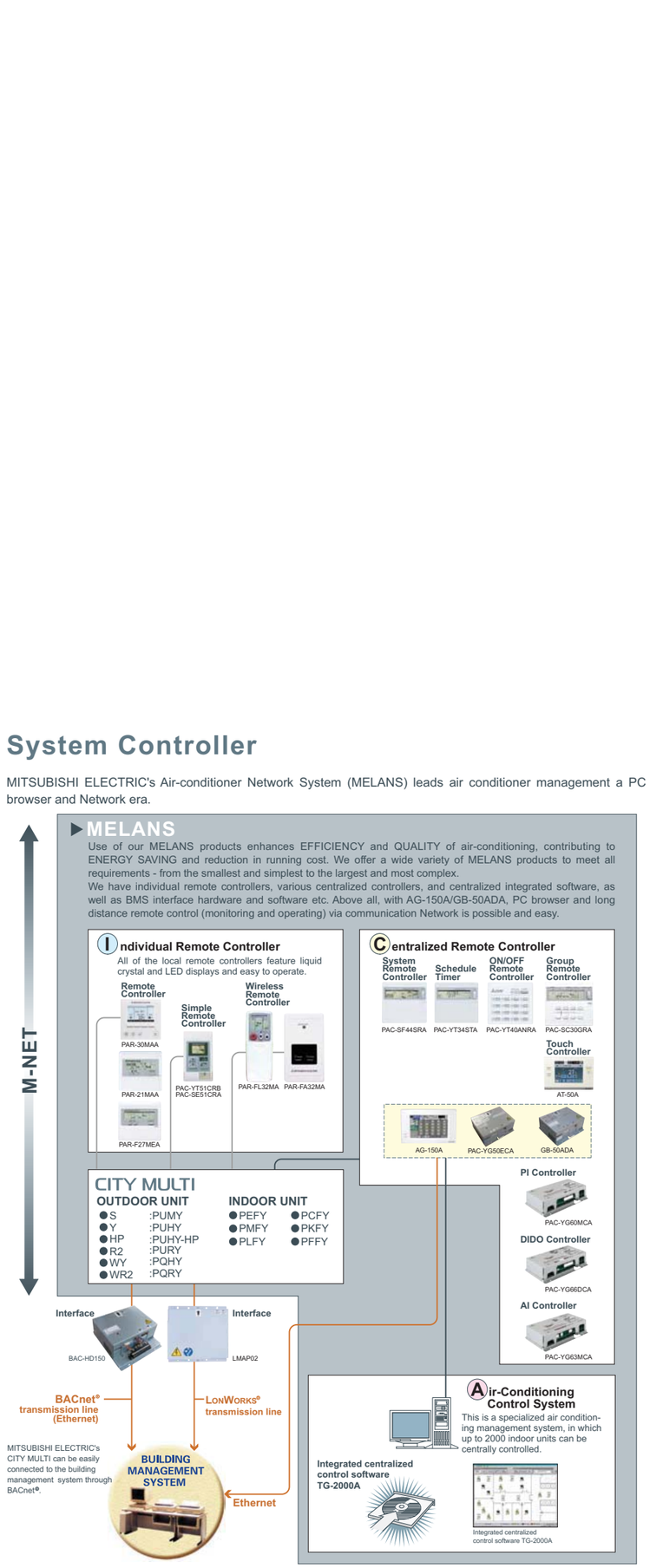
When an air conditioning system is not properly controlled, it will not run as efficiently as it should. For every degree that the system deviates from the required temperature, energy costs can rise by up to 5%. Specify one of the many control options from Mitsubishi Electric to ensure air conditioning works as intended, whilst giving the optimum amount of control.

The simpler, the better

With the array of comprehensive control systems available from Mitsubishi Electric, it becomes simple to design and install air conditioning systems. From a simple hand-held controller to a AG-150A system - you are in control.

System Controller

MITSUBISHI ELECTRIC's Air-conditioner Network System (MELANS) leads air conditioner management a PC browser and Network era.



Integrated Communications Control with Mitsubishi's Unique Transmission Network (M-NET)

Model	Local remote controller *10						System controller *10									
	PAR-30MAA	PAR-21MAA	PAR-F27MEA	PAC-YT51CRB	PAC-SE51CRA	PAR-FL32MA	PAC-YT40ANRA	PAC-SC30GRA	PAC-SF44SRA	PAC-YT34STA	AT-50A	AG-150A	AG-150A + PAC-YG50ECA	GB-50ADA	TG-2000A *4 *5
Controllable Groups / Indoors (Group / Indoor) *9	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	1 / 16	16 / 50	8 / 16	50 / 50	50 / 50	50 / 50	50 / 50	150 / 150	50 / 50	2000 / 2000
												AG-150A / Browser*4	AG-150A / Browser*4	GB-50ADA / Browser*4	
■Operating															
ON / OFF	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎/■	◎/■	▲/◎/■	◎/■
Mode (cool / heat / dry / fan)	○	○	○	○	N	○	N	◎	◎	N	◎	◎/■	◎/■	N/◎/■	◎/■
Temperature-set	○	○	○	○	○	○	N	◎	◎	N	◎	◎/■	◎/■	N/◎/■	◎/■
Local Permit / Prohibit	N	N	N	N	N	N	N	◎	◎	◎	◎	◎/■	◎/■	N/◎/■	◎/■
Fan speed	○	○	○	○	○	○	N	◎	◎	N	◎	◎/■	◎/■	N/◎/■	◎/■
Air-flow direction	○	○	○	N	N	○	N	◎	◎	N	◎	◎/■	◎/■	N/◎/■	◎/■
■Status monitoring															
ON / OFF	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	○	◎/○	▲/○	○/■
Mode (cool / heat / dry / fan)	○	○	○	○	○	○	N	○	○	N	○	○	○	○/N	○	○
Temperature-set	○	○	○	○	○	○	N	○	○	N	○	○	○	○/N	○	○
Local Permit / Prohibit	○	○	○	○	○	○	○	○	○	○	○	○	○	○/N	○	○
Fan speed	○	○	○	○	○	○	N	○	○	N	○	○	○	○/N	○	○
Air-flow direction	○	○	○	N	N	○	N	○	○	N	○	○	○	○/N	○	○
Indoor temperature	○	○	○	N	N	N	N	○	N	N	○	○	○	○/N	○	○
Filter sign	○	○	○	N	N	N	N	○	○	N	◎	○	○	○/N	○	○
Error flashing	○	○	○	○	○	○	○	○	○	○	◎	○	○	▲/○	○/■	
Error code	○	○	○	○	○	○	○	○	○	○	○	○	○	○/N	○	○
Operation hour	N	N	N	N	N	N	N	N	N	N	N	N	N	N/N	●	
■Scheduling															
One-day	○	○	○	N	N	N	N	N	N	N	○	●	●	●	●	N/●	●	●
Times of ON / OFF per day	1	8	1 / 1	N	N	1 / 1	N	N	N	16	16	24	24	24	24	N	24	24
Weekly	○	○	N	N	N	N	N	N	N	○	○	○/●	○/●	○/●	○/●	N	○/●	○/●
Times of ON / OFF per week	8 x 7	8 x 7	N	N	N	N	N	N	N	16 x 7	16 x 7	24 x 7	24 x 7	24 x 7	24 x 7	N	24 x 7	24 x 7
Annual	N	N	N	N	N	N	N	N	N	N	N	●	●	●	●	N	●	●
Optimized start-up	N	N	N	N	N	N	N	N	N	N	N	○	○	○	○	N	○	○
Auto-off timer	○	○	○	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Min. timer setting unit (minute)	5	1	10	N	N	10	N	N	N	5	5	1	1	1	1	N	1	1
■Recording															
Error record	○	N	N	N	N	N	N	○	○	N	○	○	○	○	○	N	○	○
Daily / monthly report	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	◎
Electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	●
■Other															
Temp-set limitation by Local R / C	○	○	○	○	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Temp-set limitation by System controller *4	○ *6	○ *6	○	○ *6	○ *7	N	N	N	△	N	○ *6	N	○ *2 *6	N	○ *2 *6	N	○ *2 *6	◎ *6
Auto-lock	○	○	○	N	N	N	N	N	N	N	◎	N	N	N	N	N	N	N
Night setback	○	N	N	N	N	N	N	N	N	N	◎	○	○ *2	○	○ *2	N	○ *2	○
Sliding temperature control	N	N	N	N	N	N	N	N	N	N	N	○	○ *2	○	○ *2	N	○ *2	○
■Management (Group / Interlocked)																		
Ventilation interlock	N / ○	N / ○	N / ○	N / ○	N / ○	N	○	N / ○	○	○	○	○	○ / ○ *2	○	○ / ○ *2	N	○ / ○ *2	○ / ○
Group setting	○ *1	○ *1	○	○	○ *1	○	N	○	○	○	○	○	○ *2	○	○ *2	N	○ *2	○
Block setting	N	N	N	N	N	N	N	N	N	N	N	○	○ *2	N	○ *2	N	○ *2	○
Revision of electricity charge	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	□ ●
■Operating on LOSSNAY interlocked (Group / Interlocked)																		
ON / OFF	N / ○	N / ○	N / ○	N / ○	N / ○	N / ○ *3	N / ○	◎ / ◎ *3	N / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	▲ / ▲	◎ / ◎	◎ / ◎
Fan speed	N / ○	N / ○	N	N	N	N	N	N	◎ / ◎	N	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	N / N	◎ / ◎	◎ / ◎
Ventilation mode	N / N	N / N	N	N	N	N	N	N	◎ / N	N	◎ / N	◎ / N	◎ / N	◎ / N	◎ / N	◎ / N	N / N	◎ / N	○ / N
■Status monitoring on LOSSNAY interlocked (Group / Interlocked)																		
ON / OFF	N / ○	N / ○	N	N	N	N	N	N	N / ○	○ / ○	○ / ○	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	◎ / ◎	▲ / ▲	◎ / ◎	◎ / ◎
Fan speed	N / ○	N / ○	N	N	N	N	N	N	N / ○	○ / ○	○ / ○	○ / ○	○ / ○	○ / ○	○ / ○	○ / ○	N / N	○ / ○	○ / ○
Ventilation mode	N	N	N	N	N	N	N	N	N	○ / N	N	○ / N	○ / N	○ / N	○ / N	○ / N	N / N	○ / N	○ / N

◎: Each group / Batched ; ○: Each group ; □: Block (for CITY MULTI Indoor unit, not for all Mr.SLIM) ; ●: AG-150A / GB-50ADA license registration possible.
(●): License registration for the optional functions required N : Not Available (Not Used.) △: Batched only ; ▲: Batched handling (for maintenance) ■: Block

*1. Group setting via wiring between Indoor units with cross-over cable;
*2. Installation possible at Initial setting web browser;
*3. Inter-lock is set at Local remote controller.
*4. AG-150A/GB-50ADA license registration to AG-150A/GB-50ADA is required to monitor and operate the units by browser and TG-2000A.
5. AG-150A connected with PAC-YG50ECA is compatible with TG-2000A Ver.6.1 or later. GB-50ADA is compatible with TG-2000A Ver. 6.3* or later.
*6. This function can be set only on the ME/Simple ME remote controller. This function cannot be used with the MA/Simple MA remote controller.
(But, the validity of this function with the MA/Simple MA remote controller depends on the indoor unit model, and there are possibilities that this function can be used with them.)
*7. This function is available only when applying together with TG-2000A, AG-150A and GB-50ADA.

Individual Remote Controller

Wired MA remote controller PAR-30MAA

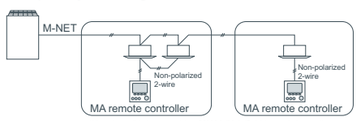
NEW

- Backlit LCD (Liquid Crystal Display)
  Large, easy-to-see display
  Full-dot LCD display with large characters for easy viewing
  Contrast also adjustable
- Auto Return
  Function to return the set temperature to the originally preset temperature after certain amount of time
  Auto return can be set respectively for cooling operation and for heating operation.
  Time can be set to a value from 30 and 120 in 10-minute increments.
- Night Setback
  To prevent indoor dew or excessive temperature rise, this control starts heating operation when the control object group is stopped and the room temperature drops below the preset lower limit temperature. Also, this control starts cooling operation when the control object group is stopped and the room temperature rises above the preset upper limit temperature.
- Dimensions: 120(W) x 120(H) x 19(D) mm

[Advanced Functions]

- **Error information**
- **Timer**
- **Operation lock**
- **Temperature range restriction**
- **Language selection**

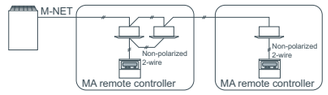
Example of system configuration



*It's not possible to connect two 30MAA (Main/Sub) to one indoor unit.

Wired MA remote controller PAR-21MAA

Example of system configuration



- Dot matrix liquid crystal screen
- Set temperature in 1°C/°F increment
- Weekly timer
  Up to 8 ON/OFF/temperature setting per day in 1 minute increment. Setting kept in nonvolatile memory. No need to worry about re-setting at power failure.
- Room temperature control with thermostat sensor inside the unit
- Limit set temperature (upper/lower)
- Restrict setting changes (all changes/all except ON/OFF)
- Self-diagnosis function immediately informs error code in case of malfunction
- Dimensions: 130(W) x 120(H) x 19(D) mm
  : 5-1/8(W) x 4-23/32(H) x 3/4(D) in.

New display-Larger,easier-to-see characters

Various information is displayed and conveyed clearly, enabling more accurate operation of the air conditioner.

Dot Liquid Crystal Display (LCD)

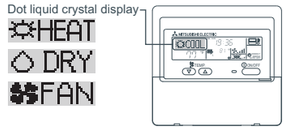
The dot liquid crystal display enables quick understanding of the operation state.

Multi-language Display

In addition to English, contents can be displayed in seven other languages.

●Display example [Operation mode]

Dot liquid crystal display



●Display example [Cool mode]

[English]	[German]	[Spanish]	[Russian]
COOL	Kühlen	FRÍO	Холод
[Italian]	[Chinese]	[French]	[Japanese]
COOL	制冷	FROID	冷房

Multi-language Display Example [Dot display table]

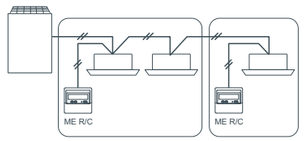
Language		English	German	Spanish	Russian	Italian	Chinese	French	Japanese
Waiting for start-up		PLEASE WAIT	←	←	←	←	←	←	←
Operation mode	Cool	COOL	Kühlen	FRÍO	Холод	COOL	制冷	FROID	冷房
	Dry	DRY	Trocknen	DESHUMIDIFICACIÓN	Сушка	DRY	除湿	DESHU	ドライ
	Heat	HEAT	Heizen	CALOR	Тепло	HEAT	制热	CHAUD	暖房
	Auto	AUTO	AUTO-MATICO	АВТО	AUTO	自动	AUTO	自動
	Auto(Cool)	COOL	Kühlen	FRÍO	Холод	COOL	制冷	FROID	冷房
	Auto(Heat)	HEAT	Heizen	CALOR	Тепло	HEAT	制热	CHAUD	暖房
	Fan	FAN	Lüfter	VENTILACIÓN	ВЕНТИЛЯЦИЯ	VENTILAZIONE	送风	VENTILATION	送風
	Ventilation	VENTILATION	Lüftung	VENTILACIÓN	ВЕНТИЛЯЦИЯ	PRIMAVERA	换气	VENTILATION	換気
	Stand by (Hot adjust)	STAND BY	STAND BY	CALENTANDO	ОБОГРЕВ: НАУЗА	STAND BY	准备中	PRÉ CHAUFFAGE	準備中
	Defrost	DEFROST	Abtauen	DESCONGELACIÓN	ОТТАИВАНИЕ	SBRINAMENTO	除霜中	DÉGIVRAGE	霜取中
Not use button		NOT AVAILABLE	nicht Verfügbar	NO DISPONIBLE	НЕ ДОСТУПНО	NON DISPONIBILE	无效按钮	NON DISPONIBLE	無効ボタン
Check (Error)		CHECK	Prüfen	COMPROBAR	Проверка	CHECK	检查	CONTRÔLE	点検
Test run		TEST RUN	Testbetrieb	TEST FUNCIONAMIENTO	Тестовый запуск	TEST RUN	试运转	TEST	試ﾝﾃﾝ
Self check		SELF CHECK	Selbst-diagnose	AUTO REVISIÓN	САМОДИАГНОСТИКА	SELFCHECK	自我诊断	AUTO CONTRÔLE	自己ｼﾝﾀﾞﾝ
Unit function selection		FUNCTION SELECTION	Funktion auswahl	SELECCIÓN DE FUNCIÓN	ВЫБОР ФУНКЦИИ	SELEZIONE FUNZIONI	功能选择	SÉLECTION FONCTIONS	ｷﾉｳ選択

Individual Remote Controller

Wired ME remote controller PAR-F27MEA

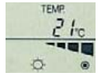
- **This remote control requires non-polar wiring to only one indoor unit.**
- **Group operation over multiple outdoor units is possible. Grouping can be changed without re-wiring, which makes dividing rooms for tenants easier.**
- **Timer operation**
  *Daily timer operation of one ON/OFF setting everyday
  *Auto-off timer : 0:30, 1:00, 1:30, 2:00...4:00
  *The setting is kept in nonvolatile memory.
- **Function lock**
  All functions or all functions except ON / OFF can be selected.
- **Set temperature range limit**
- **Interlock setting and operation of LOSSNAY**
- Dimensions:130(W) x 120(H) x 19(D) mm
  :5-1/8(W) x 4-23/32(H) x 3/4(D) in.
- **LCD temperature setting and display in 1°F increments.**

Example of system configuration



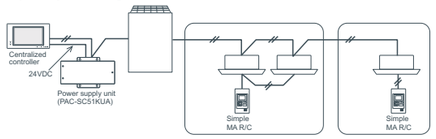
Simple remote controller PAC-YT51CRB (MA)

PAC-YT51CRB



- **Control: START/STOP, room temperature, fan speed, and operation mode**
- **The only wiring required is cross-over wiring based on two-wire signal lines.**
- **Room temperature sensors are built-in.**
- **LCD temperature setting and display in 1°C /1°F increments.**
- **Set temperature range limit**
- **Can operate all types of indoor units**
  *Since this controller has limited functions, it should always be used in conjunction with standard controller or centralized controller.
- Dimensions:70(W) x 120(H) x 41(D) mm
  :2-3/4(W) x 4-23/32(H) x 1-5/8(D) in.

Example of system configuration



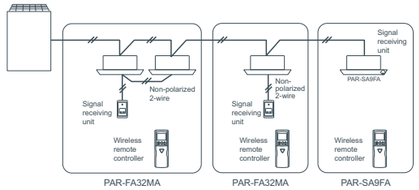
Wireless remote controller PAR-FL32MA / PAR-FA32MA

PAR-FL32MA

PAR-FA32MA

PAR-SA9FA
(4-way Cassette signal receiver)

Example of system configuration



Correspondence table

	receiver	transmitter
PMFY-P VBM PLFY-P VCM/ VLMD PCFY-P VKM PFFY-P VKM PEFY-P VMR-E-L/R/ VMH PFFY-P VLEM/VKM/VLRM/VLRMM PEFY-P VMS1(L) PEFY-VMA(L)	PAR-FA32MA	PAR-FL32MA
PLFY-P VBM-E	PAR-SA9FA-E	
PKFY-P VBM-E PKFY-P VHM/VKM	Built-in	

- **No need to configure addresses for group operation.**
- **Lit LED keeps you informed of operation - blinking even gives you the error code via the number of blinks.**
- **Can be used with the MA remote controller.**
  *When used in group configurations, wiring between indoor units is required.
  *Combining ME remote controller and/or LOSSNAY remote controller in a group is not possible.
- **LCD temperature setting and display in 1°C /1°F increments.**
- Dimensions:58(W) x 159(H) x 19(D) mm
  :2-5/16(W) x 6-5/16(H) x 3/4(D) in.

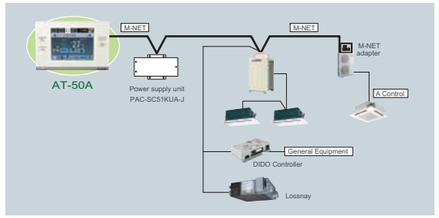
Advanced Touch Controller

With our new Advanced Touch Controller AT-50A, easy and simple operation on the touch panel offers an optimal air environment for individual unit.

Touch controller AT-50A NEW

Dimensions: 180(W) x 120(H) x 30(D) mm
: 7-2/16(W) x 4-12/16(H) x 1-3/16(D) in.

System structure



New Design

Backlit LCD (Liquid Crystal Display) Touch Panel

5-inch color LCD touch panel enables easy and simple operation.
The backlight lights up when the panel is touched, and lights off after certain period of time.
The touch panel displays the operation status of the units in GRID, LIST or in GROUP.

GRID (zoom-out) screen
Displays the operation status of all groups.

GRID (zoom-in) screen
Displays the detailed operation status of each group.

LIST screen
Displays the detailed operation status of each group with group name.

GROUP screen
Displays the detailed operation status of each group.
Sets group operations.

New Functions

Three in One

The following three features are integrated into AT-50A.
- Control up to 50 indoor units from one location
- A weekly programmable timer, being able to control up to 50 indoor units
- Control up to 50 units/50 groups of air conditioners

Weekly and daily schedule

5 patterns of one day and 12 patterns of weekly schedule (16 settings max. per pattern).
Two types of weekly schedule can be set.

System changeover

Operation mode can be switched depending on indoor temperature setting and target temperature of each group or a representative indoor unit.

Night setback function

This function allows having a two-temperature setting to keep the desired room temperature when the units are not in operation and during the time this function is effective. The unit automatically starts heating (cooling) operation when the temperature drops below (rises above) the preset lower (upper) limit temperature. This is not only for comfort environment, but also for saving energy.

Main system controller/Sub system controller

AT-50A can be set to Sub System controller.
When connecting multiple system controllers, designate the system controller with many functions as the "Main", and set the system controllers with few functions as the "Sub".

Simple button arrangement

The F1 (Function 1) and the F2 (Function 2) button can be set as a run button of the following collective operation. (Setback/Schedule/Operation Mode/Temperature Correction/Remote Controller Prohibition)

Functions

[Basic Functions]

- ON/OFF
- Operation mode switching
- Temperature setting
- Fan speed setting
- Airflow direction setting
- Louver setting

Advanced Functions

□: Each unit ○: Each group ◎: Group or collective ×: Not available

Item	Description	Operations	Display
Permit / Prohibit	The ON/OFF, operation mode, setting temperature and filter sign reset operations using the local remote controllers can be prohibited. Only ON/OFF and filter reset can be prohibited for the LOSSNAY group.	◎	◎
Operation lock	The operation lock can be set to the input operation of AT-50A. Each button can be set. (Function Button 1, Function Button 2, Collective ON/OFF, Touch Panel) Each function can be set. (Operation mode, Setting temperature, Fan speed, Menu button) The password for the lock release can be set.	◎	◎
Error display	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed. * When an error occurs, the "ON/OFF" LED flashes. The operation monitor screen show abnormal icon over the unit. The error monitor screen shows the abnormal unit address and error code. The error log monitor screen shows the time and date, the abnormal unit address, error code and source of detection.	×	□◎
Ventilation (independent)	Switches the mode "Bypass/Heat recovery/Auto" for LOSSNAY groups.	◎	◎
Ventilation (interlocked)	The LOSSNAY will run in interlock with the operation of indoor unit. The mode cannot be changed. The LED will turn ON during operation after interlocking.	◎	◎
Temperature-set limitation	Batch-setting to temperature range limit at cooling, heating, and auto mode. This function cannot be used with the MA remote controller. (Depends on the indoor unit model.)	◎	◎
Specific mode operation prohibit (Cooling prohibit, heating prohibit, cooling/ heating prohibit)	When set as the main controller, operation of the following modes with the local remote controllers can be prohibited. When cooling is prohibited: Cooling, dry, automatic can not be chosen. When heating is prohibited: Heating, automatic can not be chosen. When cooling/heating is prohibited: Cooling, dry, heating, automatic can not be chosen.	◎	◎
External input (Emergency stop input, etc.)	The following input with level signals or pulse signals are available. Level signal: "Emergency stop input" or "Collective ON/OFF" Pulse signal: "Collective ON/OFF" or "Local remote controller prohibit/permit" One input can be selected from those above. * An external input/output adapter (PAC-YT41HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	◎	◎
External output (Error output, operation output)	"ON/OFF" and "error/normal" are output with the level signal. * An external input/output adapter (PAC-YT41HAA (sold separately)) is required. Relays and DC power supply or other devices must be prepared at the site.	◎	◎
Checking the Gas Amount	Use this function to check for refrigerant leak from the outdoor unit. * When this function is used, the gas amount checking function of the outdoor unit cannot be used. This function is for CITY MULTI R2 and Y (PUMY is excluded.) series only.	□	□
Schedule operation	Weekly schedule setting up to 12 pattern is available. In one pattern, up to 16 setting of "ON/OFF", "Operation mode", "Set Temperature", "Fan speed", "Air flow direction" and "Permit / Prohibit local operation" can be scheduled. Two types of weekly schedule(Summer/Winter) can be set. Today's schedule setting up to 5 pattern is available.	○	○

Centralized Remote Controller

One system controller can control up to fifty indoor units from one location. The PAC-SF44SRA also has hardwired connection available (On/Off input, fire alarm input, run output, fault output).

System remote controller PAC-SF44SRA

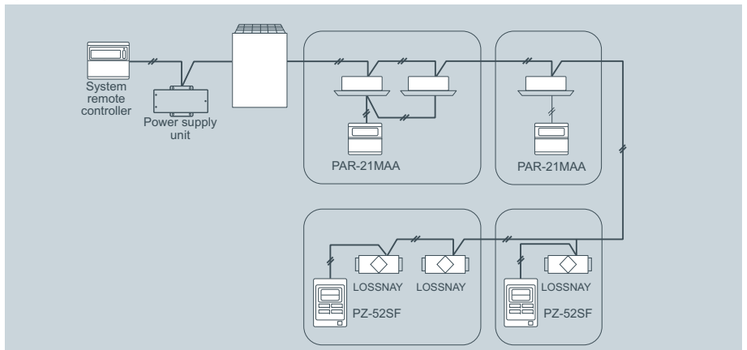
- **The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.**
- **No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.**

System Controller

FUNCTION	DESCRIPTION	PAC-SF44SRA	
UNITS	Max No.Units	50 units/50 group	
		Operation	Displays
ON/OFF	Run and stop operation	✓	✓
MODE SELECTION	Switches between Cool/Dry/Auto/Fan/Heat. Operation Mode will vary depending on the indoor unit. Auto mode is available with only R2 and WR2 systems	✓	✓
TEMPERATURE SETTING	Sets the groups temperature control. Values in parentheses are for the medium-temperature indoor unit. Cool/Dry:19-30°C [14-30°C] / 67-87°F [57-87°F] Heat :17-28°C [17-28°C] / 63-83°F [63-83°F] Auto :19-28°C [17-28°C] / 67-83°F [63-83°F]	✓	✓
FAN SPEED SETTINGS	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low Fan speed setting (including Auto) varies depending on the model.	✓	✓
AIR FLOW DIRECTION SETTING	Air flow angles: 4-angle or 5-angle, Swing, Auto, Louver ON/OFF	✓	✓
PERMIT/PROHIBIT FUNCTION	Run/Stop,Temperature Setting,Mode Selection and Filter Reset functions can be prohibited.	✓	✓
ERROR INDICATION	Displays a 4 digit code and the affected unit address	–	✓
VENTILATION INTERLOCK	Allows the group to be interlocked with a heat recovery Lossnay unit	✓	✓
EXTERNAL INPUT	On/Off/Fire Alarm	✓	–
EXTERNAL OUTPUT	On/Off/Faults	–	✓

• Dimensions: 130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

System example



Mitsubishi Electric controllers are complimented by a weekly programmable timer, being able to control up to fifty indoor units. The PAC-YT34STA also has hardwired connection available (On/Off input, fire alarm input, run output, fault output).

Schedule timer PAC-YT34STA

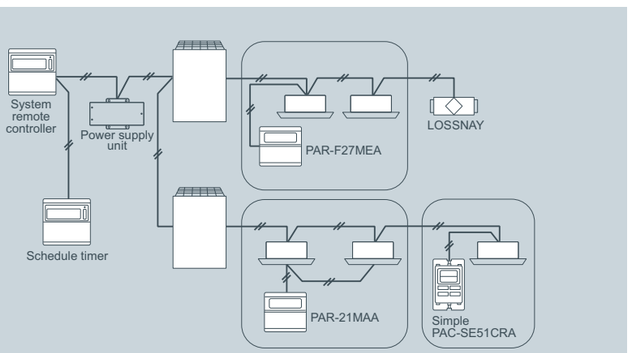
- **The schedule group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.**
- **No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.**

Programmable Timer

FUNCTION		DESCRIPTION	PAC-YT34STA	
UNITS		Max No.Units	50 units/50 group	
			Operation	Displays
ON/OFF		Run and stop operation	✓	✓
SCHEDULE FUNCTION	Content	On/Off Mode:Cool/Heat/Auto Set temperature:19°C to 28°C [67°F to 83°F] Operation Prohibit: On/Off, Mode, Set temperature	✓	✓
	Number	Weekly timer for each group 9 setting patterns + no setting 16 operations per day	✓	✓
	Unit	5 minutes	–	–
CURRENT TIME		Set the time	✓	✓
ERROR INDICATION		Displays a 4 digit code and the affected unit address	–	✓
EXTERNAL INPUT		On/Off/Fire Alarm	✓	–
EXTERNAL OUTPUT		On/Off/Faults	–	✓

• Dimensions: 130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

System example



Centralized Remote Controller

Just press a switch to start. All of the units can be On/Off by pressing the main switch, and each unit in the group can be On/Off with individual switch. The PAC-YT40ANRA also has hardwired connection available (On/Off input, fire alarm input, run output, fault output).

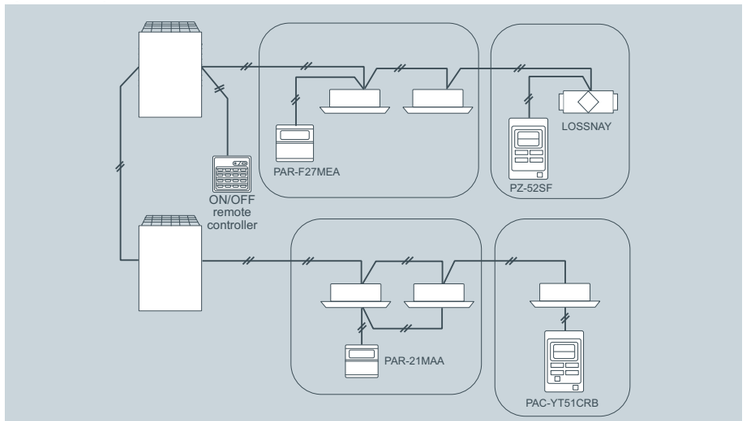
ON/OFF remote controller PAC-YT40ANRA

FUNCTION	DESCRIPTION	PAC-YT40ANRA	
UNITS	Max No.Units	50 units/16 groups	
		OPERATIONS	DISPLAY
ON/OFF	Run and stop operation	✓	✓
ERROR INDICATION	LED flashes during failure. (The error code can be confirmed by removing the cover.)	–	✓
VENTILATION OPERATION (INDEPENDENT)	Group operation of only LOSSNAY units possible. *Only ON/OFF of group.	✓	✓
VENTILATION OPERATION (INTERLOCKED)	The LOSSNAY will run in interlock with the operation of indoor unit. *The fan rate and mode cannot be changed. The LED will turn ON only during operation after interlocking.	✓	✓
EXTERNAL INPUT	On/Off/Fire Alarm	✓	–
EXTERNAL OUTPUT	On/Off/Faults	–	✓

• Dimensions:130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

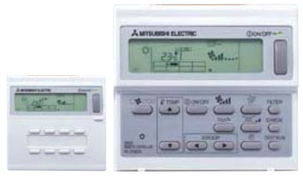
• The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
• No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.

System example



Up to 8 groups can be operated (maximum of 16 units). Just by pressing PAC-SC30GRA switches, groups can be On/Off as a batch.
Suitable for small office and residential project.

Group remote controller PAC-SC30GRA

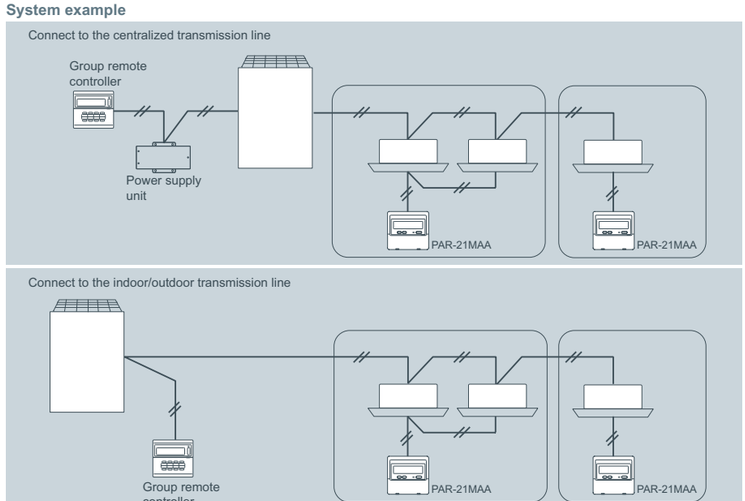


FUNCTION	DESCRIPTION	PAC-SC30GRA	
UNITS	Max No.Units	16 units / 8 groups	
		OPERATIONS	DISPLAY
ON/OFF	Run and stop operation	✓	✓
MODE SELECTION	Switches between Cool/Dry/Auto/Fan/Heat. Operation Mode will vary depending on the indoor unit. Auto mode is available with only R2 and WR2 systems	✓	✓
TEMPERATURE SETTING	Sets the groups temperature control. Cool/Dry:19-30°C Heat:17-28°C Auto:19-28°C	✓	✓
FAN SPEED SETTINGS	4 speed – Hi-Mid2-Mid1-Low, Auto 3 speed – Hi-Mid-Low, Auto 2 speed – Hi-Low	✓	✓
AIR FLOW DIRECTION SETTING	Air flow angles: 4-angle or 5-angle, Swing, Auto, Louver ON/OFF	✓	✓
PERMIT/PROHIBIT FUNCTION	Run/Stop,Temperature Setting, Mode Selection and Filter Reset functions can be prohibited via main system controller	–	✓
INDOOR RETURN AIR TEMPERATURE	Measures the intake temperature of the master unit within the group	–	✓
ERROR INDICATION	Displays a 4 digit code and the affected unit address	–	✓
VENTILATION INTERLOCK	Allows the group to be interlocked with a heat recovery Lossnay unit	✓	✓

• Dimensions:130(W) x 120(H) x 19(D) mm
:5-1/8(W) x 4-23/32(H) x 3/4(D) in.

• The group setting is kept in nonvolatile memory. No need to worry about re-setting at power failure.
• No individual AC power supply is needed. The power can be supplied from one outdoor unit (R410A) or Power supply unit.

System example



Centralized Remote Controller

With a new colored touch panel, and continuation of all the G-50A functions, AG-150A visualizes its functions from basic control to advanced operations and bringing an ultimate controller to reality.

Centralized controller AG-150A

Dimensions: 300(W) x 185(H) x 70.3(D) mm
: 11-13/16(W) x 7-5/16(H) x 2-13/16(D) in.

Option : Black surface cover
PAC-YG71CBL

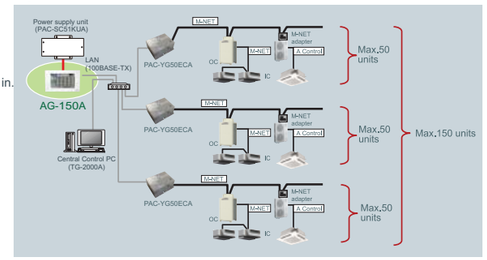
System structure

Expansion Controller PAC-YG50ECA

Dimensions: 250(W) x 217(H) x 97.2(D) mm
: 9-7/8(W) x 8-9/16(H) x 3-7/8(D) in.

With a connection of a Expansion Controller, maximum of 150 units/groups can be connected to AG-150A.

System structure



*Do not connect PAC-YG50ECA to TB3 of the outdoor unit.
*Use a security device such as a VPN router when connecting the AG-150A etc. to the Internet to prevent unauthorized access.

New Design

Backlight color liquid crystal

Backlight makes it easy to see and control units.
One can identify whether a unit is ON or OFF from a distance.
Control in the night with no lights is possible.

Touch panel

9 inch wide, high-resolution

Touch panel enables operation of units by touching with index finger.
When object unit is touched, orange box appears around the unit icon indicating the unit selected.

Flat back

Easy installation

Allows for an installation of the unit either directly to the wall surface or using the installation hole in the wall.

USB memory compatible

All measurement/initial setting CSV data extractable with USB memory.
Can save and overwrite setting data.

New Functions

Controllable units/groups

Controls up to 50 units/groups (including indoor units, LOSSNAY, DIDO/AI/PI controller)
Up to 150 units can be controlled via expansion controller;PAC-YG50ECA (AG-150A software needs to be upgraded)

Monitoring functions

Temperature/Humidity (using AI controller with WEB browser) *1
General equipment such as lights on LCD (using DIDO controller)
Interlock function from AI controller, DIDO controller to indoor units and between DIDO units are available.
AG-150A interlock with DIDO controller or free contact on an indoor unit available. * Ver. 2.30 or later

Energy saving functions

Seasonal scheduling and automatic switch over *1
Yearly scheduling on LCD *1
Scheduling fan speed and airflow direction
Optimized Start up *1
External temperature interlock control *1
Night setback control *1
*1 License required.

Functions

□ : Each unit ○ : Each group ● : Each block △ : Each floor ◎ : Collective × : Not available

Item	Description	Operations	Display
Controllable unit	50 units/groups or 150 units/groups via expansion controller; PAC-YG50ECA.		
ON/OFF	Run and stop operation for the air conditioner units and general equipment. (To operate general equipment, PAC-YG66DCA is required.)	○ ◎ △ ●	○ ◎
Operation mode switching	Switches between Cool / Dry / Auto / Fan / Heat. (Group of LOSSNAY unit : automatic ventilation/ vent - heat interchange/ normal ventilation) depending on the air conditioner unit. Auto mode is for CITY MULTI R2 and WR2 series only.	○ ◎ △ ●	○
Temperature setting	Cool/Dry : 19˚C (67˚F) - 30˚C (87˚F) [14˚C (57˚F) - 30˚C (87˚F)] Heat : 17˚C (63˚F) - 28˚C (83˚F) [17˚C (63˚F) - 28˚C (83˚F)] Auto : 19˚C (67˚F) - 28˚C (83˚F) [17˚C (63˚F) - 28˚C (83˚F)] [ ] in case of using middle-temperature on PDFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded.	○ ◎ △ ●	○
Fan speed setting	Models with 4 air flow speed settings: Hi/Mid-2/Mid-1/Low Models with 3 air flow speed settings: Hi/Mid/Low Models with 2 air flow speed settings: Hi/Low Fan speed setting (including Auto) varies depending on the model.	○ ◎ △ ●	○
Air flow direction setting	Air flow direction angles, 4-angle or 5-angle Swing, Auto (Louver cannot be set)	○ ◎ △ ●	○
Schedule operation	Weekly schedule can be set by groups based on daily operation pattern.	○ ◎ △ ●	○
Permit / Prohibit local operation	Individually prohibit operation of each local remote control function (Start/Stop, Change operation mode, Set temperature, Reset filter).	○ ◎ △ ●	○
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.	×	○
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.	×	□ ◎
Test run	This operates air conditioner units in test run mode.	○ ◎ △ ●	○
Ventilation interlock	The ventilation unit (LOSSNAY) is able to automatically start its operation when operation of the interlocked indoor unit starts.	○ ◎ △ ●	○
External input/output	By using optional external input/output adaptor (PAC-YG10HA) you can set and monitor the following. Input : By level signal : "Batch start/stop", "Batch emergency stop" By pulse signal : "Batch start/stop", "Enable/disable local remote controller" Output : "Start/stop", "Error/Normal"	◎	◎

Centralized controller GB-50ADA-J*

New

GB-50ADA (without display)
• Dimensions:250 (W) x 217 (H) x 97.2 (D) mm
:9-7/8 (W) x 8-9/16 (H) x 3-7/8 (D) in.

*GB-50ADA-J is indicated as GB-50ADA.

The Web Server Function enables Remote Operation or Scheduling
Via a Web Browser on a Personal Computer!
Up to 50 indoor units can be controlled!

Web Browser

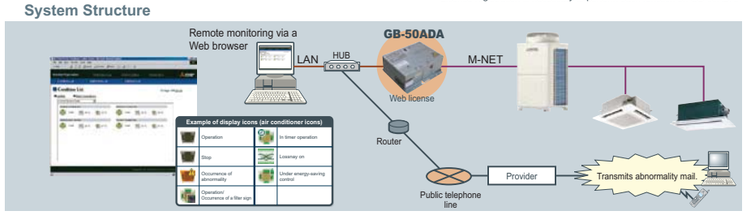
Enables monitoring and operation of indoor units using a PC with Microsoft® Internet Explorer (Ver.6 or 7 or 8) (Web browser function is an optional and needs license registration.)
*When connecting to the Internet, please use the VPN (Virtual Private Network).

Using "Dial-up Connection"
• Enables monitoring and operation from a remote place
• Enables error notification by e-mails to a PC or to a mobile phone

Function	Description GB-50ADA (web browser)
Controllable unit	Up to 50 units/groups.
Dimensions W x H x D	250 (9-7/8) x 217 (8-9/16) x 97.2 (3-7/8) mm (in)
ON / OFF	Run and stop operation for the air conditioner units
Mode selection	Switches between Cool / Dry / Auto / Fan / Heat.
Temperature setting	Range of temperature setting Cool/Dry :19-30°C [14-30°C] / 67-87°F [57-87°F] Heat :17-28°C [17-28°C] / 63-83°F [63-83°F] Auto :19-28°C [17-28°C] / 67-83°F [63-83°F] ( ) in case of using middle-temperature on PEFY, PEFY-VML/VMR/VMS/VMH-by setting DipSW7-1 to ON. Yet, PEFY-P-VMH-E-F is excluded. *Range of temperature settings vary depending on model.
Air flow direction setting	Air flow direction angles, 4-angle or 5-angle Swing, Auto (Louver cannot be set)
Timer operation / Schedule	Annual/Weekly (2 types)/today schedule can be set for each group of air conditioning units. Optimized startup setting is also available.
Permit / Prohibit function	Individually prohibit operation of each local remote control function
Indoor unit intake temperature	Measures the intake temperature of the indoor unit only when the indoor unit is operating.
Error	When an error is currently occurring on an air conditioner unit, the afflicted unit and the error code are displayed.
Test run	-
Ventilation interlock	Operation of indoor groups or general equipment can be interlocked by the change of state (ON/OFF, mode, error of indoor groups and general equipment).

*NOTE: Operation and displayed content vary depending on the indoor unit model.
License registration is necessary to perform each function on GB-50ADA.

System Structure

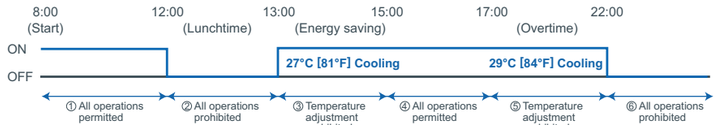


Annual / Weekly Schedule

Enables Weekly and Annual scheduling with a registering license

• ON/OFF, operation mode, temperature setting, prohibit remote controller operation can be set.
• For annual schedule, it is possible to set 50 day-long settings up to 24 months into the future.

Scheduling example in the office



Centralized Remote Controller

PI Controller PAC-YG60MCA

Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

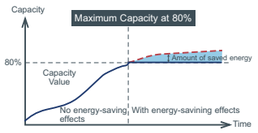
No more PLCs are needed!
Our new PI controller makes it possible to perform energy saving without PLC, which is cost saving.
Maximum of 4 measurement meter (WHM, gas meter, water meter, calorie meter) can be connected to the PI controller and can be used also for charge calculation.
*24 VDC power needs to be provided on site.

Energy Saving Control

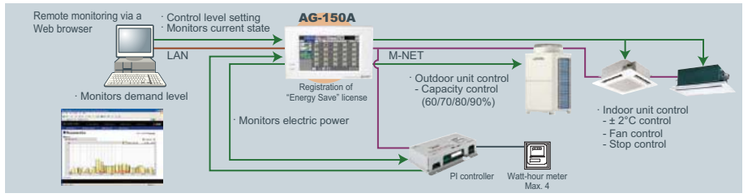
Enables Energy Saving Control with the use of our new PI controller. (Registration of "Energy Save" licence is required.)

To perform energy saving, the capacity of the outdoor unit is controlled.

*Please note that when using an energy saving control, there are no warranties to failures such as usage over the contracted electricity.



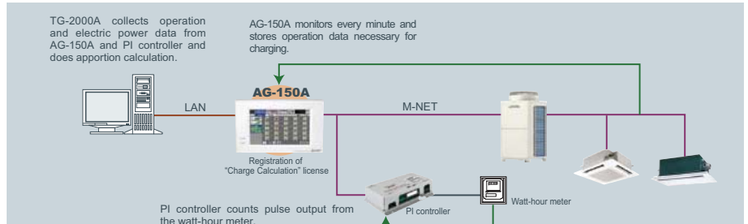
System Structure



Charge Calculation

Enables charge calculation for each tenant and output as CSV file

System Structure



Centralized Remote Controller

DIDO Controller PAC-YG66DCA

No more PLCs are needed!
Our new DIDO controller makes it possible to control general-purpose equipment without PLC, which is cost saving.
Up to 6 general-purpose equipment can be connected to the DIDO controller.
*24 VDC power needs to be provided on site.

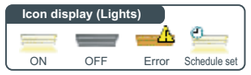
Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

General-purpose equipment Control

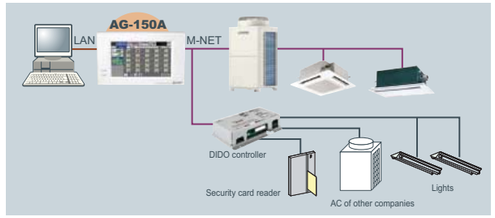
Enables to control and monitor equipment other than air-conditioners (air-conditioners of other companies, lights, ventilators, etc.)

- In addition to above, the air-conditioners can be interlocked with general-purpose equipment. E.g. Interlock between indoor units and security system.
- The indoor units can be turned ON/OFF when the security system is activated/deactivated.

Icon display (Lights)



System Structure



AI Controller PAC-YG63MCA

Our new AI controller makes it possible to monitor the values measured by the temperature/humidity sensor connected to the AI controller.
The AI controller has two input and two output channels.
*24 VDC power needs to be provided on site.

Dimension: 200(W) x 120(H) x 45(D) mm
: 7-7/8(W) x 4-3/4(H) x 1-13/16(D) in.

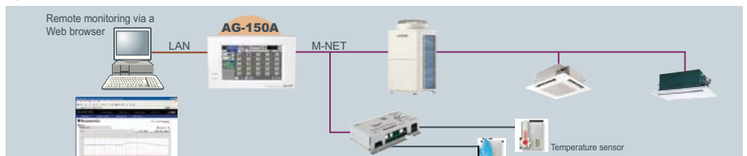
Temperature/Humidity Monitoring

Monitors the values measured by the temperature/humidity sensor connected to the AI controller

Temperature : Pt100, 4 to 20mA DC, 1 to 5 VDC, 0 to 10 VDC
Humidity : 4 to 20mA DC, 1 to 5 VDC, 0 to 10 VDC

- Trend displays of measurement data can be shown on a Web browser.
- An alarm can be output by e-mail when measurement data exceeds a preset upper or lower limit.

System Structure



Integrated centralized control software TG-2000A

Example of Basic System Configuration

The air-conditioning layout can be displayed on the screen, making control and operation easier.

Effective use of TG-2000A

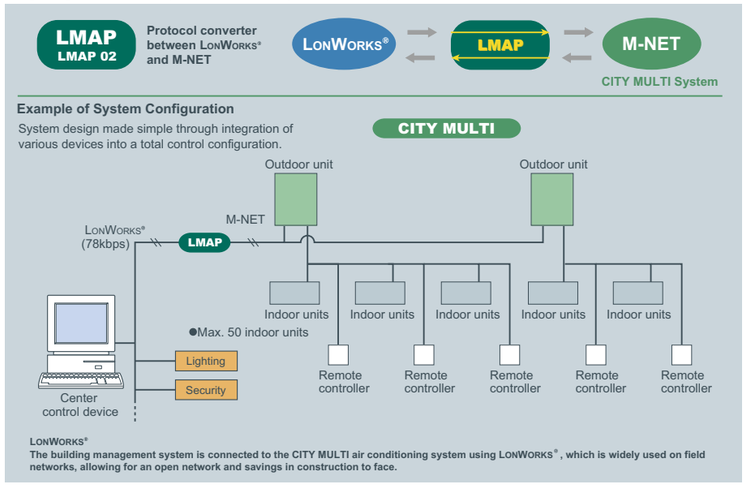
Multiple air conditioning charges in multiple buildings can be calculated. The power apportionment percentage data and apportioned power rate can be calculated for each unit, and can be output as a CSV file.

For example, installing TG-2000A to the system in the headquarters makes it possible to control AG-150A/GB-50ADA units that are used in branch offices.

LonWorks® (LMAP02)

CITY MULTI can easily combine into a Building Management System (BMS) via the LonWorks® and M-NET adapter LMAP02. LonWorks® is an opened transmission protocol widely used at BMS, and related equipment control.
CITY MULTI is therefore compatible with large-scaled BMS management via LonWorks®.

One LM ADAPTER unit can connect up to 50 Groups/50 indoor units.
Using a single LonWorks® adapter (LM ADAPTER), you can connect up to a maximum of 50 indoor units.



LonWorks®
The building management system is connected to the CITY MULTI air conditioning system using LonWorks® , which is widely used on field networks, allowing for an open network and savings in construction to face.

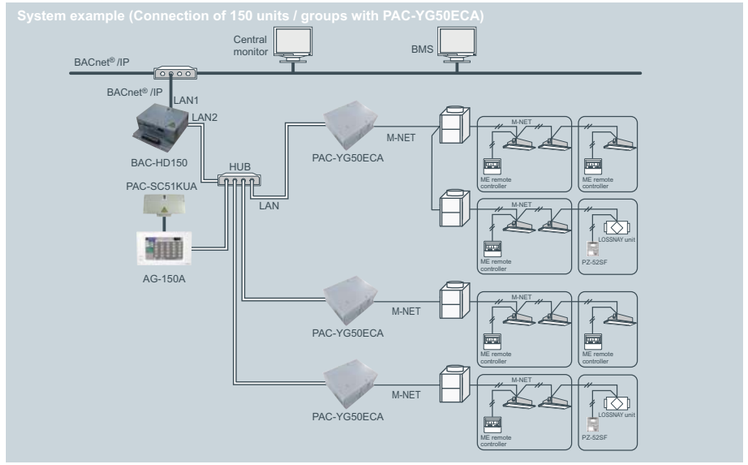
LonWorks® INTERFACE

FUNCTION	CONTENT
Control	
ON/OFF	Run/Stop
Mode Operation	Cool/Dry/Heat/Auto/Fan
Setpoint Adjustment	Cooling 19-30°C [67-87°F], Heating 17-28°C, [63-83°F], Auto 19-28°C [67-83°F]
Fan Speed Control	Lo-Mi1-Mi2-Hi
Permit/Prohibit	On/Off,Mode,Setpoint
Emergency Stop	-
Monitoring	
ON/OFF	Run/Stop
Mode	Cool/Dry/Heat/Auto/Fan
Setpoint	Cooling 19-30°C [67-87°F], Heating 17-28°C, [63-83°F], Auto 19-28°C [67-83°F]
Fan Speed	Lo-Mi1-Mi2-Hi
Permit/Prohibit	On/Off,Mode,Setpoint
Alarm State	-
Room Temperature	–10-50°C [14-122°F]
Thermo ON/OFF	On/Off

BACnet® (BAC-HD150)

CITY MULTI can easily combine into a Building Management System (BMS) via the BACnet® and M-NET adapter BAC-HD150. BACnet is an opened transmission protocol widely used at BMS, and related equipment control. CITY MULTI is therefore compatible with large-scaled BMS management via BACnet.

BAC-HD150 can control up to 50 units/groups (including LOSSNAY).
Up to 150 units/groups (including LOSSNAY) can be controlled from one BAC-HD150 with three expansion controllers PAC-YG50ECA. (50 units/PAC-YG50ECA)



BACnet® and M-NET adapter

FUNCTION	CONTENT
Operation	
ON/OFF	Run/Stop
Mode	Cool/Dry/Heat/Auto/Fan
Fan Speed	Low-Mid1-Mid2-Hi
Airflow Direction	Horizontal- 60°-80°-100°swing
Set Temperature	Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Filter Sign Reset	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.
Forced OFF	Release/Effective
Monitoring	
ON/OFF	Run/Stop
Mode	Cool/Dry/Heat/Auto/Fan
Fan Speed	Low-Mid1-Mid2-Hi
Air Direction	Horizontal- 60°-80°-100°swing
Set Temperature	Cooling 19-30°C [67-87°F], Heating 17-28°C [63-83°F], Auto 19-28°C [67-83°F]
Filter Sign	Normal/Reset
Permit/Prohibit	ON/OFF, Mode, Filter sign reset, Set temp.
Indoor Temperature	-
Alarm Signal	Normal/Abnormal
Error Code	2 Character code- Indicates all unit alarms

Indoor unit

- Ceiling cassette type 4-way airflow
- Ceiling cassette type 2-way airflow
- Ceiling cassette type 1-way airflow
- Ceiling concealed type
- Fresh Air Intake type
- Ceiling suspended type
- Wall mounted type
- Floor standing exposed
- Floor mounted concealed type
- BC controller
- Lossnay

Wide selection of indoor units

Ceiling cassette (4-way air flow) Page41 - Page42

i-see Sensor

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 Page55 - Page56

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) Page43 - Page44

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 Page57 - Page58

PCFY-P VKM-E

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

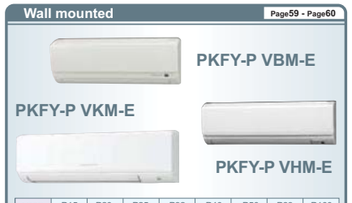
Ceiling cassette (1-way air flow) Page45 - Page46

PMFY-P VBM-E

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

Wall mounted Page59 - Page60

PKFY-P VBM-E
PKFY-P VKM-E
PKFY-P VHM-E



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 Page47 - Page54

PEFY-P VMR-E-L/R
PEFY-P VMA(L)-E
PEFY-P VMS1(L)-E
New
PEFY-P VMH(S)-E

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 Page61 - Page66

PFFY-P VLEM-E
PFFY-P VKM-E
PFFY-P VLRM-E
PFFY-P VLRMM-E

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

INDOOR UNIT
Ceiling cassette type 4-way airflow

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

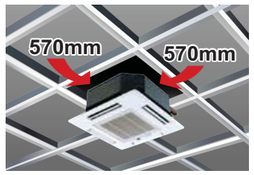
i-see Sensor

PLFY-P VBM

PLFY-P VCM

The new 4-way cassette VBM offers 72 different airflow patterns, making it ideal for applications with ceilings up to 4.2 m (13-13/16ft) in height.

Compact body to match with 2 feets (600mm) x 2 feets (600mm) ceiling design (VCM)



Automatic Air Speed Adjustment

Auto-fan-speed mode enables speedy and comfortable heating during heating startup.

The Auto-fan-speed mode is added to the usual four steps “Low, Mid1, Mid2, High.”
The Auto-fan-speed mode enables speedy and comfortable air conditioning because the air flow speeds up when starting, and air flow slows down when the air conditioning becomes stable. (PLFY-P VBM-E ONLY)

Controls the four fan speed modes automatically
Low ➡ Mid1 ➡ Mid2 ➡ High ➡ Auto

* When using a wireless remote controller, initial settings are required.

Draft-less Air Distribution

The horizontal blow mode* newly employed supplies airflow horizontally not bringing cooled/warmed air directly to occupants thus preventing discomfort sensation due to excessive cooling or direct exposing of occupants to the air blow.
(PLFY-P VBM-E ONLY)

*Default
*The ceiling may be smudged at a spot where the supplied airflow is seriously disturbed.

Wide Air Flow (PLFY-P VBM-E ONLY)

Cooling softly with Wide Air Flow

Discharge air reaches wider area and the fan speed is decreased by 20% thanks to the new wide shape air outlet.

72 patterns of airflow to accommodate any room layout are available.

First in the industry
*On the commercial air conditioners (According to the survey by Mitsubishi Electric)

The number of outlet 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).

72 airflow patterns

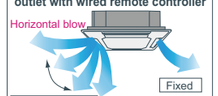
=

4-, 3-, or 2- way outlet selection*

* Optional parts air outlet shutter plate (PLFY-P VBM-E ONLY) is required for 2 or 3 way outlet selection.

✖

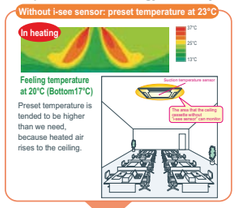
Setting the air direction for each outlet with wired remote controller



“i-see sensor” can be used with ceiling cassette type 4-way airflow unit. (Option PAC-SA1ME-E, PLFY-VBM-E ONLY)

New 4-way Cassette PLFY-VBM controls the temperature difference at the top and bottom in a room by checking the floor temperature with “i-see sensor”. Comfortable air conditioning can be realized smoothly with “sensible temperature control.” (Option PAC-SA1ME-E, PLFY-VBM-E ONLY)

Prevents overcooling/overheating, and improves comfort/energy-efficiency



▸Specifications

			PLFY-P32VBM-E	PLFY-P40VBM-E	PLFY-P50VBM-E	PLFY-P63VBM-E	PLFY-P80VBM-E	PLFY-P100VBM-E	PLFY-P125VBM-E
Power source			1-phase 220-240V 50Hz / 1-phase 200V 60Hz						
Cooling capacity	*1	kW	3.6	4.5	5.6	7.1	9.0	11.2	14.0
	*1	BTU/h	12,300	15,400	19,100	24,200	30,700	38,200	47,800
Heating capacity	*1	kW	4.0	5.0	6.3	8.0	10.0	12.5	16.0
	*1	BTU/h	13,600	17,100	21,500	27,300	34,100	42,700	54,600
Power consumption	Cooling	kW	0.03	0.04		0.05	0.07	0.15	0.16
	Heating	kW	0.02	0.03		0.04	0.06	0.14	0.15
Current	Cooling	A	0.22	0.29		0.36	0.51	1.00	1.07
	Heating	A	0.14	0.22		0.29	0.43	0.94	1.00
External finish (Munsell No.)	Unit		Galvanized steel sheet						
	Panel		White (6.4Y 8.9/0.4)						
Dimension H x W x D	Unit	mm(in.)	258 x 840 x 840 (10-3/16 x 33-8/1 x 33-8/1)					298 x 840 x 840 (11-3/4 x 33-1/8 x 33-1/8)	
	Panel	mm(in.)	35 x 950 x 950 (1-3/8 x 37-7/16 x 37-7/16)						
Net weight	Unit	kg(lbs.)	22 (49)			23 (51)		27 (60)	
	Panel	kg(lbs.)	6 (13)						
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)						
Fan	Type x Quantity		Turbo fan x 1						
	Airflow rate (Lo-Mid1-Mid2-Hi) *2	m³/min	11-12-13-14	12-13-14-16		14-15-16-18	16-18-20-22	21-24-27-29	22-25-28-30
		L/s	183-200-217-233	200-217-233-267		233-250-267-300	267-300-333-367	350-400-450-483	367-417-467-500
		cfm	388-424-459-494	424-459-494-565		494-530-565-636	565-636-706-777	742-848-953-1024	777-883-989-1059
	External static pressure	Pa	0						
Motor	Type		DC motor						
	Output	kW	0.050					0.120	
Air filter			PP Honeycomb						
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)		ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)	ø15.88(ø5/8)		ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)		ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)	ø9.52 (ø3/8)			
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)						
Sound pressure level (Lo-Mid1-Mid2-Hi) *2 *3		dB(A)	27-28-29-31	27-28-30-31		28-29-30-32	30-32-35-37	34-37-39-41	35-38-41-43

			PLFY-P20VCM-E	PLFY-P25VCM-E	PLFY-P32VCM-E	PLFY-P40VCM-E
Power source			1-phase 220-240V 50Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.05	0.05	0.06	0.06
	Heating	kW	0.05	0.05	0.06	0.06
Current	Cooling	A	0.23	0.23	0.28	0.28
	Heating	A	0.23	0.23	0.28	0.28
External finish (Munsell No.)	Unit		Galvanized steel sheet with gray heat insulation			
	Panel		White (6.4Y 8.9/0.4)			
Dimension H x W x D	Unit	mm(in.)	208 x 570 x 570 (8-1/4 x 22-1/2 x 22-1/2)			
	Panel	mm(in.)	20 x 650 x 650 (13/16 x 25-5/8 x 25-5/8)			
Net weight	Unit	kg(lbs.)	15.5 (35)		17 (38)	
	Panel	kg(lbs.)	3 (7)		3 (7)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)			
Fan	Type x Quantity		Turbo fan x 1			
	Airflow rate (Lo-Mid-Hi) *2	m³/min	8-9-10	8-9-10	8-9-11	8-9-11
		L/s	133-150-167	133-150-167	133-150-183	133-150-183
		cfm	283-318-353	283-318-353	283-318-388	283-318-388
	External static pressure	Pa	0 (direct blow)			
Motor	Type		1-phase induction motor			
	Output	kW	0.011	0.015	0.02	0.02
Air filter			PP Honeycomb (long life type)			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)			
Sound pressure level (Lo-Mid-Hi) *2 *3		dB(A)	28-31-35	28-31-37	29-33-38	30-34-39

Notes:

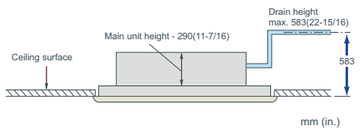
*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

INDOOR UNIT
Ceiling cassette type 2-way airflow
PLFY-P VLMD-E

Slim body of 290mm(11-7/16in.) height

Equipped with drain pump mechanism as standard

The drain can be positioned anywhere up to 583mm(22-15/16in.) from the ceiling's surface, providing greater freedom with long cross-piping and allowing more versatility with piping layouts.



Compact unit and low noise level attained!

Sound pressure level table (Standard static pressure) at 0Pa

dB(A)

Sound pressure Level	Capacity		P20	P25	P32	P40	P50	P63	P80	P100	P125
	Fan Speed	High	33		36	37	39	39	42	46	
		Mid	30		33	34	37	36	39	42/44	
		Low	27		29	31	32	33	36	40	

<220V,240V>

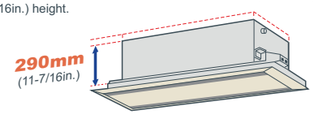
dB(A)

Sound pressure Level	Capacity		P20	P25	P32	P40	P50	P63	P80	P100	P125
	Fan Speed	High	34		37	38	40	40	43	46	
		Mid	31		34	35	38	37	41	42/44	
		Low	28		30	32	33	34	37	40	

<230V>

Slim body - only 290mm(11-7/16in.) height

The slimline body is highly suitable for installation in narrow ceiling spaces and for replacing obsolete air-conditioning equipment in older buildings. The main unit is only 290mm(11-7/16in.) height.



Terminal block on outside of main unit makes wiring easier

Fresh air directly taken in

Fresh air can be taken in to the main unit directly (optional accessories needed.)

Long life filter equipped as standard

The antibacterial long life filter does not require maintenance for approximately a year.

Easy installation

Lighter panel and placing the electric board near the panel make installation and maintenance easier. Also, the heat

▸Specifications

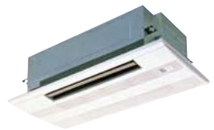
			PLFY-P20VLMD-E	PLFY-P25VLMD-E	PLFY-P32VLMD-E	PLFY-P40VLMD-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.072 / 0.075	0.072 / 0.075	0.072 / 0.075	0.081 / 0.085
	Heating	kW	0.065 / 0.069	0.065 / 0.069	0.065 / 0.069	0.074 / 0.079
Current	Cooling	A	0.36 / 0.37	0.36 / 0.37	0.36 / 0.37	0.40 / 0.42
	Heating	A	0.30 / 0.32	0.30 / 0.32	0.30 / 0.32	0.34 / 0.37
External finish (Munsell No.)	Unit		Galvanized steel plate			
	Panel		Pure white (6.4Y 8.9/0.4)			
Dimension H x W x D	Unit	mm (in.)	290 x 776 x 634 (11-7/16 x 30-9/16 x 25)			
	Panel	mm (in.)	20 x 1080 x 710 (13/16 x 42-9/16 x 28)			
Net weight	Unit	kg(lbs.)	23 (51)		24 (53)	
	Panel	kg(lbs.)	6.5 (15)			
Heat exchanger			Cross fin			
Fan	Type x Quantity		Turbo fan x 1			
	Airflow rate *2 (Lo-Mid-Hi)	m³/min	6.5-8.0-9.5		7.0-8.5-10.5	
		L/s	108-133-158		117-142-175	
		cfm	230-283-335		247-300-371	
	External static pressure	Pa	0			
Motor	Type		1-phase induction motor			
	Output	kW	0.015 (at 240V)			
Air filter			PP honeycomb fabric (long life type)			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)			
Sound pressure level (Lo-Mid-Hi) *2 *3	220V,240V	dB(A)	27-30-33		29-33-36	
	230V	dB(A)	28-31-34		30-34-37	

			PLFY-P50VLMD-E	PLFY-P63VLMD-E	PLFY-P80VLMD-E	PLFY-P100VLMD-E	PLFY-P125VLMD-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-230V 60Hz				
Cooling capacity	*1	kW	5.6	7.1	9.0	11.2	14.0
	*1	BTU/h	19,100	24,200	30,700	38,200	47,800
Heating capacity	*1	kW	6.3	8.0	10.0	12.5	16.0
	*1	BTU/h	21,500	27,300	34,100	42,700	54,600
Power consumption	Cooling	kW	0.082 / 0.086	0.101 / 0.105	0.147 / 0.156	0.157 / 0.186	0.28 / 0.28
	Heating	kW	0.075 / 0.080	0.094 / 0.099	0.140 / 0.150	0.150 / 0.180	0.27 / 0.27
Current	Cooling	A	0.41 / 0.43	0.49 / 0.51	0.72 / 0.74	0.75 / 0.88	1.35 / 1.35
	Heating	A	0.35 / 0.38	0.43 / 0.46	0.66 / 0.69	0.69 / 0.83	1.33 / 1.33
External finish (Munsell No.)	Unit		Galvanized steel plate				
	Panel		Pure white (6.4Y 8.9 / 0.4)				
Dimension H x W x D	Unit	mm (in.)	290 x 946 x 634 (11-7/16 x 37-1/4 x 25)		290 x 1446 x 634 (11-7/16 x 56-15/16 x 25)		290 x 1788 x 656 (11-7/16 x 67-1/4 x 23-7/8)
	Panel	mm (in.)	20 x 1250 x 710 (13/16 x 49-1/4 x 28)		20 x 1750 x 710 (13/16 x 68-15/16 x 28)		20 x 2010 x 710 (13/16 x 79-3/16 x 28)
Net weight	Unit	kg(lbs.)	27 (60)	28 (62)	44 (98)	47 (104)	56 (124)
	Panel	kg(lbs.)	7.5 (17)		12.5 (28)		13.0 (29)
Heat exchanger			Cross fin				
Fan	Type x Quantity		Turbo fan x 1		Turbo fan x 2		Sirocco fan x 4
	Airflow rate *2 (P50~P100:Lo-Mid-Hi)	m³/min	9.0-11.0-12.5	11.0-13.0-15.5	15.5-18.5-22.0	17.5-21.0-25.0	24.0-27.0-30.0-33.0
		L/s	150-183-208	167-217-258	258-308-367	292-350-417	400-450-500-550
	(P125:Lo-Mid2-Mid1-Hi)	cfm	318-388-441	353-459-547	547-653-777	618-742-883	848-953-1,059-1,165
	External static pressure	Pa	0				
Motor	Type		1-phase induction motor				
	Output	kW	0.020 (at 240V)		0.020 (at 240V)	0.030 (at 240V)	0.078 x 2 (at 240V)
Air filter			PP honeycomb fabric (long life type)				Synthetic fiber unwoven cloth filter (long life)
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)			
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)			
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)				
Sound pressure level (Lo-Mid-Hi) *2 *3	220V,240V	dB(A)	31-34-37	32-37-39	33-36-39	36-39-42	40-42-44-46 (Lo-Mid2-Mid1-Hi)
	230V	dB(A)	32-35-38	33-38-40	34-37-40	37-41-43	

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

INDOOR UNIT
Ceiling cassette type 1-way airflow
PMFY-P VBM-E



Compact and lightweight body perfect for limited ceiling space applications.

Compact size for smooth installation and maintenance

Unit body size has been standardized for all models at 812mm for easier installation. Body weight is only 14kg for the main unit and 3kg for the panel, making this unit one of the lightest in the industry.

Quiet operation

Newly developed airflow control technology reduces noise level to only 27dB (P20VBM) for industry-leading quiet performance.

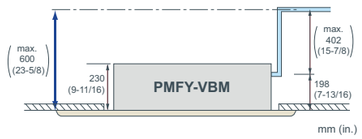
Sound pressure level table

	Capacity		P20	P25	P32	P40
Sound pressure level	Fan Speed	High	35	37		39
		Mid 1	33	36		37
		Mid 2	30	34		35
		Low	27	32		33

<220V,240V>

Drain pump

The drain can be positioned anywhere up to 600mm(23-5/8in.) from the ceiling's surface.



mm (in.)

▸Specifications

			PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.042	0.044		0.054
	Heating	kW	0.042	0.044		0.054
Current	Cooling	A	0.20	0.21		0.26
	Heating	A	0.20	0.21		0.26
External finish (Munsell No.)			White (0.98Y 8.99/0.63)			
Dimension H × W × D	Unit	mm(in.)	230 x 812 x 395 (9-1/16 x 32 x 15-9/16)			
	Panel	mm(in.)	30 x 1000 x 470 (1-3/16 x 39-3/8 x 18-9/16)			
Net weight	Unit	kg(lbs.)	14 (31)			
	Panel	kg(lbs.)	3 (7)			
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)			
Fan	Type		Line flow fan x 1			
	Airflow rate (Lo-Mid2-Mid1-Hi) *2	m³/min	6.5-7.2-8.0-8.7	7.3-8.0-8.6-9.3		7.7-8.7-9.7-10.7
		L/s	108-120-133-145	122-133-143-155		128-145-162-178
		cfm	230-254-283-307	258-283-304-328		272-307-343-378
	External staticpressure	Pa	0			
Motor	Type		1-phase induction motor			
	Output	kW	0.028			
Air filter			PP Honeycomb fabric			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter		mm(in.)	O.D. 26 (1)			
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	27-30-33-35	32-34-36-37		33-35-37-39

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating : Indoor 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

INDOOR UNIT
Ceiling concealed type

PEFY-P VMR-E-L/R

Static Pressure **5Pa** | Width **640mm** 25-6/32in. | **Ultra Low Noise** | Piping connection **L model R model**

Problem solver for residential hotels, museums, libraries, or hospitals where low noise is especially a must!

Operable by key card switch

It is possible to operate / stop by taking a key card in and out.

Ultra low noise

Quiet indoor environment can be achieved with 21dB around the bed and 22dB around the desk.
*The noise level may differ by the room size or the setting of the unit.

Enables to install for symmetric design room

Left or right piping and control boxes are available depending on the layout of each room. Plus, as in the above figure, easy maintenance is possible from the access door in the bathroom.
*Seen from the front, the pipe and control box are on the right side for -R models.

Energy saving

Energy saving can be realized by preventing us from failing to switch off of the air conditioners with a centralized system when no one is in the room.
Note: Compact and simple controllers, designed specifically to control only start/stop, fan speed and temperature can be set in each room for the occupants' enhanced individual comfort.

Easy Maintenance

Drain pan and heat exchangers are washable from the access door in the bathroom, making maintenance easy and cost saving.

▸Specifications

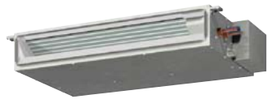
			PEFY-P20VMR-E-L	PEFY-P25VMR-E-L	PEFY-P32VMR-E-L
Power source			1-phase 220-230-240V 50Hz / 1-phase 220-230V 60Hz		
Cooling capacity	*1	kW	2.2	2.8	3.6
	*1	BTU/h	7,500	9,600	12,300
Heating capacity	*1	kW	2.5	3.2	4.0
	*1	BTU/h	8,500	10,900	13,600
Power consumption	Cooling	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
	Heating	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
Current	Cooling	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
	Heating	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
External finish			Galvanized		
Dimension	Rear inlet	mm (in.)	292 x 640 x 580 (11-1/2 x 25-1/4 x 22-7/8)		
H x W x D	Bottom inlet	mm (in.)	300 x 640 x 570 (11-7/8 x 25-1/4 x 22-1/2)		
Net weight		kg(lbs.)	18 (40)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity		Sirocco fan x 1		
	Airflow rate (Lo-Mid-Hi)	m³/min	4.8-5.8-7.9		4.8-5.8-9.3
		L/s	80-97-132		80-97-155
		cfm	170-205-279		170-205-328
	External static pressure *2	Pa	5		
Motor	Type		1-phase induction motor		
	Output	kW	0.018		0.023
Air filter			PP Honeycomb fabric (washable)		
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed		
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed		
Field drain pipe diameter		mm(in.)	O.D. 26 (1)		
Sound pressure level (Lo-Mid-Hi) *3	220V	dB(A)	20-25-30		20-25-33
	230V		21-26-32		21-26-35
	240V		22-27-30		22-27-33

			PEFY-P20VMR-E-R	PEFY-P25VMR-E-R	PEFY-P32VMR-E-R
Power source			1-phase 220-230-240V 50Hz / 1-phase 220-230V 60Hz		
Cooling capacity	*1	kW	2.2	2.8	3.6
	*1	BTU/h	7,500	9,600	12,300
Heating capacity	*1	kW	2.5	3.2	4.0
	*1	BTU/h	8,500	10,900	13,600
Power consumption	Cooling	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
	Heating	kW	0.06 / 0.06	0.06 / 0.06	0.07 / 0.08
Current	Cooling	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
	Heating	A	0.29 / 0.29	0.29 / 0.29	0.34 / 0.38
External finish			Galvanized		
Dimension	Rear inlet	mm (in.)	292 x 640 x 580 (11-1/2 x 25-1/4 x 22-7/8)		
H x W x D	Bottom inlet	mm (in.)	300 x 640 x 570 (11-7/8 x 25-1/4 x 22-1/2)		
Net weight		kg(lbs.)	18 (40)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Fan	Type x Quantity		Sirocco fan x 1		
	Airflow rate (Lo-Mid-Hi)	m³/min	4.8-5.8-7.9		4.8-5.8-9.3
		L/s	80-97-132		80-97-155
		cfm	170-205-279		170-205-328
	External static pressure *2	Pa	5		
Motor	Type		1-phase induction motor		
	Output	kW	0.018		0.023
Air filter			PP Honeycomb fabric (washable)		
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed		
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed		
Field drain pipe diameter		mm(in.)	O.D. 26(1)		
Sound pressure level (Lo-Mid-Hi) *3	220V	dB(A)	20-25-30		20-25-33
	230V		21-26-32		21-26-35
	240V		22-27-30		22-27-33

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor 27°C (81°F) DB/19°C (66°F) WB, Outdoor 35°C (95°F) DB
Heating : Indoor 20°C (68°F) DB, Outdoor 7°C (45°F) DB/6°C (43°F) WB

INDOOR UNIT
Ceiling concealed type



PEFY-P VMS1(L)-E

Static Pressure **5~50Pa** | Height **200mm** 7-28/32in. | Low Noise | Width **790mm** 31-1/8in. | Width **990mm** 39in. | Width **1,190mm** 46-7/8in.

The ultra thin unit of 200mm offers increased flexibility, and is particularly suitable for places where low noise operation is desired from a slim line body.

Changeable static pressure

The unit is made suitable for a variety of applications with its four static pressure settings of 5, 15, 35, 50Pa.

Changeable airflow rate

Low, middle, and high fan speed settings deliver precise comfort.

Choice for drain pump

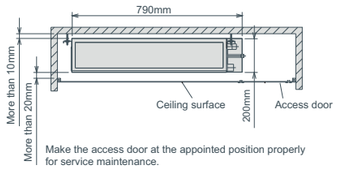
Drain pump is an optional part for the VMS1L, and a standard for VMS1.
*For places where low noise operation is especially required (i.e. Hotels), VMS1L (without drain pump) is recommended.

PP Honeycomb fabric

Washable PP Honeycomb fabric filter as standard

Ultra low height unit with 200mm (7-28/32in.) high Ultra-narrow width of 790mm (P15-P32 models) [990mm for P40,50 models / 1190mm for P63 models]

Can be installed easily in tight spaces, such as ceiling cavities or drop-ceilings.



Reduced noise thanks to the use of newly designed centrifugal fan and coil

Sound pressure level table (Standard static pressure) at 15Pa

dB(A)

	Capacity		P15	P20	P25	P32	P40	P50	P63
Sound pressure Level	Fan Speed	High	28	29	30	32	33	35	36
		Mid	24	25	26	27	30	32	33
		Low	22	23	24	24	28	30	30

▸Specifications

			PEFY-P15VMS1(L)-E★	PEFY-P20VMS1(L)-E	PEFY-P25VMS1(L)-E	PEFY-P32VMS1(L)-E	PEFY-P40VMS1(L)-E	PEFY-P50VMS1(L)-E	PEFY-P63VMS1(L)-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz						
Cooling capacity	*1	kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption *3	Cooling	kW	0.05 [0.03]	0.05 [0.03]	0.06 [0.04]	0.07 [0.05]	0.07 [0.05]	0.09 [0.07]	0.09 [0.07]
	Heating	kW	0.03 [0.03]	0.03 [0.03]	0.04 [0.04]	0.05 [0.05]	0.05 [0.05]	0.07 [0.07]	0.07 [0.07]
Current *3	Cooling	A	0.42 [0.31]	0.47 [0.36]	0.50 [0.39]	0.50 [0.39]	0.56 [0.45]	0.67 [0.56]	0.72 [0.61]
	Heating	A	0.31 [0.31]	0.36 [0.36]	0.39 [0.39]	0.39 [0.39]	0.45 [0.45]	0.56 [0.56]	0.61 [0.61]
External finish			Galvanized						
Dimension		mm	200 x 790 x 700				200 x 990 x 700		200 x 1,190 x 700
H x W x D		In.	7-7/8 x 31-1/8 x 27-9/16				7-7/8 x 39 x 27-9/16		7-7/8 x 46-7/8 x 27-9/16
Net weight *3		kg(lbs.)	19(42) [18(40)]			20(45) [19(42)]	24(53) [23(51)]		28(62) [27(60)]
Heat exchanger			Cross fin (Aluminium fin and copper tube)						
Fan	Type x Quantity		Sirocco fan x 2				Sirocco fan x 3		Sirocco fan x 4
	Airflow rate (Lo-Mid-Hi)	m³/min	5-6-7	5.5-6.5-8	5.5-7-9	6-8-10	8-9.5-11	9.5-11-13	12-14-16.5
		L/s	83-100-117	91-108-133	91-117-150	100-133-167	133-158-183	158-183-217	200-233-275
		cfm	176-212-247	194-229-282	194-247-317	212-282-353	282-335-388	335-388-459	424-494-583
	External static press	Pa	5-15-35-50						
Motor	type		DC motor						
	output	kW	0.096						
Air filter			PP Honeycomb fabric (washable)						
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed						ø15.88 (ø5/8) Brazed
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed						ø9.52 (ø3/8) Brazed
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)						
Sound pressure level (Lo-Mid-Hi) (mesured in anechoic room)		dB<A>	22-24-28	23-25-29	24-26-30	24-27-32	28-30-33	30-32-35	30-33-36

★PEFY-P15VMS1(L)-E can only be connected to YHM and YJM outdoor units.

	PEFY-P15VMS1(L)-E
PURY-P YHM, YJM	○
PUHY-P YHM, YJM	○
PUMY-P VHMA / VHMB	○
PUMY-P YHMA / YHMB	○
PQRY-P YGM	×
PQHY-P YGM	×
PQRY-P YHM	○
PQHY-P YHM	○

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling : Indoor : 27°CD.B./19°CW.B. (81°FD.B. / 66°FW.B.) Outdoor : 35°CD.B. (95°FD.B.)
Heating : Indoor : 20°CD.B. (68°FD.B.) Outdoor : 7°CD.B. / 6°CW.B. (45°FD.B. / 43°FW.B.)
Pipe length : 7.5m (24-9/16ft) Height difference : 0m (0ft)

INDOOR UNIT
Ceiling Concealed Type

PEFY-P VMA(L)-E

Middle Static Pressure 35~150Pa | Slim Body Height 250mm

With precise control of indoor temperature while operating with optimum energy usage, it offers a high-energy saving efficiency.

Compact Indoor Units

For all models, unit height are unified to 250mm. Compared to the previous model, the height size is reduced, allowing installation in tight spaces, such as ceiling cavities or drop-ceilings.

Reduction in height size

PEFY-P VMA(L)		20	25	32	40	50	63	71	80	100	125	140
Height	mm	250										
Width	mm	700			900		1,100			1,400		1,600
Depth	mm	732										

External static pressure

Five-stage external static pressure settings provide flexibility for duct extension, branching and air outlet configuration and are adjustable to meet different application conditions.
Setting ranges to a maximum of 150Pa.

External static pressure setting

Series	20	25	32	40	50	63	71	80	100	125	140
PEFY-P VMA(L)	35/50/70/100/150Pa										

Air Inlet

(1) Rear inlet (2) Bottom inlet

Drain Pump Option

The line-up consists of two types, models with or without a built-in drain pump allowing more freedom in piping layout design.

PEFY-P VMA-E Drain pump built-in

PEFY-P VMAL-E No Drain pump

* Units with a "L" at the end of the model name are not equipped with a drain pump.

Analogue input

Analogue input allows unit to control the fan speed setting in conjunction with damper condition.

IT terminal

IT terminal is available. For details, contact your local distributor.

▸Specifications

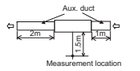
			PEFY-P20VMA(L)-E	PEFY-P25VMA(L)-E	PEFY-P32VMA(L)-E	PEFY-P40VMA(L)-E	PEFY-P50VMA(L)-E
Power source			1-phase 220-230-240V 50 / 60Hz				
Cooling capacity *1		kW	2.2	2.8	3.6	4.5	5.6
(Nominal) *1		BTU/h	7,500	9,600	12,300	15,400	19,100
Heating capacity *2		kW	2.5	3.2	4.0	5.0	6.3
(Nominal) *2		BTU/h	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling *3	kW	0.06 [0.04]	0.06 [0.04]	0.07 [0.05]	0.09 [0.07]	0.11 [0.09]
	Heating *3	kW	0.04	0.04	0.05	0.07	0.09
Current	Cooling *3	A	0.53 [0.42]	0.53 [0.42]	0.55 [0.44]	0.64 [0.53]	0.74 [0.63]
	Heating *3	A	0.42	0.42	0.44	0.53	0.63
External finish			Galvanized steel plate				
Dimension H x W x D		mm	250 x 700 x 732	250 x 700 x 732	250 x 700 x 732	250 x 900 x 732	250 x 900 x 732
		in.	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8
Net weight		kg(lbs)	23 (51) [22 (49)]	23 (51) [22 (49)]	23 (51) [22 (49)]	26 (58) [25 (56)]	26 (58) [25 (56)]
Heat exchanger			Cross fin (Aluminum fin and copper tube)				
Fan	Type x Quantity		Sirocco fan x 1				
	Airflow rate (Low-Mid-High)	m³/min	6.0 - 7.5 - 8.5	6.0 - 7.5 - 8.5	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0	12.0 - 14.5 - 17.0
		L/s	100 - 125 - 142	100 - 125 - 142	125 - 150 - 175	167 - 200 - 233	200 - 242 - 283
		cfm	212 - 265 - 300	212 - 265 - 300	265 - 318 - 371	353 - 424 - 494	424 - 512 - 600
	External static pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
Motor	Type		DC motor				
	Output	kW	0.085	0.085	0.085	0.085	0.085
Air filter			PP honeycomb fabric.				
Refrigerant pipe diameter	Liquid (R410A) (R22,R407C)	mm(in.)	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 6.35 (1/4) Brazed	6.35 (1/4) Brazed 9.52 (3/8) Brazed
	Gas (R410A) (R22,R407C)	mm(in.)	12.7 (1/2) Brazed 12.7 (1/2) Brazed	12.7 (1/20) Brazed 12.7 (1/20) Brazed	12.7 (1/20) Brazed 12.7 (1/20) Brazed	12.7 (1/20) Brazed 12.7 (1/2) Brazed	12.7 (1/2) Brazed 15.88 (5/8) Brazed
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	O.D.32(1-1/4)	O.D.32(1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Sound pressure level (measured in anechoic room)							
(Low-Mid-High) *3 *5		dB(A)	26-28-29	26-28-29	28-30-34	28-30-34	28-32-35
*3 *6		dB(A)	23-25-26	23-25-26	23-26-29	23-27-30	25-29-32

			PEFY-P63VMA(L)-E	PEFY-P71VMA(L)-E	PEFY-P80VMA(L)-E	PEFY-P100VMA(L)-E	PEFY-P125VMA(L)-E	PEFY-P140VMA(L)-E
Power source			1-phase 220-230-240V 50 / 60Hz					
Cooling capacity *1		kW	7.1	8.0	9.0	11.2	14.0	16.0
(Nominal) *1		BTU/h	24,200	27,300	30,700	38,200	47,800	54,600
Heating capacity *2		kW	8.0	9.0	10.0	12.5	16.0	18.0
(Nominal) *2		BTU/h	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	Cooling *3	kW	0.12 [0.10]	0.14 [0.12]	0.14 [0.12]	0.24 [0.22]	0.34 [0.32]	0.36 [0.34]
	Heating *3	kW	0.10	0.12	0.12	0.22	0.32	0.34
Current	Cooling *3	A	1.01 [0.90]	1.15 [1.04]	1.15 [1.04]	1.47 [1.36]	2.05 [1.94]	2.21 [2.10]
	Heating *3	A	0.90	1.04	1.04	1.36	1.94	2.10
External finish			Galvanized steel plate					
Dimension H x W x D		mm	250 x 1,100 x 732	250 x 1,100 x 732	250 x 1,100 x 732	250 x 1,400 x 732	250 x 1,400 x 732	250 x 1,600 x 732
		in.	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 63 x 28-7/8
Net weight		kg(lbs)	32 (71) [31(69)]	32 (71) [31 (69)]	32 (71) [31 (69)]	42 (93) [41 (91)]	42 (93) [41 (91)]	46 (102) [45 (10)]
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x Quantity		Sirocco fan x 2					
	Airflow rate (Low-Mid-High)	m³/min	13.5 - 16.0 - 19.0	14.5 - 18.0 - 21.0	14.5 - 18.0 - 21.0	23.0 - 28.0 - 33.0	28.0 - 34.0 - 40.0	29.5 - 35.5 - 42.0
		L/s	225 - 267 - 317	242 - 300 - 350	242 - 300 - 350	383 - 467 - 550	467 - 567 - 667	492 - 592 - 700
		cfm	477 - 565 - 671	512 - 636 - 742	512 - 636 - 742	812 - 989 - 1,165	989 - 1,201 - 1,412	1,042 - 1,254 - 1,483
	External static pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
Motor	Type		DC motor					
	Output	kW	0.121	0.121	0.121	0.244	0.244	0.244
Air filter			PP honeycomb fabric.					
Refrigerant pipe diameter	Liquid (R410A) (R22,R407C)	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 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
	Gas (R410A) (R22,R407C)	mm(in.)	15.88 (5/8) Brazed 15.88 (5/8) Brazed	15.88 (5/8) Brazed 15.88 (5/8) Brazed	15.88 (5/8) Brazed 15.88 (5/8) Brazed	15.88 (5/8) Brazed 19.05 (3/4) Brazed	15.88 (5/8) Brazed 19.05 (3/4) Brazed	15.88 (5/8) Brazed 19.05 (3/4) Brazed
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Sound pressure level (measured in anechoic room)								
(Low-Mid-High) *3 *5		dB(A)	29-32-36	30-34-38	30-34-38	32-37-41	35-40-44	36-41-45
*3 *6		dB(A)	25-29-33	26-29-34	26-29-34	28-33-37	32-36-40	33-37-42

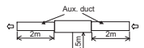
Notes:

* [ ] is in case of PEFY-P VMAL-E
*1 Nominal cooling conditions
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
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 The values are measured at the rated external static pressure.
*4 The rated external static pressure is shown without < >.The factory setting is the rated value.

*5 Measured in anechoic room with a 1m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



*6 Measured in anechoic room with a 2m air inlet duct and 2m air outlet duct attached to the unit and 1.5m below the unit.



INDOOR UNIT
Ceiling concealed type

PEFY-P VMH(S)-E

High Static Pressure

Increased design flexibility from sufficient external static pressure allows authentic duct air- conditioning with an elegant interior layout.

High static pressure of 200 Pa or higher

The additional external static pressure capacity provides flexibility for duct extension, branching and air outlet configuration.

PEFY-P VMH-E		P40	P50	P63	P71	P80	P100	P125	P140	P200	P250
External static pressure (Pa)	220V	50/100/200								——	
	230/240V	100/150/200								——	
	380V	——								110/220	
	400/415V	——								130/260	

PEFY-P VMHS-E	P200	P250
External static pressure (Pa)	<50> – <100> – 150 – <200> – <250>*	

*The rated external static pressure is shown without < >.
The factory setting is the rated value.

Reduced noise thanks to the use of newly designed centrifugal fan

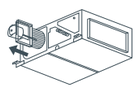
Sound pressure level table (Standard static pressure 220V)

dB(A)

Sound pressure Level	Capacity		P40	P50	P63	P71	P80	P100	P125	P140
	Fan Speed	High	34	34	38	39	41	42	42	42
		Low	27	27	32	32	35	34	34	34

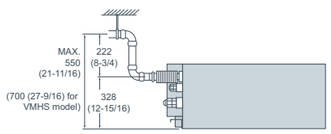
One-side maintenance

All maintenance to the unit, including fan inspection and fan motor removal, can be conducted from the inspection opening on one side.
(VMH model only)



Drain pump (option) ensures up to 550mm (21-11/16in.) for VMH model / 700mm (27-9/16in.) for VMHS model of lift

The introduction of an upper drain pump allows the drain connection to be raised as high as 550mm(21-11/16in.) for VMH model/700mm (27-9/16in.) for VMHS model, allowing more freedom in piping layout design and reducing horizontal piping requirements.



mm (in.)

▸Specifications

			PEFY-P40VMH-E	PEFY-P50VMH-E	PEFY-P63VMH-E	PEFY-P71VMH-E	PEFY-P80VMH-E	PEFY-P100VMH-E	PEFY-P125VMH-E	PEFY-P140VMH-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz							
Cooling capacity	*1	kW	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0
	*1	BTU/h	15,400	19,100	24,200	27,300	30,700	38,200	47,800	54,600
Heating capacity	*1	kW	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0
	*1	BTU/h	17,100	21,500	27,300	30,700	34,100	42,700	54,600	61,400
Power consumption	Cooling	kW	0.19 / 0.23		0.24 / 0.30	0.26 / 0.33	0.32 / 0.40	0.48 / 0.58		0.48 / 0.59
	Heating	kW	0.19 / 0.23		0.24 / 0.30	0.26 / 0.33	0.32 / 0.40	0.48 / 0.58		0.48 / 0.59
Current	Cooling	A	0.88 / 1.06		1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34 / 2.66		2.35 / 2.70
	Heating	A	0.88 / 1.06		1.12 / 1.38	1.20 / 1.51	1.47 / 1.83	2.34 / 2.66		2.35 / 2.70
External finish			Galvanized							
Dimension H x W x D		mm	380 x 750 x 900			380 x 1,000 x 900		380 x 1,200 x 900		
		in.	15 x 29-9/16 x 35-7/16			15 x 39-3/8 x 35-7/16		15 x 47-1/4 x 35-7/16		
Net weight		kg(lbs.)	44 (98)	45 (100)		50 (111)		70 (155)		
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)							
Fan	Type x Quantity		Sirocco fan x 1					Sirocco fan x 2		
	Airflow rate (Lo-Hi)	m³/min	10.0-14.0		13.5-19.0	15.5-22.0	18.0-25.0	26.5-38.0		28.0-40.0
		L/s	167-233		225-317	258-367	300-417	442-633		467-667
		cfm	353-494		477-671	547-777	636-883	936-1342		989-1413
	External static pressure *2	220V Pa	50 · 100 · 200							
		230,240V Pa	100 · 150 · 200							
Motor	Type		1-phase induction motor							
	Output *3	kW	0.08		0.12	0.14	0.18	0.26		
Air filter (option)			Synthethic fiber unwoven cloth filter (long life)							
Refrigerant pipe diameter	Gas (Brazing)	mm(in.)	ø12.7 (ø1/2)		ø15.88 (ø5/8)					
	Liquid (Brazing)	mm(in.)	ø6.35 (ø1/4)		ø9.52 (ø3/8)					
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)							
Sound pressure level (Lo-Hi) *6	220V	dB(A)	27-34		32-38	32-39	35-41	34-42		
	230,240V	dB(A)	31-37		36-41	35-41	38-43	38-44		

			PEFY-P200VMH-E	PEFY-P250VMH-E	PEFY-P200VMHS-E	PEFY-P250VMHS-E
Power source			3-phase 380-415V 50Hz / 3N ~ 380-415V 60Hz		1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz	
Cooling capacity	*1	kW	22.4	28.0	22.4	28.0
	*1	BTU/h	76,400	95,500	76,400	95,500
Heating capacity	*1	kW	25.0	31.5	25.0	31.5
	*1	BTU/h	85,300	107,500	85,300	107,500
Power consumption	Cooling	kW	0.99 / 1.14	1.23 / 1.41	0.63 *7	0.82 *7
	Heating	kW	0.99 / 1.14	1.23 / 1.41	0.63 *7	0.82 *7
Current	Cooling 380-415V	A	1.62 / 1.86	2.00 / 2.30	–	–
	Cooling 220-230-240V	A	–	–	3.47-3.32-3.18 *7	4.72-4.43-4.14 *7
	Heating 380-415V	A	1.62 / 1.86	2.00 / 2.30	–	–
	Heating 220-230-240V	A	–	–	3.47-3.32-3.18 *7	4.72-4.43-4.14 *7
External finish			Galvanized		Galvanized steel plate	
Dimension H x W x D		mm	470 x 1,250 x 1,120		470 x 1,250 x 1,120	
		in.	18-9/16 x 49-1/4 x 44-1/8		18-9/16 x 49-1/4 x 44-1/8	
Net weight		kg(lbs.)	100 (221)		97 (214)	100 (221)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)		Cross fin (Aluminum plate fin and copper tube)	
Fan	Type x Quantity		Sirocco fan x 2		Sirocco fan x 2	
	Airflow rate	m³/min	58.0	72.0	–	–
		L/s	967	1200	–	–
		cfm	2048	2543	–	–
	Lo-Mid-Hi	m³/min	–	–	50.0-61.0-72.0	58.0-71.0-84.0
		L/s	–	–	833-1017-1200	967-1183-1400
		cfm	–	–	1766-2154-2542	2048-2507-2966
	External static pressure 380V	Pa	110 · 220 *4		–	
	400,415V	Pa	130 · 260 *4		–	
		Pa	–		<50>-<100>-150-<200>-<250> *8	
		mmH_2O	–		<5.1>-<10.2>-15.3-<20.4>-<25.5> *8	
Motor	Type		3-phase induction motor		DC motor	
	Output	kW	0.76 *5	1.08 *5	0.87	0.87
Air filter(option)			Synthethic fiber unwoven cloth filter (long life)		Synthethic fiber unwoven cloth filter (long life filter) and filter box are recommended.	
Refrigerant pipe diameter	Gas (Brazing)	mm(in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)	ø19.05 (ø3/4)	ø22.2 (ø7/8)
	Liquid (Brazing)	mm(in.)	ø9.52 (ø3/8)		ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Sound pressure level	380V	dB(A)	42 (110Pa) / 45 (220Pa) *6	50 (110Pa) / 52 (220Pa) *6	–	–
	400,415V	dB(A)	44 (130Pa) / 47 (260Pa) *6	52 (130Pa) / 54 (260Pa) *6	–	–
	Lo-Mid-Hi	dB(A)	–	–	36-39-43 *9	39-42-46 *9

Notes:

*1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoo r: 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB

*2 The external static pressure is set to 100Pa (at 220V) /150Pa (at 230, 240V) at factory shipment.

*3 The value are that at 240V.

*6 It is measured in anechoic room.

*7 The values are measured at the rated external static pressure.

*8 The rated external static pressure is shown without < >.
The factory setting is the rated value.

*9 It is measured at the rated external static pressure in anechoic room.

INDOOR UNIT
Fresh Air Intake Type

PEFY-P VMH-E-F

Fresh Air Intake

Fresh Air can be taken in with temperature control.
Ideal for Offices, Stores and Restaurants.

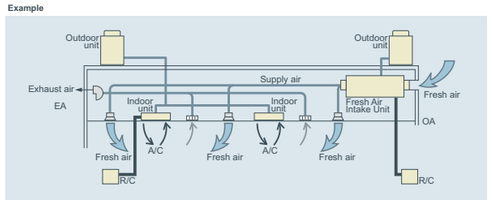
The Fresh Air intake indoor unit can be installed in any place.

The Fresh Air intake indoor unit can take fresh outdoor air into any building in any place at any time.

Office, Lobby, Workshop, Rest room, Nursing home, Smoking corner, Kitchen in restaurant

*** Limits of capacity connectable to outdoor unit**
Max. 110% of outdoor unit capacity, excepting heating at outdoor temperature of less than -5°C(23°F) (100%).

Example



< Note>
Fan remains in operation during Thermo-OFF. Using this model with other type of indoor unit is recommended to prevent cold draft which is caused due to intaken fresh air.

▸Specifications

			PEFY-P80VMH-E-F	PEFY-P140VMH-E-F
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz	
Cooling capacity	*1	kW	9.0	16.0
	*1	BTU/h	30,700	54,600
Heating capacity	*1	kW	8.5	15.1
	*1	BTU/h	29,000	51,500
Power consumption	Cooling	kW	0.16 / 0.21	0.29 / 0.33
	Heating	kW	0.16 / 0.21	0.29 / 0.33
Current	Cooling	A	0.67 / 0.91	1.24 / 1.48
	Heating	A	0.67 / 0.91	1.24 / 1.48
External finish			Galvanized	
Dimension H x W x D		mm(in.)	380 x 1000 x 900 (15 x 39-3/8 x 35-7/16)	380 x 1200 x 900 (15 x 47-1/4 x 35-7/16)
Net weight		kg(lbs.)	50 (111)	70 (155)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)	
Fan	Type x Quautity		Sirocco fan x 1	Sirocco fan x 2
	Airflow rate	m³/min	9.0	18.0
		L/s	150	300
		cfm	18	636
	External static pressure (Lo-Mid-Hi)	208V	35 - 85 - 170	35 - 85 - 170
		220V	40 - 115 - 190	50 - 115 - 190
		230V	50 - 130 - 210	60 - 130 - 220
		240V	80 - 170 - 220	100 - 170 - 240
Motor	Type		1-phase induction motor	
	Output	kW	0.09 (at 220V)	0.14 (at 220V)
Air filter (option)			Synthetic fiber unwoven cloth filter (long life)	
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø15.88 (ø5/8)	
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	
Sound pressure level (Lo-Mid-Hi) *2	208, 220V	dB(A)	27 - 38 - 43	28 - 38 - 43
	230, 240V	dB(A)	33 - 43 - 45	34 - 43 - 45

			PEFY-P200VMH-E-F	PEFY-P250 VMH-E-F
Power source			3-phase 380-415V 50Hz / 3N~ 380-415V 60Hz	
Cooling capacity		kW	22.4	28.0
		BTU/h	76,400	95,500
Heating capacity		kW	21.2	26.5
		BTU/h	72,300	90,400
Power consumption	Cooling	kW	0.34 / 0.42	0.39 / 0.50
	Heating	kW	0.34 / 0.42	0.39 / 0.50
Current	Cooling	A	0.58 / 0.74	0.68 / 0.86
	Heating	A	0.58 / 0.74	0.68 / 0.86
External finish			Galvanized	
Dimension H x W x D		mm(in.)	470 x 1250 x 1120 (18-9/16 x 49-1/4 x 44-1/8)	
Net weight		kg(lbs.)	100 (221)	
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)	
Fan	Type x Quautity		Sirocco fan x 2	
	Airflow rate	m³/min	28	35
		L/s	467	583
		cfm	989	1236
	External static pressure	380V	140 / 200	110 / 190
		400V	150 / 210	120 / 200
		415V	160 / 220	130 / 210
Motor	Type		3-phase induction motor	
	Output	kW	0.20	0.23
Air filter (option)			Synthetic fiber unmoven cloth filter (long life type)	
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø19.05 (ø3/4)	ø22.2 (ø7/8)
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	O.D.32 (1-1/4)	
Sound pressure level *2	380V	dB(A)	39 / 42	40 / 44
	400V	dB(A)	40 / 43	40 / 45
	415V	dB(A)	40 / 44	41 / 46

Notes:

1. The cooling and heating capacites are the maximum capacites that were obtained by operating in the above air conditions and with a refrigerant pipe of about 7.5m.
2. The actual capacity characteristics vary with the combination of indoor and outdoor units. See the technical infomation.
3. The operating noise is the data that was obtained by measuring it 1.5m from the the bottom of the unit in an anechoic room. (Noise meter A-scale value)
4. The figure of Electrical characteristic indicates at 240V 50Hz/230V60Hz (PEFY-P80, 140VHM-E-F type), at 220Pa setting at 415V (PEFY-P200, 250VMH-E-F type).
5. When the 100% fresh air indoor units are connected, the maximum connectable indoor units to 1 outdoor unit are as follows

Heat pump models	Cooling only
110%(100% in case of heating below-5°C(23°F))	110%

6. Operational temp range is (Cooling : from 21°C(70°F)DB/15.5°C(60°F)WB to 43°C(109°F)DB/35°C(95°F)WB
Heating : from -10°C(14°F)DB to 20°C(68°F)DB)

* Thermo off(Fan) operation automatically starts either when temperature is lower than 21°C(70°F)DB in cooling mode or when the temperature exceeds 20°C(68°F)DB in heating mode.

7. As the room temp in sensed by the thermo in the remote controller or the one in the room, be sure to use either remote controller or room thermo.
8. Autochangeover function or Dry mode is NOT available. Fan mode operation during the thermo off in Cooling/Heating mode.
9. In any case, the air flow rate should be kept lower than 110% of the above chart. Please see "Fan curves" for the details.
10. When this unit is used as sole A/C system, be careful about the dew in air outlet grilles in cooling mode.
11. Un-conditioned outdoor air such as humid air or cold air blows to the indoor during thermo off operation.

INDOOR UNIT
Ceiling suspended type

PCFY-P VKM-E

Designed for ultra-quiet operation and easy maintenance, provides exceptionally comfortable air-conditioning.

Extra slim, extra stylish

Sleek and slim with stylishly curved lines, the PCFY series blends right into any interior. It also features a single air outlet which allows the auto vane to act as a shutter when the unit is turned off.

Auto vane distributes air evenly

The auto vane swings up and down automatically to distribute air more evenly to every corner of the room.

Long life filter as standard

Long life filter is equipped as standard enabling up to 2,500 hours of operation (office use) without maintenance.

Keeps airflow at optimum level according to ceiling height

The most suitable airflow can be selected for ceilings up to 4.2m high, enhancing air-conditioning efficiency and comfort. (P100/P125)

	Standard	High ceiling
Ceiling height	3.0(9-13/16)	4.2(13-3/4)

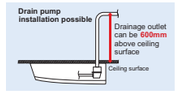
m (ft)

Greatly simplified installation

The direct suspension system eliminates the task of removing the attachment fixture from the main unit, greatly shortening

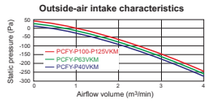
Drain pump option available with all models

The pumping height of the optional drain pump has been increased from 400 mm to 600 mm, expanding flexibility in choosing unit location during installation work.



Outside-air intake

Units are equipped with a knock-out hole that enables the induction of fresh outside-air.



Equipped with automatic air-speed adjustment

In addition to the conventional 4-speed setting, units are now equipped with and 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 decreased automatically for stable comfortable heating/cooling operation.

▸Specifications

			PCFY-P40VKM-E	PCFY-P63VKM-E	PCFY-P100VKM-E	PCFY-P125VKM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz			
Cooling capacity	*1	kW	4.5	7.1	11.2	14.0
	*1	BTU/h	15,400	24,200	38,200	47,800
Heating capacity	*1	kW	5.0	8.0	12.5	16.0
	*1	BTU/h	17,100	27,300	42,700	54,600
Power consumption	Cooling	kW	0.04	0.05	0.09	0.11
	Heating	kW	0.04	0.05	0.09	0.11
Current	Cooling	A	0.28	0.33	0.65	0.76
	Heating	A	0.28	0.33	0.65	0.76
External finish(Munsell No.)			6.4Y 8.9/ 0.4			
Dimension H x W x D		mm	230 x 960 x 680	230 x 1,280 x 680	230 x 1,600 x 680	
		in.	9-1/16 x 37-13/16 x 26-3/4	9-1/16 x 50-3/8 x 26-3/4	9-1/16 x 63 x 26-3/4	
Net weight		kg(lbs.)	24(53)	32 (71)	36 (79)	38 (84)
Heat exchanger			Cross fin (Aluminum fin and copper tube)			
Fan	Type x Quantity		Sirocco fan x 2	Sirocco fan x 3	Sirocco fan x 4	
	Airflow rate (Lo-Mid2-Mid1-Hi) *2	m³/min	10-11-12-13	14-15-16-18	21-24-26-28	21-24-27-31
		L/s	167-183-200-217	233-250-267-300	350-400-433-467	350-400-450-517
		cfm	353-388-424-459	494-530-565-636	742-847-918-989	742-847-953-1,095
	External static pressure	Pa	0			
Motor	Type		DC motor			
	Output	kW	0.090	0.095	0.160	
Air filter			PP Honeycomb (long life)			
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)	
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)	ø9.52 (ø3/8)		
Field drain pipe diameter		mm(in.)	O.D. 26 (1)			
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	29-32-34-36	31-33-35-37	36-38-41-43	36-39-42-44

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(80.6°F)DB/19°C(66.2°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB,Outdoor 7°C(44.6°F)DB/6°C(42.8°F)WB

*2 Airflow rate/Sound pressure level are shown in (low-middle 2-middle 1-high)

INDOOR UNIT
Wall mounted type


PKFY-P VBM


PKFY-P VHM


PKFY-P VKM

PKFY-P VBM-E
PKFY-P VHM-E
PKFY-P VKM-E

Elegant Design and Compact Dimensions Ideal for Offices, Stores and Residential Uses.

Capacity range

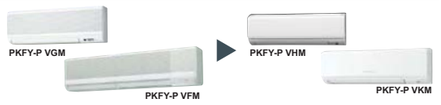
Capacity	P15	P20	P25	P32	P40	P50	P63	P100
VBM	●	●	●					
VHM				●	●	●		
VKM							●	●

4-way piping provides more flexibility in selecting installation sites

All piping including drainage can be connected from the rear, right, base, and left of the unit, providing much greater flexibility in piping and selecting installation site.

Flat panel & Pure white finish

All models have changed from the grill design, adopting the flat panel layout.
Pursuing a design that harmonizes with virtually any interior, the unit color has been changed from white to pure white.



Built-in signal receiver

PKFY-P VBM features

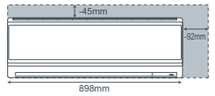
Compact profile

Quiet operation

PKFY-P VHM features

Compact size of 898mm

Width size reduced to match small size buildings and offices.



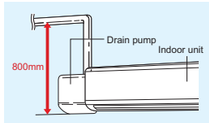
Comparison with PKFY-P VGM-E

Light unit

Approx. 3kg reduced from conventional model (P32-50). Easier installation.

Drain pump (option)

The optional drain pump allows the drain connection to be raised as high as 800mm, allowing more freedom in piping layout design.



▸Specifications

			PKFY-P15VBM-E	PKFY-P20VBM-E	PKFY-P25VBM-E	PKFY-P32VHM-E	PKFY-P40VHM-E	PKFY-P50VHM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220V 60Hz					
Cooling capacity	*1	kW	1.7	2.2	2.8	3.6	4.5	5.6
	*1	BTU/h	5,800	7,500	9,600	12,300	15,400	19,100
Heating capacity	*1	kW	1.9	2.5	3.2	4.0	5.0	6.3
	*1	BTU/h	6,500	8,500	10,900	13,600	17,100	21,500
Power consumption	Cooling *4	kW	0.04			0.04		
	Heating	kW	0.04			0.03		
Current	Cooling *4	A	0.20			0.40		
	Heating	A	0.20			0.30		
External finish(Munsell No.)			Plastic (1.0Y 9.2/0.2)			Plastic (1.0Y 9.2/0.2)		
Dimension H x W x D		mm(in.)	295 x 815 x 225 (11-5/8 x 32-1/8 x 8-7/8)			295 x 898 x 249(11-5/8 x 35-3/8 x 9-13/16)		
Net weight		kg(lbs.)	10 (23)			13(29)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)					
Fan	Type x Quantity		Line flow fan x 1					
	Airflow rate (Lo-Mid2-Mid1-Hi) *2	m³/min	4.9-5.0-5.2-5.3	4.9-5.2-5.6-5.9		9-10-11	9-10.5-11.5	9-10.5-12
		L/s	82-83-87-88	82-87-93-98		150-167-183	150-175-192	150-175-200
		cfm	173-177-184-187	173-184-198-208		318-353-388	318-371-406	318-371-424
	External static pressure	Pa	0					
Motor	Type		1-phase induction motor			DC motor		
	Output	kW	0.017			0.030		
Air filter			PP Honeycomb					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø12.7 (ø1/2) / ø15.88 (ø5/8) (Compatible)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø6.35 (ø1/4) / ø9.52 (ø3/8) (Compatible)
Field drain pipe diameter		mm(in.)	I.D.16 (5/8)					
Sound pressure level (Lo-Mid2-Mid1-Hi) *2 *3		dB(A)	29-31-32-33	29-31-34-36		34-37-41	34-38-41	34-39-43

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB,Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-middle2-middle1-high).

*3 It is measured in anechoic room.

*4 Electrical characteristic of cooling are included optional drain-pump.

			PKFY-P63VKM-E	PKFY-P100VKM-E
Power source			1-phase 220-230-240V 50Hz / 1-phase 220V 60Hz	
Cooling capacity	*1	kW	7.1	11.2
	*1	BTU/h	24,200	38,200
Heating capacity	*1	kW	8.0	12.5
	*1	BTU/h	27,300	42,600
Power consumption	Cooling *4	kW	0.05	0.08
	Heating	kW	0.04	0.07
Current	Cooling *4	A	0.37	0.58
	Heating	A	0.30	0.51
External finish(Munsell No.)			Plastic (1.0Y 9.2/0.2)	
Dimension H x W x D		mm(in.)	365 x 1,170 x 295 (14-3/8 x 46-1/16 x 11-5/8)	
Net weight		kg(lbs.)	21 (46)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	
Fan	Type x Quantity		Line flow fan x 1	
	Airflow rate (Lo-Hi) *2	m³/min	16-20	20-26
		L/s	267-333	333-433
		cfm	565-706	706-918
	External static pressure	Pa	0	
Motor	Type		DC motor	
	Output	kW	0.056	
Air filter			PP Honeycomb	
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø15.88 (ø5/8)	ø15.88 (ø5/8) / ø19.05 (ø3/4) (Compatible)
	Liquid (Flare)	mm(in.)	ø9.52 (ø3/8)	
Field drain pipe diameter		mm(in.)	I.D. 16(5/8)	
Sound pressure level (Lo-Hi) *2 *3		dB(A)	39-45	41-49

Notes:

*1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor : 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB

*2 Airflow rate/Sound pressure level are in (low-high).

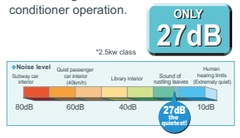
INDOOR UNIT
Floor standing exposed

PFFY-P VKM-E

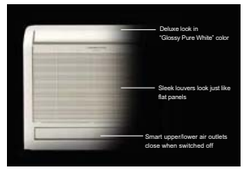
For living rooms, bed rooms, or offices where a sophisticated design is required. The latest Mitsubishi innovation – floor-standing air-conditioner sophisticated in design, rich in function.

Quiet operation

Mitsubishi Electric air conditioners have always been some of the quietest models available in the market. Our new floorstanding models are no exception.
It can create a silent and comfortable space where the occupants would not even recognize the existence of air conditioner operation.

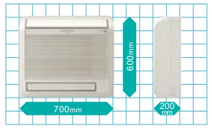


Sophisticated Design



From Mitsubishi Electric, an innovative new floor-standing air-conditioner. Our pleasing mix of streamlined form and diversified function.
Engineered to keep room walls free, furnish comfy cooling in summer, toasty heating in winter.
The "Glossy Pure White" colour ensures a deluxe look, the perfect match for any room. Both upper and lower air outlets remain closed when switched OFF, in a smart and striking image.
A superb new air-conditioner from Mitsubishi, providing a handsome fit for your own distinctive interior.

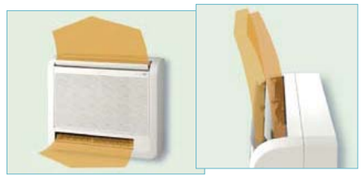
Slim but Mighty



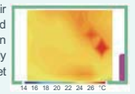
The unit body is slim and trim, the essence in compact. An ideal size for living rooms, bedrooms, and more. The removable and washable front panel makes cleaning a snap.
Easy and regular cleaning allows your air-conditioner stay beautiful while keeping its energy-efficient operation always possible.

Optimum Air Distribution

Comfy room temperatures are realized by the optimum, powerful and efficient air distribution through upper and lower air outlets.
The upper vane angle is remote controllable, with 5 air flow direction levels (+Swing and Auto modes) and 4 wind power levels (+Auto mode).
By setting the vane angle almost vertical, annoying direct wind can be avoided for your better comfort.



The air from both upper and lower air outlets is optimally controlled and distributed evenly to every corner of the room. In heating mode, the warm air is smartly controlled to stay at the floor level: Your feet do not feel chilled any more!



▸Specifications

			PFFY-P20VKM-E	PFFY-P25VKM-E	PFFY-P32VKM-E	PFFY-P40VKM-E
Power source			1-phase 220-240V 50Hz			
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5
	*1	BTU/h	7,500	9,600	12,300	15,400
Heating capacity	*1	kW	2.5	3.2	4.0	5.0
	*1	BTU/h	8,500	10,900	13,600	17,100
Power consumption	Cooling	kW	0.025	0.025	0.025	0.028
	Heating	kW	0.025	0.025	0.025	0.028
Current	Cooling	A	0.20	0.20	0.20	0.24
	Heating	A	0.20	0.20	0.20	0.24
External finish			Plastic (Pure white)			
Dimension		mm	600 x 700 x 200			
H x W x D		in.	23-5/8 x 27-9/16 x 7-7/8			
Net weight		kg(lbs.)	15 (34)			
Heat exchanger			Cross fin (Alminium plate fin and copper tube)			
Fan	Type x Quantity		Line flow fan x 2			
	Airflow rate (Lo-Mid-Hi-SHi)	m³/min	5.9-6.8-7.6-8.7	6.1-7.0-8.0-9.1	6.1-7.0-8.0-9.1	8.0-9.0-9.5-10.7
	Eaternal static pressure	Pa	0			
Motor	Type		DC motor			
	Output	kW	0.03 x 2			
Air filter			PP honeycomb fabric (Catechin Filter)			
Refrigerant pipe diameter	Gas(Flare)	mm(in.)	ø12.7 (ø1/2)			
	Liquid(Flare)	mm(in.)	ø6.35 (ø1/4)			
Field drain pipe diameter			I.D.16 (5/8)			
Sound pressure level (Lo-Mid-Hi-SHi) *2		dB(A)	27-31-34-37	28-32-35-38	28-32-35-38	35-38-42-44

Notes:

*1 Cooling/heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor : 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor : 7°C(45°F)DB/6°C(43°F)WB

INDOOR UNIT
Floor standing exposed

PFFY-P VLEM-E

Floor mounted lowboy type effective in perimeter zone.

Standardized design with mild lines.
Supports various types of spaces from office buildings and shop buildings to hospitals.
Water vapor permeable film humidifier can be installed.
Remote controller can be installed onto the main unit.

Compact unit for easy air conditioning in perimeter zone.

The compact body of 220mm(8-11/16in.) in depth can be easily installed in the perimeter zone for effective air conditioning in the perimeter zone.

Electronics dry function dehumidify refreshingly.

Optimum dehumidification depending on indoor temperature to prevent over-cooling. Refreshing dehumidification can be attained.

▸Specifications

			PFFY-P20VLEM-E	PFFY-P25VLEM-E	PFFY-P32VLEM-E	PFFY-P40VLEM-E	PFFY-P50VLEM-E	PFFY-P63VLEM-E
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
	Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current	Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
	Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsell No.)			Acrylic paint (5Y 8/1)					
Dimension H x W x D		mm	630 x 1,050 x 220		630 x 1,170 x 220		630 x 1,410 x 220	
		in.	24-13/16 x 41-3/8 x 8-11/16		24-13/16 x 46-1/8 x 8-11/16		24-13/16 x 55-9/16 x 8-11/16	
Net weight		kg(lbs.)	23 (51)		25 (56)	26 (58)	30 (67)	32 (71)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type x Quantity		Sirocco fan x 1		Sirocco fan x 2			
	Airflow rate (Lo-Hi) *2	m³/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
		L/s	92-108		117-150	150-183	200-233	200-258
		cfm	194-230		247-318	318-388	424-494	424-547
	External static pressure	Pa	0					
Motor	Type		1-phase induction motor					
	Output	kW	0.015		0.018	0.030	0.035	0.050
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>					
Sound pressure level (Lo-Hi) *2 *3 *4		dB(A)	34-40		35-40	38-43		40-46

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB,Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

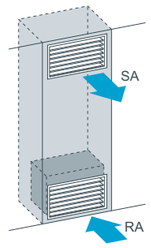
*2 Air flow rate/Sound pressure level are in (Low-High)

*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz
· 1dB(A) lower at AC230V/50Hz
· 2dB(A) lower at AC220V/50Hz

INDOOR UNIT
Floor mounted concealed type

PFFY-P VLRM-E
PFFY-P VLRMM-E

Neatly installed with pericover concealed.
Easy installation in perimeter zone.



installation image
(PFFY-P VLRMM-E)

Compact unit for easy air conditioning in perimeter zone.

The body is concealed in the pericover to pursue harmony with the interior.
The compact body of 220mm(8-11/16in.) in depth can be easily installed in the perimeter zone.

Electronics dry function dehumidify refreshingly to prevent over-cooling.

Optimum dehumidification depending on indoor temperature to prevent over-cooling. Refreshing dehumidification can be attained.

Maximum external static pressure 60Pa (VLRMM model)

The additional external static pressure capacity provides flexibility for duct extension, branching, and air outlet configuration.

▸Specifications

			PFFY-P20VLRM-E	PFFY-P25VLRM-E	PFFY-P32VLRM-E	PFFY-P40VLRM-E	PFFY-P50VLRM-E	PFFY-P63VLRM-E
Power source			1-phase 220-240V 50Hz / 1-phase 208-230V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
	Heating	kW	0.04 / 0.06		0.06 / 0.07	0.065 / 0.075	0.085 / 0.09	0.1 / 0.11
Current	Cooling	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
	Heating	A	0.19 / 0.25		0.29 / 0.30	0.32 / 0.33	0.40 / 0.41	0.46 / 0.47
External finish(Munsell No.)			Galvanized steel plate					
Dimension H x W x D		mm	639 x 886 x 220		639 x 1,006 x 220		639 x 1,246 x 220	
		in.	25-3/16 x 34-15/16 x 8-11/16		25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-1/16 x 8-11/16	
Net weight		kg(lbs.)	18.5 (41)		20 (45)	21 (47)	25 (56)	27 (60)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type x Quautity		Sirocco fan x 1		Sirocco fan x 2			
	Airflow rate (Lo-Hi) *2	m³/min	5.5-6.5		7.0-9.0	9.0-11.0	12.0-14.0	12.0-15.5
		L/s	92-108		117-150	150-183	200-233	200-258
		cfm	194-230		247-318	318-388	424-494	424-547
	External static pressure	Pa	0					
Motor	Type		1-phase induction motor					
	Output	kW	0.015		0.018	0.030	0.035	0.050
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas (Flare)	mm(in.)	ø12.7 (ø1/2)					ø15.88 (ø5/8)
	Liquid (Flare)	mm(in.)	ø6.35 (ø1/4)					ø9.52 (ø3/8)
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>					
Sound pressure level (Lo-Hi) *2 *3 *4		dB(A)	34-40		35-40	38-43		40-46

Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB

*2 Air flow rate/Sound pressure level are in (Low-High)

*3 Measured point : 1m x 1m, Power supply : AC240V/50Hz
· 1dB(A) lower at AC230V/50Hz
· 2dB(A) lower at AC220V/50Hz
· 3dB(A) lower at 1.5m x 1.5m point

*4 It is measured in anechoic room.

			PFFY-P20VLRMM-E	PFFY-P25VLRMM-E	PFFY-P32VLRMM-E	PFFY-P40VLRMM-E	PFFY-P50VLRMM-E	PFFY-P63VLRMM-E
Power source			1-phase 220-240V 50Hz / 1-phase 220-240V 60Hz					
Cooling capacity	*1	kW	2.2	2.8	3.6	4.5	5.6	7.1
	*1	BTU/h	7,500	9,600	12,300	15,400	19,100	24,200
Heating capacity	*1	kW	2.5	3.2	4.0	5.0	6.3	8.0
	*1	BTU/h	8,500	10,900	13,600	17,100	21,500	27,300
Power consumption	Cooling	kW	0.04		0.04	0.05	0.05	0.07
	Heating	kW	0.04		0.04	0.05	0.05	0.07
Current	Cooling	A	0.34		0.38	0.43	0.48	0.59
	Heating	A	0.34		0.38	0.43	0.48	0.59
External finish(Munsell No.)			Galvanized steel plate					
Dimension H x W x D		mm	639 x 886 x 220		639 x 1,006 x 220		639 x 1,246 x 220	
		in.	25-3/16 x 34-15/16 x 8-11/16		25-3/16 x 39-5/8 x 8-11/16		25-3/16 x 49-1/16 x 8-11/16	
Net weight		kg(lbs.)	18.5 (41)		20 (45)	21 (47)	25 (56)	27 (60)
Heat exchanger			Cross fin (Aluminum plate fin and copper tube)					
Fan	Type x Quautity		Sirocco fan x 1		Sirocco fan x 2			
	Airflow rate (Lo-Mid-Hi)	m³/min	4.5-5.5-6.5		6.5-7.5-9.0	8.0-9.5-11.0	10.0-12.0-14.0	11.0-13.0-15.5
		L/s	75-92-108		108-125-150	133-158-183	167-200-233	183-217-258
		cfm	159-194-230		230-265-318	282-335-388	353-424-494	388-459-547
	External static pressure *2	Pa	20/40/60					
Motor	Type		DC motor					
	Output	kW	0.096					
Air filter			PP Honeycomb fabric (washable)					
Refrigerant pipe diameter	Gas	mm(in.)	ø12.7 (ø1/2) Brazed					ø15.88 (ø5/8) Brazed
	Liquid	mm(in.)	ø6.35 (ø1/4) Brazed					ø9.52 (ø3/8) Brazed
Field drain pipe diameter		mm(in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end :20 (13/16))>					
Sound pressure level (Lo-Mid-Hi) *3	20Pa	dB(A)	31-36-40		27-32-37	30-36-40	32-37-41	35-40-44
	40Pa	dB(A)	34-39-42		30-35-41	32-38-42	35-40-44	36-42-47
	60Pa	dB(A)	35-40-43		32-37-42	3.5-39-44	36-41-45	38-43-48

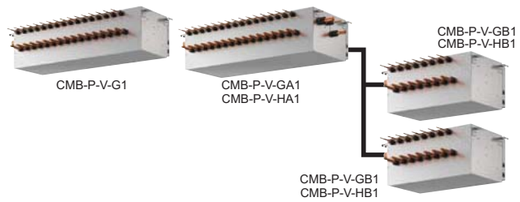
Notes:

*1 Cooling/Heating capacity indicates the maximum value at operation under the following condition.
Cooling Indoor : 27°C(81°F)DB/19°C(66°F)WB, Outdoor 35°C(95°F)DB
Heating Indoor : 20°C(68°F)DB, Outdoor 7°C(45°F)DB/6°C(43°F)WB
pipe length : 7.5m(24-9/16ft) Height difference : 0m(0ft)

*2 The external static pressure is set to 20Pa at factory shipment.

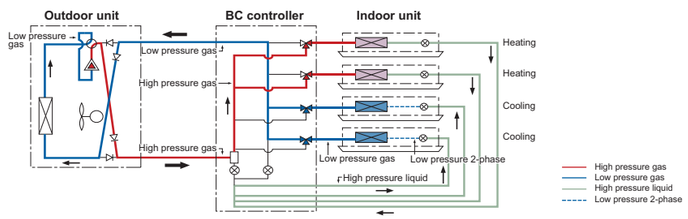
BC CONTROLLER

CMB-P-V-G1
CMB-P-V-GA1
CMB-P-V-HA1
CMB-P-V-GB1
CMB-P-V-HB1



BC CONTROLLER

In many ways, the BC Controller is the technological heart of the CITY MULTI R2/WR2. It works in unison with the outdoor unit to provide simultaneous cooling and heating, something no other two-pipe system can do. The BC Controller is connected to the outdoor unit by two pipes and to each indoor unit by a series of two refrigerant pipes, depending on the indoor unit count. The BC Controller is required for all CITY MULTI R2-Series installations. It comes in 4, 5, 6, 8, 10, 13, and 16-branch options. The BC Controller you select depends on how many indoor units will be operated from each outdoor unit and your total capacity requirements.



▸Specifications

Model name				CMB-P104V-G1	CMB-P105V-G1	CMB-P106V-G1	CMB-P108V-G1	CMB-P1010V-G1	CMB-P1013V-G1	CMB-P1016V-G1
Number of branch				4	5	6	8	10	13	16
Power source				1-phase 220/230/240V 50Hz/60Hz						
Power input	kW	50Hz	Cooling	0.067/0.076/0.085	0.082/0.093/0.104	0.097/0.110/0.123	0.127/0.144/0.161	0.156/0.177/0.198	0.201/0.228/0.255	0.246/0.279/0.312
			heating	0.030/0.034/0.038	0.038/0.043/0.048	0.045/0.051/0.057	0.060/0.068/0.076	0.075/0.085/0.095	0.097/0.110/0.123	0.119/0.135/0.151
		60Hz	Cooling	0.054/0.061/0.067	0.066/0.074/0.082	0.078/0.088/0.097	0.102/0.115/0.127	0.126/0.141/0.156	0.162/0.182/0.201	0.198/0.222/0.246
			heating	0.024/0.027/0.030	0.030/0.034/0.038	0.036/0.041/0.045	0.048/0.054/0.060	0.060/0.068/0.075	0.078/0.088/0.097	0.096/0.108/0.119
Current	A	50Hz	Cooling	0.31/0.34/0.36	0.38/0.41/0.44	0.45/0.48/0.52	0.58/0.63/0.68	0.71/0.77/0.83	0.92/1.00/1.07	1.12/1.22/1.30
			heating	0.14/0.15/0.16	0.18/0.19/0.20	0.21/0.23/0.24	0.28/0.30/0.32	0.35/0.37/0.40	0.45/0.48/0.52	0.55/0.59/0.63
		60Hz	Cooling	0.25/0.27/0.28	0.30/0.33/0.35	0.36/0.39/0.41	0.47/0.50/0.53	0.58/0.62/0.65	0.74/0.80/0.84	0.90/0.97/1.03
			heating	0.11/0.12/0.13	0.14/0.15/0.16	0.17/0.18/0.19	0.22/0.24/0.25	0.28/0.30/0.32	0.36/0.39/0.41	0.44/0.47/0.50
External finish				Galvanized steel plate (Lower part drain pan painting N1.5)						
Indoor unit capacity connectable to 1 branch				Model P80 or smaller (•Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)						
Connectable Outdoor unit ★				Refer to the combination chart of BC controller R2/WR2 series						
Height		mm		284						
Width		mm		648						1098
Depth		mm		432						
Refrigerant piping diameter	To outdoor unit			Connectable outdoor unit capacity						
				P200		P250, P300			P350	
		High pressure pipe		ø15.88 (ø5/8) Brazed		ø19.05 (ø3/4) Brazed			ø19.05 (ø3/4) Brazed	
		Low pressure pipe		ø19.05 (ø3/4) Brazed		ø22.2 (ø7/8) Brazed			ø28.58 (ø1-1/8) Brazed	
	To indoor unit	Liquid pipe		Indoor unit Model 50 or smaller:ø6.35 brazed, Over 50:ø9.52 brazed (ø12.7 with optional joint pipe used.)						
		Gas pipe		Indoor unit Model 50 or smaller:ø12.7 brazed, Over 50:ø15.88 brazed (ø19.05 with optional joint pipe used.)						
Drain pipe				O.D. 32mm						
Net weight		kg		24	27	28	33	38	45	52
Accessories				•Drain connection pipe (with flexible hose and insulation) •Reducer						

Model name				CMB-P104V-GB1	CMB-P108V-GB1	CMB-P1016V-HB1
Number of branch				4	8	16
Power source				1-phase 220/230/240V 50Hz/60Hz		
Power input	kW	50Hz	Cooling	0.060/0.068/0.076	0.119/0.135/0.151	0.237/0.269/0.301
			heating	0.030/0.034/0.038	0.060/0.068/0.076	0.119/0.135/0.151
		60Hz	Cooling	0.048/0.054/0.060	0.096/0.108/0.119	0.192/0.216/0.237
			heating	0.024/0.027/0.030	0.048/0.054/0.060	0.096/0.108/0.120
Current	A	50Hz	Cooling	0.28/0.30/0.32	0.55/0.59/0.63	1.08/1.17/1.26
			heating	0.14/0.150.16	0.28/0.30/0.32	0.55/0.59/0.63
		60Hz	Cooling	0.22/0.24/0.25	0.44/0.47/0.50	0.88/0.94/0.99
			heating	0.11/0.12/0.13	0.22/0.24/0.25	0.44/0.47/0.50
External finish				Galvanized steel plate (Lower part drain pan painting N1.5)		
Indoor unit capacity connectable to 1 branch				Model P80 or smaller (•Use optional joint pipe combing 2 branches when the total unit capacity exceeds 81.)		
Connectable Outdoor unit ★				Refer to the combination chart of BC controller R2/WR2 series		
Height		mm		284		284
Width		mm		648		1,098
Depth		mm		432		432
Refrigerant piping diameter	To Main BC controller			Total indoor unit capacity connected this Sub BC controller		
				~P200, P201~P350		~P200, P201~P450
		High pressure pipe		ø15.88 (ø5/8) Brazed	ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed
		Low pressure pipe		ø19.05 (ø3/4) Brazed	ø22.2 (ø7/8) Brazed	ø28.58 (ø1-1/8) Brazed
		Liquid pipe		ø9.52 (ø3/8) Brazed	ø12.7 (ø1/2) Brazed	ø15.88 (ø5/8) Brazed
	To indoor unit	Liquid pipe		Indoor unit Model 50 or smaller:ø6.35 brazed, Over 50:ø9.52 brazed (ø12.7 with optional joint pipe used.)		
		Gas pipe		Indoor unit Model 50 or smaller:ø12.7 brazed, Over 50:ø15.88 brazed (ø19.05 with optional joint pipe used.)		
Drain pipe				O.D. 32mm		
Net weight		kg		22	32	55
Accessories				•Drain connection pipe (with flexible hose and insulation) •Reducer		

★Combination chart of BC Controller for R2 series

	P200,250,300,350	P400-650	P700-900
CMB-P V-G1	○	×	×
CMB-P V-GA1	○	○	×
CMB-P V-HA1	×	×	○
CMB-P V-GB1	○	○	○
CMB-P V-HB1	○	○	○

★Combination chart of BC Controller for WR2 series

	P200,250,300	P400,450,500,550,600
CMB-P V-G1	○	×
CMB-P V-GA1	○	○
CMB-P V-HA1	×	×
CMB-P V-GB1	○	○
CMB-P V-HB1	○	○

Notes:

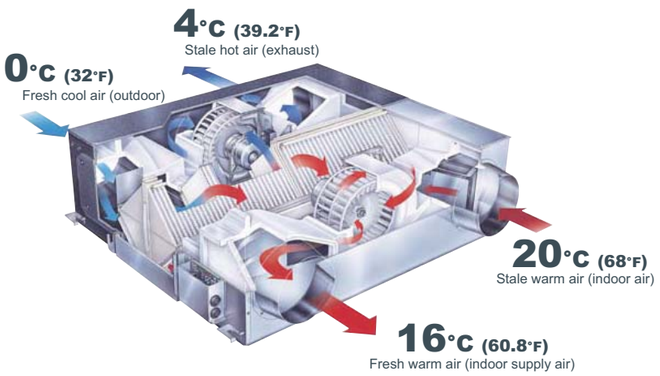
1. The equipment is for R410A refrigerant.
2. Install this product is a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.(For use in quiet environments with low background noise, position the BC CONTROLLER at least 5 m away from any indoor units.)
5. For sub BC controller CMB-P-B-GB1 the connectable indoor unit capacities may sum to equal that of a P350 unit or less. However, if two sub controllers are used the TOTAL sum of connectable units connected to BOTH sub controllers must also not exceed that a P350 unit. For sub BC controller CMB-P-1016V-HB1 the connectable indoor unit capacities may sum to

Lossnay

RX5 SERIES

The Ventilation System for Enhanced Air Quality - Lossnay

Combine with Lossnay Ventilation System Enhanced Air Quality.
Unified Control System Allows Greater Design Freedom.



LGH-15RX5 [150m³/h Single phase 220-240V 50Hz]
LGH-25RX5 [250m³/h Single phase 220-240V 50Hz]
LGH-35RX5 [350m³/h Single phase 220-240V 50Hz]
LGH-50RX5 [500m³/h Single phase 220-240V 50Hz]
LGH-65RX5 [650m³/h Single phase 220-240V 50Hz]
LGH-80RX5 [800m³/h Single phase 220-240V 50Hz]
LGH-100RX5 [1000m³/h Single phase 220-240V 50Hz]
LGH-150RX5 [1500m³/h Single phase 220-240V 50Hz]
LGH-200RX5 [2000m³/h Single phase 220-240V 50Hz]

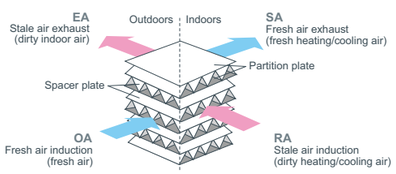
Heat-Exchange Efficiency Obtainable Only with Lossnay.

The secret to the unmatched comfort provided by Lossnay core is the cross-flow, plate-fin structure off the heat-exchange unit. A diaphragm made of a specially processed paper fully separates inducted and exhausted air supplies, ensuring that only fresh air is introduced to the indoor environment.
The superior heat-transfer and moisture permeability of the special paper assure highly effective total heat exchange (temperature and humidity) when inducted and exhausted air supplies cross in the Lossnay core.

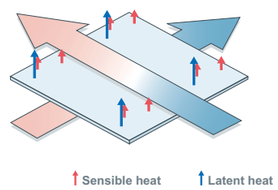
LOSSNAY Technology

- **Two paths ventilation**
  LOSSNAY simultaneously intakes Fresh Air and exhausts Dirty Air.
- **Total energy recover**
  LOSSNAY returns BOTH sensible heat and latent heat.

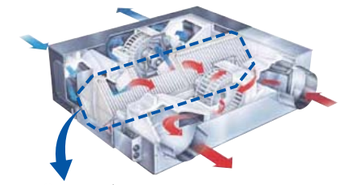
A. Two paths ventilation



B. Total Energy transfer



- **Hyper Eco Core**
  Better energy conservation by improved total heat exchange efficiency.

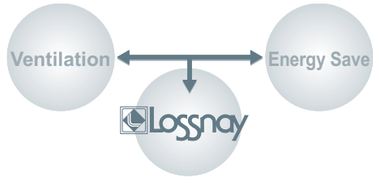


Introducing the new Hyper Eco Element

Mitsubishi's newly developed Hyper Eco Element is on board, offering the industry's best total heat exchange efficiency. Energy conservation performance has been improved not only by reducing the air conditioning load associated with ventilation, but also by facilitating humidity penetration.

Why LOSSNAY is necessary.

- **Without ventilation...**
  Lack of Ventilation makes people sick by dirty indoor air including CO_2, Dust, Bacteria.
- **If just opening windows...**
  Opening windows eliminates dirty air BUT wastes much air-con energy.
- **So we recommend LOSSNAY**
  LOSSNAY is simultaneous pursuit of Ventilation and Energy Saving.

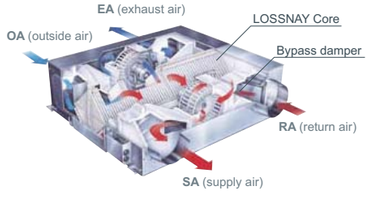


- **This is LOSSNAY !**

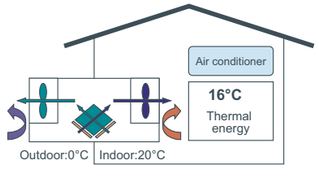
ADVANTAGES

Clean air supply, dirty air exhaust by Two air paths (OA→ SA and RA→ EA)
Energy recovery by LOSSNAY Core
Free cooling by bypass damper
MULTI VENTILATION MODE for multi ventilation request (Power supply, Power supply/exhaust, Power exhaust)

UNIT STRUCTURE



Energy Recovery Image

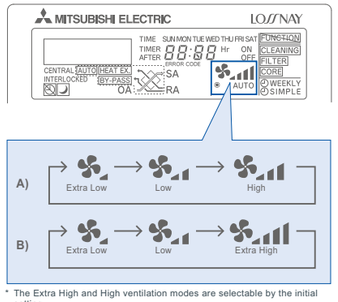


How much recovery?
OA temp. : 0°C → SA temp. : 16°C (Indoor 20°C)

Extra Low Mode

■Additional energy conservation by using a four-level air volume system that allows more precise control.

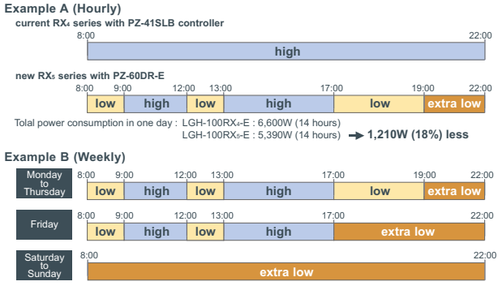
In addition to the conventional Extra High, High, and Low modes, an Extra Low mode is added to provide a more dynamic range of air volume settings and versatility in a variety of installation environments, yielding much better energy conservation. Using a simplified timer function, it switches to Extra Low operation when the operation stop button is activated and it is accordingly possible to implement 24-hour energy conservation ventilation.



* The Extra High and High ventilation modes are selectable by the initial setting.
* Extra-Low not equipped LGH-150RX$_5$ and 200RX$_5$.
* The ventilation mode is actually selected in three levels, and the remote controller also displays these three levels.

Energy Saving by WEEKLY timer

Air volume level can be set hourly (max 8 times) and weekly. You can pre-set air volume according to the predictable requirement so that LOSSNAY can automatically operate at only necessary air-speed at the specified time period, which saves power consumption while maintaining the indoor air quality. Besides, once the weekly timer has been set, no switching on-off is required.



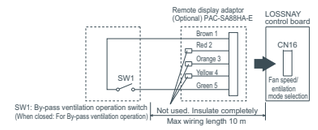
New function: "By-pass" Ventilation External Control Setting

In addition to the automatic damper open/close function, open/close control via external devices is now possible, delivering a “By-pass” ventilation system that is suitable to the installed environment.

Establish the wire connection by inserting the optional remote display adaptor (PAC-SA88HA-E) in the connector CN16 (Ventilation mode selector).

With SW1 is “ON”, the ventilation mode of LOSSNAY is changed to the By-pass ventilation regardless of the setting on the remote controller.

Control devices (example)
· Temperature sensor
· Humidity sensor
· Timers



•Automatic ventilation setting
The automatic damper mode automatically provides the correct ventilation for the conditions in the room. The following shows the effect “By-pass” ventilation will have under various conditions.

1. Reduces cooling load
If the air outside is cooler than the air inside the building during the cooling season (such as early morning or at night), “By-pass” ventilation will draw in the cooler outside air and reduce the cooling load on the system.

2. Night purge
“By-pass” ventilation can be used to release hot air from inside the building that has accumulated in buildings a business district during the hot summer season.

3. Office equipment room cooling
During cold season, fresh air can be drawn in and used as is to cool rooms where the temperature has risen due to the use of office equipment.

* When the outdoor air tempereture drops lower than 8°C it changes to the heat exchange ventilation. (Display of the remote controller does not change.)
* In the case of “By-pass” ventilation, the supply air temperature slightly rises more than the outside air temperature because of the heat effect around the ducts or the unit motors.

New Remote Controller PZ-60DR-E

A new remote controller for the RX5 series is now available. In addition to boosting the energy conservation performance of the main unit, the remote controller features a variety of new functions which also pursue additional energy conservation.
The appearance of the remote controller conforms to Mitsubishi air conditioner interface design standards.
Functions that were set using Dip-Switch on the LOSSNAY main unit can now be configured as needed using the new remote controller.
This eliminates the need to crawl under the eaves to change operation settings.
Also, a newly adopted dot matrix display provides much more information, making it easy to check maintenance indications, operation status display, and explanations required when configuring settings.

Model line up

■ Specification

LGH-15~100RX5-E

LGH-15RX5-E

Model		LGH-15RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		0.44-0.46	0.37-0.38	0.25-0.25	0.14-0.15	0.45-0.46	0.37-0.38	0.25-0.26	0.14-0.15
Power consumption (W)		96-110	80-90	53-59	30-35	97-110	81-91	54-61	30-35
Air volume	(m³/h)	150	150	110	70	150	150	110	70
	(L/s)	42	42	31	19	42	42	31	19
External static pressure	(mmH₂O)	10.2-10.7	6.6-7.1	3.6-4.1	1.4	10.2-10.7	6.6-7.1	3.6-4.1	1.4
	(Pa)	100-105	65-70	35-40	14	100-105	65-70	35-40	14
Temperature exchange efficiency (%)		82.0	82.0	84.0	85.5	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	75.0	75.0	77.5	81.0	—	—	—	—
	Cooling	73.0	73.0	76.5	81.0	—	—	—	—
Noise (dB)	(Measured at 1.5m under the center of panel in an anechoeic chamber)	27.5-28	26.5-27	22-23.5	18	28.5-29	27-28	23-24	18-19
Weight (kg)		20							
Starting current		Under 0.8 A Less							

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 6 dB greater than the indicated value. (at High Fan speed)

LGH-25RX5-E

Model		LGH-25RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		0.52-0.55	0.47-0.48	0.26-0.27	0.17-0.18	0.53-0.55	0.47-0.48	0.26-0.27	0.17-0.18
Power consumption (W)		113-129	102-114	56-62	36-42	115-131	103-115	56-63	36-42
Air volume	(m³/h)	250	250	155	105	250	250	155	105
	(L/s)	69	69	43	29	69	69	43	29
External static pressure	(mmH₂O)	8.2-8.7	5.1-6.1	2-2.5	0.9	8.2-8.7	5.1-6.1	2-2.5	0.9
	(Pa)	80-85	50-60	20-25	9	80-85	50-60	20-25	9
Temperature exchange efficiency (%)		79.0	79.0	81.5	83.5	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	69.5	69.5	74.0	77.5	—	—	—	—
	Cooling	68.0	68.0	72.5	76.0	—	—	—	—
Noise (dB)	(Measured at 1.5m under the center of panel in an anechoeic chamber)	26-27	25-26	20-21.5	18-19	26.5-27.5	25.5-26.5	20.5-22	18-19
Weight (kg)		20							
Starting current		Under 0.9 A Less							

*The Air outlets noise (45° angle,1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

LGH-35RX5-E

Model		LGH-35RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		0.92-0.92	0.74-0.74	0.5-0.51	0.28-0.3	0.93-0.94	0.77-0.77	0.51-0.52	0.28-0.3
Power consumption (W)		195-212	160-169	105-116	58-69	197-217	164-173	105-116	58-69
Air volume	(m³/h)	350	350	210	115	350	350	210	115
	(L/s)	97	97	58	32	97	97	58	32
External static pressure	(mmH₂O)	15.8-16.3	7.6-8.2	2.5-3.1	0.9	15.8-16.3	7.6-8.2	2.5-3.1	0.9
	(Pa)	155-160	75-80	25-30	9	155-160	75-80	25-30	9
Temperature exchange efficiency (%)		80.0	80.0	85.0	88.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	71.5	71.5	76.5	81.5	—	—	—	—
	Cooling	71.0	71.0	75.5	81.0	—	—	—	—
Noise (dB)	(Measured at 1.5m under the center of panel in an anechoeic chamber)	32-32	28.5-29.5	21.5-23	18	32.5-32.5	29.5-30.5	21.5-24	18
Weight (kg)		29							
Starting current		Under 2.4 A Less							

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

LGH-15~100RX5-E

LGH-15~100RX5-E

LGH-150/200RX5-E

LGH-50RX5-E

Model		LGH-50RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		1.2-1.25	1.0-1.0	0.85-0.85	0.4-0.4	1.25-1.25	1.0-1.0	0.85-0.85	0.4-0.4
Power consumption (W)		255-286	207-228	175-190	80-95	260-290	210-230	180-195	80-95
Air volume	(m^3/h)	500	500	390	180	500	500	390	180
	(L/s)	139	139	108	50	139	139	108	50
External static pressure	(mmH2O)	15.3-15.8	6.6-9.2	4.1-6.1	1.0	15.3-15.8	6.6-9.2	4.1-6.1	1.0
	(Pa)	150-155	65-90	40-60	10	150-155	65-90	40-60	10
Temperature exchange efficiency (%)		78.0	78.0	81.0	86.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	69.0	69.0	71.0	78.0	—	—	—	—
	Cooling	66.5	66.5	68.0	77.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		33-34	30.5-32	26.5-28	19	34-35	31-32.5	27-29	19
Weight (kg)		32							
Starting current		Under 3.0 A Less							

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 16 dB greater than the indicated value. (at High Fan speed)

LGH-65RX5-E

Model		LGH-65RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		1.7-1.8	1.5-1.5	1.2-1.2	0.6-0.6	1.7-1.8	1.5-1.5	1.2-1.2	0.6-0.6
Power consumption (W)		350-380	308-322	248-265	120-140	350-385	310-335	250-265	120-140
Air volume	(m^3/h)	650	650	520	265	650	650	520	265
	(L/s)	181	181	144	74	181	181	144	74
External static pressure	(mmH2O)	11.2-12.2	6.1-8.2	4.1-5.1	0.8	11.2-12.2	6.1-8.2	4.1-5.1	0.8
	(Pa)	110-120	60-80	40-50	8	110-120	60-80	40-50	8
Temperature exchange efficiency (%)		77.0	77.0	80.0	86.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	68.5	68.5	70.5	78.0	—	—	—	—
	Cooling	66.0	66.0	68.5	77.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		34-34.5	32-33	28.5-31.5	22	34.5-35	32.5-33.5	28.5-30.5	22-22.5
Weight (kg)		40							
Starting current		Under 4.4 A Less							

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 10 dB greater than the indicated value. (at High Fan speed)

LGH-80RX5-E

Model		LGH-80RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		1.75-1.75	1.6-1.6	1.45-1.45	0.60-0.65	1.75-1.75	1.6-1.6	1.45-1.45	0.60-0.65
Power consumption (W)		380-415	345-370	315-340	125-145	380-415	345-370	315-340	120-145
Air volume	(m^3/h)	800	800	700	355	800	800	700	355
	(L/s)	222	222	194	99	222	222	194	99
External static pressure	(mmH2O)	14.8-15.3	10.7-12.2	8.2-9.7	2	14.8-15.3	10.7-12.2	8.2-9.7	2
	(Pa)	145-150	105-120	80-95	20	145-150	105-120	80-95	20
Temperature exchange efficiency (%)		79.0	79.0	80.5	87.5	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	71.0	71.0	72.5	79.5	—	—	—	—
	Cooling	70.0	70.0	71.5	79.5	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		33.5-34.5	32-33	30-31	22	34.5-35.5	33-34	31-32	22
Weight (kg)		53							
Starting current		Under 3.8 A Less							

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 16 dB greater than the indicated value. (at High Fan speed)

LGH-100RX5-E

Model		LGH-100RX5-E							
Frequency / Power source		50Hz / Single phase 220-240V							
Ventilation mode		LOSSNAY ventilation				By-pass ventilation			
Fan speed		Extra High	High	Low	Extra Low	Extra High	High	Low	Extra Low
Current (A)		2.3-2.4	2.1-2.1	1.7-1.7	0.9-0.9	2.3-2.4	2.1-2.1	1.7-1.7	0.9-0.9
Power consumption (W)		500-535	445-475	350-380	175-200	510-550	460-485	365-395	175-200
Air volume	(m^3/h)	1000	1000	755	415	1000	1000	755	415
	(L/s)	278	278	210	115	278	278	210	115
External static pressure	(mmH2O)	16.3-17.3	10.2-11.2	5.6-6.1	1.8	16.3-17.3	10.2-11.2	5.6-6.1	1.8
	(Pa)	160-170	100-110	55-60	18	160-170	100-110	55-60	18
Temperature exchange efficiency (%)		80.0	80.0	83.0	87.0	—	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.5	72.5	74.0	80.0	—	—	—	—
	Cooling	71.0	71.0	73.0	79.0	—	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		36-37	34-35	31-32.5	21-22	37-38	35-36	32-33	21-22
Weight (kg)		59							
Starting current		Under 4.6 A Less							

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 17 dB greater than the indicated value. (at High Fan speed)

LGH-150RX5-E

Model		LGH-150RX5-E					
Frequency / Power source		50Hz / Single phase 220-240V					
Ventilation mode		LOSSNAY ventilation			By-pass ventilation		
Fan speed		Extra High	High	Low	Extra High	High	Low
Current (A)		3.5-3.5	3.2-3.2	2.9-2.9	3.5-3.5	3.2-3.2	2.9-2.9
Power consumption (W)		760-830	690-740	630-680	765-835	695-745	635-685
Air volume	(m^3/h)	1500	1500	1300	1500	1500	1300
	(L/s)	417	417	361	417	417	361
External static pressure	(mmH2O)	16.3-17.8	13.3-13.8	9.7-10.2	16.3-17.8	13.3-13.8	9.7-10.2
	(Pa)	160-175	130-135	95-100	160-175	130-135	95-100
Temperature exchange efficiency (%)		80.0	80.0	81.0	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.0	72.0	72.5	—	—	—
	Cooling	70.5	70.5	71.5	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		38-39	36-37.5	33.5-35	39-40.5	37.5-39	35.5-37
Weight (kg)		105					
Starting current		Under 7.3 A Less					

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 19 dB greater than the indicated value. (at High Fan speed)

LGH-200RX5-E

Model		LGH-200RX5-E					
Frequency / Power source		50Hz / Single phase 220-240V					
Ventilation mode		LOSSNAY ventilation			By-pass ventilation		
Fan speed		Extra High	High	Low	Extra High	High	Low
Current (A)		4.8-4.8	4.2-4.2	3.4-3.4	4.8-4.8	4.2-4.2	3.4-3.4
Power consumption (W)		1035-1100	910-980	715-785	1040-1110	915-980	720-785
Air volume	(m^3/h)	2000	2000	1580	2000	2000	1580
	(L/s)	556	556	439	556	556	439
External static pressure	(mmH2O)	16.3-16.8	10.2-10.7	6.1-6.6	16.3-16.8	10.2-10.7	6.1-6.6
	(Pa)	160-165	100-105	60-65	160-165	100-105	60-65
Temperature exchange efficiency (%)		80.0	80.0	83.0	—	—	—
Enthalpy exchange efficiency (%)	Heating	72.5	72.5	73.5	—	—	—
	Cooling	71.0	71.0	72.0	—	—	—
Noise (dB) (Measured at 1.5m under the center of panel in an anechoic chamber)		39.5-40	37-38	32.5-34	40.5-41	38-39	33.5-35
Weight (kg)		118					
Starting current		Under 11.9A Less					

*The Air outlets noise (45° angle, 1.5 meters in front of the unit) is about 20 dB greater than the indicated value. (at High Fan speed)

Lossnay

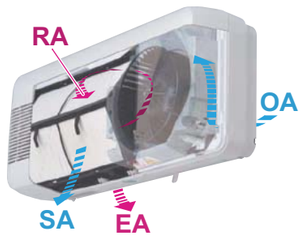
VL-100U-E

Heat Recovery Ventilators for Residential Use

Time Spent in Comfort with a Breath of Fresh Air

Energy Saving
Reduced heat loss contributes to lower air conditioning costs.

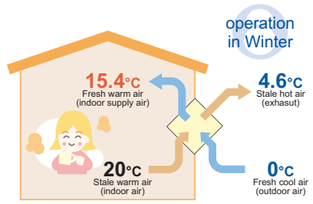
Fresh Air
Simultaneous air supply/exhaust function ensures that air stays fresh with efficient ventilation.



Quiet Operation
Super sound insulation and quiet operation.

Simple Installation
Easy Installation through boring of 2 installation holes.

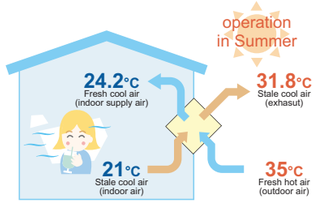
Total-Heat-Exchange Concept



•Heat-exchange calculating equation

Indoor supply-air temperature(°C) = {Indoor temperature(°C) − Outdoor temperature(°C)} × Temp exchange efficiency(%) + Outdoor temperature(°C)

Calculation example : 15.4°C = (20°C- 0°C) x 77% + 0°C (Low notch)



•Heat-exchange calculating equation

Indoor supply-air temperature(°C) = Outdoor temperature(°C) + {Indoor temperature(°C) − Outdoor temperature(°C)} × Temp exchange efficiency(%)

Calculation example : 35°C = (35°C - 21°C) x 77% (Low notch)

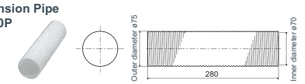
Specification

- •Simple installation through boring of 2 installation holes.
- •Low-noise(Less than 30dB at low notch).
- •1-motor 2-fan system. •Air-volume:low/high 2-notch.
- •Air-supply/exhaust pipes and plastic weather cover are supplied as accessories.
- •Equipped with an outdoor-air shutter. •Pull-string switch

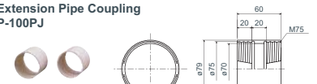
Supply Voltage (V)	Power line frequency (Hz)	Notch	Air volume (m³/h)	Power Consumption (W)	Temp.exchange efficiency (%)	Noise (dB)	Weight (kg)
220-240	50	HI	105	26	70	39	6.5
		LO	65	23	77	29.5	
220	60	HI	90	26	73	37	
		LO	50	21	80	26	

Optional parts

Extension Pipe
P-100P



Extension Pipe Coupling
P-100PJ

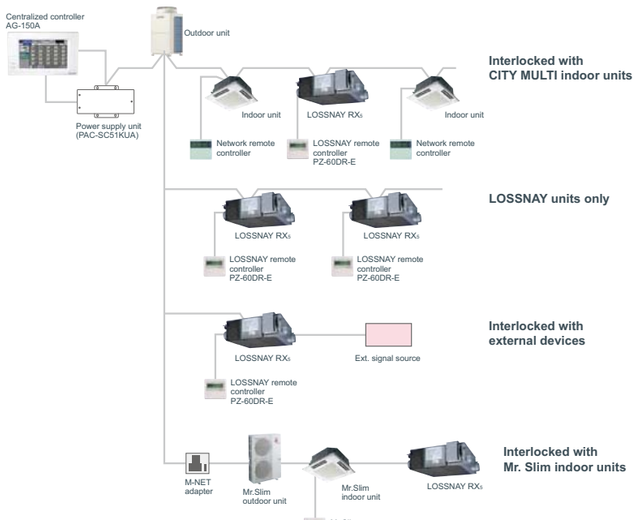


Control

■The New Remote Controller PZ-60DR-E enable simple control setting

Interlocked with Air conditioners		LOSSNAY independent
Interlocked with City Multi	Interlocked with Mr.Slim	
M-NET transmission line City Multi LOSSNAY RX₆ LOSSNAY remote controller PZ-60DR-E can be connected	Slim-LOSSNAY connection cable Mr.Slim LOSSNAY RX₆	LOSSNAY RX₆ (Max 15 unit) LOSSNAY remote controller PZ-60DR-E
PZ-52SF-E can be used insted of PZ-60DR-E, However, function is limited and connecting position is different.	The LOSSNAY remote controller (PZ-60DR-E, PZ-41SLB-E) can not be used with this system.	PZ-41SLB-E can be connected however function is limited.

■Centralized Controller System



Interlocked with CITY MULTI indoor units

LOSSNAY units only

Interlocked with external devices

Interlocked with Mr. Slim indoor units

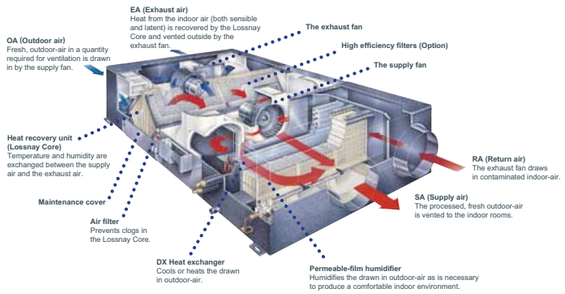
OA Processing Units

RDH3 Series

RD3 Series

Ideal Indoor-Air Quality — For Your Comfort and Health

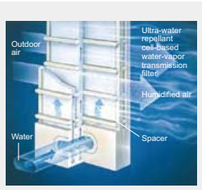
The OA (outdoor-air) Processing Unit creates an optimum indoor-air environment at an unparalleled rate of cost efficiency providing substantial energy savings. Forced air ventilating and humidifying functions unique to this system keep indoor-air fresh and free of contaminants preventing “sick building syndrome” and the spread of airborne viruses such as the flu. Another novel feature of the OA Processing Unit is the “Lossnay core,” a heat-exchange unit that functions to transfer heat efficiently, cutting ventilation load by as much as 70%. This special combination of functionality and performance designed to ensure users ample comfort and year-round health which cannot be found anywhere else on the market.



New Permeable Film Humidifier (RDH3 model)

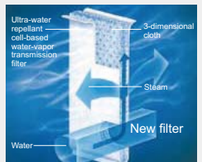
Comfortable Level of Humidity for Exceptionable Air Quality

The OA Processing Unit is equipped with a new permeable film humidifier developed and patented by Mitsubishi Electric. Steam transmission efficiency has been improved remarkably by lowering the resistance of the material. The use of a 3-layer film that allows only the transfer of steam prevents the production of white powder, so there is no need for the use of a water purifier.



Highly Efficient Humidification

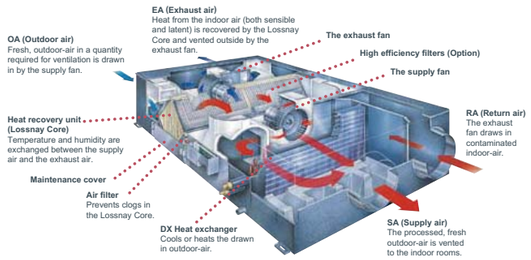
Improvements in the system of airflow patterns and water injection techniques have resulted in a substantial increase in humidifying volume.



A Total Air Conditioning Package Manifesting Remarkable Power

Lossnay Ventilation and Air Conditioning
1. When the load is light ⇒ Main air conditioning
2. When the load is heavy ⇒ Supplemental air conditioning

The OA (outdoor-air) Processing Unit creates an optimum environment while providing substantial energy savings. The OA Processing Unit comprises forced air ventilation, heat recovery, heating and cooling, and air purification. This total air conditioning system keeps indoor air fresh and comfortable all year round, and keeps it free of contaminants preventing ailments such as sick building syndrome. Inside the OA Processing Unit is the Lossnay Core, a heat-exchange unit that transfers heat efficiently, cutting ventilation load by as much as 70%. A remarkable product found nowhere else, this special combination of functionality and performance contained within a single unit ensures users ample comfort, good health, and energy savings.



The Air Conditioning Function

Two Units in One

Along with Lossnay ventilation, the OA Processing Unit is really two units in one, functioning as the main air conditioner when the load is light and adding supplemental air conditioning when the load is heavy. Also, with ventilation and air conditioning integrated, space is saved and installation expense kept to a minimum. Wha't's more, the air temperature in any room can be perfectly adjusted to the desired temperature of the occupants via the OA Processing Unit, which can be used as the indoor unit of the CITY MULTI air conditioning system. The heat recovery function maximizes efficiency and saves energy, benefiting the environment and helping companies cut costs. It also reduces the refrigerant load and lowers the amount of horsepower required by the

Temperature simulation (Example : GUF-50RD3)