



Panasonic
ideas for life



Panasonic actively develops environmentally-conscious products.

Energy

We are promoting the use of high energy-saving performance inverter technology in products. The dissemination of environment-friendly products helps to minimise energy consumption in the home and prevent global warming.

Materials

None of the products we ship contain any specified chemical substances* regardless of the market. And to reduce the environmental load of products due to the possibility of pollution after they are scrapped, we are promoting to create products that are easier to recycle.

* Lead, cadmium, hexavalent chromium, mercury, specified bromine flame retardants (PBB, PBDE)

Factories

Our manufacturing sites around the world have acquired ISO 14001 certification. We are also taking thorough steps to reduce the environmental load through energy-saving efforts and the reduction of waste and chemical emissions.

RoHS Restriction of Hazardous Substances



- Please read the Installation Manual carefully before installing the unit, and read the Operating Manual before using.
- Specifications are subject to change without notice for further improvement.
- The contents of this catalogue are effective as of September, 2008.
- Due to printing considerations, the actual colours may vary slightly from those shown.

The Solution Presented by Panasonic MASTER series

No matter what kind of house it is, modern apartment, villa or condominium(dacha), MASTER series would present the best air-conditioning solution to you. Its maximum connecting-capacity of outdoor units can exceed to 130%, one outdoor unit (10 HP) can be connected with 12 indoor units at most. You can select various indoor units to match your room interiors, so that the house looks elegant and graceful.



Three Leading Technologies Create a New Comfort for Living!

1. Inverter Can Save Energy

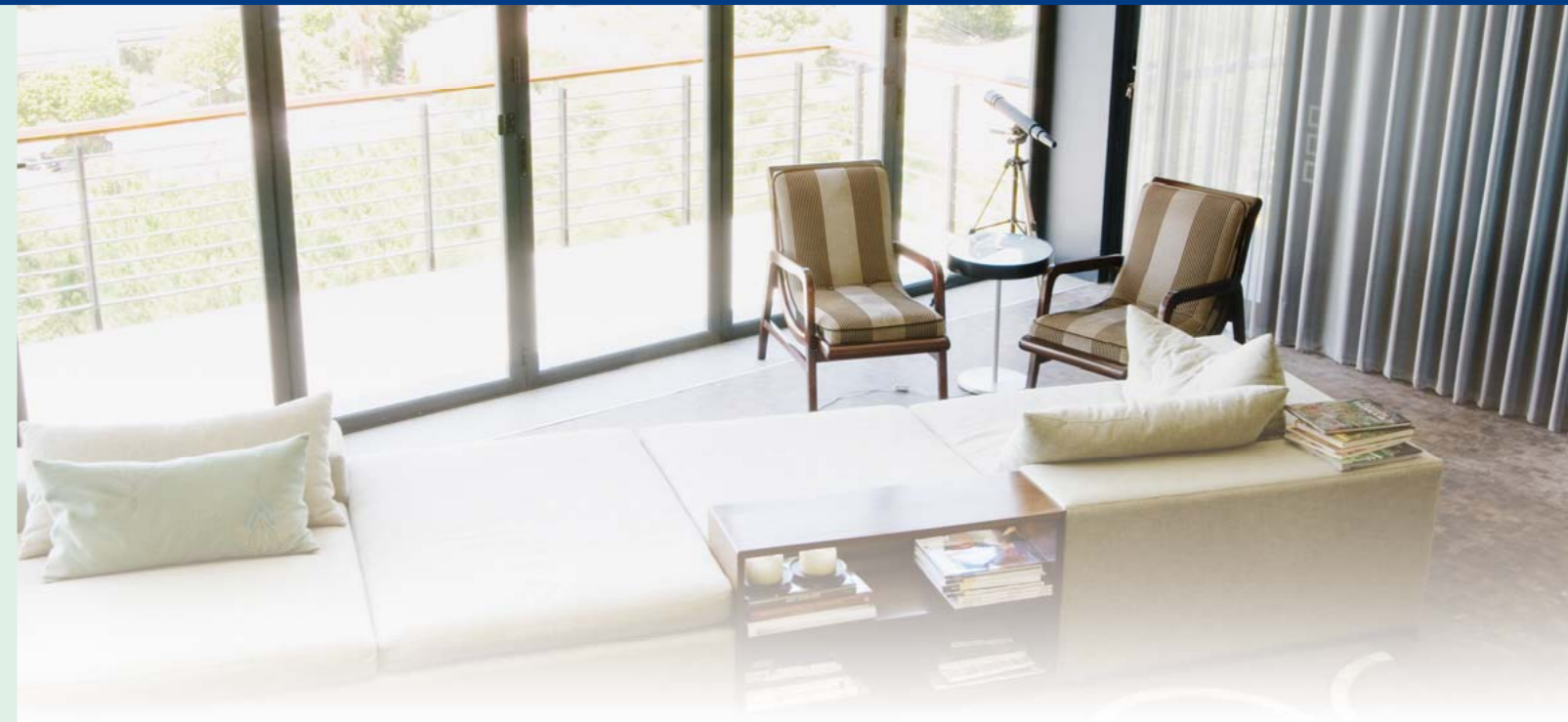
- Intelligent-inverter Compressor
- The Maximum Connecting-capacity of Outdoor Units Can Exceed to 130%
- Advanced Electric Control System

2. Humanized Designs Satisfy Your Requirements

- Accurate Temperature Control
- Long Pipe and Large Height Difference
- Multiple Outdoor Units
- Various Indoor Units

3. Intelligent Residence for a Better Life

- Auto Restart Control Function
- Self Diagnosis Function
- 24- hour Timer Setting Function



Outdoor Unit

6 HP



Model	HP	Cooling Capacity (kW)	Heating Capacity (kW)
CU-MP50DBH5	6	14.5	15.5
		220V Single Phase	

10 HP



Model	HP	Cooling Capacity (kW)	Heating Capacity (kW)
CU-MP90DBH8	10	28.0	28.0
		380V Three Phase	

Indoor Unit

Cassette Type



Model	HP	Cooling Capacity (kW)	Heating Capacity (kW)
CS-MP18DB4H5	2.0	5.1	5.6
CS-MP24DB4H5	2.5	6.1	6.7
CS-MP28DB4H5	3.0	7.1	8.0
CS-MP43DB4H5	5.0	12.0	13.5

Wall-mounted Type



Model	HP	Cooling Capacity (kW)	Heating Capacity (kW)
CS-MP9DKH5	1.0	2.6	2.9
CS-MP14DKH5	1.5	3.5	3.9
CS-MP18DKH5	2.0	4.5	5.0

Note1: All specifications are subject to change without notice.

Note2: Only use heating function when the outdoor temperature is 5°C or higher, as a supplementary heating when another main heating appliance is operating.

Multiple Outdoor Units

MASTER series owns 2 types of outdoor units, 6 HP and 10 HP. Their capacity ranges from 9.6 to 36.4 KW, perfectly suitable for stylish apartments, villas and condominium(dacha). The series adopts the most advanced intelligent inverter technology. Its outdoor unit (10 HP) can be connected with 12 indoor units at most, surely it will help you save much expenditure. Its sophisticated design presents you a simplified installation, and satisfies your residential requirements.



6 HP



10 HP

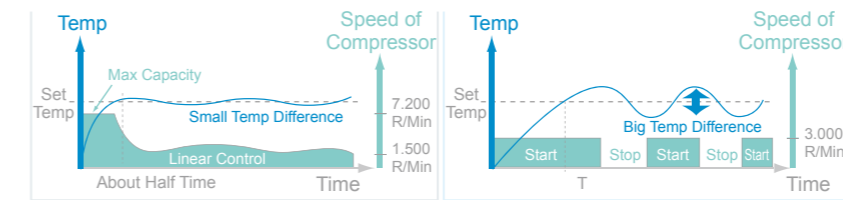
Installation Capability

Outdoor Unit	Indoor Unit	Capacity
6HP	6 Units	9.6~18.2kw
10HP	12 Units (6 Units x 2 system)	19.2~36.4kw (9.6~18.2kw x 2 system)

Differences between Inverter Air Conditioner and Non-inverter Air Conditioner

Non-inverter air conditioner, due to the frequency of electricity is constant, its compressor operates at a fixed speed, thus it cannot adjust the cooling or heating capacity in a wide range and the cooling speed is low. While trying to maintain a set temperature, it stops and starts frequently, so that the temperature fluctuates wildly and the compressor system is affected badly.

Inverter air conditioner, adopting an advanced inverter compressor system, it takes shorter time to reach the set temperature, then operates at a low frequency continuously to keep the temperature stable, saving at least 30% electricity than a non-inverter air conditioner. In winter, an inverter air conditioner has a more powerful heating capacity. Besides, leaving out the frequent 'stop and start' operation, the compressor system has a longer durability.

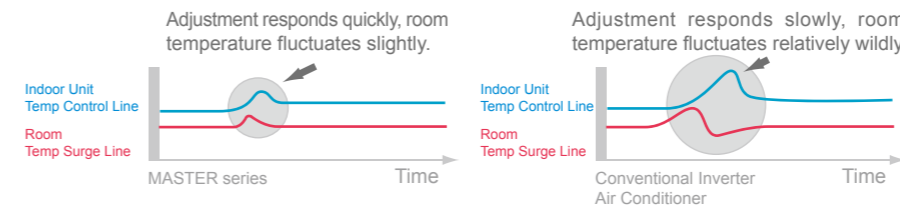


The ratio between change of temperature and capacity of inverter compressor (while heating)

The ratio between change of temperature and capacity of non-inverter compressor (while heating)

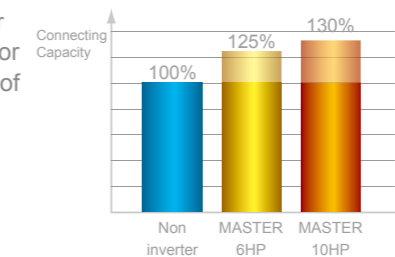
Differences between Intelligent Inverter and Conventional Inverter

An intelligent inverter responds more quickly to the change of temperature than a conventional inverter. Its advanced intelligence allows the system to sense the slight changes of the indoor condition, then processes the data and makes gentle adjustments to the temperature, keeping the room comfortable at all time.



The Maximum Connecting-capacity of Outdoor Unit can Exceed to 130%

The total capacity of the connected indoor units can exceed to 130% of the outdoor unit (10HP), saving you a big amount of expenditure.



Precise Refrigerant Control

Panasonic MASTER series adopts electronic expansion valves to precisely control the flow of refrigerant, which enables it to adjust the temperature accurately within the set range, maintaining the comfort by less power consumption.

Humanized Design

Long Piping and Large Height Difference

6 HP outdoor unit as example, its total piping can be extended up to 90 meters, height difference can reach to 30 meters, providing you more flexibility when positioning the air conditioners.

Cassette Type

You could feel its elegance at first sight, cassette type indoor unit is hidden in the ceiling, only leaving its elegant panel outside, makes your house look more elegant and refined.

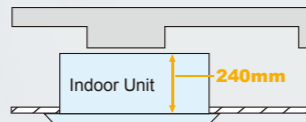


Elegant Panel, 4-direction Blow

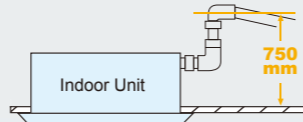
The thin and delicate body can be totally hidden in the ceiling, only leaving its elegant panel outside to decorate your room. The 4-direction blow can deliver airflows evenly throughout the room, eliminating the temperature difference.



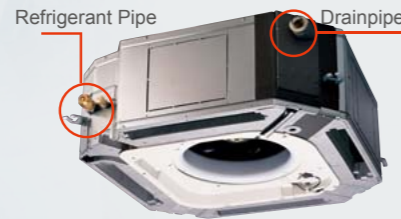
To Satisfy Requirements of Every Installation



Thin Design only 240mm* High
With only 240mm high body, fitting easily in ceiling spaces and tight spots.
*2HP / 2.5HP



750 mm Drain-Up Mechanism
The internal pump allows the drain line to be elevated up to 750 mm above the base of the unit.



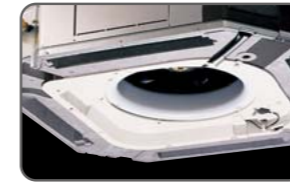
Flexible Piping Layout

Drainpipe and refrigerant pipe distributed on the different sides of the unit, giving more flexibility of piping layout. Its excellent inside heat-protection material effectively avoids frost and water-leakage, and reduces the damage possibility in the transportation.

Features

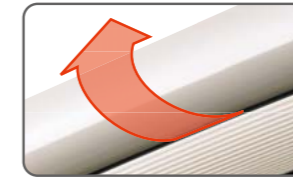
- Microcomputer Control
- Intelligent Inverter
- Powerful Cooling
- Powerful Heating
- Individual Soft Dry
- Automatic Operation
- Auto Restart Control
- Wireless Remote Controller (Option)
- Wired Remote Controller (Option)
- Centralized Controller (Option)
- Central Controller (Option)
- Remote Switch (Option)
- Intelligent Network Control System
- Auto Fan Speed
- Auto Air Swing Up/Down
- Multi-direction Blow
- Three-grade Fan Speed
- Auto Defrost
- Removable Cleaning Grilles
- Long-life Anti-dust Filter
- Removable Cleaning Filter
- Filter Cleaning Indicator
- Ventilation Joint Function
- 24 Hour ON/OFF Timer
- Self Diagnostic Function
- Signal Receiver
- Drain-up Function

Innovative Design Creates Extra Quiet Operation



More Denoising Material

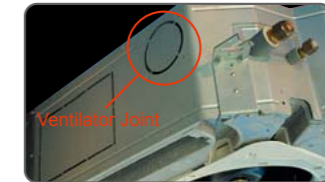
Adopting denoising material inside, improving the seal quality to isolate and reduce the operation noises.



Curved Air Outlet Vent

Curved air outlet vent makes the air blow smoothly, let you enjoy the gentle breeze without recognizing the machine existence.

Fresh and Healthy Ventilation



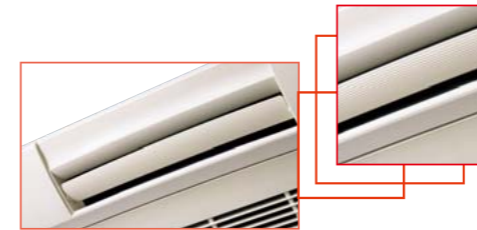
Advanced Ventilator Joint

Panasonic advanced ventilator joint design brings you fresh and healthy air.

Easy to Clean and Maintain, Energy Saving, Extra Quiet Operation, Smooth Airflow, Convenient to Install.

Dust-free and Frost-free Louver

The slit-in louver and curved outlet help to prevent frost. Eliminating conventional fibrous materials from the panel and louver, they resist soiling and can be cleaned easily.



Long-Life and Open-below Filter

Normally, this ultra long-life filter requires no cleaning up to 2500 hours operation.



Wall Mounted Type



Easy to install, compact and charming design, can integrate smoothly into your stylish room interiors.

Flexible Installation

Panasonic wall mounted model, compact and stylish design, is installable in a very limited space, without the feeling of pressure, it can integrate into your stylish room interiors.



Effective Long-life Filter

This long-life filter can trap dust mites, tobacco smoke, and other common pollutants effectively. When it has caught certain airborne particles, the clean-indicator will remind you to clean. You can remove the filter quickly with a simple one step operation, after cleaning, it can be replaced back automatically.

Self Diagnosis Function

When air conditioner has trouble, the indicator lights and codes making it easier for service technicians to diagnose problems.



Soft Dry Operation Mode

This mode can dehumidify the air while gently cooling the room without lowering the temperature too much to maintain a healthy environment.

24 Hour ON/OFF Timer

Convenient to program, you can set the on/off timer within 24hours, everything is under control, just relax and enjoy.



Features

- Microcomputer Control
- Intelligent Inverter
- Powerful Cooling
- Powerful Heating
- Individual Soft Dry
- Automatic Operation
- Auto Restart Control
- Wireless Remote Controller
- Centralized Controller (Option)
- Central Controller (Option)
- Remote Switch (Option)
- Intelligent Network Control System
- Auto Fan Speed
- Auto Air Swing Up/Down
- Three-grade Fan Speed
- Auto Defrost
- Removable Cleaning Grilles
- Removable Cleaning Filter
- Filter Cleaning Indicator
- 24 Hour ON/OFF Timer
- Self Diagnostic Function
- Signal Receiver
- Installable in Low Storey Room

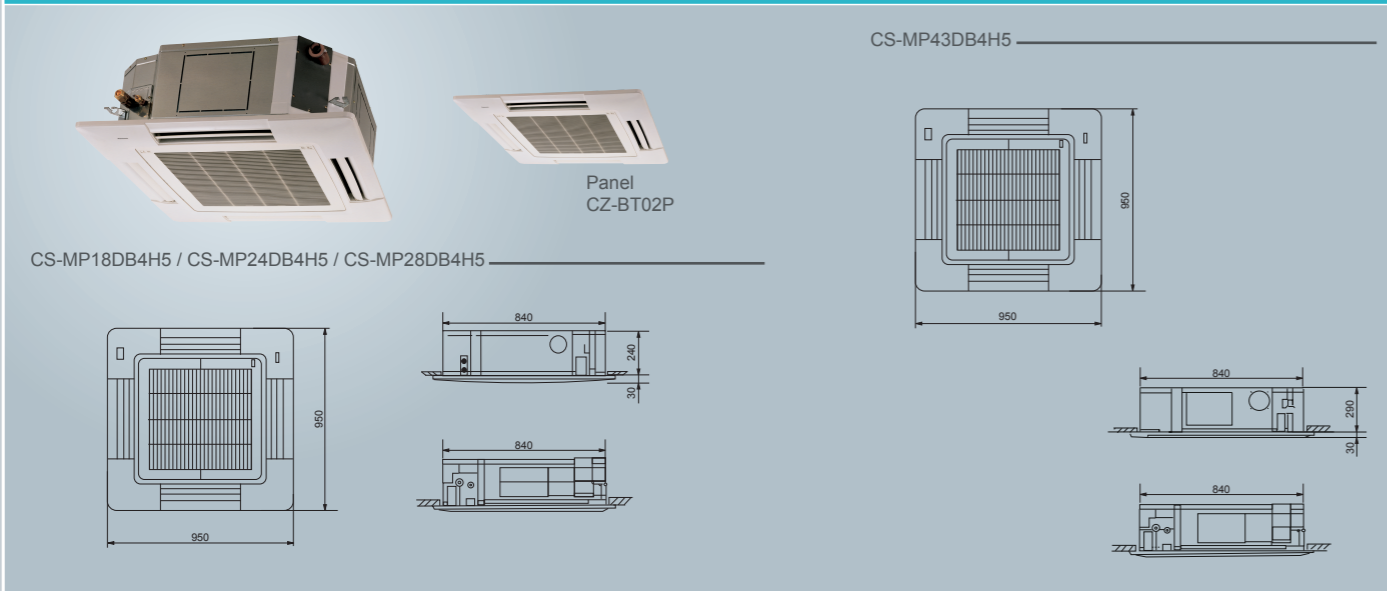
Specifications / Options

At least two indoor units must be connected.
 *Exception: Single connection of CS-MP43DB4H5 x 1 with CU-MP90DBH8 x 1 is possible.

Indoor Unit

Cassette Type

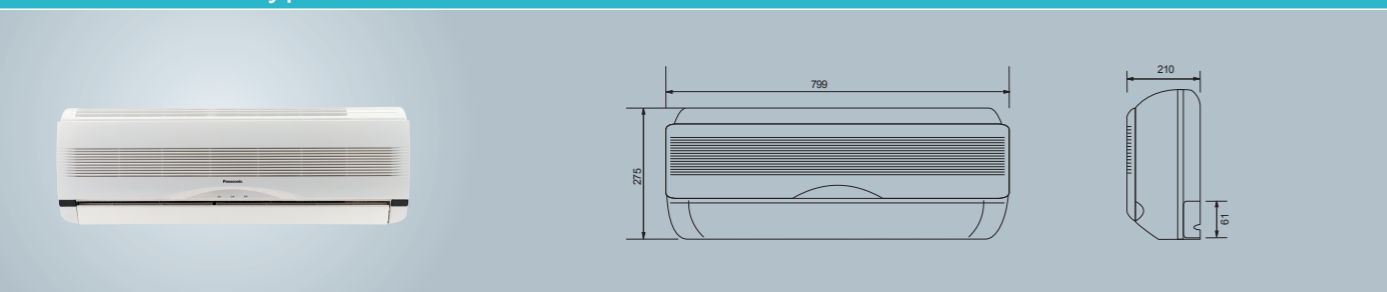
Unit: mm



Indoor unit		HP	Power Source			Cooling Capacity (kW)	Heating Capacity (kW)	Air Flow Volume (m ³ /min)			Pipe Connection (mm)		Drain Pipe (mm)	Size (mm) (H x W x D)	Net Weight (kg)
Type	Model		Phase	Voltage (V)	Hz (Hz)			Low	Medium	High	Gas. Side	Liquid. Side			
Cassette Type	CS-MP18DB4H5	2.0	Single	220	50	5.1	5.6	10.0	12.0	14.0	Ø 12.70	Ø 6.35	38	Indoor unit: 240x840x840 Panel: 30x950x950	26.5
	CS-MP24DB4H5	2.5	Single	220	50	6.1	6.7	15.0	17.0	20.0	Ø 12.70	Ø 6.35	38	Indoor unit: 240x840x840 Panel: 30x950x950	26.5
	CS-MP28DB4H5	3.0	Single	220	50	7.1	8.0	15.7	18.2	20.0	Ø 12.70	Ø 6.35	38	Indoor unit: 240x840x840 Panel: 30x950x950	26.5
	CS-MP43DB4H5	5.0	Single	220	50	12.0	13.5	20.9	22.9	25.0	Ø 19.05	Ø 9.52	38	Indoor unit: 290x840x840 Panel: 30x950x950	33.5

Wall Mounted Type

Unit: mm



Indoor unit		HP	Power Source			Cooling Capacity (kW)	Heating Capacity (kW)	Air Flow Volume (m ³ /min)			Pipe Connection (mm)		Drain Pipe (mm)	Size (mm) (H x W x D)	Net Weight (kg)
Type	Model		Phase	Voltage (V)	Hz (Hz)			Low	Medium	High	Gas. Side	Liquid. Side			
Wall Mounted Type	CS-MP9DKH5	1.0	Single	220	50	2.6	2.9	7.6	8.5	9.4	Ø 12.70	Ø 6.35	38	275x799x210	9
	CS-MP14DKH5	1.5	Single	220	50	3.5	3.9	8.1	9.1	10.0	Ø 12.70	Ø 6.35	38	275x799x210	9
	CS-MP18DKH5	2.0	Single	220	50	4.5	5.0	9.2	10.6	12.0	Ø 12.70	Ø 6.35	38	275x799x210	9

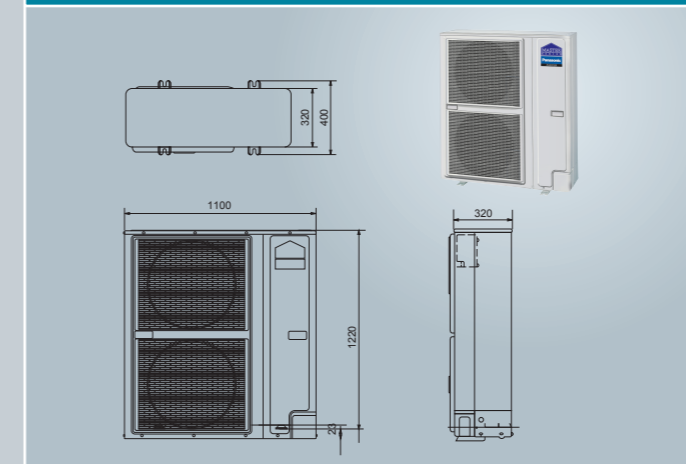
Note1: All specifications are subject to change without notice.

Note2: Only use heating function when the outdoor temperature is 5°C or higher, as a supplementary heating when another main heating appliance is operating.

Outdoor Unit

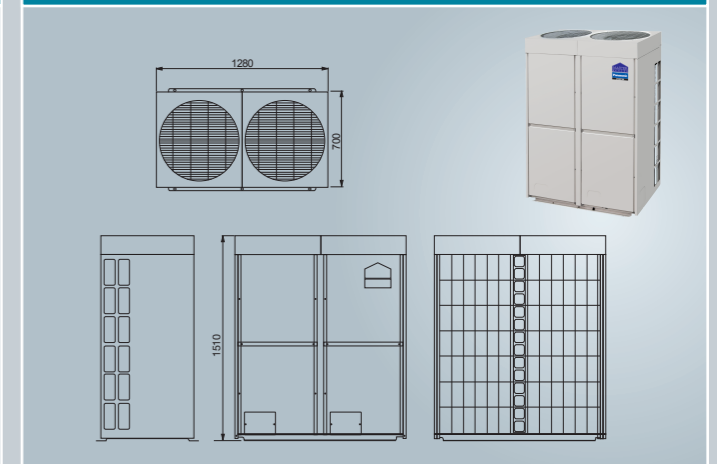
6HP

Unit: mm



10HP

Unit: mm



Outdoor Unit	HP	Power Source Phase	Voltage (V)	Cooling (kW)		Heating (kW)		Refrigerant	Allowing Pipe Length (m)				Piping Connection (mm)		Size (mm) (H x W x D)	Net Weight (kg)
				Cooling Capacity	Power Input	Heating Capacity	Power Input		Tol. Piping	Main Pipe	Outdoor Unit Height Diff	Indoor Unit Height Diff	Gas. Side	Liquid Side		
CU-MP90DBH8	10	Three	380	28.00	10.80	28.00	10.80	R22	90	40	30	15	Ø 19.05	Ø 9.52	1510x1280x700	300
CU-MP50DBH5	6	Single	220	14.50	5.50	15.50	5.50	R22	90	40	30	15	Ø 19.05	Ø 9.52	1220x1100x320	130

Note: Operation Range: Cooling 10 - 43°C / Heating 5 - 24°C*

*Only use heating function when the outdoor temperature is 5°C or higher, as a supplementary heating when another main heating appliance is operating.

Options

Controller



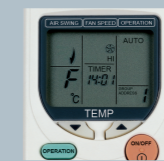
Wired Remote Controller

Cassette Type: CZ-RD511P



Wireless Remote Controller

Cassette Type: CZ-RL521BP



Self Diagnosis Function

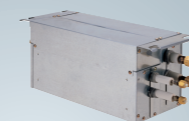
When a trouble occurs, the controller indicates "F" to help you diagnose problems.

Controllers of Indoor Units

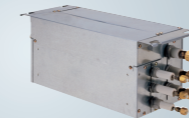
Indoor Unit	Wired Remote Controller	Wireless Remote Controller
Cassette Type	▲	▲
Wall Mounted Type		●

Note: ▲Option ●Accessory

Refrigerant Distributor



Refrigerant Distributor (2-way)
CZ-K2G1405P



Refrigerant Distributor (3-way)
CZ-K3G1805P

Notices on Refrigerant Distributor:

1. Only for wall mounted type
2. According to the number of indoor units, you can select a double-branch or triple-branch distributor flexibly.
3. If there is only one wall mounted type indoor unit, a double-branch distributor is still required.

Refrigerant Branch Pipe



CZ-H2H63BP



1. Applicable to all types of MASTER series indoor and outdoor units.
2. When installing a wall mounted type indoor unit, please connect it with a refrigerant distributor.
3. Model: CZ-H2H63BP is applicable to 6HP/10HP