Panasonic
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2010

AIR CONDITIONING // HEATING AND COOLING SYSTEMS

EVERY INSTALLATION MATTERS

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‘ECO IDEAS’ FOR PRODUCTS
We will produce energy-efficient products

‘ECO IDEAS’ FOR MANUFACTURING
We will reduce CO_2 emissions across all our manufacturing sites

‘ECO IDEAS’ FOR EVERYBODY, EVERYWHERE
We will encourage the spread of environmental activities throughout the world

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PANASONIC HEATING AND COOLING SYSTEMS
TECHNOLOGY MAKES US BETTER

With more than 30 years of experience, exporting to more than 120 countries around the world, Panasonic is unquestionably one of the leaders in the air conditioning sector. The company is also a world leader in innovation as it has filed more than 95,025 patents to improve its customers' lives. Moreover, Panasonic is determined to remain at the forefront of its market – thanks to more than 500 researchers working in European laboratories to design increasingly innovative products. In all, the company has produced more than 100 million compressors and its products are manufactured in 294 plants which are located all over the world. You can be assured of the extremely high quality of Panasonic's air conditioners.

This wish to excel has made Panasonic the international leader in heating and air conditioning solutions. The company's industrial capacity and firm commitment to the environment has enabled it to open new avenues of research and to develop innovative technologies which enhance its customers' way of life.

Panasonic offers a range of turnkey heating and air conditioning solutions for homes, medium-sized buildings such as offices and restaurants, and large-scale buildings. These offer maximum effectiveness, comply with the strictest environmental standards and meet the most avant-garde construction requirements of our time.

At Panasonic we know what a great responsibility it is to install heating and cooling systems. Because offering you the best solutions in heating and cooling matters.

EVERYTHING MATTERS

AQUAREA AIR WATER HP RANGE

Panasonic has created Aquarea, a groundbreaking low energy system for heating and domestic hot water production, even at extreme outdoor temperatures. Aquarea guarantees you unbeatable performance and comfort. An outdoor unit, which can be backed up by solar panels, heats the water used both for domestic use and for radiators or radiant floors. The system can also be connected to the existing central heating system or to solar panels.

DOMESTIC RANGE

The main new feature in the Domestic line is, without doubt, the Etherea range. With its innovative design, high efficiency and incomparable purification system, the range has been designed with your clients in mind. Above all, it is also a range for air conditioning professionals, such as yourself, thanks to its broad range of products which are capable of conditioning rooms of all sizes. The Etherea range guarantees that you are offering your clients the very best.

DRV FS MULTI RANGE

The brand new product in the DRV range is the FS Multi system, which draws on Panasonic's experience in the heating and air-conditioning of large buildings. This is the only DRV range that incorporates Ethérea indoor design units, available in white mother-of-pearl or silver grey. It is ideal for industrial or domestic installations.

COMMERCIAL RANGE

The semi-industrial range is constantly expanding so that you can always offer your clients the best solutions: high performance, silent machines and a complete range of ducts, cassettes and ceiling installations. Our machines are designed for you and are easy to install – enabling you to be increasingly competitive. Furthermore, we help you to improve the energy efficiency of your installations with Panasonic's new, extremely efficient enthalpy regenerator.

ENERGY RECOVERY VENTILATION RANGE

Energy recovery ventilators offer ventilation which increases comfort and saves energy. they efficiently recover the heat lost in ventilation during the heat recovery process. Energy consumption is dramatically reduced by using a counter-flow heatexchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings.

DRV INDUSTRIAL RANGE

And to cap it all, the industrial range considerably improves efficiency thanks to all of Panasonic's efforts in this area – large buildings benefit from a high-level of comfort with less consumption – showing that the company is serious in its wager to conserve the environment.

"GREEN" HIGH-EFFICIENT HEATING WITH PANASONIC'S NEW AIR-TO-WATER HEAT PUMP SYSTEMS

At the forefront of energy innovation, Aquarea is resolutely positioned as a "green" heating and air-conditioning system. Aquarea is part of a new generation of heating and air-conditioning systems that use a renewable, free energy source; air, to heat or cool the home and to produce hot water. The Aquarea heat pump is a much more flexible and cost-effective alternative to a traditional fossil fuel boiler.

AQUAREA

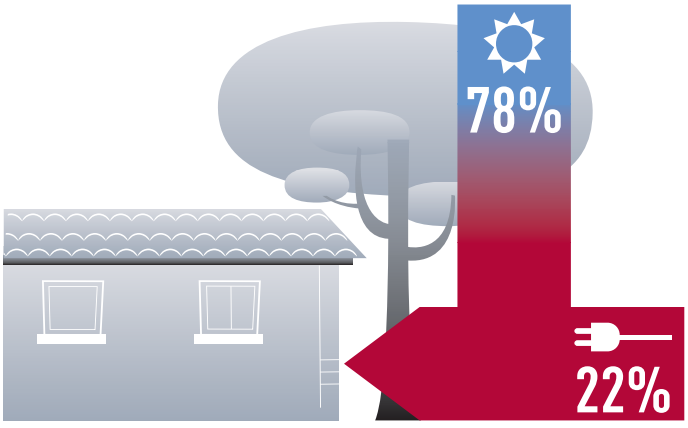
engineered for high performance

We are surrounded by free, inexhaustible energy: supplied by the sun present in all spheres of our environment, in the air, the ground, the groundwater...

Heat pumps enable us to recover this free, inexhaustible energy and to use it to heat our homes. These systems have the huge advantage, apart from reducing your electricity bill, of saving fossil fuels while at the same time limiting greenhouse gas emissions*.

Thus, Panasonic's Aquarea system is an air/water heat pump system that uses calories from the outdoor air and transmits them via a heat exchanger to the water used to heat your home in winter, in addition, some Aquarea models can even be used to cool your house in summer timer and produce your hot water all year round.

*We note that ADEME (French environmental and energy management agency) encourages consumers to choose heating and cooling systems that use heat pump systems.



UP TO 78% ENERGY SAVINGS

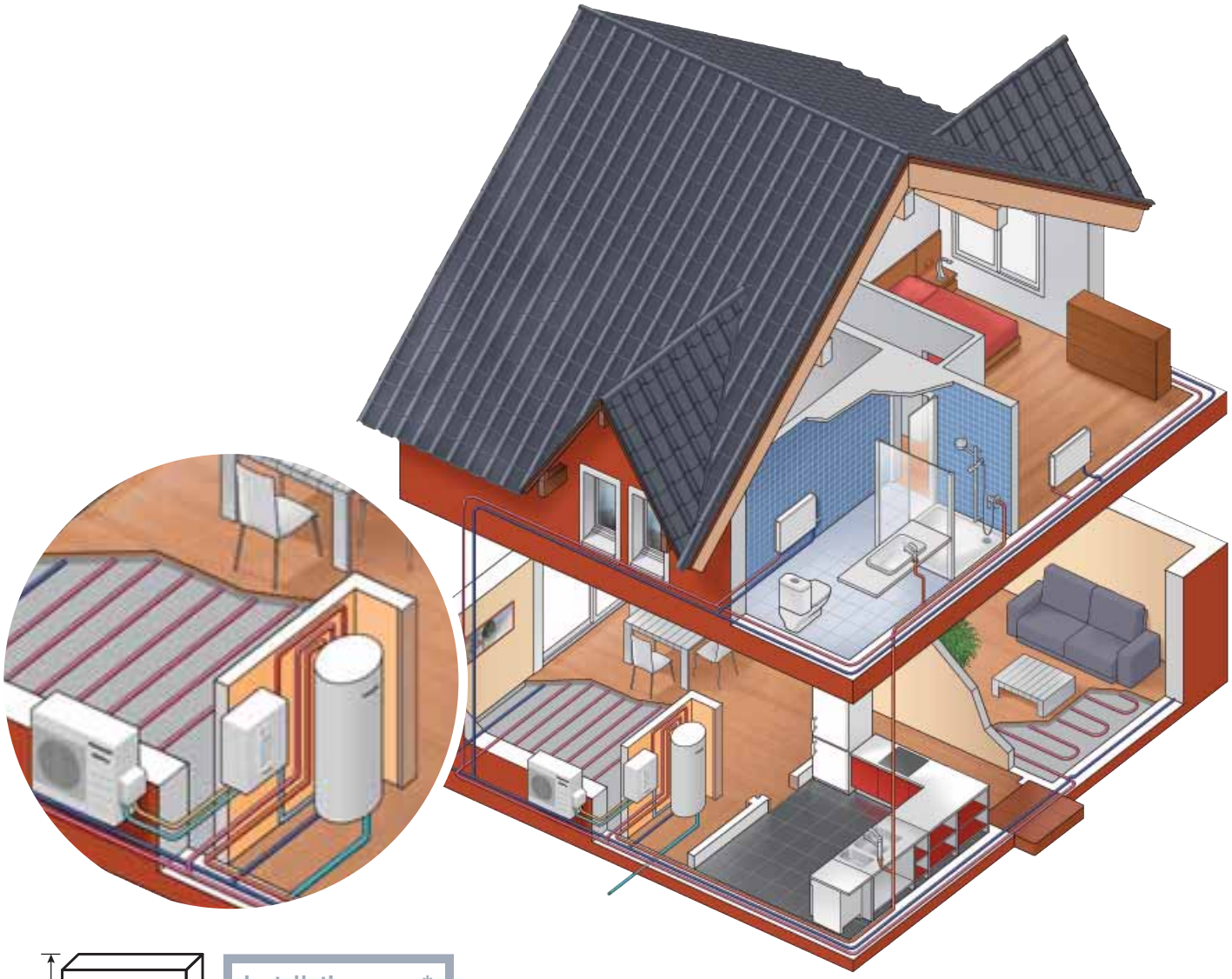
Panasonic's Aquarea heat pump provides a saving of up to 78% on heating expenses compared with electrical heaters. For example, the Aquarea system of 12 kW has a COP coefficient of 4.67: for every kW of electricity consumed, it returns 4.67 kW of energy, i.e. 3.67 kW more than a conventional electrical heating system, which is equivalent to a 78% saving.
Consumption can be further reduced by connecting solar panels to the Aquarea system.

Up to 78% of the heat produced by a heat pump is free, since it comes from the outdoor air.

A COMPACT DESIGN: EASY TO INSTALL AND MAINTAIN

Aquarea is a very easy heating and air conditioning system to install either in new or old buildings.
Panasonic's Aquarea air to water system provides a considerable reduction on installation and maintenance costs. For new buildings, no drilling or excavation work is necessary to capture the heat, unlike geothermal installations, nor any gas connection, chimneys or fuel reservoirs. For retrofits or refurbishing, it is easy to connect to an existing heating system with low-temperature radiators or a radiant floor.

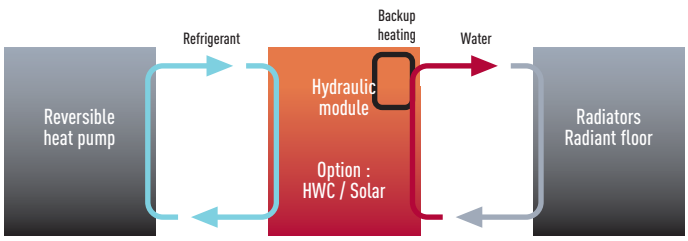
* for the WH-SDH07C3E5 and WH-SDH09C3E5



HOW DOES THE AQUAREA SYSTEM WORK ?

An air to water heat pump system uses heat energy present in the outdoor air to heat the house, cool it and also to produce hot water. The Aquarea system therefore uses free energy to heat or cool your home. It only consumes electricity to operate the compressor, the electronics, the pumps and in the event of very low temperatures, the electric elements. The result is very high efficiency and real energy savings.

Application: New or replacement boiler



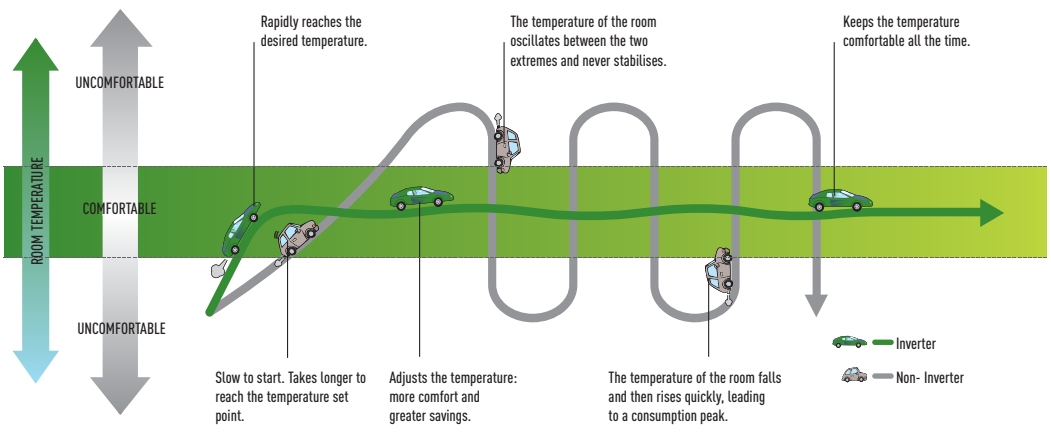
THERE ARE SEVERAL TYPES OF HEAT PUMP :

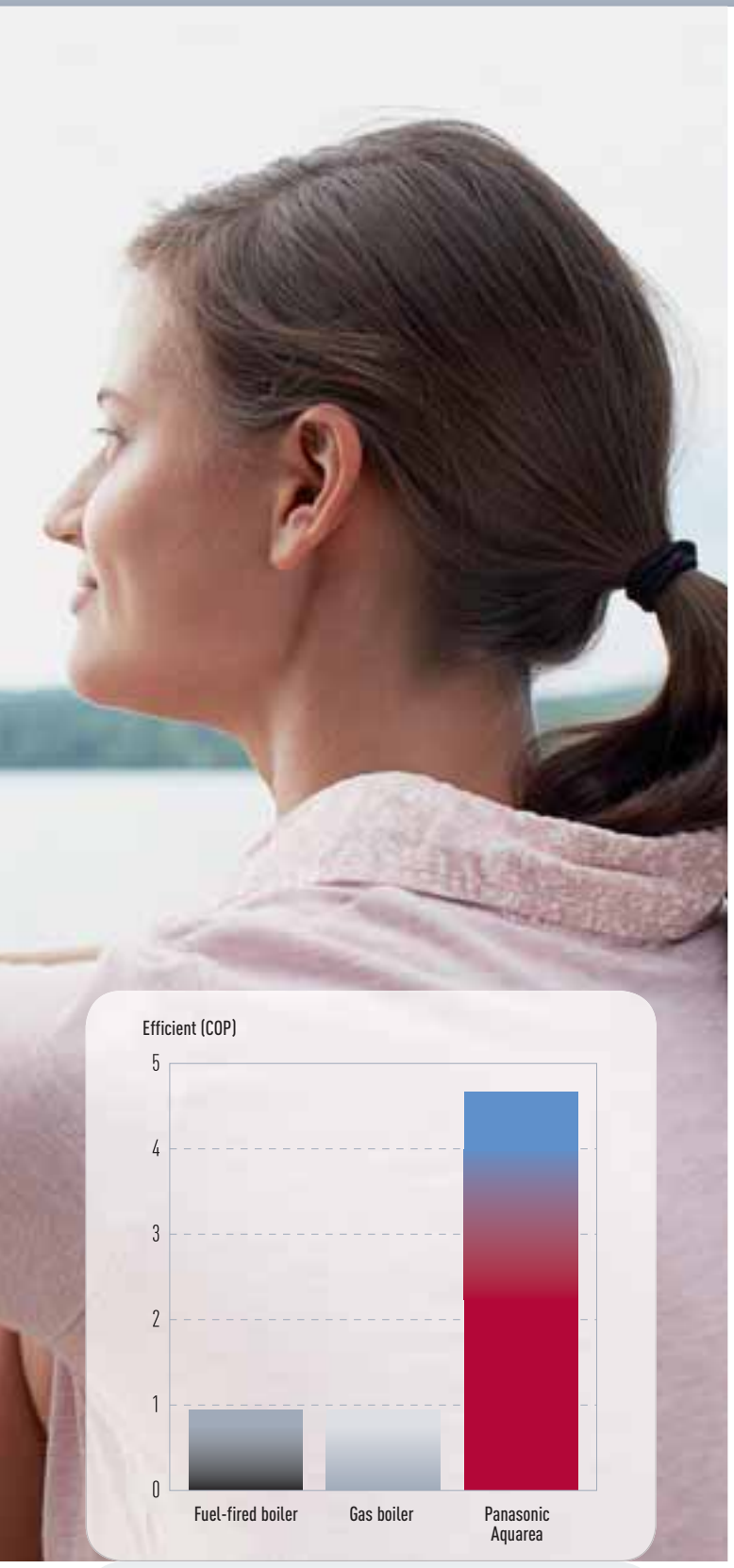
- The split system
  This is formed by an outdoor unit and a hydraulic module, normally located in the utility room or garage. This configuration requires refrigerant pipes between the two units but is easily integrated in the house and can be connected to an existing boiler, for example.
- The single-unit system
  It only has an outdoor unit. The installation doesn't require a refrigerated connection and is only connected to the heating system. This system is therefore easier to install, but requires more outdoor space.

high efficiency heating
INVERTER+

INVERTER+ COMPRESSOR FOR EVEN GREATER EFFICIENCY

With over 100 million compressors supplied, Panasonic has demonstrated its status as leader and the excellent quality and reliability of its heat pumps.
With a Panasonic Inverter+ compressor, you can save up to 30% energy compared to a traditional system no inverter.





HOW TO CALCULATE THE POWER YOUR HOUSE NEEDS

To calculate the power, you will need a thermal balance report drawn up by a specialist who will analyse the house's insulation, its orientation, the openings, the minimum temperature in your area, etc.
However, here is a quick calculation method to enable you to roughly estimate the power needed. This calculation method is given for guidance only. Panasonic will not accept responsibility under any circumstances in the event of an assessment error.

1- Calculation of the house's total energy loss:

A detached house's total energy loss can be calculated approximately using the following formula: $D = G \times V \times \Delta T$
Where:
D = Total loss in W
V = Living space in m^3
ΔT = Difference between the temperature inside the house and the minimum outdoor temperature where the house is located
G = The building's insulation coefficient in W/m^3K . °C

Estimation of coefficient G according to the insulation type (G en W/m^3K . °C)

Old house without insulation	G = 2
Old house with insulation	G = 1.5
House built after 1990	G = 1.1
House built after 2005	G = 0.8
Very good insulation	G = 0.6
Bioclimatic	G = 0.4

2- Power requirement:

The model selected must be capable of providing power at least equal to the estimated total energy loss value.

Example: A 130 m^2 detached house with a ceiling height of 2.5 m in Seine et Marne (77), with a minimum outdoor temperature of -7 °C, built in 1995, has total energy loss: D = 1.1 x [(130 m^2 x 2,5 m) x (20 °C - (- 7°C)] = 9652 W (i.e. 9.65 kW)

We must therefore select a Heat Pump capable of producing 9.65 kW at –7°C, which leads us to a 12- kW Aquarea model.

MAXIMUM EFFICIENCY EVEN AT –7 °C

The Aquarea range has been specially designed to provide maximum efficiency even at extreme temperatures.

		7 kW	9 kW	12 kW	14 kW	16 kW
Outside temperature 7°C	Power (kW)	7.00	9.00	12.00	14.00	16.00
	COP	4.40	4.10	4.67	4.50	4.23
Outside temperature -7°C	Power (kW)	5.15	5.90	10.00	10.70	11.40
	COP	2.65	2.50	2.70	2.62	2.55

Conditions : Water input temperature: 30 °C. Water output temperature: 35 °

WHAT MAKES THE AIR-TO-WATER HEAT PUMP WORK:

- The outdoor unit: this captures the free energy from the outdoor air and brings it into the house by means of the hydraulic module. These free calories are transported to the hydraulic module using an environmentally-friendly refrigerant gas with a high thermal exchange coefficient (R410A).
- Via the hydraulic module, with control panel, the temperature inside the house can be controlled and efficiency maximised. It has a heat exchanger which transmits the calories contained in the refrigerant coming from the outdoor unit to the water used for the house's heating and hot water.
  The hydraulic module manages priorities in terms of heating and hot water production. It also has a 400 µm particle filter.
  This hydraulic module is situated in the house in the case of the split system or in the outdoor unit in the case of the single-unit system.
- The hot water cylinder heats the hot water. It is made of stainless steel, which guarantees it a very long life. It is also fitted with a 3 kW element to ensure maximum comfort when outdoor temperatures are very low. The heater, situated at the top of the cylinder, guarantees maximum efficiency and faster heat-up.
  A 3-way valve for the hot water cylinder connection is supplied with the hot water cylinder
- Other necessary or optional features (not provided by Panasonic):
  - Room temperature thermostat, which can be connected to the Aquarea system to ensure optimum room temperature conditions.
  - Solar kit, to connect solar panels for even greater efficiency.

SCREEN FILTER

The 400 µm screen filter protects the water exchanger from impurities and comes standard on the Aquarea hydraulic module.

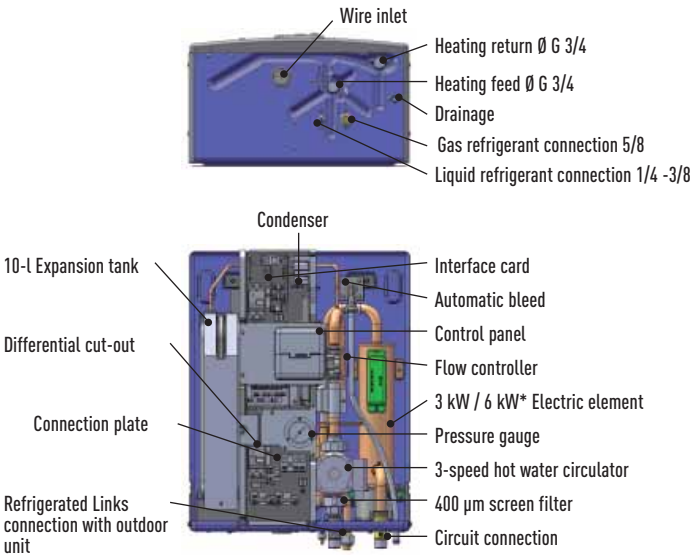
TWO EARTH LEAKAGE CUT-OUTS

The Aquarea hydraulic module has 2 differential cut-outs ensuring maximum safety in the event of a short circuit.

THE CONTROL PANEL

The control panel allows perfect temperature control based on the outdoor temperature, providing maximum efficiency and comfort. The control panel controls the heating temperature and the hot water cylinder temperature very simply.

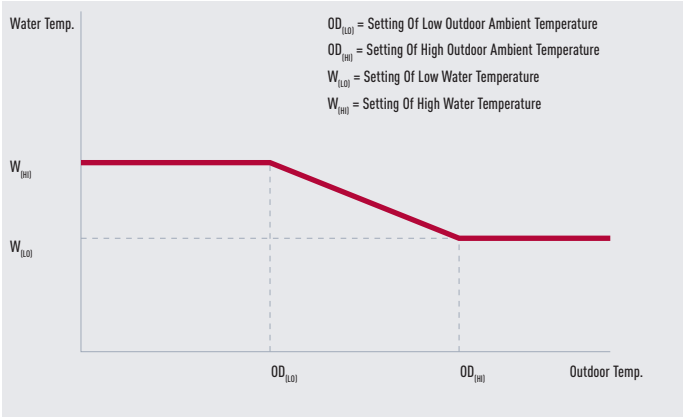
THE HYDRAULIC MODULE



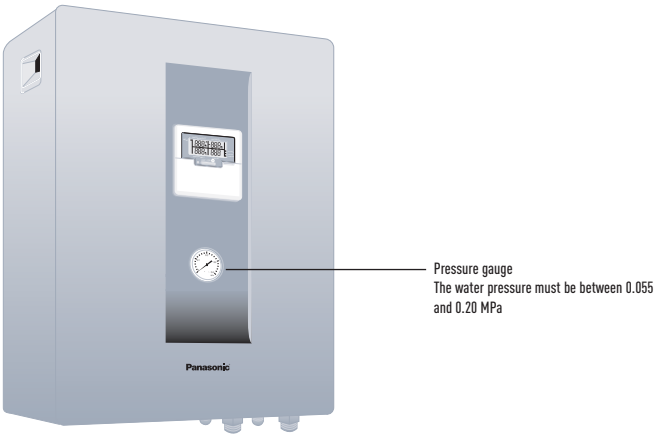
* 3 kW for 7 and 9 kW, and 6 kW for 12, 14 and 16 kW.

EASY PROGRAMMING OF THE CONTROL PANEL

The primary circuit temperature is controlled based on the outdoor temperature. The temperature of the primary circuit is determined by your heating specialist depending on your installation. Enter the below parameters in the remote control on starting up the system.
Your heating specialist must also select the type of operation you need: heating priority or hot water cylinder priority.

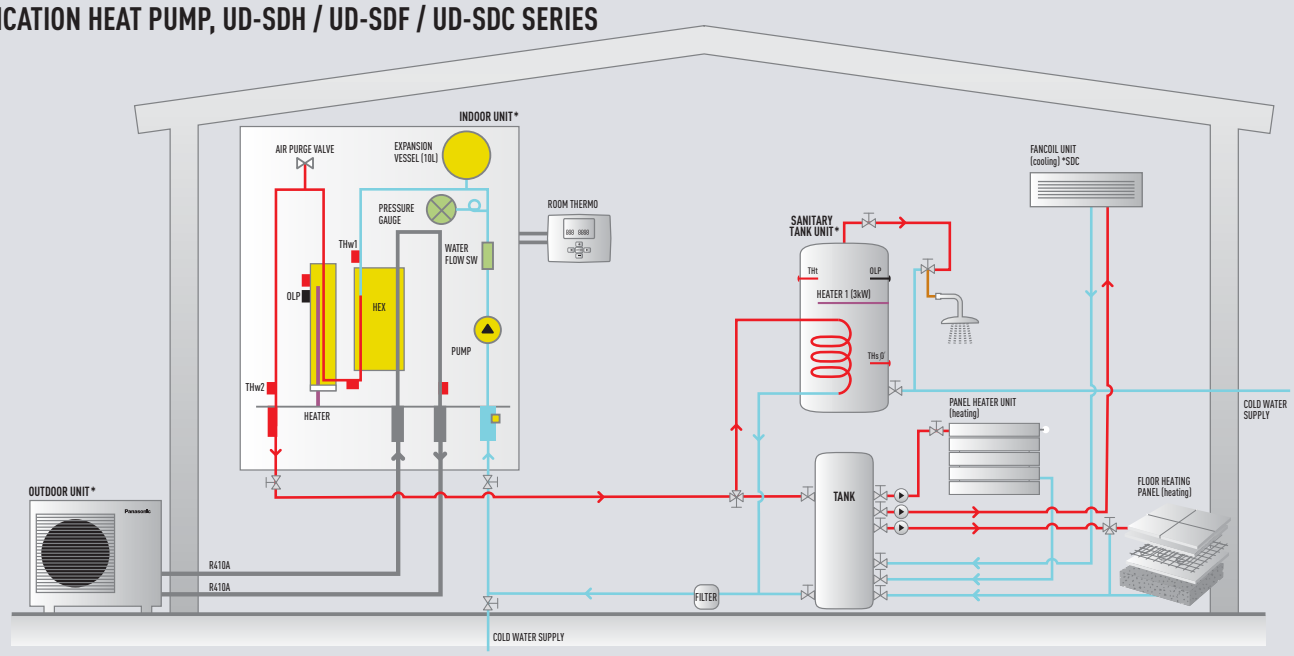


EASY READING OF CONTROL OF WATER PRESSURE



APPLICATION EXAMPLES

AQUAREA IN A RADIANT FLOOR AND HOT WATER CYLINDER
APPLICATION HEAT PUMP, UD-SDH / UD-SDF / UD-SDC SERIES

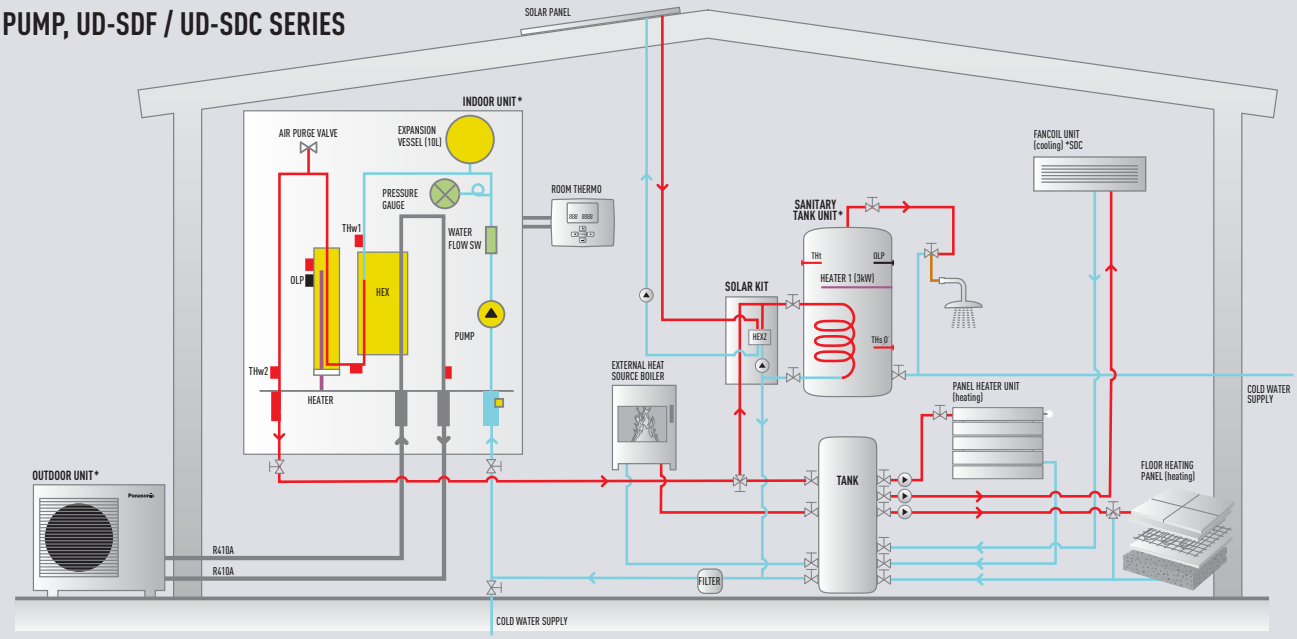


* Panasonic supplies the outdoor unit, the indoor unit, the sanitary tank and a 3-way on/off valve (included with the sanitary tank)

Schematic diagram

- Hot water production with TD series cylinder
- Heating
- Cooling (only for the UD-SDC series)
- Connection of a thermostat possible (only for the UD-SDF / UD-SDC series)

AQUAREA AS BOILER BACKUP AND SOLAR PANELS
HEAT PUMP, UD-SDF / UD-SDC SERIES



* Panasonic supplies the outdoor unit, the indoor unit, the sanitary tank and a 3-way on/off valve (included with the sanitary tank)

Schematic diagram

- Hot water production with TD series cylinder
- Heating with boiler backup
- Cooling (UD-SDC series only)
- Connection of solar panels possible
- Connection of a thermostat possible

DESCRIPTION OF LOGOS

INVERTER+ SYSTEM

The A Inverter+ system provides energy savings of up to 30% compared to non inverter models. You win and nature wins.

REFRIGERANT R410A

R410A offers optimal performance and involves no environmental cost since it does not harm the ozone layer.

UP TO -20°C IN HEATING MODE

The air conditioner works in heat pump mode with an outdoor temperature as low as -20ºC.

RENOVATION

With our Aquarea heat pumps you can connect an existing or new boiler for optimum comfort even at very low outside temperatures.

SOLAR KIT

For even greater efficiency, our Aquarea heat pumps can be connected to solar panels with an optional kit.

DHW

With Aquarea you can also heat your domestic hot water at a very low cost with the optional hot water cyclinder.

5 YEARS WARRANTY

We guarantee the compressors in the entire range for five years.

AQUAREA RANGE

	7 kW		9 kW		12 kW		14 kW		16 kW	
AQUAREA // BI-BLOC // SEMI-CONNECTIVITY // HEATING ONLY **PAGE 14**										
	WH-SDH07C3E5	**WH-UD07CE5**	**WH-SDH09C3E5**	**WH-UD09CE5**	**WH-SDH12C3E5**	**WH-UD12CE5**	**WH-SDH14C3E5**	**WH-UD14CE5**	**WH-SDH16C3E5**	**WH-UD16CE5**
AQUAREA // BI-BLOC // HIGH CONNECTIVITY // HEATING ONLY OR HEATING AND COOLING **PAGE 16**										
	WH-SDF07C3E5 **WH-SDC07C3E5**	**WH-UD07CE5 -A**	**WH-SDF09C3E5** **WH-SDF09C9E8** **WH-SDC09C3E5** **WH-SDC09C9E8**	**WH-UD09CE5-A** **WH-UD09CE8-A**	**WH-SDF12C6E5** **WH-SDF12C9E8** **WH-SDC12C6E5** **WH-SDC12C9E8**	**WH-UD12CE5-A** **WH-UD12CE8-A**	**WH-SDF14C6E5** **WH-SDF14C9E8** **WH-SDC14C6E5** **WH-SDC14C9E8**	**WH-UD14CE5-A** **WH-UD14CE8-A**	**WH-SDF16C6E5** **WH-SDF16C9E8** **WH-SDC16C6E5** **WH-SDC16C9E8**	**WH-UD16CE5-A** **WH-UD16CE8-A**
AQUAREA // MONO-BLOC // HIGH CONNECTIVITY // HEATING ONLY OR HEATING AND COOLING **PAGE 18**										
			WH-MDF09C3E5 **WH-MDF09C3E8** **WH-MDC09C3E5** **WH-MDC09C3E8**		**WH-MDF12C6E5** **WH-MDF12C9E8** **WH-MDC12C6E5** **WH-MDC12C9E8**		**WH-MDF14C6E5** **WH-MDF14C9E8** **WH-MDC14C6E5** **WH-MDC14C9E8**		**WH-MDF16C6E5** **WH-MDF16C9E8** **WH-MDC16C6E5** **WH-MDC16C9E8**	

AQUAREA // BI-BLOC // SEMI-CONNECTIVE // HEATING ONLY

Aquarea's split UD/SHD unit is designed to be installed in your new house with radiant floor or low/mid-temperature radiators.
Aquarea provides a saving of up to 78% compared to electrical heating, with an energy efficiency 4.67 times greater than that of a gas or fuel-fired boiler, also reducing CO_2 emissions.
With its (optional) hot water cylinder it also provides you with hot water all year round at a very low cost.

BI-BLOC // SEMI-CONNECTIVITY

			HEATING ONLY				
Outdoor unit, Monophase 220 V			**WH-UD07CE5**	**WH-UD09CE5**	**WH-UD12CE5** [1]	**WH-UD14CE5** [1]	**WH-UD16CE5** [1]
Heating Capacity at +7°C		kW	7.00	9.00	12.00	14.00	16.00
COP at +7°C with heating water temperature at 35°C		W/W	4.4	4.1	4.67	4.50	4.23
Heating Capacity at -7°C		kW	5.15	5.90	10.00	10.70	11.40
COP at -7°C		W/W	2.65	2.50	2.70	2.62	2.55
Sound pressure level		dB(A)	48	49	50	51	53
Sound power level		dB	66	67	67	68	70
Dimensions (H x W x D)		mm	795 x 900 x 320	795 x 900 x 320	1.340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320
Pipe Diameter	Liquid	mm (inch)	6.35 (1/4)	6.35 (1/4)	9.53 (3/8)	9.53 (3/8)	9.53 (3/8)
	Gas	mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)
Refrigerant (R410A)		kg	1.45	1.45	2.95	2.95	2.95
Additional Gas Amount (R410A)		g/m	30	30	50	50	50
Pipe Length for additional gas		m	10	10	30	30	30
Pipe Length Range		m	3 / 30	3 / 30	3 / 40	3 / 40	3 / 40
I/D&O/D Hight Difference		m	20	20	30	30	30
Operation Range	Outdoor Ambient	°C	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35
	Water Outlet (at-2/-7/-15) [2]	°C	55	55	55	55	55
Indoor unit. Monophase 220 V			**WH-SDH07C3E5**	**WH-SDH09C3E5**	**WH-SDH12C6E5**	**WH-SDH14C6E5**	**WH-SDH16C6E5**
Dimensions (H x W x D)		mm	644 x 504 x 295	644 x 504 x 295	892 x 502 x 353	892 x 502 x 353	892 x 502 x 353
Water pipe connector		mm (inch)	19.05 (3/4)	19.05 (3/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)
Pump	No. of Speed		3	3	2	2	2
	Input Power(max)		100	100	190	190	190
Heating water flow ΔT=5 K, 35°C		m^3/h	1.2	1.6	2.1	2.4	2.8
Water Filter	Inner Diameter	mm	22	22	-	-	-
Capacity of integrated electric heater		kW	3	3	6	6	6
Input Power		kW	1.59	2.20	2.57	3.11	3.78
Running and starting Current		A	7.30	10.10	11,7	14,1	17,1
Maximum Current		A	21	22.9	24	25	26
Connection to solar kit and boiler			No	No	No	No	No

OPTIONAL HOT WATER CYLINDER

			WH-TD20B3E5 [1]	**WH-TD30B3E5** [1]
Cylinder capacity		L	198	287
Max water temp.		°C	75	75
Dimensions	Height	mm	1,150	1,600
	Diameter	mm	580	580
Weight on empty		kg	46	60
Electrical backup element		kW	3	3
Electrical connections		φ / V / Hz	Single-Phase / 230 / 50	Single-Phase / 230 / 50
Exchanger material			Stainless steel	Stainless steel

A 3-way valve for the hot water cylinder connection is supplied with the hot water cylinder
Water quality must comply with standard EN 98/83EN. If the water's chlorides and sulphates contents exceed 250 mg/l, water treatment upstream is obligatory. The guarantee does not apply in the event of values over 250 mg/l.

1) Preliminary data.
2) Outdoor temperature.

TECHNICAL DATA

- RANGE FROM 7 TO 16 KW, SINGLE-PHASE
- MAXIMUM HYDRAULIC MODULE OUTPUT TEMPERATURE: 55 °C
- WORKS DOWN TO –20 °C
- 400 µm SCREEN FILTER INCLUDED IN THE HYDRAULIC MODULE
- MAXIMUM 20 M RISE BETWEEN THE OUTDOOR UNIT AND THE HYDRAULIC MODULE

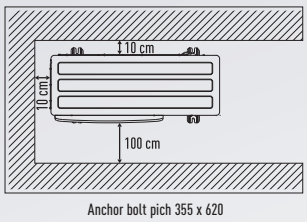
ENERGY AND ENVIRONMENTAL EFFICIENCY
- 78% more efficient than an electrical convection system
- Maximum COP of 4.67 for the 12 kW model
- Environmentally friendly refrigerant gas R410A

COMFORT
- Maximum hydraulic module output temperature: 55 °C
- Power optimised based on the return water temperature
- Built-in management of the hot water cylinder and heating

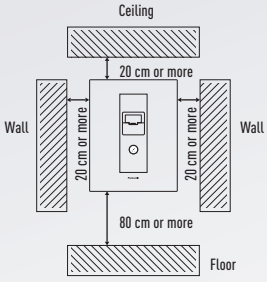
EASY TO USE
- Control on the hydraulic module
- Easy programming on the control panel

EASY INSTALLATION AND MAINTENANCE
- Easy-to-access pressure gauge for easy control of the water pressure
- 400 µm screen filter included in the hydraulic module
- Easy-to-open hydraulic module and outdoor unit

SPACE NECESSARY FOR INSTALLATION



Anchor bolt pich 355 x 620




WH-UD07CE5
WH-UD09CE5

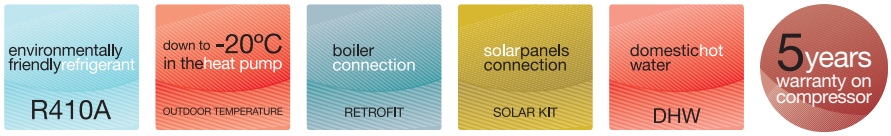

WH-UD12CE5
WH-UD14CE5
WH-UD16CE5


WH-TD20B3E5


WH-TD30B3E5

AQUAREA // BI-BLOC // HIGH CONNECTIVITY // HEATING ONLY OR HEATING AND COOLING

The Aquarea UD/SDC and UD/SDF ranges adapt just as well to an existing installation as boiler backup or to a new installation with radiant floor, low-temperature radiators or even fan-coil heaters (in heating and cooling for the UD/SDF range). These ranges also allow you to connect a solar kit in order to increase efficiency and minimise the impact on the ecosystem. Finally, it is possible to connect a thermostat for even better heating control and management.
Aquarea provides a saving of up to 78% compared to electrical heating, with an energy efficiency 4.67 times greater than that of a gas or fuel-fired boiler, also reducing CO_2 emissions.
And by adding the hot water cylinder (optional), you can enjoy hot water all the year round at a very low cost.



BI-BLOC // HIGH-CONNECTIVITY

			HEATING ONLY [1]					HEATING AND COOLING [1]				
Outdoor unit. Monophase 220 V			**WH-UD07CE5-A**	**WH-UD09CE5-A**	**WH-UD12CE5-A**	**WH-UD14CE5-A**	**WH-UD16CE5-A**	**WH-UD07CE5-A**	**WH-UD09CE5-A**	**WH-UD12CE5-A**	**WH-UD14CE5-A**	**WH-UD16CE5-A**
Outdoor unit. Triphase 400 V				**WH-UD09CE8-A**	**WH-UD12CE8-A**	**WH-UD14CE8-A**	**WH-UD16CE8-A**		**WH-UD09CE8-A**	**WH-UD12CE8-A**	**WH-UD14CE8-A**	**WH-UD16CE8-A**
Heating Capacity at +7°C		kW	7.00	9.00	12.00	14.00	16.00	7.00	9.00	12.00	14.00	16.00
COP at +7°C with heating water temperature at 35°C		W/W	4.4	4.1	4.67	4.5	4.23	4.4	4.1	4.67	4.5	4.23
Heating Capacity at -7°C		kW	5.15	5.90	10.00	10.70	11.40	5.15	5.90	10.00	10.70	11.40
COP at -7°C		W/W	2.65	2.50	2.70	2.62	2.55	2.65	2.50	2.70	2.62	2.55
Sound pressure level		dB(A)	48	49	50	51	53	48	49	50	51	53
Sound power level		dB	66	67	67	68	70	66	67	67	68	70
Dimensions (H x W x D)		mm	795x900x320	795x900x320	1,340x900x320	1,340x900x320	1,340x900x320	795x900x320	795x900x320	1,340x900x320	1,340x900x320	1,340x900x320
Pipe Diameter	Liquid	mm (inch)	6.35(1/4)	6.35(1/4)	9.53 (3/8)	9.53 (3/8)	9.53 (3/8)	6.35(1/4)	6.35(1/4)	9.53 (3/8)	9.53 (3/8)	9,53 (3/8)
	Gas	mm (inch)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)
Refrigerant (R410A)		kg	1.45	1.45	2.95	2.95	2.95	1.45	1.45	2.95	2.95	2.95
Additional Gas Amount (R410A)		g/m	30	30	50	50	50	30	30	50	50	50
Pipe Length for additional gas		m	10	10	30	30	30	10	10	30	30	30
Pipe Length Range		m	3 / 30	3 / 30	3 / 40	3 / 40	3 / 40	3 / 30	3 / 30	3 / 40	3 / 40	3 / 40
I/D&O/D Hight Difference		m	20	20	30	30	30	20	20	30	30	30
Operation Range	Outdoor Ambient	°C	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35
	Water Outlet (at-2/-7/-15) [2]	°C	55	55	55	55	55	55	55	55	55	55
Indoor unit. Monophase 220 V			**WH-SDF07C3E5**	**WH-SDF09C3E5**	**WH-SDF12C6E5**	**WH-SDF14C6E5**	**WH-SDF16C6E5**	**WH-SDC07C3E5**	**WH-SDC09C3E5**	**WH-SDC12C6E5**	**WH-SDC14C6E5**	**WH-SDC16C6E5**
Indoor unit. Triphase 400 V				**WH-SDF09C9E8**	**WH-SDF12C9E8**	**WH-SDF14C9E8**	**WH-SDF16C9E8**		**WH-SDC09C9E8**	**WH-SDC12C9E8**	**WH-SDC14C9E8**	**WH-SDC16C9E8**
Dimension		mm	892x502x353	892x502x 353	892X502X353	892X502X353	892X502X353	892X502X353	892X502X353	892X502X353	892X502X353	892X502X353
Water pipe connector		mm (inch)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)
Pump	No. of Speed		3	3	2	2	2	3	3	2	2	2
	Input Power(max)		100	100	190	190	190	100	100	190	190	190
Heating water flow ΔT=5 K. 35°C		m^3/h	1.2	1.6	2.1	2.4	2.8	1.2	1.6	2.1	2.4	2.8
Water Filter	Inner Diameter	mm	22	22	-	-	-	22	22	-	-	-
Capacity of integrated electric heater		kW	3	3	6	6	6	3	3	6	6	6
Input Power		kW	1.59	2.20	2.57	3.11	3.78	1.59	2.20	2.57	3.11	3.78
Running and starting Current		A	7.30	10.10	11.7	14.1	17.1	7.30	10.10	11.7	14.1	17.1
Maximum Current		A	21	22.9	24	25	26	21	22.9	24	25	26
Connection to solar kit and boiler			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

OPTIONAL HOT WATER CYLINDER

			WH-TD20B3E5 [1]	WH-TD30B3E5 [1]
Cylinder capacity		L	198	287
Max water temp.		°C	75	75
Dimensions	Height	mm	1,150	1,600
	Diameter	mm	580	580
Weight on empty		kg	46	60
Electrical backup element		kW	3	3
Electrical connections		φ / V / Hz	Single-Phase / 230 / 50	Single-Phase / 230 / 50
Exchanger material			Stainless steel	Stainless steel

A 3-way valve for the hot water cylinder connection is supplied with the hot water cylinder
Water quality must comply with standard EN 98/83EN. If the water's chlorides and sulphates contents exceed 250 mg/l, water treatment upstream is obligatory. The guarantee does not apply in the event of values over 250 mg/l.

1) Preliminary data.
2) Outdoor temperature.

TECHNICAL DATA

- RANGE FROM 7 TO 16 KW, SINGLE AND THREE-PHASE
- MAXIMUM HYDRAULIC MODULE OUTPUT TEMPERATURE: 55 °C
- WORKS DOWN TO –20 °C
- 400 µm SCREEN FILTER INCLUDED IN THE HYDRAULIC MODULE
- MAXIMUM 20 M RISE BETWEEN THE OUTDOOR UNIT AND THE HYDRAULIC MODULE

ENERGY AND ENVIRONMENTAL EFFICIENCY

- 78% more efficient than an electrical convection system
- Maximum COP of 4.67 for the 12 kW model
- Environmentally-friendly refrigerant gas R410A

COMFORT

- Heating and cooling possible in the UD/SDF range
- Optimum control possible with an outside thermometer (not supplied)
- Maximum hydraulic module output temperature: 55 °C
- Power optimised based on the return water temperature
- Built-in management of the hot water cylinder and heating

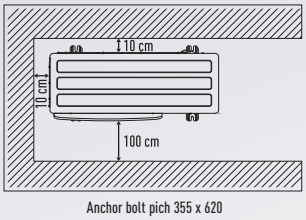
EASY TO USE

- Control on the hydraulic module
- Easy programming on the control panel

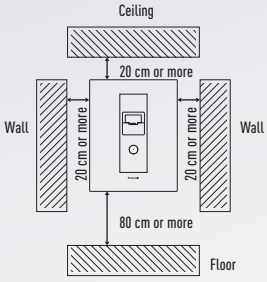
EASY INSTALLATION AND MAINTENANCE

- Easy-to-access pressure gauge for easy control of the water pressure
- 400 µm screen filter included in the hydraulic module
- Easy-to-open hydraulic module and outdoor unit

SPACE NECESSARY FOR INSTALLATION



Anchor bolt pich 355 x 620



WH-UD07CE5
WH-UD09CE5
WH-UD09CE8

WH-UD12CE5
WH-UD14CE5
WH-UD16CE5

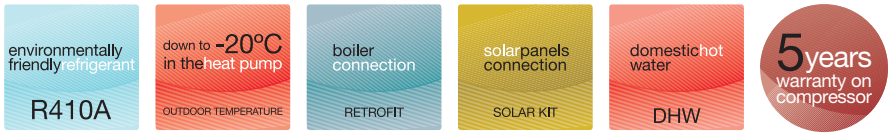
WH-UD12CE8
WH-UD14CE8
WH-UD16CE8

WH-TD20B3E5

WH-TD30B3E5

AQUAREA // MONO-BLOC // HIGH CONNECTIVITY // HEATING ONLY OR HEATING AND COOLING

The Aquarea MDF / MDC single-unit range adapt just as well to an existing installation as boiler backup or to a new installation with radiant floor, low-temperature radiators or even fan-coil heaters (in heating and cooling for the MDC range). This range also allows you to connect a solar kit in order to increase efficiency and minimise the impact on the ecosystem. Finally, it is possible to connect a thermostat for even better heating control and management.
Aquarea provides a saving of up to 78% compared to electrical heating, with an energy efficiency 4.67 times greater than that of a gas or fuel-fired boiler, also reducing CO_2 emissions.
With its (optional) hot water cylinder it also provides you with hot water all year round at a very low cost.



MONO-BLOC // HIGH-CONNECTIVITY

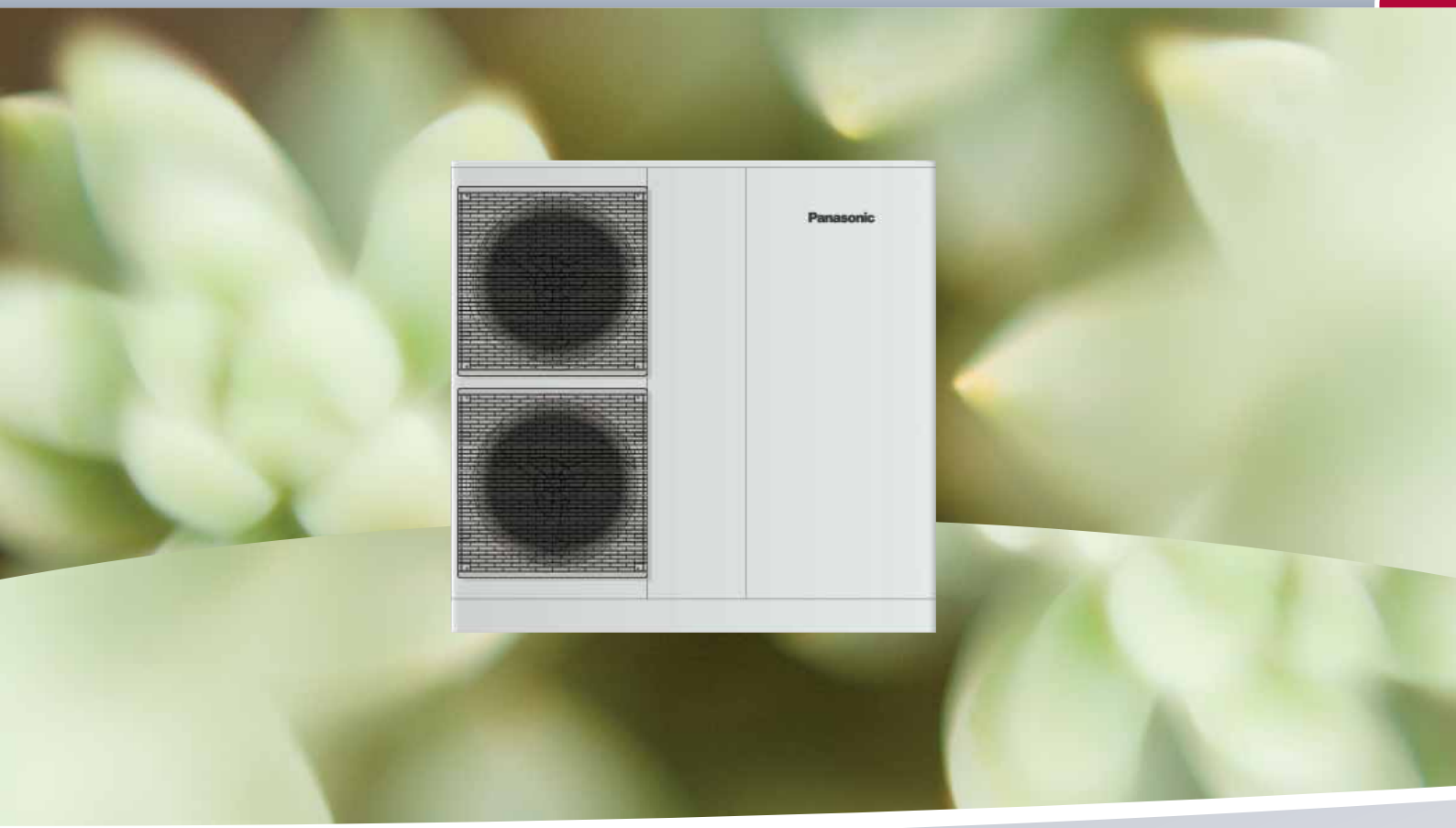
			HEATING ONLY [1]				HEATING AND COOLING [1]			
Outdoor unit. Monophase 220 V			**WH-MDF09C3E5**	**WH-MDF12C6E5**	**WH-MDF14C6E5**	**WH-MDF16C6E5**	**WH-MDC09C3E5**	**WH-MDC12C6E5**	**WH-MDC14C6E5**	**WH-MDC16C6E5**
Outdoor unit. Triphase 400 V			**WH-MDF09C3E8**	**WH-MDF12C9E8**	**WH-MDF14C9E8**	**WH-MDF16C9E8**	**WH-MDC09C3E8**	**WH-MDC12C9E8**	**WH-MDC14C9E8**	**WH-MDC16C9E8**
Heating Capacity at +7°C		kW	9.00	12.00	14.00	16.00	9.00	12.00	14.00	16.00
COP at +7°C with heating water temperature at 35°C		W/W	4.1	4.67	4.5	4.23	4.1	4.67	4.5	4.23
Heating Capacity at -7°C		kW	5.90	10.00	10.70	11.40	5.90	10.00	10.70	11.40
COP at -7°C		W/W	2.70	2.70	2.62	2.55	2.70	2.70	2.62	2.55
Sound pressure level		dB(A)	49	50	51	53	49	50	51	53
Sound power level		dB	66	67	68	70	66	67	68	70
Dimensions (H x W x D)		mm	1,283x1,440x360	1,283x1,440x360	1,283x1,440x360	1,283x1,440x360	1,283x1,440x360	1,283x1,440x360	1,283x1,440x360	1,283x1,440x360
Operation Range	Outdoor Ambient	°C	°C	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35	-20 / 35
	Water Outlet (at-2/-7/-15) [2]	°C	°C	55	55	55	55	55	55	55
Water pipe connector		mm (inch)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)	19.05 (3/4)	31.75 (11/4)	31.75 (11/4)	31.75 (11/4)
Pump	No. of Speed		2	2	2	2	2	2	2	2
	Input Power(max)		190	190	190	190	190	190	190	190
Heating water flow ΔT=5 K. 35°C		m^3/h	1.6	2.1	2.4	2.8	1.6	2.1	2.4	2.8
Capacity of integrated electric heater			3	6	6	6	3	6	6	6
Input Power		kW	2.20	2.57	3.11	3.78	2.20	2.57	3.11	3.78
Running and starting Current		A	8.7	11.7	14.1	17.1	8.7	11.7	14.1	17.1
Maximum Current		A	24	25	26	22.9	24	25	26	26
Connection to solar kit and boiler			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

OPTIONAL HOT WATER CYLINDER

			WH-TD20B3E5 [1]	**WH-TD30B3E5** [1]
Cylinder capacity		L	198	287
Max water temp.		°C	75	75
Dimensions	Height	mm	1,150	1,600
	Diameter	mm	580	580
Weight on empty		kg	46	60
Electrical backup element		kW	3	3
Electrical connections		φ / V / Hz	Single-Phase / 230 / 50	Single-Phase / 230 / 50
Exchanger material			Stainless steel	Stainless steel

A 3-way valve for the hot water cylinder connection is supplied with the hot water cylinder
Water quality must comply with standard EN 98/83EN. If the water's chlorides and sulphates contents exceed 250 mg/l, water treatment upstream is obligatory. The guarantee does not apply in the event of values over 250 mg/l.

1) Preliminary data.
2) Outdoor temperature.



TECHNICAL DATA

- RANGE FROM 9 TO 16 KW, SINGLE AND THREE-PHASE
- MAXIMUM HYDRAULIC MODULE OUTPUT TEMPERATURE: 55 °C
- WORKS DOWN TO –20 °C
- 400 µm SCREEN FILTER INCLUDED IN THE HYDRAULIC MODULE
- MAXIMUM 20M RISE BETWEEN THE OUTDOOR UNIT AND THE HYDRAULIC MODULE

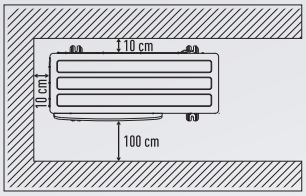
ENERGY AND ENVIRONMENTAL EFFICIENCY
- 78% more efficient than an electrical convection system
- Maximum COP of 4.67 for the 12 kW model
- Environmentally friendly refrigerant gas R410 A

COMFORT
- Heating and cooling possible with the MDC range
- Optimum control possible with an outside thermometer (not supplied)
- Maximum hydraulic module output temperature: 55 °C
- Power optimised according to the return water temperature
- Autonomous management of the hot water cylinder and heating

EASY TO USE
- Single-unit range, with no refrigerant connections
- Wired control panel for installation in the house
- Easy programming on the control panel

EASY INSTALLATION AND MAINTENANCE
- 400 µm screen filter included in the outdoor unit
- Outdoor unit easy to open for maintenance

SPACE NECESSARY FOR INSTALLATION



Anchor bolt pich 355 x 620

WH-TD20B3E5

WH-TD30B3E5

ACCESSOIRES

FIELD PROCURED OPTIONAL PARTS

Solar Kit		
Brand	**Model No.**	**Feature**
RESOL	FlowConS_DeltaSol_BS_Plus	Remote Control
Oventrop	Regusol X-25	Remote Control
3 way-Valve		
Brand	**Model No.**	**Feature**
Siemens	CZV322 3 Port	Spring return
2 way Valve		
Brand	**Model No.**	**Feature**
Honeywell	V4043C1007	Spring return
Siemens	CZV222 2 Port	Spring return
Room Thermostat		
Brand	**Model No.**	**Feature**
Siemens	RAA20	Dial type
Siemens	REV200	Programme
Thermal Valve		
Brand	**Model No.**	**Feature**
Taconova	RA57	NC
Danfoss	AVB-NC	NC

RESOL
FlowConS_DeltaSol_BS_Plus

Oventrop
Regusol X-25

Siemens
CZV322 3 Port

Siemens
CZV222 2 Port

Siemens
RAA20

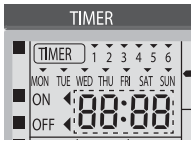
Siemens
RAA200

Taconova
RA57

Danfoss
AVB-NC

ERROR CODES

THE OPERATION LED BLINKS AND AN ERROR CODE APPEARS ON THE CONTROL PANEL DISPLAY.



- Turn the unit off and inform the authorised dealer of the error code.
- The timer operation is cancelled when an error code occurs.

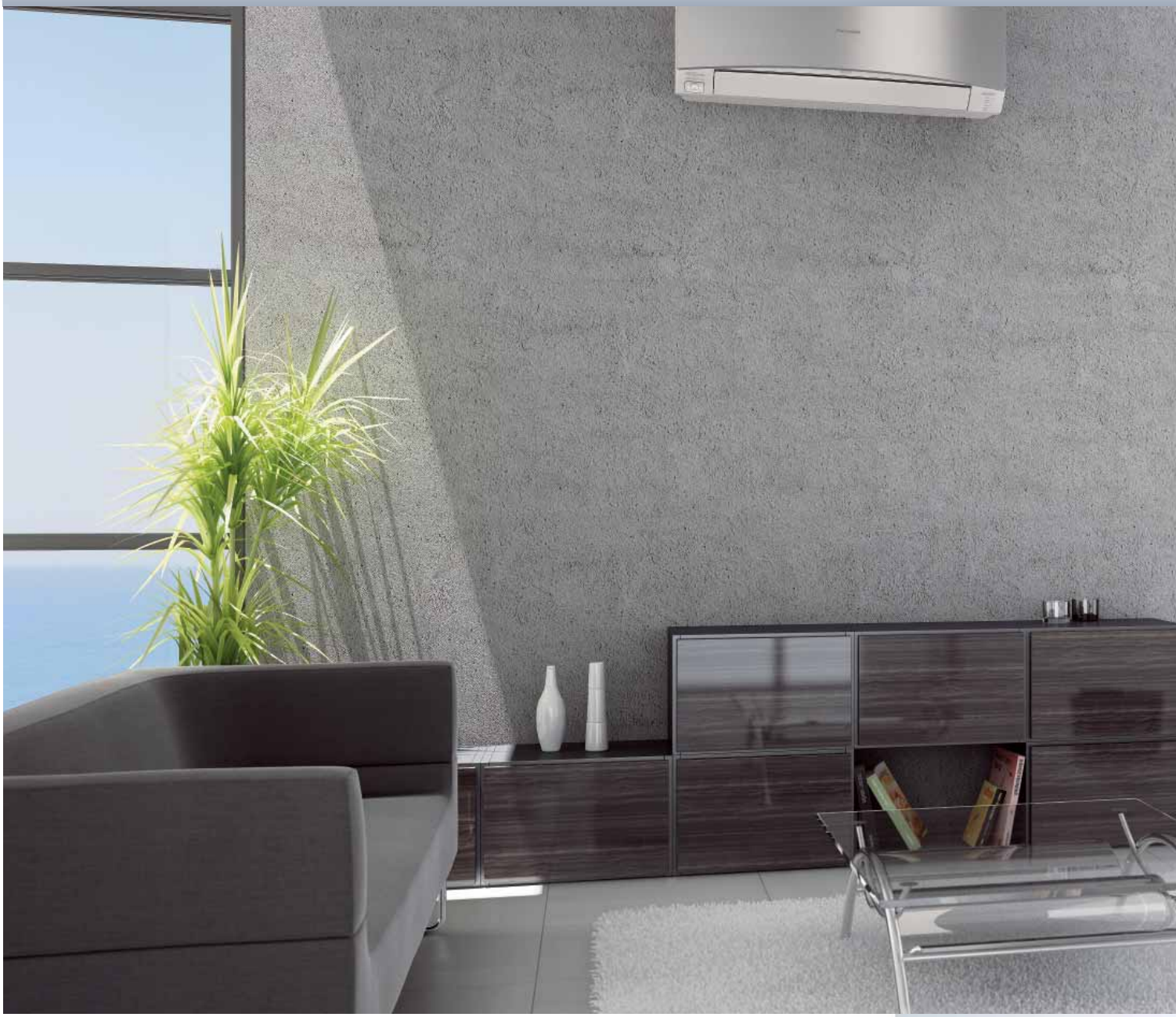
FORCE HEATER MODE BUTTON

FORCE

- The backup heater also serves as backup in case of malfunctioning of the outdoor unit.
- Press OFF/ON to stop the force heater operation.
- During Force Heater mode, all other operations are not allowed.

ERROR CODES TABLE

Diagnosis display	Abnormality / Protection control	Abnormality Judgement	Primary location to verify
H00	No abnormality detected	—	—
H12	Indoor/Outdoor capacity unmatched	90s after power supply	• Indoor/outdoor connection wire • Indoor/outdoor PCB • Specification and combination table in catalogue
H15	Outdoor compressor temperature sensor abnormality	Continue for 5 sec.	• Compressor temperature sensor (defective or disconnected)
H23	Indoor refrigerant liquid temperature sensor abnormality	Continue for 5 sec.	• Refrigerant liquid temperature sensor (defective or disconnected)
H38	Indoor/Outdoor mismatch	—	• Indoor/Outdoor PCB
H42	Compressor low pressure abnormality	—	• Outdoor pipe temperature sensor • Clogged expansion valve or strainer • Insufficient refrigerant • Outdoor PCB • Compressor
H62	Water flow switch abnormality	Continue for 1 min.	• Water flow switch
H64	Refrigerant high pressure abnormality	Continue for 5 sec.	• Outdoor high pressure sensor (defective or disconnected)
H72	Tank sensor abnormal	Continue for 5 sec.	• Tank sensor
H76	Indoor - control panel communication abnormality	—	• Indoor - control panel (defective or disconnected)
H90	Indoor / outdoor abnormal communication	> 1 min after starting operation	• Internal / external cable connections • Indoor / Outdoor PCB
H95	Indoor/Outdoor wrong connection	—	• Indoor/Outdoor supply voltage
H98	Outdoor high pressure overload protection	—	• Outdoor high pressure sensor • Water pump or water leakage • Clogged expansion valve or strainer • Excess refrigerant • Outdoor PCB
F12	Pressure switch activate	4 times occurrence within 20 minutes	• Pressure switch
F14	Outdoor compressor abnormal revolution	4 times occurrence within 20 minutes	• Outdoor compressor
F15	Outdoor fan motor lock abnormality	2 times occurrence within 30 minutes	• Outdoor PCB • Outdoor fan motor
F16	Total running current protection	3 times occurrence within 20 minutes	• Excess refrigerant • Outdoor PCB
F20	Outdoor compressor overheating protection	4 times occurrence within 30 minutes	• Compressor tank temperature sensor • Clogged expansion valve or strainer • Insufficient refrigerant • Outdoor PCB • Compressor
F22	IPM (power transistor) overheating protection	3 times occurrence within 30 minutes	• Improper heat exchange • IPM (Power transistor)
F23	Outdoor Direct Current (DC) peak detection	7 times occurrence continuously	• Outdoor PCB • Compressor
F24	Refrigeration cycle abnormality	2 times occurrence within 20 minutes	• Insufficient refrigerant • Outdoor PCB • Compressor low compression
F25	Cooling / Heating cycle changeover abnormality	4 times occurrence within 30 minutes	• 4-way valve • V-coil
F27	Pressure switch abnormality	Continue for 1 min.	• Pressure switch
F36	Outdoor air temperature sensor abnormality	Continue for 5 sec.	• Outdoor air temperature sensor (defective or disconnected)
F37	Indoor water inlet temperature sensor abnormality	Continue for 5 sec.	• Water inlet temperature sensor (defective or disconnected)
F40	Outdoor discharge pipe temperature sensor abnormality	Continue for 5 sec.	• Outdoor discharge pipe temperature sensor (defective or disconnected)
F41	PFC control	4 times occurrence within 10 minutes	• Voltage at PFC
F42	Outdoor heat exchanger temperature sensor abnormality	Continue for 5 sec.	• Outdoor heat exchanger temperature sensor (defective or disconnected)
F45	Indoor water outlet temperature sensor abnormality	Continue for 5 sec.	• Water outlet temperature sensor (defective or disconnected)
F46	Outdoor Current Transformer open circuit	—	• Insufficient refrigerant • Outdoor PCB • Compressor low



WELCOME TO NEW DOMESTIC RANGE

More than ever before, Panasonic has developed a range of products designed for you and your clients.
The main new feature in the Domestic line is, without doubt, the Etherea range with the new Eco Patrol system, which intuits the level of human presence in a room and their level of activity and adjusts output accordingly. With its innovative design, high efficiency and incomparable purification system, the range has been designed with your clients in mind. Above all, it is also a range for air conditioning professionals, such as yourself, thanks to its broad range of products which are capable of conditioning rooms of all sizes – always with optimal efficiency and incomparable ease of installation. The Etherea range guarantees that you are offering your clients the very best.

ECO PATROL

THE NEW ETHEREA RANGE PURE EFFICIENCY

Panasonic's new Etherea units offer maximum efficiency in every sense. They ensure minimum consumption, thanks to the new Eco Patrol system, which intuits the level of human presence in a room and their level of activity and adjusts output accordingly. This feature, together with the Inverter+ system, provides up to 71% energy savings on Heat Pump, and up to 60% energy savings on cooling only.

Our super silent air conditioners guarantee the purest air to take care of you and your family. They boast sophisticated features, such as the E-ion plus purification system, designed to eliminate harmful micro-organisms, viruses, bacteria and moulds and a system which prevents humidity in the room from dropping too far. Thanks to Mild Dry System.

healthyair

The Patrol Sensor is on guard 24 hours a day to ensure optimal air quality.

The E-ion+ system eliminates 99% of bacteria, viruses and mildew from the air.

The Perfect Humidity Air controls the humidity level in the air to prevent over-dryness.

energysaving

The A Inverter system provides energy savings of up to 50%. You win and nature wins.

The Eco Patrol sensor detects people in the room to cut energy when no one is there.

With Super Quiet technology our devices are as quiet as a library.

Warranty on the compressor.

ENJOY UNINTERRUPTED COOLING AND MORE ENERGY SAVINGS

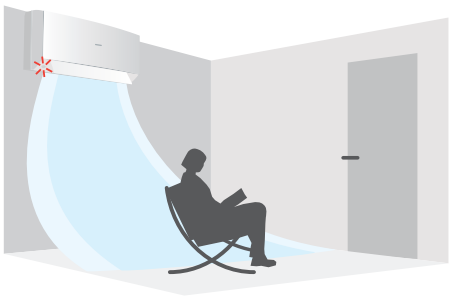
NEW10

For those who welcome energy savings without having to give up uninterrupted cooling, the Eco Patrol is the answer.
As soon as it is activated via remote control Eco Patrol's sensor intuits the level of human presence or activity in a room and adjusts the temperature accordingly. Saving you the hassle of having to remember to turn the air conditioner on or off, the temperature up or down —while saving you maximum 30% in electricity costs.

THE ECO PATROL SENSOR OPTIMISES OPERATION AS CONDITIONS CHANGE

DETECTION

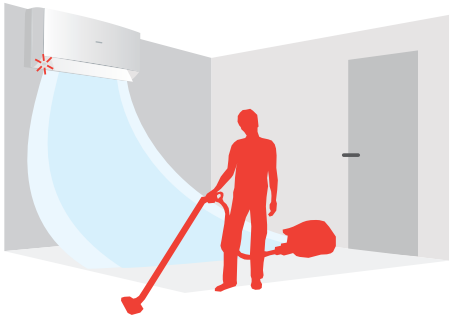
Senses human presence and activity level



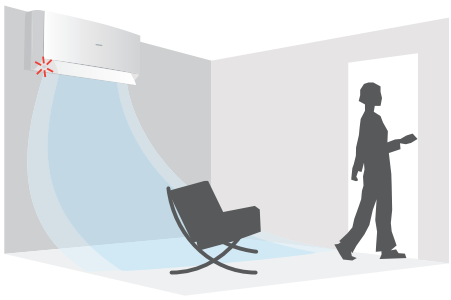
ANALYSIS

Records if there are any changes.

When the activity level goes up...



When everyone leaves...



ADJUSTEMENT

Increases or decreases power accordingly.

Higher-power operation provides uninterrupted cooling

Low-power operation saves energy

ECO PATROL

HERE'S WHY THE ECO PATROL SENSOR IS SO GREAT!

It senses people's movements.
It recognises people by "infrared rays + movement" and determines the amount of activity.

It senses the entire room in real-time.
It constantly checks people's movements in the room, and quickly adapts to changes.

High-Precision Sensing.
Its wide field of view senses up to 7 meters away with high precision.

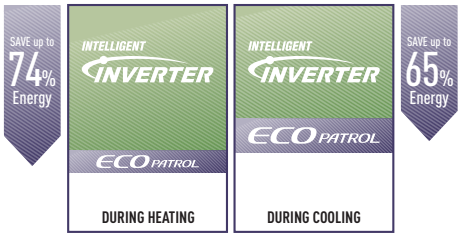
ETHEREA

movement sensor for 30% savings
ECO PATROL

MAXIMUM 30% ENERGY SAVINGS

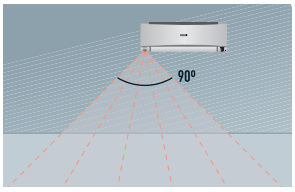
The energy-saving benefit of Eco Patrol is maximised when the air conditioner is left switched on in a room that is used intermittently. For example, when the room is empty for two hours, the air conditioner self-adjusts to raise the temperature by 3°C for maximum 30% energy savings. When someone re-enters, the air conditioner reverts to the set temperature to provide uninterrupted cooling.

During Heating total saving:
74% (Inverter: 64% + Eco Patrol: 10%)
During Cooling total saving:
65% (Inverter: 50% + Eco Patrol: 15%)
Comparison between an Inverter model with Eco Patrol and non Inverter model without Eco Patrol.
Both operating for 2 hours**

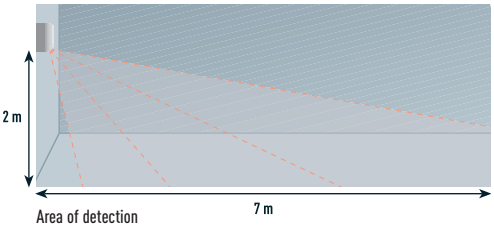


ECO PATROL'S COVERAGE CAPABILITIES

Eco Patrol's high-precision sensor can detect any moving object within its detection zone.



Angle of detection

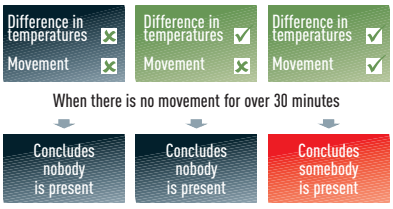


Area of detection

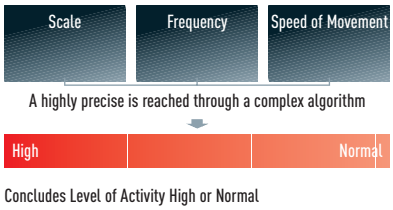
HIGH-PRECISION SENSING

All objects emit infrared rays which, although invisible, can be detected as heat by Eco Patrol's sensor if it is within the detection zone. When an object moves within detection zone, Eco Patrol compares the object's temperature with the room temperature to determine if it is human, and level of activity based on its movement.

Detecting Human Presense



Determining the Level of Human Activity



Concludes Level of Activity High or Normal

What is the most applicable situation to use Eco Patrol function? Eco Patrol function is best use during absent period when AC automatically switched to energy saving operation. This helps to reduce electricity consumption while maintaining comfortable room environment.

Does the Eco Patrol sensor work constantly? You can turn on / off Eco Patrol sensor using remote control. Each time AC is switched off, you have to turn it on again using the remote control.

How can I know if I have turn on Eco Patrol sensor? There is a LED light indicator at the bottom right panel. If Eco Patrol sensor is in operation, LED light will light up in Green colour.

Does the sensor ever malfunction? When the air conditioner is installed in a poor location, the sensor may not be able to reach the entire room. The air conditioner should ideally be installed near the centre of the room.

Will the sensor judge that the room as empty if there are only pets in it? The air conditioner will operate in Normal mode as long as the pets move occasionally. (The Eco Patrol sensor will then judge it as a normal condition.)

Won't it incorrectly judge that no one is in the room if you're sleeping? The Eco Patrol Sensor can detect movements as small as 15 cm.
Since human beings do not remain completely still when sleeping, it should not detect the room as empty.
Even if it were to judge that nobody is in the room, it's controlled so that the remote control's set temperature +2°C does not exceed 28°C when cooling, so the room will not become too warm.

How accurate is the sensor? It is capable of detecting a movement of 15 cm to the right or left in a location that is 7 meters from the sensor.

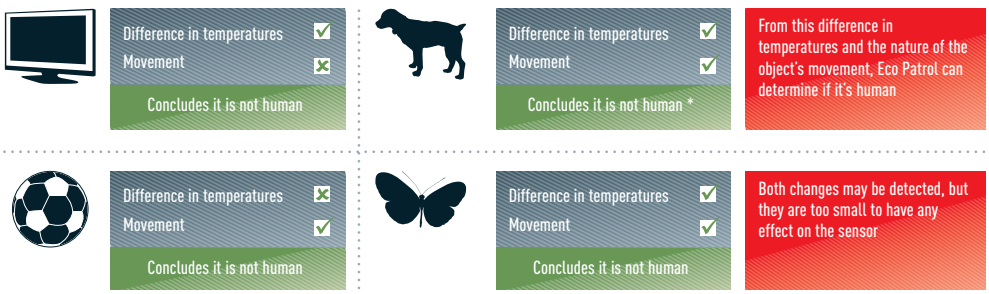
When it enters Eco Patrol sensor function, does the temperature setting display on the remote control change? No, the display doesn't change. The set temperature remains the same.

Is the sensor harmful to people? The Eco Patrol sensor itself does not emit rays. It merely receives the infrared rays that are emitted by other objects, so it's not harmful at all.

ECO PATROL SENSOR TECHNOLOGY: DIFFERENTIATING OBJECTS

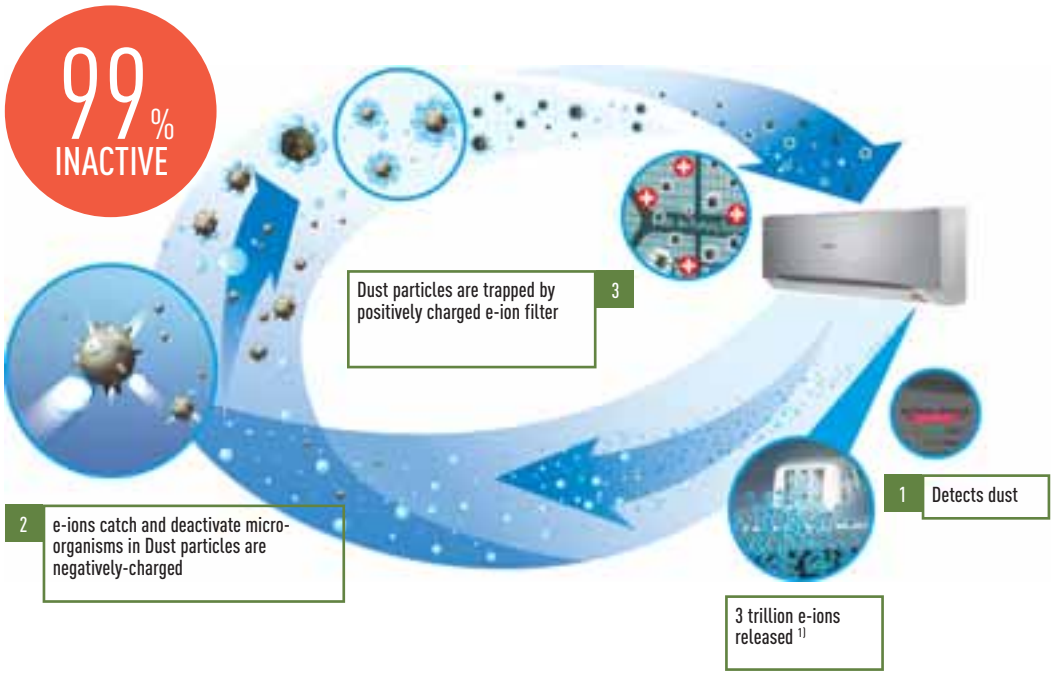
The risk of an operating error is reduced by eliminating movements with levels that are not humanly possible, by using factors such as size and temperature, and the speed and frequency of the movement.

* If a pet moves in a manner similar to a human, it determines that somebody is present.



E-ION AIR PURIFYING SYSTEM WITH NEWLY DESIGNED PATROL SENSOR

Give the best to your customers, the e-ion plus air purifying system is more efficient than ever with its innovative patrol sensor and 24h clean air system. Furthermore Etherea is a 2-in-1 with air purifier and air conditioner with fully independent or simultaneous operation.

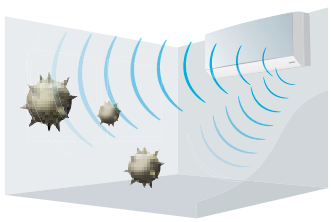


THIS IS PANASONIC'S REVOLUTIONARY MECHANISM

Room air looks clean, but it's filled with invisible particles. Released e-ions Catch Dust Particles and Bring Them Back to the Filter!

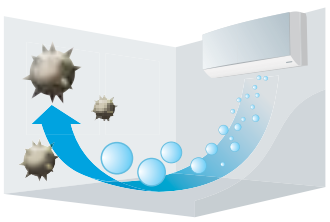
DETECTS

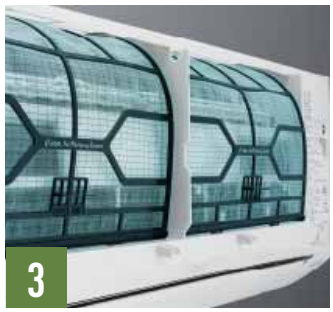
NEWLY DESIGNED PATROL SENSOR
The Patrol Sensor monitors the air and informs you of the dirt level through colour indications. Air purifying starts as soon as dirt is detected.



CATCHES & INACTIVATES

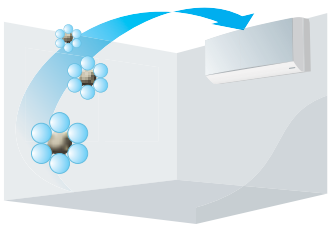
E-ION ACTION
Three trillion e-ions are released to catch floating dust particles. The ions also inactivate bacteria, mould and viruses.





CAPTURES ELECTRICALLY

E-ION FILTER
The filter is positively charged, so negatively charged dust particles are electrically attracted. This electrical action assures that dust is efficiently captured.



1) 3 trillion is the simulated number of active e-ions under the mentioned conditions.
Actual measured active e-ions at the centre of the room (13 m²):100k/cc Calculated number of active e-ions in the entire room assuming they are evenly distributed.

Avallable in Kits: XE7-LKE / XE9-LKE / XE12-LKE / XE15-LKE / XE18-LKE / XE21-LKE / E7-LKE / E9-LKE / E12-LKE / E15-LKE / E18-LKE / E21-LKE / E24-LKE / E28J-KE / 2E77-HKE-1 / 2E712-HKE-1 / 2E912-HKE / 2E1212-HKE / 2XE77-LKE / 2XE79-LKE / 2XE712-LKE / 2XE99-LKE / 2XE912-LKE / 2XE1212-LKE / 3XE7712-LKE / 3XE7715-LKE / 4XE77712-JBE / 4XE77715-JBE / 4XE77712-LKE / 4XE77715-LKE

ETHEREA

healthyair

UNIQUE FEATURES

24-HOUR CLEAN AIR

NEWLY DESIGNED PATROL SENSOR

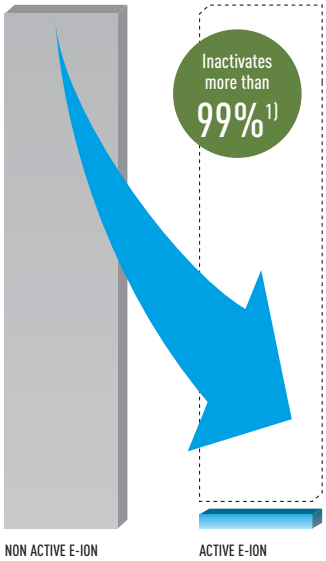
The patrol sensor monitors microscopic dirt in the air and air purifying starts as soon as it is detected. It continues operating even when the air conditioner is switched OFF to maintain room air quality.

HYGIENIC

E-ION ACTION

Active e-ions inactivate more than 99% of airborne bacteria and mould to make them harmless.

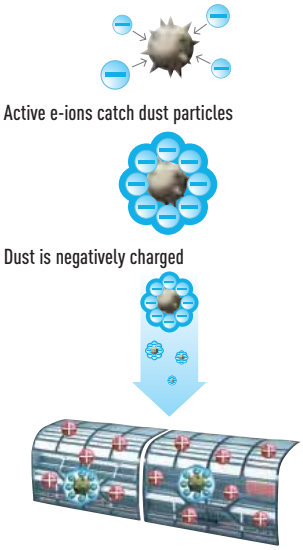
INACTIVATING EFFECT



FASTER PURIFICATION

ELECTRIC CHARGE ATTRACTION

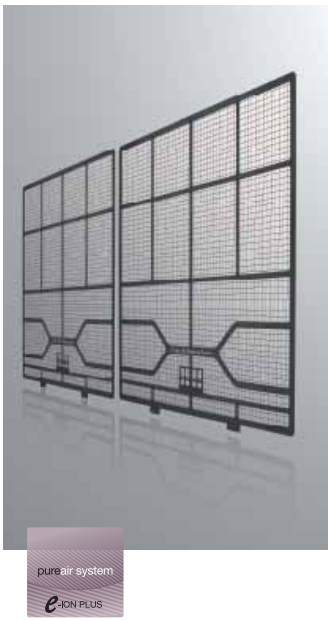
The positively charged filter attracts negatively charged dust particles, providing powerful air purification.



EFFECTIVE CAPTURE

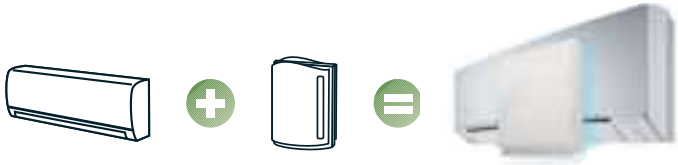
BIGGER, FINER E-ION FILTER

A wider area and finer mesh enables the filter to firmly capture minute micro-level particles.



2-IN-1 VALUE WITH AN AIR PURIFIER

Panasonic air conditioners also offer the function of an air purifier. You can enjoy both cool air with air conditioning and clean air with air purification from a single unit. Thus, it's also really economical.



AIR CONDITIONER:
Moisture (dehumidifying only) control.
Temperature control.

AIR PURIFIER:
Dust collection.
Inactivating viruses, bacteria, mould.

PURE AIR SYSTEM:
Moisture (dehumidifying only) control.
Temperature control.
Dust collection.
Inactivating viruses, bacteria, mould.

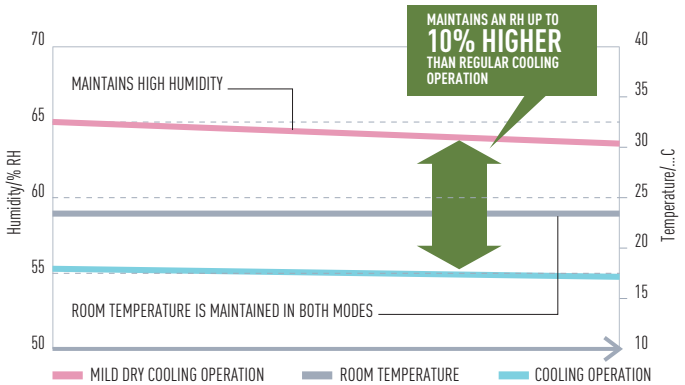
1) 99% inactivation was certified as indicated below. Certified by Japan Food Research Laboratories. Test report number: No. 205010211-001 Bacteria: Staphylococcus aureus subsp. aureus (NBRC12732). Test report number: No. 204101750-001 Virus: Influenza virus A. 1Measurement conditions. Certificated by Japan Food Research Laboratories. Test report number: 304110078-001. Test method: The e-ion Air Purifying System was operated in a test room (10 m²) and changes in airborne mould and bacteria were measured by means of the Air Sampler Method (MAS100)

MILD DRY COOLING 3)

perfect humidity air
MILD DRY

Fine control helps prevent a rapid decrease in room humidity while maintaining the set temperature.
Maintains an RH (Relative Humidity) up to 10% higher than cooling operation.
Ideal when sleeping with the air conditioner on.

ROOM HUMIDITY COMPARISON



3) Only for Etherea 1x1.

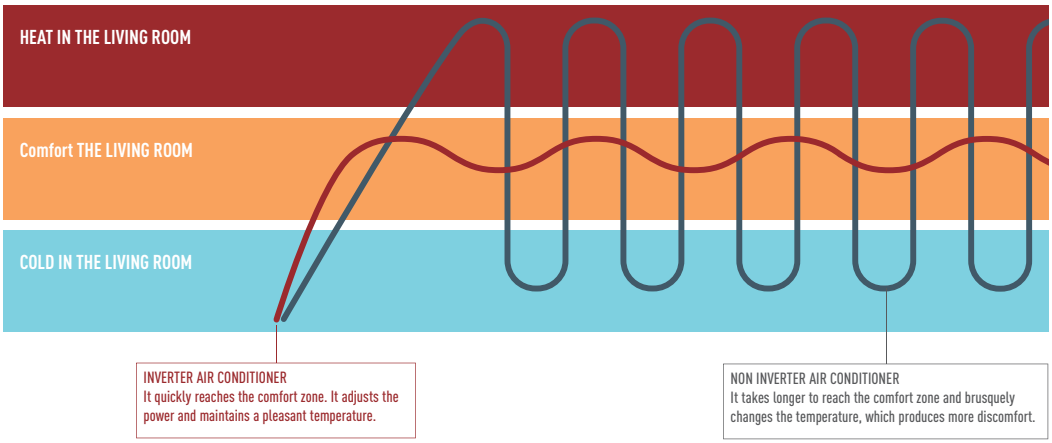
OUTSTANDING ENERGY-SAVING PERFORMANCE

eco ideas

You will always be comfortable with an Inverter air conditioner. After reaching the set temperature quickly, the power will be adjusted smoothly to keep the temperature constant. So, there will be no sharp temperature changes and you will save power. The ample range of output powers also guarantees a pleasant temperature at all times, even when the number of people in the room fluctuates. This way, Inverter air conditioners provide more precise temperature control than non-Inverter models.

THE ADVANTAGES OF INVERTER AIR CONDITIONERS.

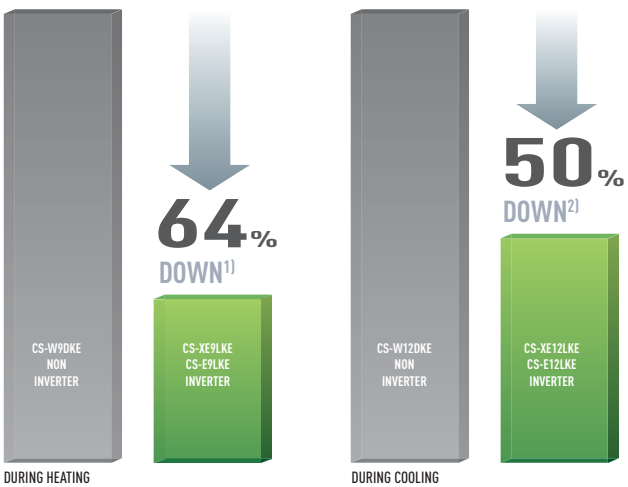
Comparing Inverter and non-Inverter air conditioners.



64% CUT IN POWER CONSUMPTION FOR BIG SAVINGS

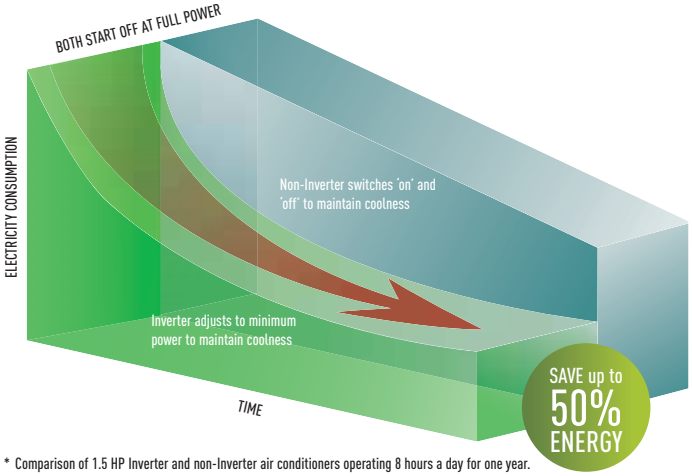
Panasonic Inverter air conditioners provide exceptional energy-saving performance that ranks among the highest in the industry. This dramatically cuts electricity consumption and CO_2 emissions, allowing an environment-friendly operation.

1) Comparison of cumulative electricity consumption during heating to reach the setting temperature (Panasonic in-house comparison) Test conditions: Indoor and outdoor temperature: 7ºC/ Setting temperature: 25ºC/ Fan speed: High.
2) Comparison of cumulative electricity consumption during 8 hours of cooling (Panasonic in-house comparison) Test conditions: Room temperature at start: 35ºC/ Setting temperature: 25ºC.



OUTSTANDING PERFORMANCE WITH UP TO 50% ENERGY SAVINGS

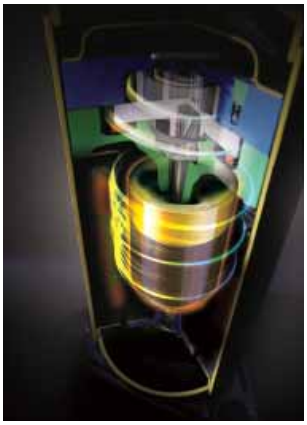
The exceptional energy-saving performance of Panasonic Intelligent Inverter air conditioners ranks among the highest in the industry.
The secret lies in its precision control. After reaching the set temperature, an Intelligent Inverter air conditioner continually adjusts compressor rotation speed to operate with minimum power – saving you up to 50% in electricity.
By contrast, a non-Inverter unit operates on an ON-OFF cycle to maintain the temperature – so it uses twice as much electricity.



* Comparison of 1.5 HP Inverter and non-Inverter air conditioners operating 8 hours a day for one year.
* Test Conditions <Room Size> 16.2 m²; Outside temp.: DB 35°C / WB 24 °C. Set temp.: 25 °C; Fan Speed / Airflow Direction: Hi Fan / Auto Swing.
* Operation starts from indoor temperature DB 35 °C / WB 24 °C, until it achieves the set temperature 25 °C, total operation for 8 hours.

HOW CAN AN INVERTER SAVE ENERGY?

The Inverter constantly adjusts compressor rotation speed to provide optimum performance at all times. This extremely precise operation enables quick cooling while reducing power consumption compared to conventional non-Inverter units.



A: THE MOST EFFICIENT

Our new models have obtained the highest energy performance classification, Class A, which puts them in the highest energy saving class. This means you can use these models every day, without having to worry about the electric bill.

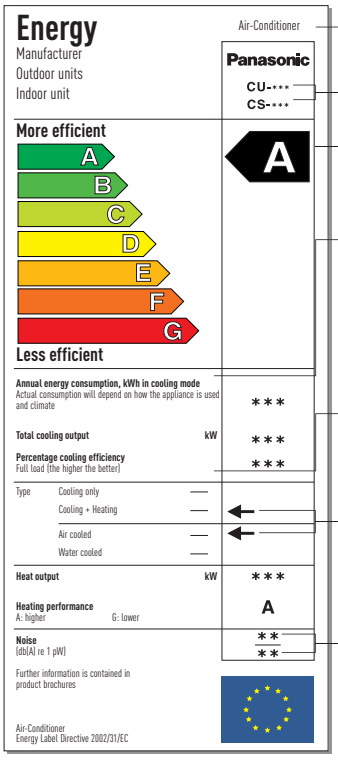
ENERGY EFFICIENCY CLASSIFICATIONS

A European Community directive requiring energy labelling of domestic appliances came into effect in 2005. Since then, all manufacturers have been required to label each product with an efficiency level represented by a letter from A to G. This means that a class B domestic appliance consumes approximately 10% more than an A, a C 20% more than an A, etc.
As well as the corresponding letter, further information on each domestic appliance appears on the right-hand part of the sticker.
In the tables which appear alongside the product in this catalogue, the energy efficiency is referenced with the corresponding letter in white on a black arrow.

CLASSIFICATIONS

There are seven energy efficiency classifications, from A to G.
The highest efficiency level is A and the lowest is G.

These classifications are for split and multi split air conditioning units.



Product

Model number

Class
Energy efficiency classification in seven classes, from A to G.

Annual energy consumption
Annual energy consumption is calculated by multiplying the total power input by an average of 500 hours per year in cooling mode at full load.

Energy efficiency ratio
The higher the EER, the higher the energy efficiency.

Type of air conditioner

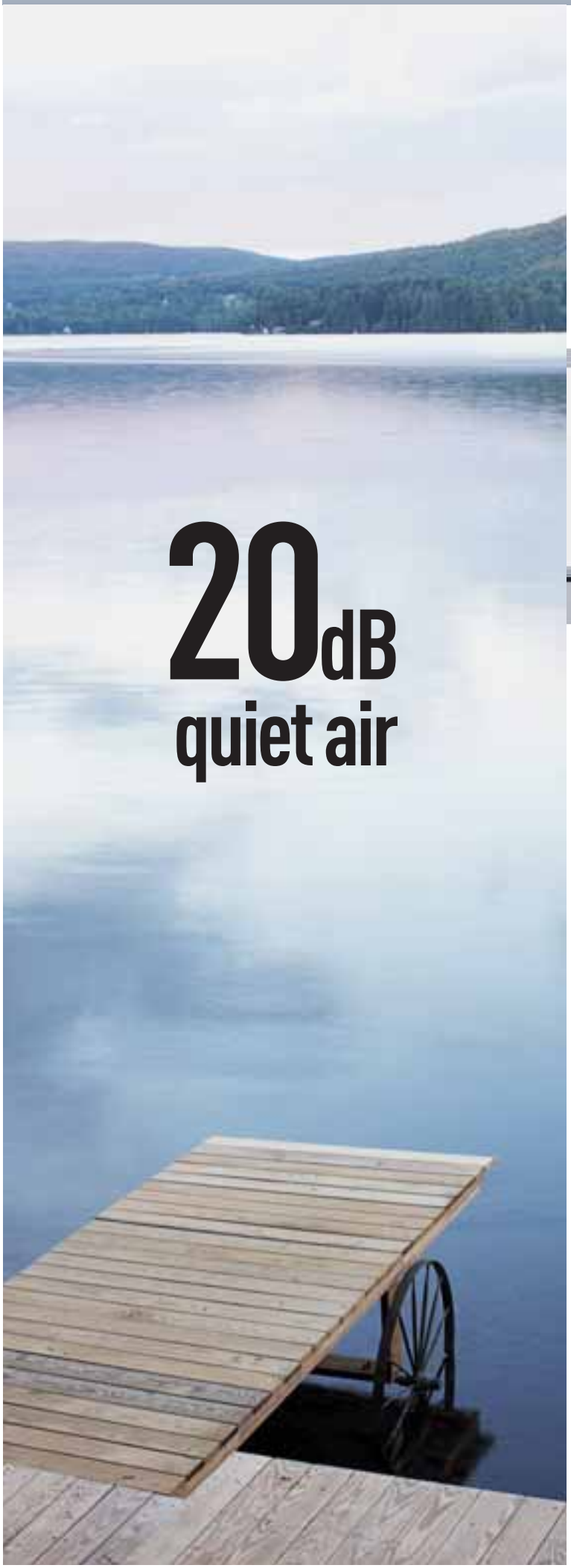
Noise
Indoor unit
Outdoor unit

Unit energy efficiency class in cooling mode

A	3.20 < EER
B	3.20 ≥ EER > 3.00
C	3.00 ≥ EER > 2.80
D	2.80 ≥ EER > 2.60
E	2.60 ≥ EER > 2.40
F	2.40 ≥ EER > 2.20
G	2.20 ≥ EER

Unit energy efficiency class in heating mode

A	3.60 < COP
B	3.60 ≥ COP > 3.40
C	3.40 ≥ COP > 3.20
D	3.20 ≥ COP > 2.80
E	2.80 ≥ COP > 2.60
F	2.60 ≥ COP > 2.40
G	2.40 ≥ COP



PANASONIC TECHNOLOGY FOR COMFORT

Extremely quiet. We have succeeded in making one of the most silent air conditioners on the market. The indoor unit runs silently with a slow fan speed. When you press the Quiet Mode button on the remote control, the operating sound level reduces even further, down to 20 dB. At 20 dB technology our devices are as quiet as a library! We produce discreet air conditioners which do not disturb you, even when the room is at its quietest.

INVERTER

ETHEREA

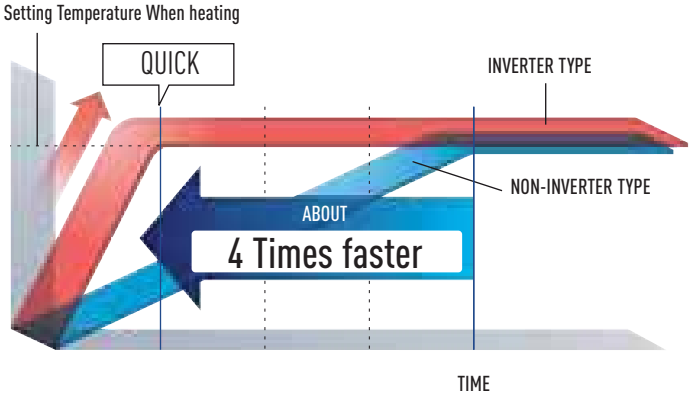
FURTHER INVERTER ADVANTAGES

- Panasonic's Inverter air conditioners control room temperature much better than models which work at a constant speed.
- An Inverter air conditioner has 64% greater heating capacity than models which work at a constant speed. They provide more than enough power to heat a room in winter [1].
- Inverter models distribute the warm air over a wider area than electric radiators. They do not pollute the room like paraffin heaters do. There is no fire risk as there is with gas heaters. Air conditioners transfer heat to the room air, so they are safe and practical.
- Tests have shown that a Panasonic Inverter air conditioner consumes half the electricity of non-Inverter models [2].

1) Comparison of cumulative electricity consumption during heating to reach the setting temperature (Panasonic in-house comparison) Test conditions: Indoor and outdoor temperature: 7ºC/ Setting temperature: 25ºC/ Fan speed: High.
2) Comparison of cumulative electricity consumption during 8 hours of cooling (Panasonic in-house comparison) Test conditions: Room temperature at start: 35ºC/ Setting temperature: 25ºC.

QUICK COMFORT

As soon as an Inverter air conditioner is switched on, it provides the exact amount of power needed to rapidly cool or heat the room. This enables it to reach the set temperature in about a quarter of the time required by non-Inverter models.
So you're comfortable soon after you arrive home on a hot summer day, or on a cold winter morning.



POWERFUL AIRFLOW WITH A LARGER CROSS FLOW FAN

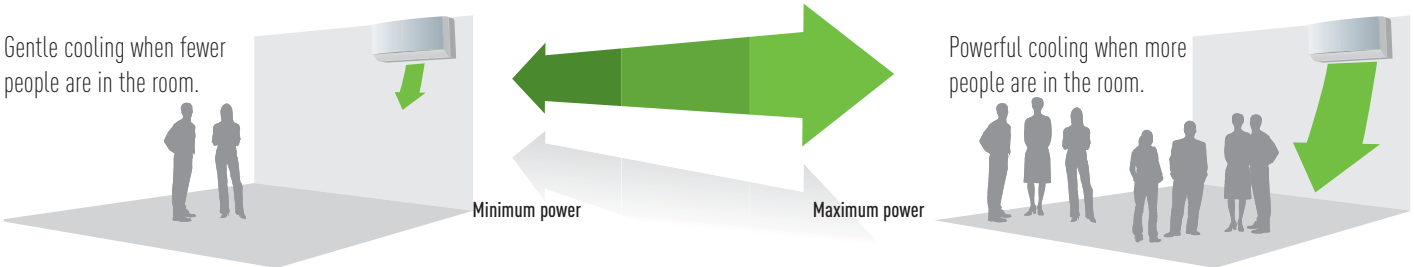
Panasonic's new models feature a large cross flow fan with improved design.The fan's larger diameter dramatically increases airflow. A powerful breeze rapidly cools the room to a comfortable temperature. And because the breeze reaches a wider area, the temperature is evenly distributed throughout the room, providing extra comfort.

*Compare with HKE.
For LKE series Inverter models except multi type.

MORE PRECISE TEMPERATURE CONTROL

An Inverter varies output power to enable more precise temperature adjustment. In comparison, a non-Inverter air conditioner controls the temperature by switching on and off. This results in temperature fluctuations, leading to uneven cooling. With an Inverter model, you're assured a uniform room temperature for extra comfort.

COOLING POWER ADJUSTS TO MEET CHANGES IN ROOM TEMPERATURE



THE SECRET OF SAVING ENERGY. DIFFERENT RANGES THAT MEET ALL TYPES OF REQUIREMENTS

Panasonic makes the widest power range on the market. In order to meet the requirements of each and every client, this line of models makes it possible to adjust consumption to match the characteristics of every room by choosing the ideal power range. No comfort is sacrificed and power consumption is not exceeded.

Panasonic's exclusive 4.5 kW models (E15, XE15, RE15) thus provide the answer to a large number of situations in which more power is required than that offered by the 3.5 kW models, but for which the 5 kW units are too powerful. Furthermore, using a 4.5 kW instead of a 5 kW unit, you will save money due to the greater efficiency of the E15 and you will win on design because the E15 is the same size as the E12, and is 18% smaller than the 5 kW. Using the E15 range, everybody is a winner, and your customer pays for exactly what he needs!
Using our E15, you can save up to 15% compared with an E18 and still obtain a perfect temperature setting in a 30 m² room.*

SAVE UP TO 15%

In the same way, Panasonic's exclusive 2.2 kW models (E7, XE7) guarantee maximum comfort at a minimum price and functioning cost – for small surface areas where the minimum standards of all the other 2.8 kW models exceed real air conditioning requirements.
Using an E7, you can save up to 14% compared with an E9 and still obtain a perfect temperature setting in an 11 m² room.*

SAVE UP TO 14%

SAVINGS WITH CORRECT DIMENSIONING OF AIR CONDITIONING UNIT: CASE STUDY FOR A 12 M² BEDROOM OR ON A LIVING ROOM OF 33 M²*

SAVE UP TO 15%

	ANNUAL CONSUMPTION (KW)	SAVING	USING A E7 AND NOT A E9 ON A 12 m² ROOM
KIT-XE7-LKE	235	12,3%	Furthermore, with a E7, you are not only saving money, but the E7 is quieter than the E9!
KIT-XE9-LKE	267		

	ANNUAL CONSUMPTION (KW)	SAVING	USING A E15 AND NOT A E18 ON A 33 m² LIVING ROOM
KIT-E15-LKE	630	14,3%	Furthermore, with a E15, you are not only saving money, but have smaller and discrete indoor units, and incredibly silent (only 25 dB!)
KIT-E18-LKE	735		

eco ideas

REDUCE CONSUMPTION BY UP TO 36%

PANASONIC'S MULTI SPLIT. CONDITIONS MORE, CONSUMES LESS

If air conditioning requirements exceed the ambit of a single room, Panasonic offers you a very extensive range of possibilities with up to 4 indoor units connected to a single outdoor unit. In this way, not only is the purchase price cheaper, the installation easier, the space for the outdoor units reduced and the elevation difference bigger, but consumption is also reduced enormously. This is because the consumption of one outdoor unit which powers four indoor units is much less than the sum of four outdoor units of individual splits.
You can reduce consumption by up to 36% using the multi-split as opposed to the 1x1!*

ANNUAL CONSUMPTION SAVINGS WITH MULTISPLIT: USING A MULTISPLIT SYSTEM, YOU CAN SAVE MORE!

	ANNUAL CONSUMPTION (KW)	"SAVINGS USING MULTISPLIT INSTEAD OF MONOSPLIT"
7+12 in Multi	615	9.0% SAVING
7+12 in 1X1	687	
12+12 in Multi	760	15.9% SAVING
12+12 in 1X1	904	
7+7+12 in Multi	605	33.3% SAVING
7+7+12 in 1X1	922	
7+7+7+12 in Multi	825	8.0% SAVING
7+7+7+12 in 1X1	1,157.5	
7+9+9+12 in Multi	825	35.9% SAVING
7+9+9+12 in 1X1	1,233	

Furthermore, using a multisplit system, you are saving space on the outdoor unit, making easy installation in small places. The multi system also have long elevation difference and long tubing, which gives flexibility on the installation on the roof.

* Standard conditions: 2.5 m High ceiling; 1 person per 10 m²; 70 w lighting per 10 m²; 1.5 m² window per 10 m² oriented east or west; good thermal insulation on the walls.

DOMESTIC AIR CONDITIONER RANGE			COOLING POWER Rated kW (Min-Max)	EER	HEATING POWER Rated kW (Min-Max)	COP	NOISE PRESSURE LEVEL [1] dB* Cooling/Heating	DIMENSIONS MM [1] (H x W x D)	FOR STANDARD ROOMS BETWEEN m² [2] 10 20 30 40
ETHEREA INVERTER+ // SILVER		KIT-XE7-LKE	2.05 (0.70-2.40)	4.36 A	2.80 (0.70-4.00)	4.41 A	20 / 20	290 x 870 x 204	
		KIT-XE9-LKE	2.50 (0.80-3.00)	4.67 A	3.40 (0.80-5.00)	4.63 A	20 / 20	290 x 870 x 204	
		KIT-XE12-LKE	3.50 (0.80-4.00)	4.07 A	4.00 (0.80-6.00)	4.21 A	20 / 20	290 x 870 x 204	
		KIT-XE15-LKE	4.20 (0.80-5.00)	3.33 A	5.30 (0.80-6.80)	3.68 A	25 / 29	290 x 870 x 204	
		KIT-XE18-LKE	5.00 (0.90-6.00)	3.40 A	5.80 (0.90-8.00)	3.77 A	34 / 34	290 x 1,070 x 235	
		KIT-XE21-LKE	6.30 (0.90-7.10)	2.85 C	7.20 (0.90-8.50)	3.43 B	34 / 34	290 x 1,070 x 235	
ETHEREA INVERTER+ // WHITE		KIT-E7-LKE	2.05 (0.70-2.40)	4.36 A	2.80 (0.70-4.00)	4.41 A	20 / 20	290 x 870 x 204	
		KIT-E9-LKE	2.50 (0.80-3.00)	4.67 A	3.40 (0.80-5.00)	4.63 A	20 / 20	290 x 870 x 204	
		KIT-E12-LKE	3.50 (0.80-4.00)	4.07 A	4.00 (0.80-6.00)	4.21 A	20 / 20	290 x 870 x 204	
		KIT-E15-LKE	4.20 (0.80-5.00)	3.33 A	5.30 (0.80-6.80)	3.68 A	25 / 29	290 x 870 x 204	
		KIT-E18-LKE	5.00 (0.90-6.00)	3.40 A	5.80 (0.90-8.00)	3.77 A	34 / 34	290 x 1,070 x 235	
		KIT-E21-LKE	6.30 (0.90-7.10)	2.85 C	7.20 (0.90-8.50)	3.43 B	34 / 34	290 x 1,070 x 235	
		KIT-E24-LKE	6.80 (0.90-8.10)	3.21 A	8.60 (0.90-9.90)	3.23 C	35 / 35	290 x 1,070 x 235	
		KIT-E28-LKE	7.65 (0.90-8.60)	3.01 B	9.60 (0.90-11.00)	2.91 D	35 / 35	290 x 1,070 x 235	
RE TYPE // STANDARD INVERTER		KIT-RE9-JKE-1	2.50 (0.90-3.00)	3.57 A	3.30 (0.90-4.10)	4.02 A	22 / 25	290 x 848 x 204	
		KIT-RE12-JKE-1	3.50 (0.90-3.90)	3.47 A	4.25 (0.90-5.10)	3.79 A	22 / 25	290 x 848 x 204	
		KIT-RE15-JKE-1	4.20 (1.00-4.60)	3.33 A	5.00 (0.90-6.80)	3.61 A	29 / 28	290 x 848 x 204	
		KIT-RE18-JKE-1	5.00 (0.90-6.00)	3.40 A	5.80 (0.90-8.00)	3.77 A	37 / 37	290 x 1,070 x 235	
		KIT-RE24-JKE-1	6.80 (0.90-8.10)	3.21 A	8.60 (0.90-9.90)	3.23 C	38 / 38	290 x 1,070 x 235	
PW TYPE // STANDARD HEAT PUMP		KIT-PW9-GKE	2.65	3.21 A	2.85	3.63 A	31 / 31	250 x 770 x 205	
		KIT-PW12-GKE	3.40	3.22 A	3.80	3.61 A	32 / 31	280 x 799 x 183	
		KIT-PW18-GKE	5.10	2.91 C	5.30	3.35 C	38 / 38	275 x 998 x 230	
		KIT-PW24-JKE	7.03	2.53 E	7.50	2.87 D	41 / 41	275 x 998 x 230	
V TYPE // STANDARD COOLING ONLY		KIT-V7-DKE	2.40	3.24 A	-	-	24	280 x 799 x 183	
		KIT-V9-DKE	3.00	3.21 A	-	-	24	280 x 799 x 183	
		KIT-V12-DKE	3.68	3.23 A	-	-	27	280 x 799 x 183	
		KIT-V18-DKE	5.30	3.25 A	-	-	35	275 x 998 x 230	
		KIT-V24-DKE	7.03	2.70 D	-	-	38	275 x 998 x 230	
		KIT-V28-EKE	7.91	3.22 A	-	-	42	340 x 1,150 x 260	
FLOOR CONSOLE TYPE // INVERTER+		KIT-E9-GFEW-1	2.50 (0.80-3.00)	4.39 A	3.60 (0.80-5.00)	4.16 A	23 / 23	600 x 700 x 210	
		KIT-E12-GFEW-1	3.50 (0.80-3.80)	3.63 A	4.80 (0.80-6.10)	3.64 A	24 / 23	600 x 700 x 210	
		KIT-E18-GFEW-1	5.00 (0.90-5.60)	3.23 A	5.80 (0.90-7.10)	3.63 A	32 / 32	600 x 700 x 210	
FLOOR OR CEILING // INVERTER		KIT-E15-DTE	4.15 (0.90-4.55)	3.22	5.17 (0.90-6.30)	3.34 C	34 / 30	540 x 1,028 x 200	
		KIT-E18-DTE	5.00 (0.90-5.40)	3.01 B	6.10 (0.90-7.60)	3.35 C	36 / 32	540 x 1,028 x 200	
		KIT-E21-DTE	5.80 (0.90-6.60)	3.01 B	6.80 (0.90-8.10)	3.42 B	38 / 34	540 x 1,028 x 200	
ETHEREA MULTI SPLIT // INVERTER+	2x1	KIT-2XE/E77-JBE	4.50 (1.50-5.00)	3.66 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X2
		KIT-2XE/E79-JBE	4.50 (1.50-5.20)	3.66 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X1 X1
		KIT-2XE/E712-JBE	4.50 (1.50-5.20)	3.60 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X1 X1
		KIT-2XE/E99-JBE	4.50 (1.50-5.20)	3.66 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X2
		KIT-2XE/E99-JKE	4.80 (1.50-5.20)	3.66 A	5.60 (1.10-7.20)	4.48 A	26 / 26	290 x 870 x 204 (x2)	X2
		KIT-2XE/E912-JKE	5.00 (1.50-5.30)	3.36 A	5.60 (1.10-7.20)	4.55 A	26 / 26	290 x 870 x 204 (x2)	X1 X1
		KIT-2XE/E1212-JKE	5.20 (1.50-5.40)	3.42 A	5.60 (1.10-7.20)	4.63 A	29 / 29	290 x 870 x 204 (x2)	X2
		KIT-2XE/E77-LBE	4.00 (1.50-5.00)	3.66 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X2
		KIT-2XE/E79-LBE	4.50 (1.50-5.20)	3.66 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X1 X1
		KIT-2XE/E712-LBE	4.50 (1.50-5.20)	3.60 A	5.40 (1.10-7.00)	4.62 A	26 / 26	290 x 870 x 204 (x2)	X1 X1
		KIT-2XE/E99-LBE	4.80 (1.50-5.20)	3.66 A	5.60 (1.10-7.20)	4.48 A	26 / 26	290 x 870 x 204 (x2)	X2
		KIT-2XE/E99-LKE	4.80 (1.50-5.20)	3.66 A	5.60 (1.10-7.20)	4.48 A	26 / 26	290 x 870 x 204 (x2)	X2
		KIT-2XE/E912-LKE	5.00 (1.50-5.30)	3.36 A	5.60 (1.10-7.20)	4.55 A	26 / 26	290 x 870 x 204 (x2)	X1 X1
		KIT-2XE/E1212-LKE	5.20 (1.50-5.40)	3.42 A	5.60 (1.10-7.20)	4.63 A	29 / 29	290 x 870 x 204 (x2)	X2
	3x1	KIT-3XE/E7712-LBE	5.20 (1.90-7.20)	4.30 A	6.80 (1.40-8.30)	4.63 A	26 / 26	290 x 870 x 204 (x3)	X2 X1
		KIT-3XE/E7715-LBE	5.20 (1.80- 7.30)	4.33 A	6.80 (1.60-8.30)	4.72 A	26 / 26	290 x 870 x 204 (x3)	X2 X1
	4x1	KIT-4XE/E77712-LBE	6.80 (1.90-8.80)	4.12 A	8.60 (3.00-10.60)	4.65 A	26 / 26	290 x 870 x 204 (x4)	X3 X1
		KIT-4XE/E77715-LBE	6.80 (1.90-8.80)	4.12 A	8.60 (3.00-10.60)	4.65 A	26 / 26	290 x 870 x 204 (x4)	X3 X1
		KIT-4XE/E77712-LKE	8.00 (2.80-8.90)	3.76 A	9.40 (3.40-10.50)	4.43 A	26 / 26	290 x 870 x 204 (x4)	X3 X1
		KIT-4XE/E77715-LKE	8.00 (2.80-8.90)	3.76 A	9.40 (3.80-10.50)	4.50 A	26 / 26	290 x 870 x 204 (x4)	X3 X1

SUITABLE MIN MAX

1) Indoor unit.
2) Standard conditions: 2.5 m high ceiling; 1 person per 10 m²; 70 w lighting per 10 m²; 1.5 m² window per 10 m² oriented east or west; good thermal insulation on the walls.

DOMESTIC AIR CONDITIONER RANGE

INDOOR UNITS	2.2 kW	2.8 kW	3.2 kW
WALL MOUNTED ETHEREA // INVERTER+ // SILVER PAGE 40 / 42	 KIT-XE7-LKE	 KIT-XE9-LKE	 KIT-XE12-LKE
WALL MOUNTED ETHEREA // INVERTER+ // WHITE PAGE 44 / 46	 KIT-E7-LKE	 KIT-E9-LKE	 KIT-E12-LKE
WALL MOUNTED RE TYPE // STANDARD INVERTER PAGE 48		 KIT-RE9-JKE-1	 KIT-RE12-JKE-1
WALL MOUNTED // INVERTER+ PAGE 50	 KIT-XE7-LKE-3 / KIT-E7-LKE-3	 KIT-XE9-LKE-3 / KIT-E9-LKE-3	 KIT-XE12-LKE-3 / KIT-E12-LKE-3
WALL MOUNTED TYPE // INVERTER+ // -15ºC PAGE 52		 KIT-E9-HKEA	 KIT-E12-HKEA
WALL-MOUNTED TYPE // STANDARD HEAT PUMP PAGE 54		 KIT-PW9-GKE	 KIT-PW12-GKE
WALL-MOUNTED TYPE // STANDARD COOLING ONLY PAGE 56	 KIT-V7-DKE	 KIT-V9-DKE	 KIT-V12-DKE
FLOOR CONSOLE TYPE // INVERTER+ PAGE 58		 KIT-E9-GFEW-1	 KIT-E12-GFEW-1
SINGLE SPLIT FLOOR OR CEILING TYPE // INVERTER PAGE 60			
ETHEREA MULTI SPLIT 2X1 // INVERTER+ PAGE 62 / 64			
ETHEREA MULTI SPLIT 2X1 // INVERTER+ PAGE 66 / 68			
ETHEREA MULTI SPLIT 3X1 // INVERTER+ PAGE 70			
ETHEREA MULTI SPLIT 4X1 // INVERTER+ PAGE 72			

4.5 kW	5.0 kW	6.0 kW	6.5 kW	8.0 kW
 KIT-XE15-LKE	 KIT-XE18-LKE	 KIT-XE21-LKE		
 KIT-E15-LKE	 KIT-E18-LKE	 KIT-E21-LKE	 KIT-E24-LKE	 KIT-E28-LKE
 KIT-RE15-JKE-1	 KIT-RE18-JKE-1		 KIT-RE24-JKE-1	
 KIT-XE15-LKE-3 / KIT-E15-LKE-3				
 KIT-E15-HKEA	 KIT-E18-HKEA	 KIT-E21-HKEA		
	 KIT-PW18-GKE		 KIT-PW24-JKE	
	 KIT-V18-DKE		 KIT-V24-DKE	 KIT-V28-EKE
	 KIT-E18-GFEW-1			
 KIT-E15-DTE	 KIT-E18-DTE	 KIT-E21-DTE		
 KIT-2XE/E77-JBE / 2XE/E79-JBE / 2XE/E712-JBE / 2XE/E99-JBE	 KIT-2XE/E99-JKE / 2XE/E912-JKE / 2XE/E1212-JKE			
 KIT-2XE/E77-JBE / 2XE/E79-JBE / 2XE/E712-JBE / 2XE/E99-JBE	 KIT-2XE/E99-LKE / 2XE/E912-LKE / 2XE/E1212-LKE			
		 KIT-3XE/E7712-JBE / 3XE/E7715-JBE / XE/E7712-LKE / 3XE/E7715-LKE		
				 KIT-4XE/E77712-JBE / 4XE/E77715-JBE / 4XE/E77712-LKE / 4XE/E77715-LKE

FEATURE EXPLANATIONS

Healthy Air Quality

E-ION+ AIR PURIFYING SYSTEM

E-ions are shot out to catch dust and inactivate airborne bacteria and mould. The positively charged e-ion filter attracts dust to thoroughly clean the room.

NEWLY DESIGNED PATROL SENSOR

The patrol sensor monitors microscopic dirt in the air and air purifying starts as soon as it is detected. It continues operating 24-hr a day even when the air conditioner is switched OFF to maintain room air quality.

MILD DRY COOLING

Fine control helps prevent a rapid decrease in room humidity while maintaining the set temperature. Maintains an RH* up to 10% higher than cooling operation (*RH: Relative Humidity).
Ideal when sleeping with the air conditioner on.

SOFT BREEZE MODE

The Soft Breeze mode eliminates excess humidity with a soft breeze and gives you the feeling of well-being without significant temperature changes.

ION BENEFIT

Negative ions, found in the air near waterfalls and forests, generally produce a great sense of wellbeing. Panasonic brings all the benefits to your home, at the push of a button.

SUPER ALLERU-BUSTER FILTER

The super alleru-buster filter eliminates the allergens it captures. It combines three functions in one (anti-allergen, anti-virus and anti-bacteria) to keep room air clean and healthy.
ANTI-ALLERGEN PROTECTION
Inactivates more than 99% of filter-captured allergens.
ANTI-VIRUS PROTECTION
Inactivates more than 99% of filter-captured viruses.
ANTI-BACTERIA/ANTI-MOULD PROTECTION
The filter inactivates more than 99% of captured bacteria and mould spores.

ONE-TOUCH ANTI-MOULD AIR FILTER

ODOUR-REMOVING FUNCTION

Allows the exchanger to be cleaned, preventing possible odours. While this function is connected, the fan also remains off momentarily to avoid unpleasant odours while the exchanger is being cleaned.

REMOVABLE, WASHABLE PANEL

The front panel is easy to keep clean. It can be removed quickly in one single step and can be washed in water. A clean front panel ensures smoother, more efficient operation, which can save energy.

Comfort

INVERTER PLUS SYSTEM

Inverter plus products improve on the characteristics of standard Inverter air conditioners by over 20%. This means 20% less consumption and 20% off your electric bill. A Inverter plus is also A class on cooling and heating mode.

INVERTER SYSTEM

The Inverter range provides greater efficiency, more comfort. Provides more precise temperature control, without highs and lows, and keeps the ambient temperature constant with lower energy consumption and a significant reduction in noise and vibration levels.

ECO PATROL

Eco Patrol's sensor technology uses factors such as speed, frequency and temperature to determine the human activity level in the room for maximum comfort and maximum savings. With Eco Patrol, you can save up to 30%.

SUPER QUIET MODE

Thanks to its latest generation compressor and its twin blade fan, our outdoor unit is one of the most silent on the market. The indoor unit emits an almost imperceptible 20 dB.

DOWN TO -15°C IN COOLING ONLY MODE

The air conditioner works in cooling only mode with an outdoor temperature of -15°C.

DOWN TO -15°C IN HEAT PUMP

The air conditioner works in heat pump mode with an outdoor temperature as low as -15°C.

POWERFUL MODE

High power for immediate air conditioning. The rapid and effective powerful mode is ideal for when you come home on the hottest or coldest days. It works at maximum power to reach the desired temperature in 15 minutes.

SOFT DRY OPERATION MODE

The soft dry mode eliminates excess moisture with a soft breeze and provides a sense of wellbeing without much change in temperature.

WIDE & LONG AIRFLOW VANE

This vane has been designed so that the air goes further. It sends air to every corner of the room to keep the whole room in the comfort zone.

PERSONAL AIRFLOW CREATION

Permits the air direction to be adjusted vertically and horizontally. This feature can be conveniently selected by remote control.

AUTOMATIC VERTICAL AIRFLOW CONTROL

The flap swings up and down automatically, making a vertical sweep which spreads the flow throughout the room. The flow can also be set a fixed angle with the remote control.

MANUAL HORIZONTAL AIRFLOW CONTROL

AUTO MODE (INVERTER)

Change automatically from cooling to heating in function of the temperature of the room.

SIMPLE AUTO CHANGEOVER

When the difference between the measured temperature and the set temperature is 3°C or more, it automatically switches over the current operation mode to heating or cooling mode necessary to keep the temperature at a constantly comfortable level.

HOT START MODE

On the start of heating cycle and after defrost cycle, the indoor fan will start up once the indoor heat exchanger is warm.

Use

12-HOUR ON&OFF TIMER

REAL TIME CLOCK WITH DUAL ON&OFF TIMER

This feature enables you to preset two different sets of start/stop operation timer (hour and minute) within a 24-hour time frame.

REAL TIME CLOCK WITH SINGLE ON&OFF TIMER

The exact operating time (hour and minute) can be set in advance. From here on, the unit will operate in accordance to these preset hours every day until the system is reset.

LCD WIRELESS REMOTE CONTROLLER

Reliability

AUTOMATIC RESTART

This function permits automatic restarting if safe mode operation has stopped for some unusual reason, such as after a power cut. As soon as the power is back, the unit restarts with the parameters selected before it stopped.

LONG PIPING

This is a figure which indicates the maximum length of pipe between the outdoor unit and the indoor unit(s). The long distances permitted are demonstration of the many installations possible.

TOP-PANEL MAINTENANCE ACCESS

Maintenance of an outdoor unit used to be quite a tedious task. Now, with the possibility of removing the top cover, maintenance is quick and easy.

SELF-DIAGNOSIS FUNCTION

With this function the unit carries out a process self-diagnosis when a particular function does not work correctly. This allows faster servicing.

5 YEARS
Warranty on the compressor.

FEATURE COMPARISON

		MODELS	KIT-XE7-LKE KIT-XE9-LKE KIT-XE12-LKE KIT-XE15-LKE KIT-XE18-LKE KIT-XE21-LKE	KIT-E7-LKE KIT-E9-LKE KIT-E12-LKE KIT-E15-LKE KIT-E18-LKE KIT-E21-LKE KIT-E24-LKE KIT-E28-LKE	KIT-RE9-JKE-1 KIT-RE12-JKE-1 KIT-RE15-JKE-1 KIT-RE18-JKE-1 KIT-RE24-JKE-1	KIT-XE/E7-LKE-3 KIT-XE/E9-LKE-3 KIT-XE/E12-LKE-3 KIT-XE/E15-LKE-3	KIT-E9-HKEA KIT-E12-HKEA KIT-E15-HKEA KIT-E18-HKEA KIT-E21-HKEA	KIT-PW9-GKE KIT-PW12-GKE KIT-PW18-GKE KIT-PW24-JKE	KIT-V7-DKE KIT-V9-DKE KIT-V12-DKE KIT-V18-DKE KIT-V24-DKE KIT-V28-EKE	KIT-E9-GFEW-1 KIT-E12-GFEW-1 KIT-E18-GFEW-1	KIT-E15-DTE KIT-E18-DTE KIT-E21-DTE	KIT-2XE/E77-LBE KIT-2XE/E79-LBE KIT-2XE/E712-LBE KIT-2XE/E99-LBE KIT-2XE/E99-JKE KIT-2XE/E912-JKE KIT-2XEE/1212-JKE	KIT-2XE/E77-LBE KIT-2XE/E79-LBE KIT-2XE/E712-LBE KIT-2XE/E99-LBE KIT-2XE/E99-LKE KIT-2XE/E912-LKE KIT-2XEE/1212-LKE	KIT-3XE/E7712-LKE KIT-3XE/E7715-LKE	KIT-4XE/E77712-LBE KIT-4XE/E77715-LBE KIT-4XE/E77712-LKE KIT-4XE/E77715-LKE
HEALTHY AIR QUALITY		Advanced+Plus e-ion. Air purifying system	✘	✘		✘						✘	✘	✘	✘
		Newly Designed Patrol Sensor	✘	✘		✘						✘	✘	✘	✘
		Mild Dry Cooling	✘	✘		✘									
		Soft Breeze			✘										
		Ion Benefit					✘		✘						
		Super Alleru-buster filter			✘ 10 years		✘	✘ Optional	✘		✘ Optional				
		One-Touch anti-mould air filter			✘				✘	✘	✘				
		Odour-removing function	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
		Removable, washable panel	✘	✘	✘	✘	✘	✘	✘	✘		✘	✘	✘	✘
COMFORT		Inverter+ system	✘	✘		✘	✘			✘		✘	✘	✘	✘
		Inverter system			✘				✘		✘				
		Eco Patrol	✘	✘		✘							✘ Applicable for LKE indoors	✘ Applicable for LKE indoors	✘ Applicable for LKE indoors
		Super Quiet mode	✘	✘	✘ For RE9, RE12 and RE15	✘	✘		✘	✘	✘	✘	✘	✘	✘
		Down to -15ºC in cooling only					✘								
		Down to -15ºC in heat pump				✘	✘			✘		✘	✘	✘	✘
		Powerful mode	✘	✘	✘ For RE9, RE12 and RE15	✘	✘		✘	✘	✘	✘	✘	✘	✘
		Soft dry operation mode	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
		Wide & long airflow vane	✘ For XE7, XE9, XE12 and XE15	✘ For E7, E9, E12 and E15		✘						✘	✘	✘	✘
		Personal airflow creation	✘ For XE18 and XE21	✘ For E18, E21, E24 and E28	✘ For RE18 and RE24		✘		✘ For V18, V24 and V28						
		Automatic vertical airflow control	✘ For XE7, XE9, XE12 and XE15	✘ For E7, E9, E12 and E15	✘ For RE9, RE12 and RE15	✘		✘	✘ For V7, V9 and V12	✘	✘	✘	✘	✘	✘
		Manual horizontal airflow control	✘ For XE7, XE9, XE12 and XE15	✘ For E7, E9, E12 and E15	✘ For RE9, RE12 and RE15	✘			✘ For V7, V9 and V12	✘	✘	✘	✘	✘	✘
		AUTO mode (Inverter)								✘	✘	✘	✘	✘	✘
		Simple Auto Changeover	✘	✘	✘	✘									
		Hot start mode	✘	✘	✘	✘	✘	✘		✘	✘				
USE		12-hour ON&OFF timer			✘ For RE9, RE12 and RE15			✘ For PW9 and PW12							
		Real time clock with dual ON&OFF timer	✘	✘		✘					✘	✘	✘	✘	✘
		Real time clock with single ON&OFF timer			✘ For RE18 and RE24		✘	✘ For PW18 and PW24	✘	✘					
		LCD Wireless remote controller	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
RELIABILITY		Automatic restart	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
		Long piping	✘ 15m (XE7, XE9, XE12 and XE15) 20 m (XE18 and XE21)	✘ 15m (E7, E9, E12 and E15) 20m (E18 / E21) 30 m (E24 / E28)	✘ 15m (RE9, RE12 and RE15) 20m (RE18) 30m (RE24)	✘ 15m	✘ 15m 20m (E18 and E21)	✘ 10m (PW9) 15m (PW12) 25m (PW18 and PW24)	✘ 10m (V7, V9) 15m (V12) 25m (V18/V24) 30m (V28)	✘ 15m 20m (E18)	✘ 20m	See page 55	See page 55	See page 55	See page 55
		Top-Panel maintenance access	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘
		Self-diagnosis function	✘	✘	✘	✘	✘			✘	✘	✘	✘	✘	✘
		Warranty on the compressor	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘

WALL MOUNTED ETHEREA // INVERTER+ // SILVER

NEW ETHEREA WITH ECO PATROL, MORE EFFICIENT, MORE COMFORT, MORE DESIGN, MORE HEALTHY AIR

Eco Patrol's sensor technology uses factors such as speed, frequency and temperature to determine the human activity level in the room for maximum comfort and maximum savings. With Eco Patrol, you can save up to 30%. Furthermore, Etherea is more efficient than ever with 64% less consumption for the non Inverter model on heat pump mode, and can reach 71% total savings when used with Eco Patrol. More efficiency for bigger savings!

Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants.

Etherea is also able to prevent rapid decreases in room humidity with the new mild dry cooling system which increases comfort, especially when sleeping with the air conditioning running.

Maintains a Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

WALL MOUNTED ETHEREA // INVERTER+ // SILVER

Kit			KIT-XE7-LKE	KIT-XE9-LKE	KIT-XE12-LKE	KIT-XE15-LKE
Indoor			**CS-XE7LKEW**	**CS-XE9LKEW**	**CS-XE12LKEW**	**CS-XE15LKEW**
Outdoor			**CU-E7LKE**	**CU-E9LKE**	**CU-E12LKE**	**CU-E15LKE**
Cooling capacity	Nominal (Min - Max)	kW	2.05 (0.70-2.40)	2.50 (0.80-3.00)	3.50 (0.80-4.00)	4.20 (0.80-5.00)
	Nominal (Min - Max)	kCal/h	1,760 (600-2,060)	2,150 (690-2,580)	3,010 (690-3,440)	3,610 (690-4,300)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.36 (4.12-4.14) A**	**4.67 (4.57-4.11) A**	**4.07 (4.32-3.54) A**	**3.33 (4.10-3.18) A**
Power input Cooling	Nominal (Min - Max)	kW	0.47 (0.17-0.58)	0.535 (0.175-0.730)	0.860 (0.185-1.130)	1.26 (0.195-1.570)
Heating capacity	Nominal (Min - Max)	kW	2.80 (0.70-4.00)	3.40 (0.80-5.00)	4.00 (0.80-6.00)	5.30 (0.80-6.80)
	Nominal (Min - Max)	kCal/h	2,410 (600-3,440)	2,920 (690-4,300)	3,440 (690-5,160)	4,560 (690-5850)
Heating capacity at -7°C	Nominal	kW	2.35	2.88	3.46	3.94
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.41 (4.38-3.92) A**	**4.63 (4.85-3.85) A**	**4.21 (4.57-3.51) A**	**3.68 (4.32-3.51) A**
Power input Heating	Nominal (Min - Max)	kW	0.635 (0.16-1.02)	0.735 (0.165-1.30)	0.950 (0.175-1.71)	1.44 (0.185-1.940)
Annual Energy Consumption [2]		kWh	235	268	430	630
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	654 / 684	678 / 702	750 / 768	750 / 804
Moisture removal volume		l/h	1.3	1.5	2.0	2.4
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	37 / 24 / 20	39 / 25 / 20	42 / 28 / 20	43 / 31 / 25
	Heating (Hi / Lo / S-Lo)	dB(A)	38 / 25 / 20	40 / 27 / 20	42 / 33 / 20	43 / 35 / 29
Sound power Level	Cooling (Hi)	dB	53	55	58	59
	Heating (Hi)	dB	54	56	58	59
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current Cooling	Nominal	A	2.2	2.5	3.9	5.7
Current Heating	Nominal	A	3.0	3.4	4.4	6.6
Max. current		A	4.7	5.8	7.8	9.0
Air Volume	Cooling / Heating	m^3/h	2,034 / 2,034	1,788 / 1,788	1,860 / 1,860	1,884 / 1,884
Sound pressure Level [3]	Cooling (Hi)	dB(A)	45	46	48	49
	Heating (Hi)	dB(A)	46	47	50	51
Sound power Level	Cooling (Hi)	dB	60	61	63	64
	Heating (Hi)	dB	61	62	65	66
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289
Net weight		kg	33	34	34	34
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)
Refrigerant Loading	R410A	kg	0.830	0.950	0.980	1.01
Elevation difference (in/out) [5]	Max	m	15	15	15	15
Piping length	Min / Max	m	3-15	3-15	3-15	3-15
Piping length without refrigerant increase	Max	m	7.5	7.5	7.5	7.5
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	+5 / +43	+5 / +43	+5 / +43	+5 / +43
	Heating Min / Max	°C	-5 / +24	-5 / +24	-5 / +24	-5 / +24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb

This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

Connectivity restriction: JKE units are not compatible with LKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.

2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.

3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.

4) Add 70 mm for piping port.

5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

NEW10

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE SILVER DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MILD DRY COOLING: PREVENT A RAPID DECREASE IN ROOM HUMIDITY
- SUPER QUIET! ONLY 20DB, EQUIVALENT TO NIGHT-TIME IN THE COUNTRY
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

eco ideas
Energy-Efficiency Classification
Most efficient level: A
(CS-XE9LKEW EER/COP: 4.67/4.63)

KIT-XE7-LKE // KIT-XE9-LKE // KIT-XE12-LKE // KIT-XE15-LKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation
- Mild Dry Cooling operation mode for increased comfort and prevention of skin moisture loss

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Super Quiet mode (from 20 dB)
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 15 m maximum connection distance
- 15 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

CU-E7LKE CU-E12LKE
CU-E9LKE CU-E15LKE

WALL MOUNTED ETHEREA // INVERTER+ // SILVER

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Maintains an Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

WALL MOUNTED ETHEREA // INVERTER+ // SILVER

Kit			**KIT-XE18-LKE**	**KIT-XE21-LKE**
Indoor			**CS-XE18LKEW**	**CS-XE21LKEW**
Outdoor			**CU-E18LKE**	**CU-E21LKE**
Cooling capacity	Nominal (Min - Max)	kW	5.00 (0.90-6.00)	6.30 (0.90-7.10)
	Nominal (Min - Max)	kCal/h	4,300 (770-5,160)	5,420 (770-6,110)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.40 (4.19-2.96) A**	**2.85 (4.19-2.8) C**
Power input Cooling	Nominal (Min - Max)	kW	1.47 (0.215-2.03)	2.21 (0.215-2.54)
Heating capacity	Nominal (Min - Max)	kW	5.80 (0.90-8.00)	7.20 (0.90-8.50)
	Nominal (Min - Max)	kCal/h	4990 (770-6,880)	6,190 (770-7,310)
Heating capacity at -7°C	Nominal	kW	4.98	5.24
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.77 (3.67-3.08) A**	**3.43 (3.67-3.09) B**
Power input Heating	Nominal (Min - Max)	kW	1.54 (0.245-2.600)	2.10 (0.245-2.75)
Annual Energy Consumption [2]		kWh	735	1,105
Indoor unit				
Air Volume	Cooling / Heating	m^3/h	978 / 1,074	1,038 / 1,110
Moisture removal volume		l/h	2.8	3.5
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	44 / 37 / 34	45 / 37 / 34
	Heating (Hi / Lo / S-Lo)	dB(A)	44 / 37 / 34	45 / 37 / 34
Sound power Level	Cooling (Hi)	dB	60	61
	Heating (Hi)	dB	60	61
Dimensions	H x W x D	mm	290 x 1,070 x 235	290 x 1,070 x 235
Net weight		kg	12	12
Air purifier filter			Patrol + E-ion	Patrol + E-ion
Outdoor unit				
Power source		V	230	230
Connection		mm^2	4 x 2.5	4 x 2.5
Current Cooling	Nominal	A	6.7	9.8
Current Heating	Nominal	A	7.0	9.3
Max. current		A	11.7	12.1
Air Volume	Cooling / Heating	m^3/h	2,400 / 2,316	2,568 / 2,490
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48
	Heating (Hi)	dB(A)	47	49
Sound power Level	Cooling (Hi)	dB	61	62
	Heating (Hi)	dB	61	63
Dimensions [4]	H x W x D	mm	750 x 875 x 345	750 x 875 x 345
Net weight		kg	48	49
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)
Refrigerant Loading	R410A	kg	1.15	1.29
Elevation difference (in/out) [5]	Max	m	15	15
Piping length	Min / Max	m	3-20	3-20
Piping length without refrigerant increase	Max	m	10	10
Additional gas		g/m	20	20
Operating range [3]	Cooling Min / Max	°C	+5 / +43	+5 / +43
	Heating Min / Max	°C	-5 / +24	-5 / +24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb

This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

Connectivity restriction: JKE units are not compatible with LKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.

2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.

3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.

4) Add 70 mm for piping port.

5) When installing the outdoor unit at a higher position than the indoor unit.

NEW10

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE SILVER DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MILD DRY COOLING: PREVENT A RAPID DECREASE IN ROOM HUMIDITY
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

KIT-XE18-LKE // KIT-XE21-LKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation
- Mild Dry Cooling operation mode for increased comfort and prevention of skin moisture loss

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Super Quiet mode
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 15 m maximum connection distance (20 m for XE18 and XE21)
- 15 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

eco ideas
Energy-Efficiency Classification
Most efficient level: A
(CS-XE18LKEW EER/COP: 3.40/3.77)

CU-E18LKE
CU-E21LKE

A energy saving air INVERTER+

WALL MOUNTED ETHEREA // INVERTER+ // WHITE

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movement sensor for 30% savings ECO PATROL

24h quality air control PATROL SENSOR

pure air system e-ION PLUS

perfect humidity air MILD DRY

Maintains an Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

20dB silent air SUPER QUIET

FOR E7, E9 AND E12

WALL MOUNTED ETHEREA // INVERTER+ // WHITE

Kit			KIT-E7-LKE	KIT-E9-LKE	KIT-E12-LKE	KIT-E15-LKE
Indoor			**CS-E7LKEW**	**CS-E9LKEW**	**CS-E12LKEW**	**CS-E15LKEW**
Outdoor			**CU-E7LKE**	**CU-E9LKE**	**CU-E12LKE**	**CU-E15LKE**
Cooling capacity	Nominal (Min - Max)	kW	2.05 (0.70-2.40)	2.50 (0.80-3.00)	3.50 (0.80-4.00)	4.20 (0.80-5.00)
	Nominal (Min - Max)	kCal/h	1,760 (600-2,060)	2,150 (690-2,580)	3,010 (690-3,440)	3,610 (690-4,300)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.36 (4.12-4.14) A**	**4.67 (4.57-4.11) A**	**4.07 (4.32-3.54) A**	**3.33 (4.10-3.18) A**
Power input Cooling	Nominal (Min - Max)	kW	0.47 (0.17-0.58)	0.535 (0.175-0.730)	0.860 (0.185-1.130)	1.26 (0.195-1.570)
Heating capacity	Nominal (Min - Max)	kW	2.80 (0.70-4.00)	3.40 (0.80-5.00)	4.00 (0.80-6.00)	5.30 (0.80-6.80)
	Nominal (Min - Max)	kCal/h	2,410 (600-3,440)	2,920 (690-4,300)	3,440 (690-5,160)	4,560 (690-5850)
Heating capacity at -7°C	Nominal	kW	2.35	2.88	3.46	3.94
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.41 (4.38-3.92) A**	**4.63 (4.85-3.85) A**	**4.21 (4.57-3.51) A**	**3.68 (4.32-3.51) A**
Power input Heating	Nominal (Min - Max)	kW	0.635 (0.16-1.02)	0.735 (0.165-1.30)	0.950 (0.175-1.71)	1.44 (0.185-1.940)
Annual Energy Consumption [2]		kWh	235	268	430	630
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	654 / 684	678 / 702	750 / 768	750 / 804
Moisture removal volume		l/h	1.3	1.5	2.0	2.4
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	37 / 24 / 20	39 / 25 / 20	42 / 28 / 20	43 / 31 / 25
	Heating (Hi / Lo / S-Lo)	dB(A)	38 / 25 / 20	40 / 27 / 20	42 / 33 / 20	43 / 35 / 29
Sound power Level	Cooling (Hi)	dB	53	55	58	59
	Heating (Hi)	dB	54	56	58	59
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current Cooling	Nominal	A	2.2	2.5	3.9	5.7
Current Heating	Nominal	A	3.0	3.4	4.4	6.6
Max. current		A	4.7	5.8	7.8	9.0
Air Volume	Cooling / Heating	m^3/h	2,034 / 2,034	1,788 / 1,788	1,860 / 1,860	1,884 / 1,884
Sound pressure Level [3]	Cooling (Hi)	dB(A)	45	46	48	49
	Heating (Hi)	dB(A)	46	47	50	51
Sound power Level	Cooling (Hi)	dB	60	61	63	64
	Heating (Hi)	dB	61	62	65	66
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289
Net weight		kg	33	34	34	34
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)
Refrigerant Loading	R410A	kg	0.830	0.950	0.980	1.01
Elevation difference (in/out) [5]	Max	m	15	15	15	15
Piping length	Min / Max	m	3-15	3-15	3-15	3-15
Piping length without refrigerant increase	Max	m	7.5	7.5	7.5	7.5
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	+5 / +43	+5 / +43	+5 / +43	+5 / +43
	Heating Min / Max	°C	-5 / +24	-5 / +24	-5 / +24	-5 / +24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb

This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

Connectivity restriction: JKE units are not compatible with LKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.

2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.

3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.

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eco ideas Energy-Efficiency Classification Most efficient level: A (CS-E9LKEW EER/COP: 4.67/4.63)

KIT-E7-LKE // KIT-E9-LKE // KIT-E12-LKE // KIT-E15-LKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation
- Mild Dry Cooling operation mode for increased comfort and prevention of skin moisture loss

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Super Quiet mode (from 20dB)
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 15 m maximum connection distance
- 15 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-E7LKE
CU-E9LKE

CU-E12LKE
CU-E15LKE

WALL MOUNTED ETHEREA // INVERTER+ // WHITE

NEW ETHEREA WITH ECO PATROL, MORE EFFICIENT, MORE COMFORT, MORE DESIGN, MORE HEALTHY AIR

Eco Patrol's sensor technology uses factors such as speed, frequency and temperature to determine the human activity level in the room for maximum comfort and maximum savings. With Eco Patrol, you can save up to 30%. Furthermore, Etherea is more efficient than ever with 64% less consumption for the non Inverter model on heat pump mode, and can reach 71% total savings when used with Eco Patrol. More efficiency for bigger savings!

Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants.

Etherea is also able to prevent rapid decreases in Room humidity with the new mild dry cooling system which increases comfort, especially when sleeping with the air conditioning running.

Maintains an Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

WALL MOUNTED ETHEREA // INVERTER+ // WHITE

Kit			KIT-E18-LKE	KIT-E21-LKE	KIT-E24-LKE	KIT-E28-LKE
Indoor			**CS-E18LKEW**	**CS-E21LKEW**	**CS-E24LKES**	**CS-E28LKES**
Outdoor			**CU-E18LKE**	**CU-E21LKE**	**CU-E24LKE**	**CU-E28LKE**
Cooling capacity	Nominal (Min - Max)	kW	5.00 (0.90-6.00)	6.30 (0.90-7.10)	6.80 (0.90-8.10)	7.65 (0.90-8.60)
	Nominal (Min - Max)	kCal/h	4,300 (770-5,160)	5,420 (770-6,110)	5,850 (770-6,970)	6580 (770-7400)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.40 (4.19-2.96) A**	**2.85 (4.19-2.8) C**	**3.21 (2.57-3.00) A**	**3.01 (2.57-2.92) B**
Power input Cooling	Nominal (Min - Max)	kW	1.47 (0.215-2.03)	2.21 (0.215-2.54)	2.12 (0.35-2.7)	2.54 (0.35-2.95)
Heating capacity	Nominal (Min - Max)	kW	5.80 (0.90-8.00)	7.20 (0.90-8.50)	8.60 (0.90-9.90)	9.60 (0.90-11.00)
	Nominal (Min - Max)	kCal/h	4990 (770-6,880)	6,190 (770-7,310)	7,400 (770-8,510)	8,260 (770-9460)
Heating capacity at -7°C	Nominal	kW	4.98	5.24	6.13	6.77
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.77 (3.67-3.08) A**	**3.43 (3.67-3.09) B**	**3.23 (2.5-3.09) C**	**2.91 (2.5-2.93) D**
Power input Heating	Nominal (Min - Max)	kW	1.54 (0.245-2.600)	2.10 (0.245-2.75)	2.66 (0.36-3.20)	3.30 (0.36-3.75)
Annual Energy Consumption [2]		kWh	735	1,105	1,060	1,270
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	978 / 1,074	1,038 / 1,110	1,104 / 1,170	1,158 / 1,206
Moisture removal volume		l/h	2.8	3.5	3.9	4.5
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	44 / 37 / 34	45 / 37 / 34	47 / 38 / 35	49 / 38 / 35
	Heating (Hi / Lo / S-Lo)	dB(A)	44 / 37 / 34	45 / 37/ 34	47 / 38 / 35	48 / 38 / 35
Sound power Level	Cooling (Hi)	dB	60	61	63	65
	Heating (Hi)	dB	60	61	63	64
Dimensions	H x W x D	mm	290 x 1,070 x 235	290 x 1,070 x 235	290 x 1,070 x 235	290 x 1,070 x 235
Net weight		kg	12	12	12	12
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm^2	4 x 2.5	4 x 2.5	4 x 2.5	4 x 2.5
Current Cooling	Nominal	A	6.7	9.8	9.7	11.5
Current Heating	Nominal	A	7.0	9.3	12.1	15
Max. current		A	11.7	12.1	14.6	15.6
Air Volume	Cooling / Heating	m^3/h	2,400 / 2,316	2,568 / 2,490	3,012 / 3,012	3,270 / 3,270
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48	52	53
	Heating (Hi)	dB(A)	47	49	52	53
Sound power Level	Cooling (Hi)	dB	61	62	66	67
	Heating (Hi)	dB	61	63	66	67
Dimensions [4]	H x W x D	mm	750 x 875 x 345	750 x 875 x 345	795 x 875 x 320	795 x 875 x 320
Net weight		kg	48	49	65	66
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	kg	1.15	1.29	1.70	1.80
Elevation difference (in/out) [5]	Max	m	15	15	20	20
Piping length	Min / Max	m	3-20	3-20	3-30	3-30
Piping length without refrigerant increase	Max	m	10	10	10	10
Additional gas		g/m	20	20	30	30
Operating range [3]	Cooling Min / Max	°C	+5 / +43	+5 / +43	+16 / +43	+16 / +43
	Heating Min / Max	°C	-5 / +24	-5 / +24	-5 / +24	-5 / +24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb

This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

Connectivity restriction: JKE units are not compatible with LKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.

2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.

3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.

4) Add 70 mm for piping port.

5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

NEW10

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE WHITE DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MILD DRY COOLING: PREVENT A RAPID DECREASE IN ROOM HUMIDITY
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

eco ideas

Energy-Efficiency Classification
Most efficient level: A
(CS-E18LKEW EER/COP: 3.40/3.77)

KIT-E18-LKE // KIT-E21-LKE // KIT-E24-LKE // KIT-E28-LKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation
- Mild Dry Cooling operation mode for increased comfort and prevention of skin moisture loss

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Super Quiet mode
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 20 m maximum connection distance (30 m for E24 and E28)
- 15 m maximum elevation difference (20 m for E24 and E28)
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-E18LKE
CU-E21LKE

CU-E24LKE
CU-E28LKE

WALL MOUNTED // INVERTER+

NEW ETHEREA WITH ECO PATROL, MORE EFFICIENT, MORE COMFORT, MORE DESIGN, MORE HEALTHY AIR

Eco Patrol's sensor technology uses factors such as speed, frequency and temperature to determine the human activity level in the room for maximum comfort and maximum savings. With Eco Patrol, you can save up to 30%. Furthermore, Etherea is more efficient than ever with 64% less consumption for the non Inverter model on heat pump mode, and can reach 71% total savings when used with Eco Patrol. More efficiency for bigger savings!

Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants.

Etherea is also able to prevent rapid decreases in Room humidity with the new mild dry cooling system which increases comfort, especially when sleeping with the air conditioning running.

Maintains an Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

FOR XE7, E7, XE9, E9, XE12 AND E12

WALL MOUNTED ETHEREA // INVERTER+

Silver Kit			**KIT-XE7-LKE-3**	**KIT-XE9-LKE-3**	**KIT-XE12-LKE-3**	**KIT-XE15-LKE-3**
Indoor			**CS-XE7LKEW**	**CS-XE9LKEW**	**CS-XE12LKEW**	**CS-XE15LKE-3**
Outdoor			**CU-E7LKE-3**	**CU-E9LKE-3**	**CU-E12LKE-3**	**CU-E15LKE-3**
White Kit			**KIT-E7-LKE-3**	**KIT-E9-LKE-3**	**KIT-E12-LKE-3**	**KIT-E15-LKE-3**
Indoor			**CS-E7LKEW**	**CS-E9LKEW**	**CS-E12LKEW**	**CS-E15LKEW-3**
Outdoor			**CU-E7LKE-3**	**CU-E9LKE-3**	**CU-E12LKE-3**	**CU-E15LKE-3**
Cooling capacity	Nominal (Min - Max)	kW	2.05 (0.70-2.40)	2.50 (0.80-3.00)	3.50 (0.80-4.00)	4.20 (0.80-5.00)
	Nominal (Min - Max)	kCal/h	1,760 (600-2,060)	2,150 (690-2,580)	3,010 (690-3,440)	3,610 (690-4,300)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.36 (4.12-4.14) A**	**4.67 (4.57-4.11) A**	**3.87 (4.32-3.39) A**	**3.44 (4.19-3.13) A**
Power input Cooling	Nominal (Min - Max)	kW	0.47 (0.17-0.58)	0.535 (0.175-0.730)	0.905 (0.185-1.180)	1.22 (0.215-1.60)
Heating capacity	Nominal (Min - Max)	kW	2.80 (0.70-4.00)	3.40 (0.80-5.00)	4.40 (0.80-6.70)	5.40 (0.90-7.10)
	Nominal (Min - Max)	kCal/h	2,410 (600-3,440)	2,920 (690-4,300)	3,780 (690-5,760)	4,640 (770-6110)
Heating capacity at -7°C	Nominal	kW	2.35	2.88	3.75	4.10
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.41 (4.38-3.92) A**	**4.63 (4.85-3.85) A**	**4.04 (4.57-3.47) A**	**3.70 (3.67-3.21) A**
Power input Heating	Nominal (Min - Max)	kW	0.635 (0.16-1.02)	0.735 (0.165-1.30)	1.09 (0.175-1.93)	1.46 (0.245-2.210)
Annual Energy Consumption [2]		kWh	235	268	453	610
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	654 / 684	678 / 702	750 / 768	750 / 804
Moisture removal volume		l/h	1.3	1.5	2.0	2.4
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	37 / 24 / 20	39 / 25 / 20	42 / 28 / 20	43 / 32 / 29
	Heating (Hi / Lo / S-Lo)	dB(A)	38 / 25 / 20	40 / 27 / 20	42 / 33 / 20	43 / 35 / 29
Sound power Level	Cooling (Hi)	dB	53	55	58	59
	Heating (Hi)	dB	54	56	58	59
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating Nominal	A	2.2 / 3.0	2.5 / 3.4	4.1 / 5.1	5.8 / 6.9
Max. current		A	4.7	5.8	8.9	9.7
Air Volume	Cooling / Heating	m^3/h	2,034 / 2,034	1,788 / 1,788	1,860 / 1,860	2,910 / 2,808
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	45 / 46	46 / 47	48 / 50	46 / 46
Sound power Level	Cooling / Heating (Hi)	dB	60 / 61	61 / 62	63 / 65	61 / 61
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289	750 x 875 x 345
Net weight		kg	33	34	34	48
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)
Refrigerant Loading	R410A	kg	0.830	0.950	0.970	1.06
Elevation difference (in/out) [5]	Max	m	15	15	15	15
Piping length	Min / Max	m	3-15	3-15	3-15	3-15
Piping length without refrigerant increase	Max	m	7.5	7.5	7.5	7.5
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	+5 / +43	+5 / +43	+5 / +43	+5 / +43
	Heating Min / Max	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb

Connectivity restriction: JKE units are not compatible with LKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CS-XE7LKEW // CS-XE9LKEW // CS-XE12LKEW // CS-XE15LKE-3

NEW10

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE WHITE DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MILD DRY COOLING: PREVENT A RAPID DECREASE IN ROOM HUMIDITY
- SUPER QUIET! ONLY 20DB, EQUIVALENT TO NIGHT-TIME IN THE COUNTRY (FOR E7, E9 AND E12)
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

CS-E7LKEW // CS-E9LKEW // CS-E12LKEW // CS-E15LKE-3

KIT-XE7-LKE-3 // KIT-XE9-LKE-3 // KIT-XE12-LKE-3 // KIT-XE15-LKE-3 // KIT-E7-LKE-3 // KIT-E9-LKE-3 // KIT-E12-LKE-3 // KIT-E15-LKE-3

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation
- Mild Dry Cooling operation mode for increased comfort and prevention of skin moisture loss

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Super Quiet mode (from 20dB)
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 15 m maximum connection distance
- 15 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-E7LKE-3
CU-E9LKE-3

CU-E12LKE-3

CU-E15LKE-3

WALL MOUNTED RE TYPE // STANDARD INVERTER

RE:Inverter models are powerful and efficient and are always there when you need them. Furthermore, with the Alleru-buster anti allergic filter, you can always enjoy the best quality air, without viruses, moulds and bacteria.

FOR RE9 AND RE12

WALL MOUNTED RE TYPE // STANDARD INVERTER

Kit			KIT-RE9-JKE-1	KIT-RE12-JKE-1	KIT-RE15-JKE-1	KIT-RE18-JKE-1	KIT-RE24-JKE-1
Indoor			**CS-RE9JKE-1**	**CS-RE12JKE-1**	**CS-RE15JKE-1**	**CS-RE18JKE-1**	**CS-RE24JKE-1**
Outdoor			**CU-RE9JKE-1**	**CU-RE12JKE-1**	**CU-RE15JKE-1**	**CU-RE18JKE-1**	**CU-RE24JKE-1**
Cooling capacity	Nominal (Min - Max)	kW	2,50 (0,90-3,00)	3,50 (0,90-3,90)	4,20 (1,00-4,60)	5,00 (0,90-6,00)	6,80 (0,90-8,10)
	Nominal (Min - Max)	kCal/h	2.150 (770-2.580)	3.010 (770-3.350)	3.610 (860-3960)	4.300 (770-5.160)	5.850 (770-6.970)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3,57 (4,74-3,00) A**	**3,47 (5,29-3,25) A**	**3,33 (4,76-2,78) A**	**3,40 (4,19-2,96) A**	**3,21 (2,57-3,00) A**
Power input Cooling	Nominal (Min - Max)	kW	0,70 (0,19-1,00)	1,01 (0,17-1,2)	1,26 (0,21-1,65)	1,47 (0,215-2,03)	2,12 (0,35-2,70)
Heating capacity	Nominal (Min - Max)	kW	3,30 (0,90-4,10)	4,25 (0,90-5,10)	5,00 (0,90-6,80)	5,80 (0,90-8,00)	8,60 (0,90-9,90)
	Nominal (Min - Max)	kCal/h	2.840 (770-3.520)	3.660 (770-4.390)	4.300 (770-5848)	4.990 (770-6.880)	7.400 (770-8.510)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4,02 (5,29-3,57) A**	**3,79 (6,00-3,49) A**	**3,61 (4,28-2,98) A**	**3,77 (3,67-3,08) A**	**3,23 (2,50-3,09) C**
Power input Heating	Nominal (Min - Max)	kW	0,82 (0,17-1,15)	1,12 (0,15-1,46)	1,385(0,21-2,280)	1,54 (0,245-2,60)	2,66 (0,36-3,20)
Annual Energy Consumption [2]		kWh	350	505	630	735	1.060
Indoor unit							
Power source		V	230 (Via outdoor)	230 (Via outdoor)	230 (Via outdoor)	230 (Via outdoor)	230 (Via outdoor)
Connection		mm^2	4 x 1,5	4 x 1,5	4 x 1,5	4 x 2,5	4 x 2,5
Current Cooling	Nominal	A	3,30	4,7	6,00	6,7	9,7
Current Heating	Nominal	A	3,70	5,2	6,30	7,0	12,1
Max. current		A	5,10	6,80	10,5	11,7	14,6
Air Volume	Cooling / Heating	m^3/h	750 / 750	756 / 798	840 / 936	978 / 1.074	1.104 / 1.170
Moisture removal volume		l/h	1,4	2,0	2,4	2,8	3,9
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	42 / 27 / 22	42 / 30 / 22	46 / 31 / 29	44 / 37	47 / 38
	Heating (Hi / Lo / S-Lo)	dB(A)	42 / 27 / 25	42 / 33 / 25	46 / 34 / 28	44 / 37	47 / 38
Sound power Level	Cooling (Hi)	dB	58	58	62	60	63
	Heating (Hi)	dB	58	58	62	60	63
Dimensions	H x W x D	mm	290 x 848 x 204	290 x 848 x 204	290 x 848 x 204	290 x 1.070 x 235	290 x 1.070 x 235
Net weight		kg	9	9	9	12	12
Air purifier filter			Alleru-buster filter	Alleru-buster filter	Alleru-buster filter	Alleru-buster filter	Alleru-buster filter
Outdoor unit							
Air Volume	Cooling / Heating	m^3/h	1.734 / 1.734	1.830 / 1.830	1.872 / 1.794	2.400 / 2.316	3.012 / 3.012
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48	50	47	52
	Heating (Hi)	dB(A)	48	50	51	47	52
Sound power Level	Cooling (Hi)	dB	63	64	66	61	66
	Heating (Hi)	dB	64	66	67	61	66
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289	750 x 875 x 345	795 x 875 x 320
Net weight		kg	24	28	36	48	65
Piping connections	Liquid pipe	inch (mm)	1/4" (6,35)	1/4" (6,35)	1/4" (6,35)	1/4" (6,35)	1/4" (6,35)
	Gas pipe	inch (mm)	3/8" (9,52)	3/8" (9,52)	1/2" (12,70)	1/2" (12,70)	5/8" (15,88)
Refrigerant Loading	R410A	kg	0,85	0,970	1,00	1,15	1,70
Elevation difference (in/out) [5]	Max	m	5	5	5	15	20
Piping length	Min / Max	m	3-15	3-15	3-15	3-20	3-30
Piping length without refrigerant increase	Max	m	7,5	7,5	7,5	10	10
Additional gas		g/m	20	20	20	20	30
Operating range [3]	Cooling Min / Max	°C	+5 / +43	+5 / +43	+5 / +43	+5 / +43	+16 / +43
	Heating Min / Max	°C	-5 / +24	-5 / +24	-5 / +24	-5 / +24	-5 / +24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27ºC DB / 19ºC WB	20ºC DB
Outside air temperature	35ºC DB / 24ºC WB	7ºC DB / 6ºC WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5ºC with continuous operation (24h operation).
Connectivity restriction: JKE units are not compatible with JKE-1 units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CS-RE9JKE-1 // CS-RE12JKE-1 // CS-RE15JKE-1

TECHNICAL FOCUS

- COMPLETE LINE-UP OF STANDARD INVERTER MODELS
- QUIETER INDOOR UNITS
- HIGH ENERGY SAVINGS
- REFRESHING AIRFLOW WITH RELAXING BREEZE EFFECT
- LONG CONNECTION DISTANCE (FROM 15 M UP TO 30 M)

CS-RE18JKE-1 // CS-RE24JKE-1

KIT-RE9-JKE-1 // KIT-RE12-JKE-1 // KIT-RE15-JKE-1 // KIT-RE18-JKE-1 // KIT-RE24-JKE-1

HEALTHY AIR
- New generation Alleru-buster anti allergic filter with 10-year warranty
- Odour-removing function
- Anti-mould filter

ENERGY, EFFICIENCY AND ECOLOGY
- Inverter system
- R410A refrigerant gas

COMFORT
- Refreshing airflow with relaxing breeze effect (only for RE9, RE12 and RE15)
- Super Quiet mode (only for RE9, RE12 and RE15)
- Powerful mode (only for RE9 and RE12 and RE15)
- Automatic vertical airflow control
- Hot start mode
- Automatic restart
- Simple change over

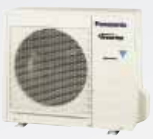
EASE OF USE
- 12-hr timer (only for RE9, RE12 and RE15)
- 24-hr timer (only for RE18 and RE24)
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- 15 m maximum connection distance (20 m for RE18 and 30 m for RE24)
- Removable, washable panel
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

FOR RE9, RE12 AND RE15. INCLUDED WITH THE INDOOR UNIT

FOR RE18 AND RE24. INCLUDED WITH THE INDOOR UNIT

CU-RE9JKE-1 CU-RE12JKE-1 CU-RE15JKE-1



CU-RE18JKE-1

CU-RE24JKE-1

WALL MOUNTED TYPE // INVERTER+ // -15ºC

Complete line-up of air purifying systems with high efficiency even at -15ºC! This wall-mounted air conditioning is especially designed for professional applications such as computer rooms where cooling inside the room is necessary even when the outside temperature is low. Furthermore this air conditioner has an automatic changeover system, in order to maintain the inside temperature even when sharp outside temperature changes occur.

FOR E9

WALL MOUNTED TYPE // INVERTER+ // -15ºC

Kit			KIT-E9-HKEA	KIT-E12-HKEA	KIT-E15-HKEA	KIT-E18-HKEA	KIT-E21-HKEA
Indoor			**CS-E9HKEA**	**CS-E12HKEA**	**CS-E15HKEA**	**CS-E18HKEA**	**CS-E21HKEA**
Outdoor			**CU-E9HKEA**	**CU-E12HKEA**	**CU-E15HKEA**	**CU-E18HKEA**	**CU-E21HKEA**
Cooling capacity	Nominal (Min - Max)	kW	2.60 (0.60-3.00)	3.50 (0.60-4.00)	4.40 (0.90-5.00)	5.30 (0.90-6.00)	6.30 (0.90-7.10)
	Nominal (Min - Max)	kCal/h	2,240 (690-2,580)	3,010 (690-3,440)	3,780 (690-4,300)	4,560 (770-5,160)	5,420 (770-6,110)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.41 (5.00-4.00) A**	**3.80 (5.00-3.39) A**	**3.21 (4.19-3.13) A**	**3.21 (4.19-2.93) A**	**2.85 (4.19-2.8) C**
Power input Cooling	Nominal (Min - Max)	kW	0.59 (0.12-0.75)	0.92 (0.12-1.18)	1.37 (0.215-1.6)	1.65 (0.215-2.05)	2.21 (0.215-2.54)
Heating capacity	Nominal (Min - Max)	kW	3.60 (0.60-5.40)	4.80 (0.60-6.60)	5.50 (0.90-7.10)	6.60 (0.90-8.00)	7.20 (0.90-8.50)
	Nominal (Min - Max)	kCal/h	3,100 (520-4,640)	4,130 (520-5,680)	4,730 (770-6,110)	5,680 (770-6,880)	6,190 (770-7,310)
Heating capacity at -7°C	Nominal	kW	3.13	3.86	3.98	4.98	5.24
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.26 (5.22-3.97) A**	**3.81 (5.22-3.57) A**	**3.50 (3.67-3.16) B**	**3.69 (3.67-3.02) A**	**3.43 (3.67-3.09) B**
Power input Heating	Nominal (Min - Max)	kW	0.845 (0.115-1.36)	1.26 (0.115-1.85)	1.57 (0.245-2.25)	1.79 (0.245-2.65)	2.10 (0.245-2.75)
Annual Energy Consumption [2]		kWh	295	460	685	825	1,105
Indoor unit							
Power source		V	230	230	230	230	230
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 2.5	4 x 2.5
Current Cooling	Nominal	A	2.9	4.3	6.3	7.5	9.9
Current Heating	Nominal	A	4.0	5.8	7.1	8.1	9.3
Max. current		A	6.4	8.4	10.2	11.9	12.6
Air Volume	Cooling / Heating	m³/h	576 / 630	642 / 672	660 / 708	912 / 1,002	972 / 1,038
Moisture removal volume		l/h	1.6	2.0	2.4	2.9	3.5
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	39 / 26 / 23	42 / 29 / 26	43 / 32 / 29	44 / 37 / 34	45 / 37 / 34
	Heating (Hi / Lo / S-Lo)	dB(A)	40 / 27 / 24	42 / 33 / 30	43 / 35 / 32	44 / 37 / 34	45 / 37 / 34
Sound power Level	Cooling (Hi)	dB	50	53	54	57	58
	Heating (Hi)	dB	51	53	54	57	58
Dimensions	H x W x D	mm	280 x 799 x 183	280 x 799 x 183	280 x 799 x 183	275 x 998 x 230	275 x 998 x 230
Net weight		kg	9	9	9	11	11
Air purifier filter			Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion
Outdoor unit							
Air Volume	Cooling / Heating	m³/h	1,788 / 1,788	1,860 / 1,860	2,910 / 2,808	2,400 / 2,400	2,568/ 2,490
Sound pressure Level [3]	Cooling (Hi)	dB(A)	46	48	46	47	48
	Heating (Hi)	dB(A)	47	50	46	47	49
Sound power Level	Cooling (Hi)	dB	59	61	59	60	61
	Heating (Hi)	dB	60	63	59	60	62
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	750 x 875 x 345	750 x 875 x 345	750 x 875 x 345
Net weight		kg	35	35	48	49	51
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	1/2" (12.70)	1/2" (12.70)	1/2" (12.70)	1/2" (12.70)
Refrigerant Loading	R410A	kg	0.930	0.970	1.060	1.18	1.29
Elevation difference (in/out) [5]	Max	m	5	5	5	15	15
Piping length	Min / Max	m	3-15	3-15	3-15	3-20	3-20
Piping length without refrigerant increase	Max	m	7.5	7.5	7.5	10	10
Additional gas		g/m	20	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	-15 / +43	-15 / +43	-15 / +43	-15 / +43	-15 / +43
	Heating Min / Max	°C	-10 / +24	-10 / +24	-15 / +24	-15 / +24	-15 / +24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27ºC DB / 19ºC WB	20ºC DB
Outside air temperature	35ºC DB / 24ºC WB	7ºC DB / 6ºC WB

DB: Dry Bulb; WB: Wet Bulb

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CS-E9HKEA // CS-E12HKEA // CS-E15HKEA

TECHNICAL FOCUS

- HIGHLY EFFICIENT HEAT PUMP AND COOLING EVEN AT -15ºC
- SUPERSONIC AIR PURIFYING SYSTEM WITH ALLERU-BUSTER ANTI ALLERGIC FILTER
- SUPER QUIET! ONLY 23DB (ONLY FOR E9)
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE
- MAXIMUM CONNECTION DISTANCE 15 M (E9, 12, 15), 20M (E18, 21)

CS-E18HKEA // CS-E21HKEA

KIT-E9-HKEA // KIT-E12-HKEA // KIT-E15-HKEA // KIT-E18-HKEA // KIT-E21-HKEA

HEALTHY AIR
- Refreshing ion generator boosts well-being
- Alleru-buster anti allergic filter
- Soft dry operation mode

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- R410A refrigerant gas

COMFORT
- Operates in cold/hot mode in temperatures as low as -15ºC (E9, 12: -10 °C)
- Automatically changes from cold to hot depending on inside temperature
- Super Quiet mode
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical and horizontal airflow control
- Hot start mode
- Automatic restart

EASE OF USE
- 24-hr timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- Maximum connection distance 15 m (E9, 12, 15), 20m (E18, 21)
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function
- Soft dry operation mode

INCLUDED WITH THE INDOOR UNIT

CU-E9HKEA
CU-E12HKEA

CU-E15HKEA CU-E18HKEA CU-E21HKEA

OPTIONAL

WALL-MOUNTED TYPE // STANDARD HEAT PUMP

Powerful heat pump non-Inverter air conditioning. A class efficiency for high savings.

WALL-MOUNTED TYPE // STANDARD HEAT PUMP

Kit			**KIT-PW9-GKE**	**KIT-PW12-GKE**	**KIT-PW18-GKE**	**KIT-PW24-JKE**
Indoor			**CS-PW9GKE**	**CS-PW12GKE**	**CS-PW18GKE**	**CS-PW24JKE**
Outdoor			**CU-PW9GKE**	**CU-PW12GKE**	**CU-PW18GKE**	**CU-PW24JKE**
Cooling capacity	Nominal	kW	2.65	3.4	5.10	7.03
		kCal/h	2,280	2,920	4,386	6,046
EER [1]	**Nominal**	**Energy Saving Classification**	**3.21 A**	**3.22 A**	**2.91 C**	**2.53 E**
Power input Cooling	Nominal	kW	0.825	1.055	1.75	2.78
Heating capacity	Nominal	kW	2.85	3.8	5.30	7.50
		kCal/h	2,450	3,260	4,560	6,450
COP [1]	**Nominal**	**Energy Saving Classification**	**3.63 A**	**3.61 A**	**3.35 C**	**2.87 D**
Power input Heating	Nominal	kW	0.785	1.05	1.58	2.61
Annual Energy Consumption [2]		kWh	413	528	875	1,390
Indoor unit						
Power source		V	230	230	230	230
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 2.5
Current Cooling	Nominal	A	3.9	5.0	7.7	13.1
Current Heating	Nominal	A	3.7	4.9	6.9	12.5
Air Volume	Cooling / Heating	m³/h	618 / 618	540 / 552	972 / 984	1,044 / 1,092
Moisture removal volume		l/h	1.6	1.9	2.9	4.0
Sound pressure level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	39 / 31	39 / 32	45 / 38	47 / 41
	Heating (Hi / Lo / S-Lo)	dB(A)	29 / 38	39 / 31	43 / 38	46 / 41
Sound power level	Cooling (Hi)	dB	50	50	58	59
	Heating (Hi)	dB	50	50	56	57
Dimensions	H x W x D	mm	250 x 770 x 205	280 x 799 x 183	275 x 998 x 230	275 x 998 x 230
Net weight		kg	7.5	9	11	11
Air purifier filter	Optional		CZ-SA14P Alleru-buster filter	CZ-SA14P Alleru-buster filter	CZ-SA14P Alleru-buster filter	CZ-SA14P Alleru-buster filter
Outdoor unit						
Air Volume	Cooling / Heating	m³/h	630	672	1,740	3,102
Sound pressure level [3]	Cooling (Hi)	dB(A)	48	49	55	54
	Heating (Hi)	dB(A)	49	50	55	55
Sound power level	Cooling (Hi)	dB	61	62	70	69
	Heating (Hi)	dB	62	63	70	70
Dimensions [4]	H x W x D	mm	530 x 650 x 230	540 x 780 x 289	540 x 780 x 289	750 x 875 x 345
Net weight		kg	27	30	44	63
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)	5/8" (15.88)
Refrigerant Loading	R410A	kg	0.80	0.98	1.33	1.82
Elevation difference (in/out) [5]	Max	m	5	5	20	20
Piping length	Min / Max	m	3 / 10	3 / 15	3 / 25	3 / 25
Piping length without refrigerant increase	Max	m	7.5	7.5	7.5	7.5
Additional gas		g/m	20	20	20	30
Operating range [3]	Cooling Min / Max	ºC	21 / 43	21 / 43	16 / 43	16 / 43
	Heating Min / Max	ºC	-5 / 24	-5 / 24	-5 / 24	-5 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27ºC DB / 19ºC WB	20ºC DB
Outside air temperature	35ºC DB / 24ºC WB	7ºC DB / 6ºC WB

DB: Dry Bulb; WB: Wet Bulb

This model is not suitable to use in heating mode below -5ºC with continuous operation (24h operation).

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CS-PW9GKE // CS-PW12GKE

TECHNICAL FOCUS

- QUIET MODE FOR IMPROVED COMFORT
- ODOUR REMOVING FUNCTION
- EASY TO INSTALL
- R410A REFRIGERANT GAS
- MANUAL AND AUTOMATIC AIRFLOW CONTROL

CS-PW18GKE // CS-PW24JKE

KIT-PW9-GKE // KIT-PW12-GKE // KIT-PW18-GKE // KIT-PW24-JKE

HEALTHY AIR
- Soft dry operation mode
- Odour-removing function
- CZ-SA14P Alleru-buster anti allergic filter (optional)

ENERGY EFFICIENCY AND ECOLOGY
- R410A refrigerant gas

COMFORT
- Manual horizontal airflow control
- Automatic vertical airflow control
- Hot start mode
- Automatic restart

EASE OF USE
- 12-hr timer (For PW9 and PW12)
- 24-hr timer (For PW18 and PW24)
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- Maintenance access through the top panel of the outdoor unit

FOR PW9 AND PW12. INCLUDED WITH THE INDOOR UNIT

FOR PW18 AND PW24. INCLUDED WITH THE INDOOR UNIT

CU-PW9GKE

CU-PW12GKE

CU-PW18GKE

CU-PW24JKE

WALL-MOUNTED TYPE // STANDARD COOLING ONLY

Full line-up of cooling wall-mounted non-Inverter types. Super quiet and with high efficiency (A class from V7 to V18)

WALL-MOUNTED TYPE // STANDARD COOLING ONLY

Kit			**KIT-V7-DKE**	**KIT-V9-DKE**	**KIT-V12-DKE**	**KIT-V18-DKE**	**KIT-V24-DKE**	**KIT-V28-EKE**
Indoor			**CS-V7DKE**	**CS-V9DKE**	**CS-V12DKE**	**CS-V18DKE**	**CS-V24DKE**	**CS-V28EKE**
Outdoor			**CU-V7DKE**	**CU-V9DKE**	**CU-V12DKE**	**CU-V18DKE**	**CU-V24DKE**	**CU-V28EKE**
Cooling capacity	Nominal	kW	2.40	3.00	3.68	5.30	7.03	7.91
		kCal/h	2,064	2,580	3,165	4,558	6,046	6,803
EER [1]	**Nominal**	**Energy Saving Classification**	**3.24 A**	**3.21 A**	**3.23 A**	**3.25 A**	**2.70 A**	**3.22 A**
Power input Cooling	Nominal	kW	0.740	0.935	1.140	1.630	2.600	2.460
Annual Energy Consumption [2]		kWh	370	470	570	815	1,300	1,230
Indoor unit								
Power source		V	230	230	230	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 2.5	4 x 2.5	4 x 2.5
Current Cooling	Nominal	A	3.4	4.2	5.3	7.3	12.3	11.3
Air Volume		m^3/h	468	510	570	888	1,014	1,206
Moisture removal volume		l/h	1.5	1.7	2.1	2.9	4.0	4.6
Sound pressure level [3]	Hi / Lo / S-Lo	dB(A)	33 / 26 / 24	35 / 26 / 24	39 / 29 / 27	42 / 37 / 35	46 / 40 / 38	49 / 44 / 42
Sound power level	Hi	dB	46	48	52	54	59	62
Dimensions	H x W x D	mm	280 x 799 x 183	280 x 799 x 183	280 x 799 x 183	275 x 998 x 230	275 x 998 x 230	340 x 1,150 x 260
Net weight		kg	9	9	9	11	11	18
Air purifier filter			Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion	Alleru-buster filter + Ion
Outdoor unit								
Air Volume		m^3/h	1,560	1,980	1,848	,520	2,790	3,180
Sound pressure level [3]	Hi	dB(A)	46	48	49	54	54	55
Sound power level	Hi	dB	61	63	64	69	69	70
Dimensions [4]	H x W x D	mm	510 x 650 x 230	540 x 780 x 289	540 x 780 x 289	750 x 875 x 345	750 x 875 x 345	750 x 875 x 345
Net weight		kg	25	31	33	50	59	62
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	kg	0.89	0.93	1.05	1.34	1.47	1.9
Elevation difference (in/out) [5]	Max	m	5	5	5	20	20	20
Piping length	Min / Max	m	3 / 10	3 / 10	3 / 15	3 / 25	3 / 25	3 / 30
Piping length without refrigerant increase	Max	m	7.5	7.5	7.5	7.5	7.5	7.5
Additional gas		g/m	10	10	15	20	30	30
Operating range [3]	Min / Max	°C	16 / 43	16 / 43	16 / 43	16 / 43	16 / 43	16 / 43

GLOBAL REMARKS

Rating conditions	Cooling
Inside air temperature	27°C DB / 19°C WB
Outside air temperature	35°C DB / 24°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation)

1) EER classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CS-V7DKE // CS-V9DKE // CS-V12DKE

TECHNICAL FOCUS

- SUPER QUIET MODE FOR INCREASED COMFORT
- POWERFUL MODE FOR QUICK TEMPERATURE SETTING
- EASY TO INSTALL
- R410A REFRIGERANT GAS
- MANUAL AND AUTOMATIC AIRFLOW CONTROL

CS-V18DKE // CS-V24DKE

CS-V28EKE

KIT-V7-DKE // KIT-V9-DKE // KIT-V12-DKE // KIT-V18-DKE // KIT-V24-DKE // KIT-V28-EKE

HEALTHY AIR
- CZ-SA14P Supersonic air purifying system with Alleru-buster anti allergic filter

ENERGY EFFICIENCY AND ECOLOGY
- R410A refrigerant gas

COMFORT
- Super Quiet mode
- Powerful mode
- Manual horizontal airflow control
- Automatic vertical airflow control
- Automatic restart

EASE OF USE
- 24-hr timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- Maintenance access through the top panel of the outdoor unit

FOR V7, V9 AND V12. INCLUDED WITH THE INDOOR UNIT

FOR V18, V24 AND V28. INCLUDED WITH THE INDOOR UNIT

CU-V7DKE
CU-V9DKE

CU-V12DKE

CU-V18DKE
CU-V24DKE

CU-V28EKE

FLOOR CONSOLE TYPE // INVERTER+

Console for discreet integration on walls, and for high performances, specifically in heat mode even when the outside temperature is as low as -15ºC.
Double airflow for improved comfort and temperature dispersion: through the top for an efficient cooling mode, through the bottom for quick heating.

FLOOR CONSOLE TYPE // INVERTER+

Kit			**KIT-E9-GFEW-1**	**KIT-E12-GFEW-1**	**KIT-E18-GFEW-1**
Indoor			**CS-E9GFEW**	**CS-E12GFEW**	**CS-E18GFEW**
Outdoor			**CU-E9GFE-1**	**CU-E12GFE-1**	**CU-E18GFE-1**
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.80 - 3.00)	3.50 (0.80 - 3.80)	5.00 (0.90 - 5.60)
		kCal/h	2,150 (690 - 2,580)	3,010 (690 - 3,270)	3,780 (770 - 4,300)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.39 (4.57 - 3.85) A**	**3.63 (4.32 - 3.33) A**	**3.23 (4.57 - 2.93) A**
Power input Cooling	Nominal (Min - Max)	kW	0.57 (0.17 - 0.78)	0.97 (0.18 - 1.14)	1.55 (0.25 - 1.91)
Heating capacity	Nominal (Min - Max)	kW	3.60 (0.80 - 5.00)	4.80 (0.80 - 6.10)	5.80 (0.90 - 7.10)
		kCal/h	3,100 (690 - 4,300)	4,130 (690 - 5,250)	4,730 (770 - 6,110)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.16 (4.85 - 3.68) A**	**3.64 (4,57 - 3.45) A**	**3.63 (3.46 - 3.02) A**
Power input Heating	Nominal (Min - Max)	kW	0.865 (0.16 - 1.36)	1.320 (0.17 - 1.77)	1.600 (0.26 - 2.35)
Annual Energy Consumption [2]		kWh	285	483	775
Indoor unit					
Air Volume	Cooling / Heating	m³/h	558 / 576	570 / 600	660 / 780
Moisture removal volume		l/h	1.4	2.0	2.8
Sound pressure level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	38 / 27 / 23	39 / 28 / 24	44 / 36 / 32
	Heating (Hi / Lo / S-Lo)	dB(A)	38 / 27 / 23	39 / 27 / 23	44 / 36 / 32
Sound power level	Cooling (Hi)	dB	54	55	60
	Heating (Hi)	dB	54	55	61
Dimensions	H x W x D	mm	600 x 700 x 210	600 x 700 x 210	600 x 700 x 210
Net weight		kg	14	14	14
Outdoor unit					
Power source		V	230	230	230
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5
Current Cooling		A	2.7	4.4	7.0
Current Heating		A	4.05	6.00	7.1
Air Volume	Cooling / Heating	m³/h	1,788 / 1,788	1,860 / 1,860	2,400 / 2,400
Sound pressure level [3]	Cooling (Hi)	dB(A)	46	48	47
	Heating (Hi)	dB(A)	47	50	48
Sound power level	Cooling (Hi)	dB	59	61	60
	Heating (Hi)	dB	60	63	61
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	750 x 875 x 345
Net weight		kg	34	34	49
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)
Refrigerant Loading	R410A	kg	0.965	0.980	1.060
Elevation difference (in/out) [5]	Max	m	5	5	15
Piping length	Min / Max	m	3 / 15	3 / 15	3 / 20
Piping length without refrigerant increase	Max	m	7.5	7.5	10
Additional gas		g/m	20	20	20
Operating range [3]	Cooling Min / Max	ºC	16 / 43	16 / 43	16 / 43
	Heating Min / Max	ºC	-15 / 24	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27ºC DB / 19ºC WB	20ºC DB
Outside air temperature	35ºC DB / 24ºC WB	7ºC DB / 6ºC WB

DB: Dry Bulb; WB: Wet Bulb

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 1 m height in front of the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

TECHNICAL FOCUS

- MORE EFFICIENT THAN EVER FOR LESS CONSUMPTION AND HIGHER SAVINGS
- HEATING MODE DOWN TO -15ºC WITH HIGH EFFICIENCY
- DOUBLE AIRFLOW FOR BETTER EFFICIENCY
- POWERFUL MODE FOR QUICK TEMPERATURE SETTING
- R410A REFRIGERANT GAS

KIT-E9-GFEW-1 // KIT-E12-GFEW-1 // KIT-E18-GFEW-1

HEALTHY AIR
- Soft dry operation mode
- Odour-removing function

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- R410A refrigerant gas

COMFORT
- Super Quiet mode
- Powerful mode
- Automatic vertical airflow control
- Hot start mode
- Automatic restart

EASE OF USE
- 24-hr timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- Maximum connection distance 15 m (E9, 12), 20m (E18)
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-E9GFE-1
CU-E12GFE-1

CU-E18GFE-1

SINGLE SPLIT FLOOR OR CEILING TYPE // INVERTER

Versatile Floor or Ceiling air conditioning Inverter type. Ideal for restaurants or offices where powerful and efficient air-conditioning is needed.

OPTIONAL

SINGLE SPLIT FLOOR OR CEILING TYPE // INVERTER

Kit			**KIT-E15-DTE**	**KIT-E18-DTE**	**KIT-E21-DTE**
Indoor			**CS-E15DTEW**	**CS-E18DTEW**	**CS-E21DTES**
Outdoor			**CU-E15DBE**	**CU-E18DBE**	**CU-E21DBE**
Cooling capacity	Nominal (Min - Max)	kW	4.15 (0.90 - 4.55)	5.00 (0.90 - 5.40)	5.80 (0.90 - 6.60)
		kCal/h	3,570 (770 - 3,910)	4,300 (770 - 4,640)	4,990 (770 - 5,680)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.22 A**	**3.01 B**	**3.01 B**
Power input Cooling	Nominal (Min - Max)	kW	1.29 (0.255 - 1.550)	1.66 (0.255 - 1.890)	1.93 (0.255 - 2.240)
Heating capacity	Nominal (Min - Max)	kW	5.17 (0.90 - 6.30)	6.10 (0.90 - 7.60)	6.80 (0.90 - 8.10)
		kCal/h	4,450 (770 - 5,420)	5,250 (770 - 6,540)	5,850 (770 - 6,970)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.34 C**	**3.35 C**	**3.42 B**
Power input Heating	Nominal (Min - Max)	kW	1.550 (0.260 - 2.050)	1.820 (0.260 - 2.380)	1.990 (0.260 - 2.650)
Annual Energy Consumption [2]		kWh	645	830	965
Indoor unit					
Air Volume	Cooling / Heating	m^3/h	720 / 732	750 / 762	786 / 792
Moisture removal volume		l/h	2.4	2.8	3.2
Sound pressure level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	45 / 37 / 34	46 / 39 / 36	47 / 41 / 38
	Heating (Hi / Lo / S-Lo)	dB(A)	45 / 33 / 30	47 / 35 / 32	47 / 37 / 34
Sound power level	Cooling (Hi)	dB	58	59	60
	Heating (Hi)	dB	58	60	60
Dimensions	H x W x D	mm	540 x 1,028 x 200	540 x 1,028 x 200	540 x 1,028 x 200
Net weight		kg	17	18	20
Air purifier filter	Optional		CZ-SA14P Alleru-buster filter	CZ-SA14P Alleru-buster filter	CZ-SA14P Alleru-buster filter
Outdoor unit					
Power source		V	230	230	230
Connection		mm^2	4 x 1.5	4 x 2.5	4 x 2.5
Current Cooling	Nominal	A	6.0	7.5	8.7
Current Heating	Nominal	A	7.1	8.2	9.0
Air Volume	Cooling / Heating	m^3/h	2,910 / 2,910	2,400 / 2,400	2,568 / 2,490
Sound pressure level [3]	Cooling (Hi)	dB(A)	46	47	48
	Heating (Hi)	dB(A)	47	48	49
Sound power level	Cooling (Hi)	dB	59	60	61
	Heating (Hi)	dB	60	61	62
Dimensions [4]	H x W x D	mm	750 x 875 x 345	750 x 875 x 345	750 x 875 x 345
Net weight		kg	48	48	49
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)	1/2" (12.70)
Refrigerant Loading	R410A	kg	1.23	1.06	1.15
Elevation difference (in/out) [5]	Max	m	15	15	15
Piping length	Min / Max	m	3 / 20	3 / 20	3 / 20
Piping length without refrigerant increase	Max	m	10	10	10
Additional gas		g/m	20	20	20
Operating range [3]	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-5 / 24	-5 / 24	-5 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb

This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body floor-mounted: 1 m in front of the unit at 1 m height from the floor; ceiling-mounted: 1 m infront and 80 cm below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

TECHNICAL FOCUS

- A WIDTH OF ONLY 20CM FOR EASY INSTALLATION EVERYWHERE
- 2 INSTALLATIONS POSSIBLE: ON THE WALL OR ON THE ROOF
- POWERFUL LINE-UP, UP TO 5.8 KW!
- POWERFUL MODE FOR QUICK TEMPERATURE SETTING
- R410A REFRIGERANT GAS
- 20 M CONNECTION DISTANCE, 15 M HEIGHT DIFFERENCE ON THE WHOLE LINE-UP

KIT-E15-DTE // KIT-E18-DTE // KIT-E21-DTE

HEALTHY AIR
- Soft dry operation mode
- Odour-removing function
- CZ-SA14P Alleru-buster anti allergic filter (optional)
- Anti-mould filter

ENERGY EFFICIENCY AND ECOLOGY
- Inverter system
- R410A refrigerant gas

COMFORT
- Super Quiet mode
- Powerful mode
- Automatic vertical airflow control
- Hot start mode
- Automatic restart

EASE OF USE
- 24-hr timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Maximum connection distance 20m
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-E15DTE
CU-E18DTE

CU-E21DTE

ETHEREA MULTI SPLIT 2X1 // INVERTER+

ETHEREA, A NEW CONCEPT IN AIR CONDITIONERS: AIR PURIFYING SYSTEM, STYLISH DESIGN AND HIGH EFFICIENCY. WITH THE MULTI SYSTEM, SAVE MORE THAN WITH THE 1X1!

Cool and stylish, the distinctive, beautiful rounded form is designed to complement today's modern interiors. Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants.

ETHEREA MULTI SPLIT 2X1 // INVERTER+

Silver Kit			**KIT-2XE77-JBE**	**KIT-2XE79-JBE**	**KIT-2XE712-JBE**	**KIT-2XE99-JBE**
Indoor			**CS-XE7JKEW**	**CS-XE7JKEW**	**CS-XE7JKEW**	**CS-XE9JKEW**
			CS-XE7JKEW	**CS-XE9JKEW**	**CS-XE12JKEW**	**CS-XE9JKEW**
White Kit			**KIT-2E77-JBE**	**KIT-2E79-JBE**	**KIT-2E712-JBE**	**KIT-2E99-JBE**
Indoor			**CS-E7JKEW**	**CS-E7JKEW**	**CS-E7JKEW**	**CS-E9JKEW**
			CS-E7JKEW	**CS-E9JKEW**	**CS-E12JKEW**	**CS-E9JKEW**
Outdoor			**CU-2E15GBE-1**	**CU-2E15GBE-1**	**CU-2E15GBE-1**	**CU-2E15GBE-1**
Cooling capacity	Nominal (Min - Max)	kW	4.50 (1.50 - 5.00)	4.50 (1.50 - 5.20)	4.50 (1.50 - 5.20)	4.50 (1.50 - 5.20)
	Nominal (Min - Max)	kCal/h	3,870 (1,290 - 4,300)	3,870 (1,290 - 4,472)	3,870 (1,290 - 4,472)	3,870 (1,290 - 4,472)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.66 (6.00 - 3.70) A**	**3.66 (6.00 - 3.70) A**	**3.60 (6.00 - 3.42) A**	**3.66 (6.00 - 3.42) A**
Power input Cooling	Nominal (Min - Max)	kW	1.23 (0.25 - 1.35)	1.23 (0.25 - 1.52)	1.25 (0.25 - 1.53)	1.23 (0.25 - 1.52)
Heating capacity	Nominal (Min - Max)	kW	5.40 (1.10 - 7.00)	5.40 (1.10 - 7.00)	5.40 (1.10 - 7.0)	5.40 (1.10 - 7.0)
	Nominal (Min - Max)	kCal/h	4,644 (946 - 6,020)	4,644 (946 - 6,020)	4,644 (946 - 6,020)	4,644 (946 - 6,020)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.62 (5.24 - 4.19) A**	**4.62 (5.24 - 4.19) A**	**4.62 (4.61 - 4.19) A**	**4.62 (4.61 - 4.19) A**
Power input Heating	Nominal (Min - Max)	kW	1.17 (0.21 - 1.67)	1.17 (0.21 - 1.67)	1.17 (0.21 - 1.67)	1.17 (0.21 - 1.67)
Annual Energy Consumption [2]		kWh	615	615	625	695
Indoor unit						
Air Volume	Cooling	m^3/h	654	654 (E7) / 678 (E9)	654 (E7) / 750 (E12)	678
Moisture removal volume		l/h	1.3	1.3 (E7) / 1.6 (E9)	1.3 (E7) / 2.0 (E12)	1.6
Sound pressure Level [3]	Cooling and Heating (S-Lo)	dB(A)	26	26	26 (E7) / 29 (E12)	26
Sound power Level	Cooling and Heating (Hi)	dB	56	56	56 (E7) / 60 (E12)	56
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating Nominal	A	5.75 / 5.20	5.75 / 5.20	5.80 / 5.20	8.50 / 6.05
Air Volume	Cooling / Heating	m^3/h	1,998 / 1,710	1,998 / 1,710	1,998 / 1,710	1,998 / 1,710
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	47 / 49	47 / 49	47 / 49	47 / 49
Sound power Level	Cooling / Heating (Hi)	dB	62 / 64	62 / 64	62 / 64	62 / 64
Dimensions [4]	H x W x D	mm	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289
Net weight		kg	38	38	38	38
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Refrigerent Loading	R410A	kg	1.45	1.45	1.45	1.45
Elevation difference (in/out) [5]	Max	m	10	10	10	10
Piping length (total)	Min / Max	m	3-30	3-30	3-30	3-30
Piping length (one unit)	Min / Max	m	3-20	3-20	3-20	3-20
Piping length without refrigerant increase	Max	m	20	20	20	20
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

CS-XE7JKEW // CS-XE9JKEW // CS-XE12JKEW

TECHNICAL FOCUS

- VERY EXCLUSIVE SILVER DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MORE EFFICIENT THAN EVER FOR LESS CONSUMPTION AND HIGHER SAVINGS
- SUPER QUIET!
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

CS-E7JKEW // CS-E9JKEW // CS-E12JKEW

KIT-2XE77-JBE // KIT-2XE79-JBE // KIT-2XE712-JBE // KIT-2XE99-JBE // KIT-2E77-JBE // KIT-2E79-JBE // KIT-2E712-JBE // KIT-2E99-JBE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- R410A refrigerant gas

COMFORT
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- 24-hr timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 30 m maximum connection distance
- 10 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-2E15GBE-1

ETHEREA MULTI SPLIT 2X1 // INVERTER+

ETHEREA, A NEW CONCEPT IN AIR CONDITIONERS: AIR PURIFYING SYSTEM, STYLISH DESIGN AND HIGH EFFICIENCY. WITH THE MULTI SYSTEM, SAVE MORE THAN WITH THE 1X1!

Cool and stylish, the distinctive, beautiful rounded form is designed to complement today's modern interiors. Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants.

ETHEREA MULTI SPLIT 2X1 // INVERTER+

Silver Kit			**KIT-2XE99-JKE**	**KIT-2XE912-JKE**	**KIT-2XE1212-JKE**
Indoor			**CS-XE9JKEW**	**CS-XE9JKEW**	**CS-XE12JKEW**
			CS-XE9JKEW	**CS-XE12JKEW**	**CS-XE12JKEW**
White Kit			**KIT-2E99-JKE**	**KIT-2E912-JKE**	**KIT-2E1212-JKE**
Indoor			**CS-E9JKEW**	**CS-E9JKEW**	**CS-E12JKEW**
			CS-E9JKEW	**CS-E12JKEW**	**CS-E12JKEW**
Outdoor			**CU-2E18CBPGW**	**CU-2E18CBPGW**	**CU-2E18CBPGW**
Cooling capacity	Nominal (Min - Max)	kW	4.80 (1.50 - 5.20)	5.00 (1.50 - 5.30)	5.20 (1.50 - 5.40)
		kCal/h	4,128 (1,290 - 4,472)	4,300 (1,290 - 4,558)	4,472 (1,290 - 4,644)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.66 (6.00 - 3.42) A**	**3.36 (6.00 - 3.44) A**	**3.42 (6.00 - 3.53) A**
Power input Cooling	Nominal (Min - Max)	kW	1.31 (0.25 - 1.35)	1.49 (0.25 - 1.54)	1.52 (0.25 - 1.58)
Heating capacity	Nominal (Min - Max)	kW	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)
		kCal/h	4,816 (946 - 6,192)	4,816 (946 - 6,192)	4,816 (946 - 6,192)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.48 (4.4 - 4.14) A**	**4.55 (5.23 - 4.19) A**	**4.63 (5.23 - 4.23) A**
Power input Heating	Nominal (Min - Max)	kW	1.25 (0.21 - 1.74)	1.23 (0.21 - 1.72)	1.21 (0.21 - 1.70)
Annual Energy Consumption [2]		kWh	655	745	760
Indoor unit					
Air Volume	Cooling	m^3/h	678	678 (E9) / 750 (E12)	750
Moisture removal volume		l/h	1.6	1.6 (E9) / 2.0 (E12)	2.0
Sound pressure level [3]	Cooling and Heating (S-Lo)	dB(A)	26	26 (E9) / 29 (E12)	29
Sound power level	Cooling and Heating (Hi)	dB	56	56 (E9) / 60 (E12)	60
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit					
Power source		V	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating (Nominal)	A	6.10 / 5.55	6.95 / 5.45	7.10 / 5.35
Air Volume	Cooling / Heating	m^3/h	2,070 / 1,860	2,070 / 1,860	2,070 / 1,860
Sound pressure level [3]	Cooling / Heating (Hi)	dB(A)	49 / 51	49 / 51	49 / 51
Sound power level	Cooling / Heating (Hi)	dB	64 / 66	64 / 66	64 / 66
Dimensions [4]	H x W x D	mm	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289
Net weight		kg	38	38	38
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Refrigerant Loading	R410A	kg	1.45	1.45	1.45
Elevation difference (in/out) [5]	Max	m	10	10	10
Piping length	Total	m	30	30	30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20	3 / 20
Piping length without refrigerant increase	Max	m	20	20	20
Additional gas		g/m	20	20	20
Operating range [3]	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

CS-XE7JKEW // CS-XE9JKEW // CS-XE12JKEW

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE SILVER DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- SUPER QUIET!
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

CS-E7JKEW // CS-E9JKEW // CS-E12JKEW

KIT-2XE99-JKE // KIT-2XE912-JKE // KIT-2XE1212-JKE
KIT-2E99-JKE // KIT-2E912-JKE // KIT-2E1212-JKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- R410A refrigerant gas

COMFORT
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- 24-hr timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 30 m maximum connection distance
- 10 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-2E18CBPGW

ETHEREA MULTI SPLIT 2X1 // INVERTER+

WITH THE MULTI SYSTEM, SAVE MORE THAN WITH THE 1X1!

Eco Patrol's sensor technology uses factors such as speed, frequency and temperature to determine the human activity level in the room for maximum comfort and maximum savings. With Eco Patrol, you can save up to 30%. Cool and stylish, the distinctive, beautiful rounded form is designed to complement today's modern interiors. Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants. Using a Multi Split 2X1 Inverter+ system with the outdoor unit CU-2E15LBE instead of 2 individual mono split Inverter+ systems, you reduce consumption and thus save more! Up to 10%! Furthermore, using a Multi Split system, you save space on the outdoor unit, making it easier to install in small spaces.
The multi system also has a greater difference in elevation and longer tubing, leading to greater flexibility on roof installations.

ETHEREA MULTI SPLIT 2X1 // INVERTER+

Silver Kit			KIT-2XE77-LBE	KIT-2XE79-LBE	KIT-2XE712-LBE	KIT-2XE99-LBE
Indoor			CS-XE7LKEW CS-XE7LKEW	CS-XE7LKEW CS-XE9LKEW	CS-XE7LKEW CS-XE12LKEW	CS-XE9LKEW CS-XE9LKEW
White Kit			KIT-2E77-LBE	KIT-2E79-LBE	KIT-2E712-LBE	KIT-2E99-LBE
Indoor			CS-E7LKEW CS-E7LKEW	CS-E7LKEW CS-E9LKEW	CS-E7LKEW CS-E12LKEW	CS-E9LKEW CS-E9LKEW
Outdoor			CU-2E15LBE	CU-2E15LBE	CU-2E15LBE	CU-2E15LBE
Cooling capacity	Nominal (Min - Max)	kW	4.00 (1.50 - 5.00)	4.50 (1.50 - 5.20)	4.50 (1.50 - 5.20)	4.50 (1.50 - 5.20)
	Nominal (Min - Max)	kCal/h	3,440 (1,290 - 4,300)	3,870 (1,290 - 4,472)	3,870 (1,290 - 4,472)	3,870 (1,290 - 4,472)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.66 (6.00 - 3.70) A**	**3.66 (6.00 - 3.70) A**	**3.60 (6.00 - 3.42) A**	**3.66 (6.00 - 3.42) A**
Power input Cooling	Nominal (Min - Max)	kW	1.09 (0.25 - 1.35)	1.23 (0.25 - 1.52)	1.23 (0.25 - 1.53)	1.23 (0.25 - 1.52)
Heating capacity	Nominal (Min - Max)	kW	5.40 (1.10 - 7.00)	5.40 (1.10 - 7.00)	5.40 (1.10 - 7.0)	5.40 (1.10 - 7.0)
	Nominal (Min - Max)	kCal/h	4,640 (950 - 6,020)	4,640 (950 - 6,020)	4,640 (950 - 6,020)	4,640 (950 - 6,020)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.62 (5.24 - 4.19) A**	**4.62 (5.24 - 4.19) A**	**4.62 (4.61 - 4.19) A**	**4.62 (4.61 - 4.19) A**
Power input Heating	Nominal (Min - Max)	kW	1.17 (0.21 - 1.67)	1.17 (0.21 - 1.67)	1.17 (0.21 - 1.67)	1.17 (0.21 - 1.67)
Annual Energy Consumption [2]		kWh	575	615	615	615
Indoor unit						
Air Volume	Cooling	m^3/h	606	606 (E7) / 606 (E9)	606 (E7) / 654 (E12)	606
Moisture removal volume		l/h	1.3 / 1.3	1.3 (E7) / 1.5 (E9)	1.1 (E7) / 1.6 (E12)	1.5 / 1.5
Sound pressure Level [3]	Cooling and Heating (S-Lo)	dB(A)	26	26	26 (E7) / 29 (E12)	26
Sound power Level	Cooling and Heating (Hi)	dB	56	56	56 (E7) / 60 (E12)	56
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating Nominal	A	5.10 / 5.20	5.75 / 5.20	5.75 / 5.20	5.75 / 5.20
Air Volume	Cooling / Heating	m^3/h	1,998 / 1,710	1,998 / 1,710	1,998 / 1,710	1,998 / 1,710
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	47 / 49	47 / 49	47 / 49	47 / 49
Sound power Level	Cooling / Heating (Hi)	dB	62 / 64	62 / 64	62 / 64	62 / 64
Dimensions [4]	H x W x D	mm	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289
Net weight		kg	38	38	38	38
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Refrigerent Loading	R410A	kg	1.45	1.45	1.45	1.45
Elevation difference (in/out) [5]	Max	m	10	10	10	10
Piping length (total)	Min / Max	m	3 / 30	3 / 30	3 / 30	3 / 30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20	3 / 20	3 / 20
Piping length without refrigerant increase	Max	m	20	20	20	20
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).
Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

CS-XE7LKEW // CS-XE9LKEW // CS-XE12LKEW

NEW10

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE SILVER DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

CS-E7LKEW // CS-E9LKEW // CS-E12LKEW

KIT-2XE77-LBE // KIT-2XE79-LBE // KIT-2XE712-LBE // KIT-2XE99-LBE // KIT-2E77-LBE // KIT-2E79-LBE // KIT-2E712-LBE // KIT-2E99-LBE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 30 m maximum connection distance
- 10 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-2E15LBE

ETHEREA MULTI SPLIT 2X1 // INVERTER+

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The multi system also has a greater difference in elevation and longer tubing, leading to greater flexibility on roof installations.

ETHEREA MULTI SPLIT 2X1 // INVERTER+

Silver Kit			**KIT-2XE99-LKE**	**KIT-2XE912-LKE**	**KIT-2XE1212-LKE**
Indoor			**CS-XE9LKEW**	**CS-XE9LKEW**	**CS-XE12LKEW**
			CS-XE9LKEW	**CS-XE12LKEW**	**CS-XE12LKEW**
White Kit			**KIT-2E99-LKE**	**KIT-2E912-LKE**	**KIT-2E1212-LKE**
Indoor			**CS-E9LKEW**	**CS-E9LKEW**	**CS-E12LKEW**
			CS-E9LKEW	**CS-E12LKEW**	**CS-E12LKEW**
Outdoor			**CU-2E18LBE**	**CU-2E18LBE**	**CU-2E18LBE**
Cooling capacity	Nominal (Min - Max)	kW	4.80 (1.50 - 5.20)	5.00 (1.50 - 5.30)	5.20 (1.50 - 5.40)
		kCal/h	4,130 (1,290 - 4,470)	4,300 (1,290 - 4,560)	4,470 (1,290 - 4,640)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**3.66 (6.00 - 3.42) A**	**3.36 (6.00 - 3.44) A**	**3.42 (6.00 - 3.42) A**
Power input Cooling	Nominal (Min - Max)	kW	1.31 (0.25 - 1.52)	1.49 (0.25 - 1.54)	1.52 (0.25 - 1.58)
Heating capacity	Nominal (Min - Max)	kW	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)
		kCal/h	4,820 (950 - 6,190)	4,820 (950 - 6,190)	4,820 (950 - 6,190)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.48 (5.24 - 4.14) A**	**4.55 (5.24 - 4.19) A**	**4.63 (5.24 - 4.24) A**
Power input Heating	Nominal (Min - Max)	kW	1.25 (0.21 - 1.74)	1.23 (0.21 - 1.72)	1.21 (0.21 - 1.70)
Annual Energy Consumption [2]		kWh	655	745	760
Indoor unit					
Air Volume	Cooling	m^3/h	606	606 (E9) / 654 (E12)	654
Moisture removal volume		l/h	1.5 / 1.5	1.4 (E9) / 1.6 (E12)	1.6 / 1.6
Sound pressure level [3]	Cooling and Heating (S-Lo)	dB(A)	26	26 (E9) / 29 (E12)	29
Sound power level	Cooling and Heating (Hi)	dB	56	56 (E9) / 60 (E12)	60
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit					
Power source		V	230	230	230
Connection		mm^2	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating (Nominal)	A	6.10 / 5.55	6.95 / 5.45	7.10 / 5.35
Air Volume	Cooling / Heating	m^3/h	2,070 / 1,860	2,070 / 1,860	2,070 / 1,860
Sound pressure level [3]	Cooling / Heating (Hi)	dB(A)	49 / 51	49 / 51	49 / 51
Sound power level	Cooling / Heating (Hi)	dB	64 / 66	64 / 66	64 / 66
Dimensions [4]	H x W x D	mm	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289
Net weight		kg	38	38	38
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Refrigerant Loading	R410A	kg	1.45	1.45	1.45
Elevation difference (in/out) [5]	Max	m	10	10	10
Piping length	Total	m	30	30	30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20	3 / 20
Piping length without refrigerant increase	Max	m	20	20	20
Additional gas		g/m	20	20	20
Operating range [3]	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-10 / 24	-10 / 24	-10 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).
Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

CS-XE7LKEW // CS-XE9LKEW // CS-XE12LKEW

NEW10

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CS-E7LKEW // CS-E9LKEW // CS-E12LKEW

KIT-2XE99-LKE // KIT-2XE912-LKE // KIT-2XE1212-LKE
KIT-2E99-LKE // KIT-2E912-LKE // KIT-2E1212-LKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 30 m maximum connection distance
- 10 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-2E18LBE

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The multi system also has a greater difference in elevation and longer tubing, leading to greater flexibility on roof installations.

ETHEREA MULTI SPLIT 3X1 // INVERTER+

Silver Kit			**KIT-3XE7712-LBE**	**KIT-3XE7715-LBE**
Indoor			**CS-XE7LKEW (x2)** **CS-XE12LKEW (x1)**	**CS-XE7LKEW (x2)** **CS-XE15LKEW (x1)**
White Kit			**KIT-3E7712-LBE**	**KIT-3E7715-LBE**
Indoor			**CS-E7LKEW (x2)** **CS-E12LKEW (x1)**	**CS-E7LKEW (x2)** **CS-E15LKEW (x1)**
Outdoor			**CU-3E18LBE**	**CU-3E18LBE**
Cooling capacity	Nominal (Min - Max)	kW	5.20 (1.90-7.20)	5.20 (1.80-7.30)
	Nominal (Min - Max)	kCal/h	4,470 (1,630-6,190)	4,470 (1,550-6,280)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.30 (5.28 - 3.30) A**	**4.30 (5.00 - 3.35) A**
Power input Cooling	Nominal (Min - Max)	kW	1,21 (0,36-2,18)	1,21 (0,36-2,18)
Heating capacity	Nominal (Min - Max)	kW	6.80 (1.40-8.30)	6.80 (1.60-8.30)
	Nominal (Min - Max)	kCal/h	5,850 (1,200-7,140)	5,850 (1,380-7,140)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.63 (4.38 - 3.94) A**	**4.72 (5.00 - 3.93) A**
Power input Heating	Nominal (Min - Max)	kW	1.47 (0.32-2.11)	1.44 (0.32-2.11)
Annual Energy Consumption [2]		kWh	745	720
Indoor unit				
Air Volume	Cooling	m^3/h	606 (E7) / 654 (E12)	606 (E7) / 672 (E15)
Moisture removal volume		l/h	1.3 (E7) / 1.8 (E12)	0.8 (E7) / 1.6 (E15)
Sound pressure Level [3]	Cooling (S-Lo)	dB(A)	26 (E7) / 29 (E12)	26 (E7) / 29 (E15)
	Heating (S-Lo)	dB(A)	26 (E7) / 29 (E12)	26 (E7) / 30 (E15)
Sound power Level	Cooling and Heating (Hi)	dB	56 (E7) / 60 (E12)	56 (E7) / 60 (E15)
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion
Outdoor unit				
Power source		V	230	230
Connection		mm^2	4 x 1.5	4 x 1.5
Current	Cooling / Heating Nominal	A	5.3 / 8.2	5.3 / 7.9
Air Volume	Cooling / Heating	m^3/h	2,502	2,502
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	46 / 47	46 / 47
Sound power Level	Cooling / Heating (Hi)	dB	60 / 61	60 / 61
Dimensions [4]	H x W x D	mm	795 x 875 (+95) x 320	795 x 875 (+95) x 320
Net weight		kg	71	71
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)
Refrigerent Loading	R410A	kg	2.64	2.64
Elevation difference (in/out) [5]	Max	m	15	15
Piping length (total)	Min / Max	m	3 / 50	3 / 50
Piping length (one unit)	Min / Max	m	3 / 25	3 / 25
Piping length without refrigerant increase	Max	m	30	30
Additional gas		g/m	20	20
Operating range [3]	Cooling Min / Max	°C	-10 / 46	-10 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).
Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 95 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

CS-XE7LKEW // CS-XE9LKEW // CS-XE12LKEW // CS-XE15LKEW

NEW10

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CS-E7LKEW // CS-E9LKEW // CS-E12LKEW // CS-E15LKEW

KIT-3XE7712-LBE // KIT-3XE7715-LBE
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EASE OF USE
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EASY INSTALLATION AND MAINTENANCE
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- 50 m maximum connection distance
- 10 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
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INCLUDED WITH THE INDOOR UNIT

CU-3E18LBE

ETHEREA MULTI SPLIT 4X1 // INVERTER+

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The multi system also has a greater difference in elevation and longer tubing, leading to greater flexibility on roof installations.

ETHEREA MULTI SPLIT 4X1 // INVERTER+

Silver Kit			KIT-4XE77712-LBE	KIT-4XE77715-LBE	KIT-4XE77712-LKE	KIT-4XE77715-LKE
Indoor			CS-XE7LKEW (x3) CS-XE12LKEW (x1)	CS-XE7LKEW (x3) CS-XE15LKEW (x1)	CS-XE7LKEW (x3) CS-XE12LKEW (x1)	CS-XE7LKEW (x3) CS-XE15LKEW (x1)
White Kit			KIT-4E77712-LBE	KIT-4E77715-LBE	KIT-4E77712-LKE	KIT-4E77715-LKE
Indoor			CS-E7LKEW (x3) CS-E12LKEW (x1)	CS-E7LKEW (x3) CS-E15LKEW (x1)	CS-E7LKEW (x3) CS-E12LKEW (x1)	CS-E7LKEW (x3) CS-E15LKEW (x1)
Outdoor			CU-4E23LBE	CU-4E23LBE	CU-4E27CBPG	CU-4E27CBPG
Cooling capacity	Nominal (Min - Max)	kW	6.80 (1.90 - 8.80)	6.80 (1.90 - 8.80)	8.00 (2.80 - 8.90)	8.00 (2.80 - 8.90)
		kCal/h	5,850 (1,630 - 7,570)	5,850 (1,630 - 7,650)	6,880 (2,410 - 7,650)	6,880 (2,410 - 7,650)
EER [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.12 (5.59 - 3.56) A**	**4.12 (5.59 - 3.56) A**	**3.76 (5.71 - 3.09) A**	**3.76 (5.71 - 3.20) A**
Power input Cooling	Nominal (Min - Max)	kW	1,65 (0,34 - 2,47)	1,65 (0,34 - 2,47)	2.13 (0.49 - 2.88)	2.10 (0.49 - 2.87)
Heating capacity	Nominal (Min - Max)	kW	8.60 (3.00 - 10.60)	8.60 (3.00 - 10.60)	9.40 (3.40 - 10.50)	9.40 (3.80 - 10.50)
		kCal/h	7,400 (2,580 - 9,120)	7,400 (2,580 - 9,120)	8,080 (2,920 - 9,030)	8,080 (3,270 - 9,030)
COP [1]	**Nominal (Min - Max)**	**Energy Saving Classification**	**4.65 (5.17 - 4.08) A**	**4.67 (5.09 - 4.09) A**	**4.43 (5.76 - 3.30) A**	**4.50 (5.31 - 3.34) A**
Power input Heating	Nominal (Min - Max)	kW	1.85 (0.58 - 2.60)	1.84 (0.59 - 2.59)	2.12 (0.59 - 3.18)	2.09 (0.64 - 3.14)
Annual Energy Consumption [2]		kWh	825	825	1,065	1,055
Indoor unit						
Air Volume	Cooling	m³/h	606 (E7) / 654 (E12)	606 (E7) / 672 (E15)	654 (E7) / 750 (E12)	654 (E7) / 750 (E15)
Moisture removal volume		l/h	0.9 (E7) / 1.5 (E12)	0.9 (E7) / 1.6 (E15)	1.0 (E7) / 1.6 (E12)	1.0 (E7) / 1.8 (E15)
Sound pressure level [3]	Cooling (S-Lo)	dB(A)	26 (E7) / 29 (E12)	26 (E7) / 29 (E15)	26 (E7) / 29 (E12)	26 (E7) / 29 (E15)
	Heating (S-Lo)	dB(A)	26 (E7) / 29 (E12)	26 (E7) / 30 (E15)	26 (E7) / 29 (E12)	26 (E7) / 30 (E15)
Sound power level	Cooling and Heating (Hi)	dB	56 (E7) / 60 (E12)	56 (E7) / 60 (E15)	56 (E7) / 60 (E12)	56 (E7) / 60 (E15)
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Outdoor unit						
Power source		V	230	230	230	230
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current	Cooling / Heating (Nominal)	A	7.40 / 8.60	7.40 / 8.50	9.40 / 9.30	9.30 / 9.20
Air Volume	Cooling / Heating	m³/h	2,550	2,550	2,910	2,910
Sound pressure level [3]	Cooling / Heating (Hi)	dB(A)	48 / 49	48 / 49	48 / 49	48 / 49
Sound power level	Cooling / Heating (Hi)	dB	62 / 63	62 / 63	61 / 62	61 / 62
Dimensions [4]	H x W x D	mm	795 x 875 (+95) x 320	795 x 875 (+95) x 320	908 x 900 x 320	908 x 900 x 320
Net weight		kg	72	72	73	73
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Refrigerant Loading	R410A	kg	2.64	2.64	3.10	3.10
Elevation difference (in/out) [5]	Max	m	15	15	15	15
Piping length	Total	m	60	60	70	70
Piping length (one unit)	Min / Max	m	3 / 25	3 / 25	3 / 25	3 / 25
Piping length without refrigerant increase	Max	m	30	30	40	40
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling Min / Max	°C	-10 / 46	-10 / 46	16 / 43	16 / 43
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB: Dry Bulb; WB: Wet Bulb
This model is not suitable to use in heating mode below -5°C with continuous operation (24h operation).
Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 230 V by an avarage of 500 hours per year in cooling mode.
3) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body and 0,8 meters below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

ETHEREA

CS-XE7LKEW // CS-XE9LKEW // CS-XE12LKEW // CS-XE15LKEW

NEW10

TECHNICAL FOCUS

- MAXIMUM EFFICIENCY AND COMFORT WITH ECO PATROL
- VERY EXCLUSIVE SILVER DESIGN
- NEW GENERATION OF E-ION AIR PURIFYING SYSTEM WITH 24-HR PATROL SENSOR
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

CS-E7LKEW // CS-E9LKEW // CS-E12LKEW // CS-E15LKEW

KIT-4XE77712-LBE // KIT-4XE77715-LBE // KIT-4XE77712-LKE // KIT-4XE77715-LKE KIT-4E77712-LBE // KIT-4E77715-LBE // KIT-4E77712-LKE // KIT-4E77715-LKE

HEALTHY AIR
- E-ion plus air purifying system
- Patrol sensor to detect and eliminate contaminants
- Air conditioner and purifier with simultaneous or independent operation

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -30% consumption with Eco Patrol on heat pump (-20% on cooling mode)
- R410A refrigerant gas

COMFORT
- Powerful mode
- Uniform dispersion of airflow
- Automatic vertical airflow control
- Hot start mode, increased comfort on heat pump mode, no cool airflow when process starts
- Automatic restart after power cut

EASE OF USE
- Real time clock with dual ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel
- 70 m maximum connection distance (For CU-4E27CBPG)
- 15 m maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

INCLUDED WITH THE INDOOR UNIT

CU-4E23LBE

CU-4E27CBPG

FREE MULTI

UP TO 4 INDOOR UNITS WITH A SINGLE OUTDOOR UNIT

Up to four different rooms with a single outdoor unit. Free Multi is what we need.
With Free Multi you can take care of 2, 3 or 4 rooms with a single outdoor unit.
With the Free Multi range, your clients will be able to save space at the time of installing the outdoor unit, and they will have more energy efficiency than with various 1x1 systems. They will be able to save up to 30% of energy.
Choose the outdoor units according to the necessities of each of your client's rooms, and calculate which outdoor unit best adapts itself to the combinations of indoor combinations.
The combination table on pages 78, 79, 80 and 81 will help you to select the best option.

INDOOR UNIT CAPACITIES

CAPACITY	7 - 2.0 kW	9/10 - 2.5 kW	9/10 - 2.8 kW	12 - 3.2 kW	15 - 4 kW	18 - 5 kW	21 - 6 kW
SPLIT ETHEREA SILVER OR WHITE INVERTER+	 CS-XE7LKEW CS-E7LKEW	 CS-XE9LKEW CS-E9LKEW		 CS-XE12LKEW CS-E12LKEW	 CS-XE15LKEW [1] CS-E15LKEW [1]	 CS-XE18LKEW [1] CS-E18LKEW [1]	 CS-XE21LKEW [1] CS-E21LKEW [1]
LOW STATIC PRESSURE HIDE AWAY INVERTER+		 CS-E10KD3EA			 CS-E15JD3EA [1]	 CS-E18JD3EA [1]	
4 WAY 60X60 CASSETTE INVERTER+		 CS-E10KB4EA			 CS-E15HB4EA [1]	 CS-E18HB4EA [1]	 CS-E21JB4EA [1]
1-WAY CASSETTE INVERTER+	 CS-ME7KB1E		 CS-ME10EBE1E	 CS-ME12EBE1E	 CS-ME14EBE1E		
FLOOR CONSOLE INVERTER+			 CS-E9GFEW	 CS-E12GFEW		 CS-E18GFEW [1]	
FLOOR/CEILING CONSOLE INVERTER+			 CS-ME10DTEG		 CS-E15DTEW [1]	 CS-E18DTEW [1]	

1) A CZ-MA1P pipe reducer is needed on the E15 and E18, a CZ-MA2P pipe expander is needed on the E21.

POSSIBLE INDOOR UNIT COMBINATIONS

Models		Possible indoor unit combinations	Capacity kW [1]	Refrigerant pipe diameter			Pipe length						Indoor/outdoor unit combinations					
				Indoor unit	Liquid	Gas	Maximum pipe length (1 room)	Maximum pipe length (total)	Max pipe without additional gas refills	Additional gas	Maximum level difference	Capacity	Wall-mounted	Floor console	4 -way Cassette	1 -way Cassette	Floor / ceiling	Ducts
2 Rooms	CU-2E15LBE	A [2]: 7 or 9/10 or 12	4.0-5.6	Room A	1/4"	3/8"	20 m	30 m	20 m	20 g/m	10 m	7	✘					
		B [2]: 7 or 9/10 or 12		Room B	1/4"	3/8"						9/10	✘	✘	✘			✘
												12	✘	✘				
	CU-2E18LBE	A [2]: 7 or 9/10 or 12	4.0-6.4	Room A	1/4"	3/8"	20 m	30 m	20 m	20 g/m	10 m	7	✘					
		B [2]: 7 or 9/10 or 12		Room B	1/4"	3/8"						9/10	✘	✘	✘		✘	✘
												12	✘	✘				
3 Rooms	CU-3E18LBE	A [3]: 7 or 9/10 or 12 or 15 or 18	4.5-9.0	Room A	1/4"	3/8"	25 m	50 m	30 m	20 g/m	15 m	7	✘			✘		
		B [3]: 7 or 9/10 or 12 or 15 or 18		Room B	1/4"	3/8"						9/10	✘	✘	✘	✘	✘	✘
		C [3]: 7 or 9/10 or 12 or 15 or 18		Room C	1/4"	3/8"						12	✘	✘		✘		
												14/15	✘		✘	✘	✘	✘
												18	✘	✘	✘		✘	✘
4 Rooms	CU-4E23LBE	A [3]: 7 or 9/10 or 12 or 15 or 18 or 21	4.5-11.0	Room A	1/4"	3/8"	25 m	60 m	30 m	20 g/m	15 m	7	✘			✘		
		B [3]: 7 or 9/10 or 12 or 15 or 18 or 21		Room B	1/4"	3/8"						9/10	✘	✘	✘	✘	✘	✘
		C [3]: 7 or 9/10 or 12 or 15 or 18 or 21		Room C	1/4"	3/8"						12	✘	✘		✘		
		D [3]: 7 or 9/10 or 12 or 15 or 18 or 21		Room D	1/4"	3/8"						14/15	✘		✘	✘	✘	✘
												18	✘	✘	✘		✘	✘
												21	✘		✘			
	CU-4E27CBPG	A [3]: 7 or 9/10 or 12 or 15 or 18	4.5-13.6	Room A	1/4"	3/8"	25 m	70 m	40 m	20 g/m	15 m	7	✘			✘		
		B [3]: 7 or 9/10 or 12 or 15 or 18		Room B	1/4"	3/8"						9/10	✘	✘	✘	✘	✘	✘
		C [3]: 7 or 9/10 or 12 or 15 or 18		Room C	1/4"	3/8"						12	✘	✘		✘		
		D [3]: 7 or 9/10 or 12 or 15 or 18		Room D	1/4"	3/8"						14/15	✘		✘	✘	✘	✘
												18	✘	✘	✘		✘	✘

1) The combinations must remain within this range.
2) A minimum of two indoor units must be connected.
3) A minimum of two indoor units must be connected, minimum combination at 2x1: 7+9.
Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

INDOOR UNITS FOR FREE MULTI COMBINATIONS

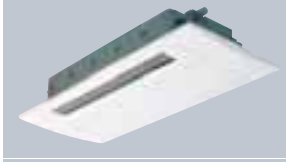
NEW10


ETHEREA // SILVER OR WHITE // INVERTER+			2.0 kW	2.5 kW	3.2 kW	4 kW	5 kW	6 kW
Silver Indoor			CS-XE7LKEW	CS-XE9LKEW	CS-XE12LKEW	CS-XE15LKEW [1]	CS-XE18LKEW [1]	CS-XE21LKEW [1]
White Indoor			CS-E7LKEW	CS-E9LKEW	CS-E12LKEW	CS-E15LKEW [1]	CS-E18LKEW [1]	CS-E21LKEW [1]
Cooling capacity	Nominal	kW / kCal/h	2.00 / 1,720	2.50 / 2,150	3.20 / 2,750	4.00 / 3,440	5.00 / 4,300	6.00 / 5,160
Heating capacity	Nominal	kW / kCal/h	3.20 / 2,750	3.60 / 3,010	4.50 / 3,870	5.60 / 4,820	6.80 / 5,850	8.50 / 7,310
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Sound pressure level [2]	Cooling (Hi / Lo / S-Lo)	dB(A)	40 / 26 / 23	40 / 26 / 23	44 / 32 / 26	44 / 32 / 26	46 / 33 / 30	46 / 33 / 30
	Heating (Hi / Lo / S-Lo)	dB(A)	40 / 26 / 23	40 / 26 / 23	44 / 32 / 26	44 / 33 / 32	46 / 35 / 32	46 / 35 / 32
Sound power level	Cooling / Heating (Hi)	dB	54 / 56	56 / 56	60 / 60	60 / 60	62 / 62	62 / 62
Dimensions	H x W x D	mm	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 1,070 x 235	290 x 1,070 x 235
Net weight		kg	9	9	9	9	12	12
Air purifier filter			Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion	Patrol + E-ion
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	1/2" (12.70)	1/2" (12.70)	1/2" (12.70)


LOW STATIC PRESSURE HIDE AWAY // INVERTER+			2.5 kW	4 kW	5 kW
Indoor hide away			CS-E10KD3EA	CS-E15JD3EA [1]	CS-E18JD3EA [1]
Wired remote control	Include on the indoor unit		CZ-RD52CP	CZ-RD52CP	CZ-RD52CP
Cooling capacity	Nominal	kW / kCal/h	2.50 / 2,150	4.00 / 3,440	5.00 / 4,300
Heating capacity	Nominal	kW / kCal/h	3.60 / 3,100	5.60 / 4,820	6.80 / 5,850
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5
External static pressure	High / Low	Pa (mm)	34 / 64 (3.47 / 6.53)	34 / 69 (3.47 / 7.04)	34 / 78 (3,47 / 7.95)
Air Volume	High / Medium / Low	m³/h	414 / 402 / 330	474 / 402 / 330	624 / 528 / 444
Sound pressure level [2]	Cooling (Quiet / Low / High)	dB(A)	24 / 27 / 31	24 / 27 / 33	27 / 30 / 41
	Heating (Quiet / Low / High)	dB(A)	24 / 27 / 35	24 / 27 / 33	29 / 32 / 41
Sound power level	Cooling / Heating (Hi)	dB	49 / 51	49 / 51	57 / 57
Dimensions [4]	H x W x D	mm	235 x 750 (+65) x 370	235 x 750 (+65) x 370	285 x 750 (+65) x 370
Net weight		kg	17	18	18
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	1/2" (12.70)	1/2" (12.70)


OPTIONAL

4 WAY 60X60 CASSETTE // INVERTER+			2.5 kW	4 kW	5 kW	6 kW
Indoor			CS-E10KB4EA	CS-E15HB4EA [1]	CS-E18HB4EA [1]	CS-E21JB4EA [1]
Panel	Sold separately		CZ-BT20E	CZ-BT20E	CZ-BT20E	CZ-BT20E
Wireless control	Include on the indoor unit					
Cooling capacity	Nominal	kW / kCal/h	2.50 / 2,150	4.00 / 3,440	5.00 / 4,300	6.00 / 5,160
Heating capacity	Nominal	kW / kCal/h	3.60 / 3,100	5.60 / 4,820	6.80 / 5,850	8.50 / 7,310
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Sound pressure level [2]	Cooling (Hi / Lo / S-Lo)	dB(A)	34 / 26 / 23	34 / 26 / 23	36 / 28 / 25	41 / 33 / 30
	Heating (Hi / Lo / S-Lo)	dB(A)	35 / 28 / 25	35 / 28 / 25	37 / 29 / 26	42 / 34 / 31
Sound power level	Cooling / Heating (Hi)	dB	47 / 58	47 / 48	49 / 50	54 / 55
Dimensions	Indoor (H x W x D)	mm	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575
Dimensions	Panel (H x W x D)	mm	51 x 700 x 700	51 x 700 x 700	51 x 700 x 700	51 x 700 x 700
Net weight	Indoor (Panel)	kg	18 (2.5)	18 (2.5)	18 (2.5)	18 (2.5)
Air purifier filter	Optional		CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P
Piping connections	Liquid / Gas pipe	inch (mm)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 1/2" (12.70)	1/4" (6.35) / 1/2" (12.70)	1/4" (6.35) / 1/2" (12.70)




OPTIONAL

1-WAY CASSETTE // INVERTER+			2.0 kW	2.8 kW	3.2 kW	4 kW
Indoor			CS-ME7KB1E	CS-ME10EBE1E	CS-ME12EBE1E	CS-ME14EBE1E
Panel	Sold separately		CZ-BT20P	CZ-BT20P	CZ-BT20P	CZ-BT20P
Cooling capacity	Nominal	kW / kCal/h	2.00 / 1,720	2.80 / 2,410	3.20 / 2,750	4.00 / 3,440
Heating capacity	Nominal	kW / kCal/h	3.20 / 2,750	4.00 / 3,440	4.50 / 3,870	5.60 / 4,820
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Sound pressure level [2]	Cooling (Hi / Lo / S-Lo)	dB(A)	40 / 32 / 29	40 / 32 / 29	41 / 32 / 29	43 / 32 / 29
	Heating (Hi / Lo / S-Lo)	dB(A)	42 / 32 / 29	42 / 32 / 29	43 / 32 / 29	44 / 34 / 31
Sound power level	Cooling / Heating (Hi)	dB	53 / 55	53 / 55	54 / 56	56 / 57
Dimensions	Indoor (H x W x D)	mm	185 x 770 x 360	185 x 770 x 360	185 x 770 x 360	185 x 770 x 360
Dimensions	Panel (H x W x D)	mm	55 x 1,070 x 460	55 x 1,070 x 460	55 x 1,070 x 460	55 x 1,070 x 460
Net weight	Indoor	kg	9.8	9.8	9.8	9.8
Piping connections	Liquid / Gas pipe	inch (mm)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 3/8" (9.52)


FLOOR CONSOLE // INVERTER+			2.8 kW	3.2 kW	5 kW
Indoor			CS-E9GFEW	CS-E12GFEW	CS-E18GFEW [1]
Cooling capacity	Nominal	kW / kCal/h	2.80 / 2,410	3.20 / 2,750	5.00 / 4,300
Heating capacity	Nominal	kW / kCal/h	4.00 / 3,440	4.50 / 3,870	6.80 / 5,850
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5
Sound pressure level [2]	Cooling (Hi / Lo / S-Lo)	dB(A)	38 / 27 / 23	39 / 28 / 24	44 / 36 / 32
	Heating (Hi / Lo / S-Lo)	dB(A)	38 / 27 / 23	39 / 27 / 23	46 / 36 / 32
Sound power level	Cooling / Heating (Hi)	dB	54 / 54	55 / 55	60 / 62
Dimensions	H x W x D	mm	600 x 700 x 210	600 x 700 x 210	600 x 700 x 210
Net weight		kg	14	14	14
Piping connections	Liquid / Gas pipe	inch (mm)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 1/2" (12.70)


OPTIONAL

FLOOR/CEILING CONSOLE // INVERTER+			2.8 kW	4 kW	5 kW
Indoor			CS-ME10DTEG	CS-E15DTEW [1]	CS-E18DTEW [1]
Cooling capacity	Nominal	kW / kCal/h	2.80 / 2.408	4.15 / 3,570	5.00 / 4,300
Heating capacity	Nominal	kW / kCal/h	4.00 / 3.440	5.17 / 4,450	6.80 / 5,850
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5
Sound pressure level [2]	Cooling (Hi / Lo / S-Lo)	dB(A)	39 / 31 / 28	45 / 37 / 34	46 / 39 / 36
	Heating (Hi / Lo / S-Lo)	dB(A)	40 / 31 / 28	45 / 33 / 30	47 / 35 / 32
Sound power level	Cooling / Heating (Hi)	dB	52 / 53	58 / 58	59 / 60
Dimensions	H x W x D	mm	540 x 1,028 x 200	540 x 1,028 x 200	540 x 1,028 x 200
Net weight		kg	17	17	18
Air purifier filter	Optional		CZ-SA14P	CZ-SA14P	CZ-SA14P
Piping connections	Liquid / Gas pipe	inch (mm)	1/4" (6.35) / 3/8" (9.52)	1/4" (6.35) / 1/2" (12.70)	1/4" (6.35) / 1/2" (12.70)

OUTDOOR UNITS FOR FREE MULTI COMBINATIONS


CU-2E15LBE


CU-2E18LBE


CU-3E18LBE


CU-4E23LBE


CU-4E27CBPG

OUTDOOR UNIT // INVERTER+			4.0 to 5.6 kW	4.0 to 6.4 kW	4.5 to 9.0 kW	4.5 to 11.0 kW	4.5 to 13.6 kW
Unit			CU-2E15LBE	CU-2E18LBE	CU-3E18LBE	CU-4E23LBE	CU-4E27CBPG
Cooling capacity	Nominal (Min - Max)	kW	4.50 (1.50-5.20)	5.20 (1.50-5.40)	5.20 (1.80-7.30)	6.80 (1,90-8.80)	8.00 (3.00-9.20)
	Nominal (Min - Max)	kCal/h	3,870 (1,290-4,472)	4,470 (1,290-4,640)	4,470 (1,550-6,280)	5,850 (1,630-7,570)	6,880 (2,580-7,912)
EER [3]	Nominal	Energy Saving Classification	3.66 A	3.42 A	4.30 A	4.05 A	4.04 A
Power input Cooling	Nominal (Min - Max)	kW	1.23 (0.25-1.52)	1.52 (0.25-1.58)	1.21 (0.36-2.18)	1.68 (0.34-2.47)	1.98 (0.53-2.87)
Heating capacity	Nominal (Min - Max)	kW	5.40 (1.10-7.00)	5.60 (1.10-7.20)	6.80 (1.60-8.30)	8.60 (3.00-10.60)	9.40 (4.20-10.60)
	Nominal (Min - Max)	kCal/h	4,640 (950-6,020)	4,820 (950-6,190)	5,850 (1,380-7,140)	7,400 (2,580-9,120)	8,084 (3,612/-9,116)
COP [3]	Nominal	Energy Saving Classification	4.62 A	4.63 A	4.72 A	4.65 A	4.52 A
Power input Heating	Nominal (Min - Max)	kW	1.17 (0.21-1.67)	1.21 (0.21-1.70)	1.44 (0.32-2.11)	1.85 (0.58-2.60)	2.08 (0.70-3.06)
Current	Cooling / Heating Nominal	A	5.75 / 5.20	7.10 / 5.35	5.30 / 7,90	7.50 / 8.60	8.70 / 9.10
Power source		V	230	230	230	230	230
Sound pressure level [2]	Cooling / Heating (Hi)	dB(A)	47 / 49	49 / 51	46 / 47	48 / 49	48 / 49
Sound power level	Cooling / Heating (Hi)	dB	62 / 64	64 / 66	60 / 61	62 / 63	61 / 62
Dimensions [4]	H x W x D	mm	540 x 780 (+70) x 289	540 x 780 (+70) x 289	795 x 875 (+95) x 320	795 x 875 (+95) x 320	908 x 900 x 320
Net weight		kg	38	38	71	72	73
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
Refrigerant Loading	R410A	kg	1.45	1.45	2.64	2.64	3.10
Elevation difference (in/out) [5]	Max	m	10	10	15	15	15
Piping length total	Max	m	30	30	50	60	70
Piping length to one unit	Min / Max	m	3-20	3-20	3-25	3-25	3-25
Piping length without refrigerant increase	Max	m	20	20	30	30	30
Additional gas		g/m	20	20	20	20	20
Operating range [2]	Cooling Min / Max	ºC	16 / 43	16 / 43	-10 / 46	-10 / 46	16 / 43
	Heating Min / Max	ºC	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27ºC DB / 19ºC WB	20ºC DB
Outside air temperature	35ºC DB / 24ºC WB	7ºC DB / 6ºC WB

DB: Dry Bulb; WB: Wet Bulb

Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

1) A CZ-MA1P pipe reducer is needed on the E15 and E18, a CZ-MA2P pipe expander is needed on the E21.
2) The Sound pressure level of the units shows the value measured of a position 1 meter in front of the main body. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
3) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC.
4) Add 70 or 95 mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

FREE MULTI COMBINATIONS

FREE MULTI 2X1 // OUTDOOR UNIT CU-2E15LBE

Indoor unit capacity	Cooling Capacity (kW) Room A	Room B	Total (Min.-Max.)	Input Power (W) Rating	EER W/W	A.C.E. kWh	Current 230 V (A)	Moisture Removal Volume (l/h)	Heating Capacity (kW) Room A	Room B	Total (Min.-Max.)	Input Power (W) Rating	COP W/W	A.C.E. kWh	Current 230 V (A)
1 Room															
7	2.00		2.00 (1.10-2.90)	520 (220 -750)	3.85 A	260	2.45	1.3	3.20		3.20 (0.70-4.80)	850 (170-1410)	3.76 A	425	3.75
9 [1]	2.50		2.50 (1.10-3.50)	670 (220 -1000)	3.73 A	335	3.15	1.5	3.60		3.60 (0.70-5.50)	1030 (170-1700)	3.50 B	515	4.55
10 [2]	2.80		2.80 (1.10-3.50)	750 (220 -1000)	3.73 A	375	3.50	1.6	4.00		4.00 (0.70-5.50)	1150 (170-1700)	3.48 B	575	5.10
12	3.20		3.20 (1.10-4.00)	920 (220 -1220)	3.48 A	460	4.30	1.8	4.50		4.50 (0.70-6.20)	1250 (170-1810)	3.60 B	625	5.55
2 Room															
7 + 7	2.00	2.00	4.00 (1.50-5.00)	1090 (250 -1350)	3.66 A	545	5.10	1.3 + 1.3	2.70	2.70	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
7 + 9 [1]	2.00	2.50	4.50 (1.50-5.20)	1230 (250 -1520)	3.66 A	615	5.75	1.3 + 1.5	2.40	3.00	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
7 + 10 [2]	1.85	2.65	4.50 (1.50-5.20)	1230 (250 -1520)	3.66 A	615	5.75	1.2 + 1.6	2.25	3.15	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
7 + 12	1.75	2.75	4.50 (1.50-5.20)	1230 (250 -1520)	3.66 A	615	5.75	1.1 + 1.6	2.10	3.30	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
9 [1] + 9 [1]	2.25	2.25	4.50 (1.50-5.20)	1230 (250 -1520)	3.66 A	615	5.75	1.5 + 1.5	2.70	2.70	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
9 [1] + 10 [2]	2.10	2.40	4.50 (1.50-5.20)	1230 (250 -1520)	3.66 A	615	5.75	1.4 + 1.5	2.55	2.85	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
10 [2] + 10 [2]	2.25	2.25	4.50 (1.50-5.20)	1230 (250 -1520)	3.66 A	615	5.75	1.5 + 1.5	2.70	2.70	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20

FREE MULTI 2X1 // OUTDOOR UNIT CU-2E18LBE

Indoor unit capacity	Cooling Capacity (kW) Room A	Room B	Total (Min.-Max.)	Input Power (W) Rating	EER W/W	A.C.E. kWh	Current 230 V (A)	Moisture Removal Volume (l/h)	Heating Capacity (kW) Room A	Room B	Total (Min.-Max.)	Input Power (W) Rating	COP W/W	A.C.E. kWh	Current 230 V (A)
1 Room															
7	2.00		2.00 (1.10-2.90)	520 (220-750)	3.85 A	260	2.45	1.3	3.20		3.20 (0.70-4.80)	850 (170-1410)	3.76 A	425	3.75
9 [1]	2.50		2.50 (1.10-3.50)	670 (220-1000)	3.73 A	335	3.15	1.5	3.60		3.60 (0.70-5.50)	1030 (170-1700)	3.50 B	515	4.55
10 [2]	2.80		2.80 (1.10-3.50)	750 (220-1000)	3.73 A	375	3.50	1.6	4.00		4.00 (0.70-5.50)	1150 (170-1700)	3.48 B	575	5.10
12	3.20		3.20 (1.10-4.00)	920 (220-1220)	3.48 A	460	4.30	1.8	4.50		4.50 (0.70-6.20)	1250 (170-1810)	3.60 B	625	5.55
2 Rooms															
7 + 7	2.00	2.00	4.00 (1.50-5.00)	1090 (250-1350)	3.66 A	545	5.10	1.3 + 1.3	2.70	2.70	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
7 + 9 [1]	2.00	2.50	4.50 (1.50-5.20)	1230 (250-1520)	3.66 A	615	5.75	1.3 + 1.5	2.40	3.00	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
7 + 10 [2]	1.85	2.65	4.50 (1.50-5.20)	1230 (250-1520)	3.66 A	615	5.75	1.2 + 1.6	2.25	3.15	5.40 (1.10-7.00)	1170 (210-1670)	4.62 A	585	5.20
7 + 12	1.85	2.95	4.80 (1.50-5.30)	1310 (250-1540)	3.66 A	655	6.10	1.2 + 1.7	2.15	3.45	5.60 (1.10-7.20)	1230 (210-1720)	4.55 A	615	5.45
9 [1] + 9 [1]	2.40	2.40	4.80 (1.50-5.20)	1310 (250-1520)	3.66 A	655	6.10	1.5 + 1.5	2.80	2.80	5.60 (1.10-7.20)	1250 (210-1740)	4.48 A	625	5.55
9 [1] + 10 [2]	2.25	2.55	4.80 (1.50-5.20)	1310 (250-1520)	3.66 A	655	6.10	1.5 + 1.6	2.65	2.95	5.60 (1.10-7.20)	1250 (210-1740)	4.48 A	625	5.55
9 [1] + 12	2.20	2.80	5.00 (1.50-5.30)	1490 (250-1540)	3.36 A	745	6.95	1.4 + 1.6	2.45	3.15	5.60 (1.10-7.20)	1230 (210-1720)	4.55 A	615	5.45
10 [2] + 10 [2]	2.40	2.40	4.80 (1.50-5.20)	1310 (250-1520)	3.66 A	655	6.10	1.5 + 1.5	2.80	2.80	5.60 (1.10-7.20)	1250 (210-1740)	4.48 A	625	5.55
10 [2] + 12	2.35	2.65	5.00 (1.50-5.30)	1490 (250-1540)	3.36 A	745	6.95	1.5 + 1.6	2.60	3.00	5.60 (1.10-7.20)	1230 (210-1720)	4.55 A	615	5.45
12 + 12	2.60	2.60	5.20 (1.50-5.40)	1520 (250-1580)	3.42 A	760	7.10	1.6 + 1.6	2.80	2.80	5.60 (1.10-7.20)	1210 (210-1700)	4.63 A	605	5.35

FREE MULTI 3X1 // OUTDOOR UNIT CU-3E18LBE

Indoor unit capacity	Cooling Capacity (kW) Room A	Room B	Room C	Total (Min.-Max.)	Input Power (W) Rating	EER W/W	A.C.E. kWh	Current 230 V (A)	Moisture Removal Volume (l/h)	Heating Capacity (kW) Room A	Room B	Room C	Total (Min.-Max.)	Input Power (W) Rating	COP W/W	A.C.E. kWh	Current 230 V (A)
1 Room																	
7	2.00			2.00 (1.80-2.90)	500 (340-810)	4.00 A	250	2.5	1.3	3.20			3.20 (1.20-4.10)	740 (300-1230)	4.32 A	370	3.7
9 [1]	2.50			2.50 (1.80-2.90)	630 (340-810)	4.00 A	315	3.0	1.5	3.60			3.60 (1.20-4.30)	940 (300-1230)	3.83 A	470	4.5
10 [2]	2.80			2.80 (1.80-2.90)	700 (340-810)	4.00 A	350	3.3	1.6	4.00			4.00 (1.20-4.30)	1050 (300-1230)	3.81 A	525	5.0
12	3.20			3.20 (1.80-3.80)	800 (340-1360)	4.00 A	400	3.7	1.8	4.50			4.50 (1.20-5.80)	1230 (300-2100)	3.66 A	615	5.8
15	4.00			4.00 (1.80-4.30)	1240 (340-1990)	3.23 A	620	5.6	2.3	5.60			5.60 (1.20-6.80)	1720 (300-2930)	3.26 C	860	7.7
18	5.00			5.00 (1.90-5.70)	1550 (340-2130)	3.23 A	775	6.8	2.7	6.80			6.80 (1.20-6.90)	2100 (300-2520)	3.24 C	1050	9.2
2 Rooms																	
7 + 7	2.00	2.00		4.00 (1.90-6.20)	1010 (350-2100)	3.96 A	505	4.5	1.3 + 1.3	2.90	2.90		5.80 (1.40-7.00)	1450 (310-2550)	4.00 A	725	6.4
7 + 9 [1]	2.00	2.50		4.50 (1.90-6.20)	1270 (350-2100)	3.55 A	635	5.6	1.3 + 1.5	2.84	3.56		6.40 (1.40-7.00)	1720 (310-2550)	3.72 A	860	7.6
7 + 10 [2]	2.00	2.80		4.80 (1.90-6.20)	1350 (350-2100)	3.55 A	675	6.0	1.3 + 1.6	2.67	3.73		6.40 (1.40-7.00)	1720 (310-2550)	3.72 A	860	7.6
7 + 12	2.00	3.20		5.20 (1.90-6.30)	1490 (350-2110)	3.49 A	745	6.6	1.3 + 1.8	2.62	4.18		6.80 (1.40-7.30)	1840 (310-2520)	3.70 A	920	8.2
7 + 15	1.73	3.47		5.20 (1.90-6.40)	1450 (350-2110)	3.59 A	725	6.4	1.1 + 2.0	2.27	4.53		6.80 (1.40-7.30)	1800 (310-2510)	3.78 A	900	7.9
7 + 18	1.49	3.71		5.20 (1.90-6.80)	1290 (360-2150)	4.03 A	645	5.7	0.9 + 2.2	1.94	4.86		6.80 (1.40-8.00)	1520 (310-2200)	4.47 A	760	6.7
9 [1] + 9 [1]	2.50	2.50		5.00 (1.90-6.20)	1540 (350-2100)	3.25 A	770	6.8	1.5 + 1.5	3.40	3.40		6.80 (1.40-7.00)	1930 (310-2550)	3.52 B	965	8.5
9 [1] + 10 [2]	2.45	2.75		5.20 (1.90-6.20)	1540 (350-2100)	3.38 A	770	6.8	1.5 + 1.6	3.21	3.59		6.80 (1.40-7.00)	1930 (310-2550)	3.52 B	965	8.5
9 [1] + 12	2.28	2.92		5.20 (1.90-6.30)	1480 (350-2110)	3.51 A	740	6.5	1.5 + 1.7	2.98	3.82		6.80 (1.40-7.30)	1840 (310-2520)	3.70 A	920	8.1
9 [1] + 15	2.00	3.20		5.20 (1.90-6.40)	1440 (350-2110)	3.61 A	720	6.4	1.3 + 1.8	2.62	4.18		6.80 (1.40-7.30)	1800 (310-2510)	3.78 A	900	8.0
9 [1] + 18	1.73	3.47		5.20 (1.90-6.80)	1290 (360-2150)	4.03 A	645	5.7	1.1 + 2.0	2.27	4.53		6.80 (1.40-8.00)	1520 (310-2200)	4.47 A	760	6.7
10 [2] + 10 [2]	2.60	2.60		5.20 (1.90-6.20)	1540 (350-2100)	3.38 A	770	6.8	1.6 + 1.6	3.40	3.40		6.80 (1.40-7.00)	1930 (310-2550)	3.52 B	965	8.5
10 [2] + 12	2.43	2.77		5.20 (1.90-6.30)	1480 (350-2110)	3.51 A	740	6.5	1.5 + 1.6	3.17	3.63		6.80 (1.40-7.30)	1840 (310-2520)	3.70 A	920	8.1
10 [2] + 15	2.14	3.06		5.20 (1.90-6.40)	1440 (350-2110)	3.61 A	720	6.4	1.4 + 1.7	2.80	4.00		6.80 (1.40-7.30)	1800 (310-2510)	3.78 A	900	8.0
10 [2] + 18	1.87	3.33		5.20 (1.90-6.80)	1290 (360-2150)	4.03 A	645	5.7	1.2 + 1.9	2.44	4.36		6.80 (1.40-8.00)	1520 (310-2200)	4.47 A	760	6.7
12 + 12	2.60	2.60		5.20 (1.90-6.40)	1450 (350-2120)	3.59 A	725	6.4	1.6 + 1.6	3.40	3.40		6.80 (1.40-7.50)	1750 (310-2490)	3.89 A	875	7.7
12 + 15	2.31	2.89		5.20 (1.90-6.50)	1410 (350-2120)	3.69 A	705	6.3	1.5 + 1.7	3.02	3.78		6.80 (1.40-7.50)	1750 (310-2470)	3.89 A	875	7.8
12 + 18	2.03	3.17		5.20 (1.90-6.90)	1250 (360-2150)	4.16 A	625	5.5	1.3 + 1.8	2.65	4.15		6.80 (1.40-8.00)	1500 (310-2180)	4.53 A	750	6.6
15 + 15	2.60	2.60		5.20 (1.90-6.50)	1410 (350-2120)	3.69 A	705	6.2	1.6 + 1.6	3.40	3.40		6.80 (1.40-7.60)	1710 (310-2470)	3.98 A	855	7.5
15 + 18	2.31	2.89		5.20 (1.90-6.90)	1250 (360-2160)	4.16 A	625	5.5	1.5 + 1.7	3.02	3.78		6.80 (1.40-8.00)	1500 (310-2170)	4.53 A	750	6.6
3 Rooms																	
7 + 7 + 7	1.73	1.73	1.73	5.19 (1.90-7.20)	1220 (360-2170)	4.25 A	610	5.3	1.1 + 1.1 + 1.1	2.26	2.26	2.26	6.78 (1.50-8.10)	1510 (320-2120)	4.49 A	755	6.7
7 + 7 + 9 [1]	1.60	1.60	2.00	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	1.0 + 1.0 + 1.3	2.09	2.09	2.62	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
7 + 7 + 10 [2]	1.53	1.53	2.14	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	1.0 + 1.0 + 1.4	2.00	2.00	2.80	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
7 + 7 + 12	1.44	1.44	2.32	5.20 (1.90-7.20)	1210 (360-2180)	4.30 A	605	5.3	0.9 + 0.9 + 1.5	1.89	1.89	3.02	6.80 (1.40-8.30)	1470 (320-2110)	4.63 A	735	6.5
7 + 7 + 15	1.30	1.30	2.60	5.20 (1.80-7.30)	1210 (360-2180)	4.30 A	605	5.3	0.8 + 0.8 + 1.6	1.70	1.70	3.40	6.80 (1.60-8.30)	1440 (320-2110)	4.72 A	720	6.4
7 + 7 + 18	1.16	1.16	2.88	5.20 (1.80-7.30)	1200 (360-2180)	4.33 A	600	5.3	0.7 + 0.7 + 1.7	1.51	1.51	3.78	6.80 (1.60-8.30)	1400 (320-2110)	4.86 A	700	6.5
7 + 9 [1] + 9 [1]	1.48	1.86	1.86	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	0.9 + 1.2 + 1.2	1.94	2.43	2.43	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
7 + 9 [1] + 10 [2]	1.42	1.78	2.00	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	0.9 + 1.1 + 1.3	1.86	2.33	2.61	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
7 + 9 [1] + 12	1.35	1.69	2.16	5.20 (1.90-7.20)	1210 (360-2180)	4.30 A	605	5.3	0.9 + 1.1 + 1.4	1.76	2.21	2.83	6.80 (1.40-8.30)	1470 (320-2110)	4.63 A	735	6.5
7 + 9 [1] + 15	1.22	1.53	2.45	5.20 (1.80-7.30)	1200 (360-2180)	4.33 A	600	5.3	0.8 + 1.0 + 1.5	1.60	2.00	3.20	6.80 (1.60-8.30)	1400 (320-2110)	4.86 A	700	6.5
7 + 10 [2] + 10 [2]	1.36	1.92	1.92	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	0.9 + 1.2 + 1.2	1.78	2.51	2.51	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
7 + 10 [2] + 12	1.30	1.82	2.08	5.20 (1.90-7.20)	1210 (360-2180)	4.30 A	605	5.3	0.8 + 1.2 + 1.3	1.70	2.38	2.72	6.80 (1.40-8.30)	1470 (320-2110)	4.63 A	735	6.5
7 + 10 [2] + 15	1.18	1.65	2.37	5.20 (1.80-7.30)	1200 (360-2180)	4.33 A	600	5.3	0.7 + 1.1 + 1.5	1.55	2.16	3.09	6.80 (1.60-8.30)	1400 (320-2110)	4.86 A	700	6.5
7 + 12 + 12	1.24	1.98	1.98	5.20 (1.80-7.30)	1200 (360-2180)	4.33 A	600	5.3	0.8 + 1.3 + 1.3	1.62	2.59	2.59	6.80 (1.60-8.30)	1410 (320-2100)	4.82 A	705	6.3
9 [1] + 9 [1] + 9 [1]	1.73	1.73	1.73	5.19 (1.90-7.20)	1220 (360-2170)	4.25 A	610	5.3	1.1 + 1.1 + 1.1	2.26	2.26	2.26	6.78 (1.50-8.10)	1510 (320-2120)	4.49 A	755	6.7
9 [1] + 9 [1] + 10 [2]	1.67	1.67	1.86	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	1.1 + 1.1 + 1.2	2.18	2.18	2.44	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
9 [1] + 9 [1] + 12	1.59	1.59	2.02	5.20 (1.90-7.20)	1210 (360-2180)	4.30 A	605	5.3	1.0 + 1.0 + 1.3	2.07	2.07	2.66	6.80 (1.40-8.30)	1470 (320-2110)	4.63 A	735	6.5
9 [1] + 9 [1] + 15	1.44	1.44	2.32	5.20 (1.80-7.30)	1200 (360-2180)	4.33 A	600	5.3	0.9 + 0.9 + 1.5	1.89	1.89	3.02	6.80 (1.60-8.30)	1400 (320-2110)	4.86 A	700	6.5
9 [1] + 10 [2] + 10 [2]	1.60	1.80	1.80	5.20 (1.90-7.20)	1220 (360-2170)	4.26 A	610	5.3	1.0 + 1.2 + 1.2	2.10	2.35	2.35	6.80 (1.50-8.10)	1510 (320-2120)	4.50 A	755	6.7
9 [1] + 10 [2] + 12	1.53	1.71	1.96	5.20 (1.90-7.20)	1210 (360-2180)	4.30 A	605	5.3	1.0 + 1.1 + 1.3	2.00	2.24	2.56	6.80 (1.40-8.30)	1470 (320-2110)	4.63 A	735	6.5
9 [1] + 12 + 12	1.46	1.87	1.87	5.20 (1.80-7.30)	1200 (360-2180)	4.33 A	600	5.3	0.9 + 1.2 + 1.2	1.92	2.44	2.44	6.80 (1.60-8.30)	1410 (320-2100)	4.82 A	705	6.3
10 [2] + 10 [2] + 10 [2]	1.73	1.73	1.73	5.19 (1.90-7.20)	1220 (360-2170)	4.25 A	610	5.3	1.1 + 1.1 + 1.1	2.26	2.26	2.26	6.78 (1.50-8.10)	1510 (320-2120)	4.49 A	755	6.7
10 [2] + 10 [2] + 12	1.65	1.65	1.90	5.20 (1.90-7.2)	1210 (360-2180)	4.30 A	605	5.3	1.1 + 1.1 + 1.2	2.16	2.16	2.48	6.80 (1.40-8.30)	1470 (320-2110)	4.63 A	735	6.5

FREE MULTI 4X1 // OUTDOOR UNIT CU-4E23LBE

Indoor unit capacity	Cooling Capacity (kW) Room A	Room B	Room C	Room D	Total (Min.-Max.)	Input Power (W) Rating	EER W/W	A.C.E. kWh	Current 230 V (A)	Moisture Removal Volume (l/h)	Heating Capacity (kW) Room A	Room B	Room C	Room D	Total (Min.-Max.)	Input Power (W) Rating	COP W/W	A.C.E. kWh	Current 230 V (A)
1 Room																			
7	2.00				2.00 (1.80-2.90)	500 (340-810)	4.00 A	250	2.5	1.3	3.20				3.20 (1.20-4.10)	740 (300-1230)	4.32 A	370	3.7
9 [1]	2.50				2.50 (1.80-2.90)	630 (340-810)	4.00 A	315	3.2	1.5	3.60				3.60 (1.20-4.30)	940 (300-1230)	3.83 A	470	4.7
10 [2]	2.80				2.80 (1.80-2.90)	700 (340-810)	4.00 A	350	3.5	1.6	4.00				4.00 (1.20-4.30)	1050 (300-1230)	3.81 A	525	5.2
12	3.20				3.20 (1.80-3.80)	800 (340-1360)	4.00 A	400	3.9	1.8	4.50				4.50 (1.20-5.80)	1230 (300-2100)	3.66 A	615	6.0
15	4.00				4.00 (1.80-4.30)	1240 (340-1990)	3.23 A	620	5.8	2.3	5.60				5.60 (1.20-6.80)	1720 (300-2930)	3.26 C	860	8.0
18	5.00				5.00 (1.90-5.70)	1550 (340-2130)	3.23 A	775	7.2	2.7	6.80				6.80 (1.20-6.90)	2100 (300-2520)	3.24 C	1050	9.7
21	6.00				6.00 (1.90-6.20)	2030 (340-2330)	2.96 C	1015	9.2	3.3	8.50				8.50 (1.30-9.00)	2400 (620-2530)	3.54 B	1200	11.1
2 Room																			
7 + 7	2.00	2.00			4.00 (1.90-6.40)	1010 (340-2150)	3.96 A	505	4.5	1.3 + 1.3	2.90	2.90			5.80 (2.70-9.80)	1450 (610-2800)	4.00 A	725	6.7
7 + 9 [1]	2.00	2.50			4.50 (1.90-6.40)	1270 (340-2150)	3.55 A	635	5.7	1.3 + 1.5	2.71	3.39			6.10 (2.70-9.80)	1640 (610-2800)	3.72 A	820	7.6
7 + 10 [2]	2.00	2.80			4.80 (1.90-6.40)	1350 (340-2150)	3.55 A	675	6.1	1.3 + 1.6	2.67	3.73			6.40 (2.70-9.80)	1720 (610-2800)	3.72 A	860	8.0
7 + 12	2.00	3.20			5.20 (1.90-6.90)	1510 (340-2410)	3.44 A	755	6.8	1.3 + 1.8	2.69	4.31			7.00 (2.70-9.90)	1840 (590-2800)	3.80 A	920	8.5
7 + 15	2.00	4.00			6.00 (1.90-6.90)	1810 (330-2410)	3.32 A	905	8.1	1.3 + 2.3	2.73	5.47			8.20 (2.70-9.90)	2210 (590-2800)	3.71 A	1105	10.2
7 + 18	1.94	4.86			6.80 (2.00-7.50)	1800 (320-2440)	3.78 A	900	8.1	1.3 + 2.6	2.46	6.14			8.60 (2.80-10.20)	2140 (530-2760)	4.02 A	1070	9.9
7 + 21	1.70	5.10			6.80 (2.00-7.50)	1800 (320-2440)	3.78 A	900	8.1	1.1 + 2.8	2.15	6.45			8.60 (2.80-10.20)	2290 (530-2760)	3.76 A	1145	10.6
9 [1] + 9 [1]	2.50	2.50			5.00 (1.90-6.80)	1380 (340-2400)	3.61 A	690	6.2	1.5 + 1.5	3.20	3.20			6.40 (2.70-9.80)	1700 (610-2800)	3.77 A	850	7.8
9 [1] + 10 [2]	2.50	2.80			5.30 (1.90-6.80)	1470 (340-2400)	3.61 A	735	6.6	1.5 + 1.6	3.30	3.70			7.00 (2.70-9.80)	1860 (610-2800)	3.77 A	930	8.6
9 [1] + 12	2.50	3.20			5.70 (1.90-6.90)	1660 (340-2410)	3.43 A	830	7.4	1.5 + 1.8	3.55	4.55			8.10 (2.70-9.90)	2170 (590-2800)	3.73 A	1085	10.0
9 [1] + 15	2.50	4.00			6.50 (1.90-6.90)	2070 (330-2410)	3.13 B	1035	9.2	1.5 + 2.3	3.31	5.29			8.60 (2.70-9.90)	2320 (590-2800)	3.71 A	1160	10.7
9 [1] + 18	2.27	4.53			6.80 (1.90-7.50)	1970 (320-2440)	3.45 A	985	8.8	1.5 + 2.5	2.87	5.73			8.60 (2.80-10.20)	2140 (530-2760)	4.02 A	1070	9.9
9 [1] + 21	2.00	4.80			6.80 (1.90-7.50)	1970 (320-2440)	3.45 A	985	8.8	1.3 + 2.6	2.53	6.07			8.60 (2.80-10.20)	2140 (530-2760)	4.02 A	1070	9.9
10 [2] + 10 [2]	2.80	2.80			5.60 (1.90-6.80)	1550 (340-2400)	3.61 A	775	6.9	1.6 + 1.6	4.00	4.00			8.00 (2.70-9.80)	2120 (610-2800)	3.77 A	1060	9.8
10 [2] + 12	2.80	3.20			6.00 (1.90-6.90)	1750 (340-2410)	3.43 A	875	7.8	1.6 + 1.8	3.97	4.53			8.50 (2.70-9.90)	2280 (590-2800)	3.73 A	1140	10.5
10 [2] + 15	2.80	4.00			6.80 (1.90-6.90)	2170 (330-2410)	3.13 B	1085	9.7	1.6 + 2.3	3.54	5.06			8.60 (2.70-9.90)	2320 (590-2800)	3.71 A	1160	10.7
10 [2] + 18	2.44	4.36			6.80 (1.90-7.50)	1970 (320-2440)	3.45 A	985	8.8	1.5 + 2.4	3.09	5.51			8.60 (2.80-10.20)	2140 (530-2760)	4.02 A	1070	9.9
10 [2] + 21	2.16	4.64			6.80 (1.90-7.50)	1970 (320-2440)	3.45 A	985	8.8	1.4 + 2.5	2.74	5.86			8.60 (2.80-10.20)	2140 (530-2760)	4.02 A	1070	9.9
12 + 12	3.20	3.20			6.40 (1.90-7.00)	1960 (330-2420)	3.27 A	980	8.8	1.8 + 1.8	4.30	4.30			8.60 (2.80-10.00)	2270 (580-2800)	3.79 A	1135	10.5
12 + 15	3.02	3.78			6.80 (1.90-7.10)	2070 (330-2420)	3.29 A	1035	9.3	1.7 + 2.2	3.82	4.78			8.60 (2.80-10.00)	2270 (570-2800)	3.79 A	1135	10.5
12 + 18	2.65	4.15			6.80 (2.00-7.60)	1890 (320-2450)	3.60 A	945	8.5	1.6 + 2.4	3.36	5.24			8.60 (2.80-10.30)	2090 (520-2740)	4.11 A	1045	9.7
12 + 21	2.37	4.43			6.80 (2.00-7.60)	1890 (320-2450)	3.60 A	945	8.5	1.5 + 2.5	2.99	5.61			8.60 (2.80-10.30)	2090 (520-2740)	4.11 A	1045	9.7
15 + 15	3.40	3.40			6.80 (1.90-7.10)	2270 (330-2420)	3.00 C	1135	10.2	1.9 + 1.9	4.30	4.30			8.60 (2.80-10.00)	2260 (560-2800)	3.81 A	1130	10.5
15 + 18	3.02	3.78			6.80 (2.00-7.60)	1890 (320-2450)	3.60 A	945	8.5	1.7 + 2.2	3.82	4.78			8.60 (2.80-10.30)	2080 (510-2740)	4.13 A	1040	9.6
15 + 21	2.72	4.08			6.80 (2.00-7.60)	1890 (320-2450)	3.60 A	945	8.5	1.6 + 2.3	3.44	5.16			8.60 (2.80-10.30)	2080 (510-2740)	4.13 A	1040	9.6
18 + 18	3.40	3.40			6.80 (2.10-8.10)	1780 (310-2460)	3.82 A	890	8.0	1.9 + 1.9	4.30	4.30			8.60 (2.80-10.50)	1960 (480-2650)	4.39 A	980	9.1
18 + 21	3.09	3.71			6.80 (2.10-8.10)	1780 (310-2460)	3.82 A	890	8.0	1.7 + 2.2	3.91	4.69			8.60 (2.80-10.50)	1960 (480-2650)	4.39 A	980	9.1
3 Room																			
7 + 7 + 7	2.00	2.00	2.00		6.00 (1.90-8.00)	1650 (340-2460)	3.63 A	825	7.4	1.3 + 1.3 + 1.3	2.86	2.86	2.86		8.58 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
7 + 7 + 9 [1]	2.00	2.00	2.50		6.50 (1.90-8.00)	1830 (340-2460)	3.56 A	915	8.2	1.3 + 1.3 + 1.5	2.65	2.65	3.30		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
7 + 7 + 10 [2]	2.00	2.00	2.80		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.3 + 1.3 + 1.6	2.53	2.53	3.54		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
7 + 7 + 12	1.89	1.89	3.02		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.2 + 1.2 + 1.7	2.39	2.39	3.82		8.60 (3.30-10.40)	2070 (590-2820)	4.15 A	1035	9.6
7 + 7 + 15	1.70	1.70	3.40		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.1 + 1.1 + 1.9	2.15	2.15	4.30		8.60 (3.30-10.50)	2060 (590-2810)	4.17 A	1030	9.5
7 + 7 + 18	1.51	1.51	3.78		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.0 + 1.0 + 2.2	1.91	1.91	4.78		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
7 + 7 + 21	1.36	1.36	4.08		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.9 + 0.9 + 2.3	1.72	1.72	5.16		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
7 + 9 [1] + 9 [1]	1.94	2.43	2.43		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.3 + 1.5 + 1.5	2.46	3.07	3.07		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
7 + 9 [1] + 10 [2]	1.86	2.33	2.61		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.2 + 1.5 + 1.6	2.35	2.95	3.30		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
7 + 9 [1] + 12	1.76	2.21	2.83		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.1 + 1.4 + 1.7	2.23	2.79	3.58		8.60 (3.30-10.40)	2070 (590-2820)	4.15 A	1035	9.6
7 + 9 [1] + 15	1.60	2.00	3.20		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.0 + 1.3 + 1.8	2.02	2.53	4.05		8.60 (3.30-10.50)	2060 (590-2810)	4.17 A	1030	9.5
7 + 9 [1] + 18	1.43	1.79	3.58		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.9 + 1.2 + 2.1	1.81	2.26	4.53		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
7 + 9 [1] + 21	1.29	1.62	3.89		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.8 + 1.0 + 2.3	1.64	2.05	4.91		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
7 + 10 [2] + 10 [2]	1.78	2.51	2.51		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.1 + 1.5 + 1.5	2.26	3.17	3.17		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
7 + 10 [2] + 12	1.70	2.38	2.72		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.1 + 1.5 + 1.6	2.15	3.01	3.44		8.60 (3.30-10.40)	2070 (590-2820)	4.15 A	1035	9.6
7 + 10 [2] + 15	1.55	2.16	3.09		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.0 + 1.4 + 1.7	1.95	2.74	3.91		8.60 (3.30-10.50)	2060 (590-2810)	4.17 A	1030	9.5
7 + 10 [2] + 18	1.39	1.94	3.47		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.9 + 1.3 + 2.0	1.75	2.46	4.39		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
7 + 10 [2] + 21	1.26	1.76	3.78		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.8 + 1.1 + 2.2	1.59	2.23	4.78		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
7 + 12 + 12	1.62	2.59	2.59		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.0 + 1.6 + 1.6	2.04	3.28	3.28		8.60 (3.30-10.50)	2050 (590-2800)	4.20 A	1025	9.5
7 + 12 + 15	1.47	2.37	2.96		6.80 (1.90-8.20)	1860 (340-2460)	3.66 A	930	8.3	0.9 + 1.5 + 1.7	1.87	2.99	3.74		8.60 (3.30-10.50)	2040 (580-2790)	4.22 A	1020	9.4
7 + 12 + 18	1.33	2.13	3.34		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.8 + 1.4 + 1.9	1.68	2.70	4.22		8.60 (3.20-10.60)	1910 (570-2680)	4.50 A	955	8.8
7 + 15 + 15	1.36	2.72	2.72		6.80 (1.90-8.20)	1820 (340-2460)	3.74 A	910	8.2	0.9 + 1.6 + 1.6	1.72	3.44	3.44		8.60 (3.30-10.50)	2030 (580-2780)	4.24 A	1015	9.4
7 + 15 + 18	1.24	2.47	3.09		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	0.8 + 1.5 + 1.7	1.56	3.13	3.91		8.60 (3.20-10.60)	1910 (570-2680)	4.50 A	955	8.8
9 [1] + 9 [1] + 9 [1]	2.26	2.26	2.26		6.78 (1.90-8.00)	1910 (340-2460)	3.55 A	955	8.6	1.5 + 1.5 + 1.5	2.86	2.86	2.86		8.58 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
9 [1] + 9 [1] + 10 [2]	2.18	2.18	2.44		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.4 + 1.4 + 1.5	2.76	2.76	3.08		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
9 [1] + 9 [1] + 12	2.07	2.07	2.66		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.3 + 1.3 + 1.6	2.62	2.62	3.36		8.60 (3.30-10.40)	2070 (590-2820)	4.15 A	1035	9.6
9 [1] + 9 [1] + 15	1.89	1.89	3.02		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.2 + 1.2 + 1.7	2.39	2.39	3.82		8.60 (3.30-10.50)	2060 (590-2810)	4.17 A	1030	9.5
9 [1] + 9 [1] + 18	1.70	1.70	3.40		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.1 + 1.1 + 1.9	2.15	2.15	4.30		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
9 [1] + 9 [1] + 21	1.55	1.55	3.70		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.0 + 1.0 + 2.2	1.95	1.95	4.70		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
9 [1] + 10 [2] + 10 [2]	2.10	2.35	2.35		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.4 + 1.5 + 1.5	2.66	2.97	2.97		8.60 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
9 [1] + 10 [2] + 12	2.00	2.24	2.56		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.3 + 1.5 + 1.6	2.53	2.83	3.24		8.60 (3.30-10.40)	2070 (590-2820)	4.15 A	1035	9.6
9 [1] + 10 [2] + 15	1.83	2.05	2.92		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.2 + 1.3 + 1.7	2.31	2.59	3.70		8.60 (3.30-10.50)	2060 (590-2810)	4.17 A	1030	9.5
9 [1] + 10 [2] + 18	1.65	1.85	3.30		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.1 + 1.2 + 1.9	2.09	2.34	4.17		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
9 [1] + 12 + 12	1.92	2.44	2.44		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.2 + 1.5 + 1.5	2.42	3.09	3.09		8.60 (3.30-10.50)	2050 (590-2800)	4.20 A	1025	9.5
9 [1] + 12 + 15	1.75	2.24	2.81		6.80 (1.90-8.20)	1860 (340-2460)	3.66 A	930	8.3	1.1 + 1.5 + 1.6	2.21	2.84	3.55		8.60 (3.30-10.50)	2040 (580-2790)	4.22 A	1020	9.4
9 [1] + 12 + 18	1.59	2.03	3.18		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.0 + 1.3 + 1.8	2.01	2.57	4.02		8.60 (3.20-10.60)	1910 (570-2680)	4.50 A	955	8.8
9 [1] + 15 + 15	1.62	2.59	2.59		6.80 (1.90-8.20)	1820 (340-2460)	3.74 A	910	8.2	1.0 + 1.6 + 1.6	2.04	3.28	3.28		8.60 (3.30-10.50)	2030 (580-2780)	4.24 A	1015	9.4
10 [2] + 10 [2] + 10 [2]	2.26	2.26	2.26		6.78 (1.90-8.00)	1910 (340-2460)	3.55 A	955	8.6	1.5 + 1.5 + 1.5	2.86	2.86	2.86		8.58 (3.30-10.40)	2090 (600-2840)	4.11 A	1045	9.7
10 [2] + 10 [2] + 12	2.16	2.16	2.48		6.80 (1.90-8.00)	1910 (340-2460)	3.56 A	955	8.6	1.4 + 1.4 + 1.5	2.74	2.74	3.12		8.60 (3.30-10.40)	2070 (590-2820)	4.15 A	1035	9.6
10 [2] + 10 [2] + 15	1.98	1.98	2.84		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.3 + 1.3 + 1.7	2.51	2.51	3.58		8.60 (3.30-10.50)	2060 (590-2810)	4.17 A	1030	9.5
10 [2] + 10 [2] + 18	1.80	1.80	3.20		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.2 + 1.2 + 1.8	2.27	2.27	4.06		8.60 (3.20-10.60)	1930 (570-2710)	4.46 A	965	8.9
10 [2] + 12 + 12	2.06	2.37	2.37		6.80 (1.90-8.10)	1860 (340-2460)	3.66 A	930	8.3	1.3 + 1.5 + 1.5	2.62	2.99	2.99		8.60 (3.30-10.50)	2050 (590-2800)	4.20 A	1025	9.5
10 [2] + 12 + 15	1.90	2.18	2.72		6.80 (1.90-8.20)	1860 (340-2460)	3.66 A	930	8.3	1.2 + 1.4 + 1.6	2.41	2.75	3.44		8.60 (3.30-10.50)	2040 (580-2790)	4.22 A	1020	9.4
10 [2] + 12 + 18	1.73	1.98	3.09		6.80 (2.00-8.50)	1730 (340-2460)	3.93 A	865	7.8	1.1 + 1.3 + 1.7	2.19	2.50	3.91		8.60 (3.20-10.60)	1910 (570-2680)	4.50 A	955	8.8
10 [2] + 15 + 15	1.76	2.52	2.52		6.80 (1.90-8.20)	1820 (340-2460)	3.74 A	910	8.2	1.1 + 1.5 + 1.5	2.22	3.19	3.19		8.60 (3.30-10.50)	2030 (580-2780)	4.24 A	1015	9.4
12 + 12 + 12	2.26	2.26	2.26		6.78 (1.90-8.20)	1820 (340-2460)	3.73 A	910	8.2	1.5 + 1.5 + 1.5	2.86	2.86	2.86		8.58 (3.30-10.50)	1990 (580-2770)	4.31 A	995	9.2
12 + 12 + 15	2.09	2.09	2.62		6.80 (1.90-8.20)	1820 (340-2460)	3.74 A	910	8.2	1.4 + 1.4 + 1.6	2.65	2.65	3.30		8.60 (3.30-10.50)	1980 (580-2760)	4.34 A	990	9.2
4 Room																			
7 + 7 + 7 + 7	1.70	1.70	1.70	1.70	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.1 + 1.1 + 1.1 + 1.1	2.15	2.15	2.15	2.15	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 7 + 7 + 9 [1]	1.60	1.60	1.60	2.00	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.0 + 1.0 + 1.0 + 1.3	2.02	2.02	2.02	2.54	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 7 + 7 + 10 [2]	1.55	1.55	1.55	2.15	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.0 + 1.0 + 1.0 + 1.4	1.95	1.95	1.95	2.75	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 7 + 7 + 12	1.48	1.48	1.48	2.36	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.9 + 0.9 + 0.9 + 1.5	1.87	1.87	1.87	2.99	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
7 + 7 + 7 + 15	1.36	1.36	1.36	2.72	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.9 + 0.9 + 0.9 + 1.6	1.72	1.72	1.72	3.44	8.60 (3.00-10.60)	1840 (590-2590)	4.67 A	920	8.5
7 + 7 + 7 + 18	1.24	1.24	1.24	3.08	6.80 (1.90-8.80)	1680 (340-2470)	4.05 A	840	7.5	0.8 + 0.8 + 0.8 + 1.7	1.56	1.56	1.56	3.92	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
7 + 7 + 9 [1] + 9 [1]	1.51	1.51	1.89	1.89	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.0 + 1.0 + 1.2 + 1.2	1.91	1.91	2.39	2.39	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 7 + 9 [1] + 10 [2]	1.46	1.46	1.83	2.05	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	0.9 + 0.9 + 1.2 + 1.3	1.85	1.85	2.31	2.59	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 7 + 9 [1] + 12	1.40	1.40	1.75	2.25	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.9 + 0.9 + 1.1 + 1.5	1.77	1.77	2.22	2.84	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
7 + 7 + 9 [1] + 15	1.30	1.30	1.61	2.59	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.8 + 0.8 + 1.0 + 1.6	1.64	1.64	2.04	3.28	8.60 (3.00-10.60)	1840 (590-2590)	4.67 A	920	8.5
7 + 7 + 10 [2] + 10 [2]	1.42	1.42	1.98	1.98	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	0.9 + 0.9 + 1.3 + 1.3	1.79	1.79	2.51	2.51	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 7 + 10 [2] + 12	1.36	1.36	1.90	2.18	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.9 + 0.9 + 1.2 + 1.4	1.72	1.72	2.41	2.75	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
7 + 7 + 10 [2] + 15	1.26	1.26	1.76	2.52	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.8 + 0.8 + 1.1 + 1.5	1.59	1.59	2.23	3.19	8.60 (3.00-10.60)	1840 (590-2590)	4.67 A	920	8.5
7 + 7 + 12 + 12	1.31	1.31	2.09	2.09	6.80 (1.90-8.80)	1650 (340-2430)	4.12 A	825	7.4	0.8 + 0.8 + 1.4 + 1.4	1.65	1.65	2.65	2.65	8.60 (3.00-10.60)	1830 (590-2570)	4.70 A	915	8.5
7 + 9 [1] + 9 [1] + 9 [1]	1.43	1.79	1.79	1.79	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	0.9 + 1.2 + 1.2 + 1.2	1.82	2.26	2.26	2.26	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 9 [1] + 9 [1] + 10 [2]	1.39	1.73	1.73	1.95	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	0.9 + 1.1 + 1.1 + 1.3	1.76	2.19	2.19	2.46	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 9 [1] + 9 [1] + 12	1.33	1.67	1.67	2.13	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.8 + 1.1 + 1.1 + 1.4	1.68	2.11	2.11	2.70	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
7 + 9 [1] + 9 [1] + 15	1.23	1.55	1.55	2.47	6.80 (1.90-8.80)	1680 (340-2470)	4.05 A	840	7.5	0.8 + 1.0 + 1.0 + 1.5	1.56	1.95	1.95	3.14	8.60 (3.00-10.60)	1850 (590-2600)	4.65 A	925	8.6
7 + 9 [1] + 10 [2] + 10 [2]	1.34	1.68	1.89	1.89	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	0.8 + 1.1 + 1.2 + 1.2	1.70	2.14	2.38	2.38	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 9 [1] + 10 [2] + 12	1.30	1.62	1.81	2.07	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	0.8 + 1.0 + 1.2 + 1.3	1.64	2.05	2.29	2.62	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
7 + 9 [1] + 12 + 12	1.24	1.56	2.00	2.00	6.80 (1.90-8.80)	1650 (340-2430)	4.12 A	825	7.4	0.8 + 1.0 + 1.3 + 1.3	1.58	1.98	2.52	2.52	8.60 (3.00-10.60)	1830 (590-2570)	4.70 A	915	8.5
7 + 10 [2] + 10 [2] + 10 [2]	1.31	1.83	1.83	1.83	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	0.8 + 1.2 + 1.2 + 1.2	1.64	2.32	2.32	2.32	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
7 + 10 [2] + 10 [2] + 12	1.26	1.76	1.76	2.02	6.80 (1.90-8.80)	1680 (340-2470)	4.05 A	840	7.5	0.8 + 1.1 + 1.1 + 1.3	1.59	2.23	2.23	2.55	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
9 [1] + 9 [1] + 9 [1] + 9 [1]	1.70	1.70	1.70	1.70	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.1 + 1.1 + 1.1 + 1.1	2.15	2.15	2.15	2.15	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
9 [1] + 9 [1] + 9 [1] + 10 [2]	1.65	1.65	1.65	1.85	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.1 + 1.1 + 1.1 + 1.2	2.09	2.09	2.09	2.33	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
9 [1] + 9 [1] + 9 [1] + 12	1.59	1.59	1.59	2.03	6.80 (1.90-8.80)	1650 (340-2470)	4.12 A	825	7.4	1.0 + 1.0 + 1.0 + 1.3	2.01	2.01	2.01	2.57	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
9 [1] + 9 [1] + 10 [2] + 10 [2]	1.60	1.60	1.80	1.80	6.80 (1.90-8.70)	1690 (340-2460)	4.02 A	845	7.6	1.0 + 1.0 + 1.2 + 1.2	2.03	2.03	2.27	2.27	8.60 (3.10-10.60)	1870 (580-2620)	4.60 A	935	8.6
9 [1] + 9 [1] + 10 [2] + 12	1.55	1.55	1.72	1.98	6.80 (1.90-8.80)	1680 (340-2470)	4.05 A	840	7.5	1.0 + 1.0 + 1.1 + 1.3	1.95	1.95	2.19	2.51	8.60 (3.00-10.60)	1850 (580-2600)	4.65 A	925	8.6
9 [1] + 10 [2] + 10 [2] + 10 [2]	1.55	1.75	1.75	1.75	6.80 (1.90-8.70)	1690 (340-2160)	4.02 A	845	7.6	1.0 + 1.1 + 1.1 + 1.1	1.97	2.21	2.21	2.21	8.60 (3.10-10.60)	1870 (580-2620	4.60 A	935	8.6

1) For wall type, hyde away, 60x60 cassette.
2) For one way cassette, floor/ceiling, floor console.

Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

FREE MULTI 4X1 // OUTDOOR UNIT CU-4E27CBPG

Indoor unit capacity	Cooling Capacity (kW) Room A	Room B	Room C	Room D	Total (Min.-Max.)	Input Power (W) Rating	EER W/W	A.C.E. kWh	Current 230 V (A)	Moisture Removal Volume (l/h)	Heating Capacity (kW) Room A	Room B	Room C	Room D	Total (Min.-Max.)	Input Power (W) Rating	COP W/W	A.C.E. kWh	Current 230 V (A)
1 Room																			
7	2.00				2.00 (1.90-2.70)	440 (380-620)	4.52 A	220	2.10	1.3	3.20				3.20 (1.70-4.70)	840 (370-1830)	3.81 A	420	3.85
9 [1]	2.50				2.50 (2.00-3.40)	550 (380-900)	4.52 A	275	2.60	1.5	3.60				3.60 (1.70-4.80)	1090 (370-1900)	3.31 C	545	4.85
10 [2]	2.80				2.80 (2.00-3.40)	620 (380-900)	4.52 A	310	2.95	1.6	4.00				4.00 (1.70-4.80)	1210 (370-1900)	3.31 C	605	5.40
12	3.20				3.20 (2.00-3.90)	720 (380-1090)	4.44 A	360	3.40	1.8	4.50				4.50 (1.70-5.80)	1310 (370-2290)	3.44 B	655	5.85
15	4.00				4.00 (2.00-4.40)	1030 (380-1390)	3.88 A	515	4.60	2.3	5.60				5.60 (1.80-7.20)	1900 (370-3560)	2.95 D	950	8.35
18	5.00				5.00 (2.10-5.20)	1610 (400-1800)	3.11 B	805	7.15	2.7	7.10				7.10 (2.10-7.30)	2840 (430-3560)	2.50 F	1420	12.40
2 Room																			
7 + 7	2.00	2.00			4.00 (2.10-5.00)	890 (400-1260)	4.49 A	445	3.95	1.3 + 1.3	3.20	3.20			6.40 (1.80-9.40)	1480 (400-3550)	4.32 A	740	6.50
7 + 9 [1]	2.00	2.50			4.50 (2.10-6.10)	1110 (400-1880)	4.07 A	555	4.90	1.3 + 1.5	3.15	3.95			7.10 (2.10-9.40)	1700 (420-3510)	4.18 A	850	7.55
7 + 10 [2]	2.00	2.80			4.80 (2.10-6.10)	1180 (400-1880)	4.07 A	590	5.20	1.3 + 1.6	2.95	4.15			7.10 (2.10-9.40)	1700 (420-3510)	4.18 A	850	7.55
7 + 12	2.00	3.20			5.20 (2.20-7.00)	1320 (400-2790)	3.94 A	660	5.80	1.3 + 1.8	2.90	4.60			7.50 (2.20-9.80)	1740 (420-3490)	4.31 A	870	7.65
7 + 15	2.00	4.00			6.00 (2.20-7.10)	1760 (400-2790)	3.41 A	880	7.75	1.3 + 2.3	2.75	5.55			8.30 (2.40-9.80)	2060 (440-3440)	4.03 A	1030	9.05
7 + 18	2.00	5.00			7.00 (2.50-7.20)	2500 (460-2800)	2.80 D	1250	11.00	1.3 + 2.7	2.50	6.30			8.80 (3.20-9.90)	2260 (530-3400)	3.89 A	1130	9.90
9 [1] + 9 [1]	2.50	2.50			5.00 (2.20-6.90)	1380 (400-2780)	3.61 A	690	6.10	1.5 + 1.5	3.55	3.55			7.10 (2.30-9.40)	1860 (440-3480)	3.81 A	930	8.15
9 [1] + 10 [2]	2.50	2.80			5.30 (2.20-6.90)	1470 (400-2780)	3.61 A	735	6.50	1.5 + 1.6	3.55	3.95			7.50 (2.30-9.40)	1970 (440-3480)	3.81 A	985	8.65
9 [1] + 12	2.50	3.20			5.70 (2.20-7.00)	1620 (400-2790)	3.53 A	810	7.15	1.5 + 1.8	3.55	4.55			8.10 (2.40-9.80)	1980 (440-3460)	4.09 A	990	8.70
9 [1] + 15	2.50	4.00			6.50 (2.20-7.10)	2180 (400-2790)	2.98 C	1090	9.60	1.5 + 2.3	3.30	5.30			8.60 (2.10-9.80)	2175 (530-3390)	3.95 A	1088	9.65
9 [1] + 18	2.35	4.75			7.10 (2.50-7.20)	2610 (460-2800)	2.72 D	1305	11.50	1.5 + 2.6	3.00	6.00			9.00 (3.20-9.90)	2390 (530-3370)	3.77 A	1195	10.50
10 [2] + 10 [2]	2.80	2.80			5.60 (2.20-6.90)	1550 (400-2780)	3.61 A	775	6.85	1.6 + 1.6	3.85	3.85			7.70 (2.30-9.40)	2020 (440-3480)	3.81 A	1010	8.85
10 [2] + 12	2.80	3.20			6.00 (2.20-7.00)	1700 (400-2790)	3.53 A	850	7.55	1.6 + 1.8	3.80	4.30			8.10 (2.40-9.80)	1980 (440-3460)	4.09 A	990	8.70
10 [2] + 15	2.80	4.00			6.80 (2.20-7.10)	2280 (400-2790)	2.98 C	1140	10.00	1.6 + 2.3	3.55	5.05			8.60 (2.10-9.80)	2175 (530-3390)	3.95 A	1088	9.65
10 [2] + 18	2.55	4.55			7.10 (2.50-7.20)	2610 (460-2800)	2.72 D	1305	11.50	1.6 + 2.5	3.25	5.75			9.00 (3.20-9.90)	2390 (530-3370)	3.77 A	1195	10.50
12 + 12	3.20	3.20			6.40 (2.20-7.30)	1860 (400-2810)	3.44 A	930	8.15	1.8 + 1.8	4.25	4.25			8.50 (2.50-10.10)	2110 (470-3390)	4.03 A	1055	9.30
12 + 15	3.10	3.90			7.00 (2.50-7.30)	2410 (460-2810)	2.90 C	1205	10.60	1.7 + 2.3	3.90	4.90			8.80 (3.20-10.10)	2230 (530-3340)	3.95 A	1115	9.85
12 + 18	2.90	4.50			7.40 (2.60-7.40)	2820 (460-2880)	2.62 D	1410	12.30	1.7 + 2.5	3.60	5.60			9.20 (3.20-10.10)	2390 (530-3300)	3.85 A	1195	10.50
15 + 15	3.60	3.60			7.20 (2.50-7.30)	2620 (460-2810)	2.75 D	1310	11.50	2.1 + 2.1	4.55	4.55			9.10 (3.20-10.10)	2360 (530-3320)	3.86 A	1180	10.30
15 + 18	3.25	4.05			7.30 (2.70-7.40)	2670 (480-2820)	2.73 D	1335	11.70	1.8 + 2.3	4.20	5.20			9.40 (3.20-10.20)	2480 (530-3300)	3.79 A	1240	10.90
18 + 18	3.75	3.75			7.50 (2.80-7.60)	2860 (480-2870)	2.62 D	1430	12.50	2.2 + 2.2	4.70	4.70			9.40 (3.50-10.20)	2470 (590-3290)	3.81 A	1235	10.90
3 Room																			
7 + 7 + 7	2.00	2.00	2.00		6.00 (2.20-7.80)	1510 (410-2490)	3.98 A	755	6.65	1.3 + 1.3 + 1.3	2.87	2.87	2.87		8.61 (3.10-10.40)	1990 (500-3250)	4.33 A	995	8.80
7 + 7 + 9 [1]	2.00	2.00	2.50		6.50 (2.50-8.10)	1760 (460-2850)	3.70 A	880	7.75	1.3 + 1.3 + 1.5	2.70	2.70	3.40		8.80 (3.20-10.40)	2010 (510-3220)	4.38 A	1005	8.85
7 + 7 + 10 [2]	2.00	2.00	2.80		6.80 (2.50-8.10)	1840 (460-2850)	3.70 A	920	8.10	1.3 + 1.3 + 1.6	2.60	2.60	3.60		8.80 (3.20-10.40)	2010 (510-3220)	4.38 A	1005	8.85
7 + 7 + 12	2.05	2.05	3.20		7.30 (2.50-8.20)	1980 (460-2790)	3.69 A	990	8.70	1.3 + 1.3 + 1.8	2.45	2.45	4.00		8.90 (3.20-10.40)	2030 (510-3220)	4.38 A	1015	8.95
7 + 7 + 15	1.95	1.95	3.90		7.80 (2.60-8.20)	2330 (460-2830)	3.35 A	1165	10.30	1.3 + 1.3 + 2.3	2.30	2.30	4.60		9.20 (3.20-10.40)	2150 (510-3180)	4.28 A	1075	9.50
7 + 7 + 18	1.80	1.80	4.40		8.00 (2.80-8.30)	2460 (490-2820)	3.25 A	1230	10.80	1.2 + 1.2 + 2.4	2.10	2.10	5.20		9.40 (3.20-10.40)	2120 (510-3180)	4.43 A	1060	9.30
7 + 9 [1] + 9 [1]	2.10	2.65	2.65		7.40 (2.50-8.10)	2140 (460-2790)	3.46 A	1070	9.40	1.4 + 1.6 + 1.6	2.60	3.20	3.20		9.00 (3.20-10.40)	2090 (510-3190)	4.31 A	1045	9.20
7 + 9 [1] + 10 [2]	2.00	2.55	2.85		7.40 (2.50-8.10)	2140 (460-2790)	3.46 A	1070	9.40	1.3 + 1.6 + 1.7	2.45	3.10	3.45		9.00 (3.20-10.40)	2090 (510-3190)	4.31 A	1045	9.20
7 + 9 [1] + 12	1.95	2.45	3.20		7.60 (2.60-8.20)	2240 (460-2840)	3.39 A	1120	9.85	1.3 + 1.5 + 1.8	2.40	3.00	3.80		9.20 (3.20-10.40)	2110 (510-3180)	4.36 A	1055	9.30
7 + 9 [1] + 15	1.90	2.35	3.75		8.00 (2.70-8.20)	2510 (490-2800)	3.19 B	1255	11.00	1.2 + 1.5 + 2.2	2.20	2.75	4.45		9.40 (3.20-10.40)	2160 (510-3140)	4.35 A	1080	9.50
7 + 9 [1] + 18	1.70	2.10	4.20		8.00 (2.80-8.30)	2460 (490-2800)	3.25 A	1230	10.80	1.1 + 1.4 + 2.4	2.00	2.45	4.95		9.40 (3.50-10.40)	2080 (560-3150)	4.52 A	1040	9.15
7 + 10 [2] + 10 [2]	1.90	2.75	2.75		7.40 (2.50-8.10)	2140 (460-2790)	3.46 A	1070	9.40	1.2 + 1.6 + 1.6	2.40	3.30	3.30		9.00 (3.20-10.40)	2090 (510-3190)	4.31 A	1045	9.20
7 + 10 [2] + 12	1.90	2.65	3.05		7.60 (2.60-8.20)	2240 (460-2840)	3.39 A	1120	9.85	1.2 + 1.6 + 1.7	2.30	3.20	3.70		9.20 (3.20-10.40)	2110 (510-3180)	4.36 A	1055	9.30
7 + 10 [2] + 15	1.80	2.55	3.65		8.00 (2.70-8.20)	2510 (490-2800)	3.19 B	1255	11.00	1.2 + 1.6 + 2.1	2.15	3.00	4.25		9.40 (3.20-10.40)	2160 (510-3140)	4.35 A	1080	9.50
7 + 10 [2] + 18	1.60	2.30	4.10		8.00 (2.80-8.30)	2460 (490-2800)	3.25 A	1230	10.80	1.0 + 1.5 + 2.3	1.90	2.70	4.80		9.40 (3.50-10.40)	2080 (560-3150)	4.52 A	1040	9.15
7 + 12 + 12	1.90	3.00	3.00		7.90 (2.70-8.30)	2290 (460-2810)	3.45 A	1145	10.10	1.2 + 1.7 + 1.7	2.20	3.55	3.55		9.30 (3.20-10.50)	2130 (500-3180)	4.37 A	1065	9.40
7 + 12 + 15	1.70	2.80	3.50		8.00 (2.80-8.40)	2380 (490-2840)	3.36 A	1190	10.40	1.1 + 1.6 + 2.0	2.05	3.25	4.10		9.40 (3.20-10.50)	2150 (500-3140)	4.37 A	1075	9.50
7 + 12 + 18	1.55	2.50	3.95		8.00 (2.80-8.30)	2470 (490-2840)	3.24 A	1235	10.90	1.0 + 1.5 + 2.3	1.85	2.95	4.60		9.40 (3.70-10.50)	2170 (620-3140)	4.33 A	1085	9.55
7 + 15 + 15	1.60	3.20	3.20		8.00 (2.80-8.40)	2380 (490-2810)	3.36 A	1190	10.40	1.0 + 1.8 + 1.8	1.90	3.75	3.75		9.40 (3.60-10.50)	2110 (620-3110)	4.45 A	1055	9.30
7 + 15 + 18	1.45	2.90	3.65		8.00 (2.80-8.30)	2470 (490-2810)	3.24 A	1235	10.90	0.9 + 1.7 + 2.1	1.70	3.40	4.30		9.40 (3.90-10.50)	2120 (660-3110)	4.43 A	1060	9.30
7 + 18 + 18	1.30	3.35	3.35		8.00 (2.90-8.40)	2430 (490-2830)	3.29 A	1215	10.70	0.8 + 1.9 + 1.9	1.60	3.90	3.90		9.40 (4.10-10.50)	2170 (700-3120)	4.33 A	1085	9.55
9 [1] + 9 [1] + 9 [1]	2.60	2.60	2.60		7.80 (2.60-8.10)	2450 (460-2820)	3.18 B	1225	10.80	1.6 + 1.6 + 1.6	3.08	3.08	3.08		9.24 (3.20-10.40)	2170 (510-3160)	4.26 A	1085	9.55
9 [1] + 9 [1] + 10 [2]	2.50	2.50	2.80		7.80 (2.60-8.10)	2450 (460-2820)	3.18 B	1225	10.80	1.5 + 1.5 + 1.6	2.96	2.96	3.32		9.24 (3.20-10.40)	2170 (510-3160)	4.26 A	1085	9.55
9 [1] + 9 [1] + 12	2.45	2.45	3.10		8.00 (2.70-8.20)	2510 (490-2810)	3.19 B	1255	11.00	1.5 + 1.5 + 1.7	2.85	2.85	3.70		9.40 (3.20-10.40)	2190 (510-3150)	4.29 A	1095	9.65
9 [1] + 9 [1] + 15	2.20	2.20	3.60		8.00 (2.80-8.20)	2510 (490-2790)	3.19 B	1255	11.00	1.4 + 1.4 + 2.1	2.60	2.60	4.20		9.40 (3.30-10.40)	2140 (530-3130)	4.39 A	1070	9.40
9 [1] + 9 [1] + 18	2.00	2.00	4.00		8.00 (2.80-8.30)	2460 (490-2790)	3.25 A	1230	10.80	1.3 + 1.3 + 2.3	2.35	2.35	4.70		9.40 (3.80-10.40)	2100 (640-3120)	4.48 A	1050	9.20
9 [1] + 10 [2] + 10 [2]	2.40	2.70	2.70		7.80 (2.60-8.10)	2450 (460-2820)	3.18 B	1225	10.80	1.5 + 1.6 + 1.6	2.84	3.20	3.20		9.24 (3.20-10.40)	2170 (510-3160)	4.26 A	1085	9.55
9 [1] + 10 [2] + 12	2.35	2.65	3.00		8.00 (2.70-8.20)	2510 (490-2810)	3.19 B	1255	11.00	1.5 + 1.6 + 1.7	2.75	3.10	3.55		9.40 (3.20-10.40)	2190 (510-3150)	4.29 A	1095	9.65
9 [1] + 10 [2] + 15	2.15	2.40	3.45		8.00 (2.80-8.20)	2510 (490-2790)	3.19 B	1255	11.00	1.4 + 1.5 + 2.0	2.50	2.85	4.05		9.40 (3.30-10.40)	2140 (530-3130)	4.39 A	1070	9.40
9 [1] + 10 [2] + 18	1.95	2.15	3.90		8.00 (2.80-8.30)	2460 (490-2790)	3.25 A	1230	10.80	1.3 + 1.4 + 2.3	2.30	2.55	4.55		9.40 (3.80-10.40)	2100 (640-3120)	4.48 A	1050	9.20
9 [1] + 12 + 12	2.20	2.90	2.90		8.00 (2.70-8.40)	2380 (490-2850)	3.36 A	1190	10.40	1.4 + 1.7 + 1.7	2.60	3.40	3.40		9.40 (3.20-10.50)	2170 (500-3150)	4.33 A	1085	9.55
9 [1] + 12 + 15	2.05	2.65	3.30		8.00 (2.80-8.40)	2380 (490-2820)	3.36 A	1190	10.40	1.3 + 1.6 + 1.9	2.40	3.10	3.90		9.40 (3.50-10.50)	2130 (560-3120)	4.41 A	1065	9.40
9 [1] + 12 + 18	1.85	2.40	3.75		8.00 (2.80-8.40)	2340 (490-2830)	3.42 A	1170	10.30	1.2 + 1.5 + 2.2	2.20	2.80	4.40		9.40 (3.90-10.50)	2150 (660-3120)	4.37 A	1075	9.50
9 [1] + 15 + 15	1.90	3.05	3.05		8.00 (2.80-8.40)	2380 (490-2800)	3.36 A	1190	10.40	1.2 + 1.7 + 1.7	2.20	3.60	3.60		9.40 (3.80-10.50)	2060 (640-3080)	4.56 A	1030	9.05
9 [1] + 15 + 18	1.70	2.80	3.50		8.00 (2.80-8.40)	2340 (490-2800)	3.42 A	1170	10.30	1.1 + 1.6 + 2.0	2.05	3.25	4.10		9.40 (4.00-10.50)	2100 (680-3080)	4.48 A	1050	9.20
9 [1] + 18 + 18	1.60	3.20	3.20		8.00 (2.90-8.50)	2340 (520-2800)	3.42 A	1170	10.30	1.0 + 1.8 + 1.8	1.90	3.75	3.75		9.40 (4.20-10.50)	2140 (700-3080)	4.39 A	1070	9.40
10 [2] + 10 [2] + 10 [2]	2.60	2.60	2.60		7.80 (2.60-8.10)	2450 (460-2820)	3.18 B	1225	10.80	1.6 + 1.6 + 1.6	3.08	3.08	3.08		9.24 (3.20-10.40)	2170 (510-3160)	4.26 A	1085	9.55
10 [2] + 10 [2] + 12	2.55	2.55	2.90		8.00 (2.70-8.20)	2510 (490-2810)	3.19 B	1255	11.00	1.6 + 1.6 + 1.7	3.00	3.00	3.40		9.40 (3.20-10.40)	2190 (510-3150)	4.29 A	1095	9.65
10 [2] + 10 [2] + 15	2.35	2.35	3.30		8.00 (2.80-8.20)	2510 (490-2790)	3.19 B	1255	11.00	1.5 + 1.5 + 1.9	2.75	2.75	3.90		9.40 (3.30-10.40)	2140 (530-3130)	4.39 A	1070	9.40
10 [2] + 10 [2] + 18	2.10	2.10	3.80		8.00 (2.80-8.30)	2460 (490-2790)	3.25 A	1230	10.80	1.4 + 1.4 + 2.2	2.50	2.50	4.40		9.40 (3.80-10.40)	2100 (640-3120)	4.48 A	1050	9.20
10 [2] + 12 + 12	2.40	2.80	2.80		8.00 (2.70-8.40)	2380 (490-2850)	3.36 A	1190	10.40	1.5 + 1.6 + 1.6	2.90	3.25	3.25		9.40 (3.20-10.50)	2170 (500-3150)	4.33 A	1085	9.55
10 [2] + 12 + 15	2.25	2.55	3.20		8.00 (2.80-8.40)	2380 (490-2820)	3.36 A	1190	10.40	1.5 + 1.6 + 1.8	2.65	3.00	3.75		9.40 (3.50-10.50)	2130 (560-3120)	4.41 A	1065	9.40
10 [2] + 12 + 18	2.00	2.35	3.65		8.00 (2.80-8.40)	2340 (490-2830)	3.42 A	1170	10.30	1.3 + 1.5 + 2.1	2.40	2.75	4.25		9.40 (3.90-10.50)	2150 (660-3120)	4.37 A	1075	9.50
10 [2] + 15 + 15	2.10	2.95	2.95		8.00 (2.80-8.40)	2380 (490-2800)	3.36 A	1190	10.40	1.4 + 1.7 + 1.7	2.40	3.50	3.50		9.40 (3.80-10.50)	2060 (640-3080)	4.56 A	1030	9.05
10 [2] + 15 + 18	1.90	2.70	3.40		8.00 (2.80-8.40)	2340 (490-2800)	3.42 A	1170	10.30	1.2 + 1.6 + 1.9	2.20	3.20	4.00		9.40 (4.00-10.50)	2100 (680-3080)	4.48 A	1050	9.20
10 [2] + 18 + 18	1.70	3.15	3.15		8.00 (2.90-8.50)	2340 (520-2800)	3.42 A	1170	10.30	1.1 + 1.8 + 1.8	2.10	3.65	3.65		9.40 (4.20-10.50)	2140 (700-3080)	4.39 A	1070	9.40
12 + 12 + 12	2.66	2.66	2.66		7.98 (2.80-8.50)	2300 (490-2830)	3.47 A	1150	10.10	1.6 + 1.6 + 1.6	3.13	3.13	3.13		9.39 (3.30-10.50)	2160 (520-3180)	4.35 A	1080	9.50
12 + 12 + 15	2.45	2.45	3.10		8.00 (2.80-8.40)	2390 (490-2800)	3.35 A	1195	10.50	1.5 + 1.5 + 1.7	2.90	2.90	3.60		9.40 (3.70-10.50)	2140 (620-3150)	4.39 A	1070	9.40
12 + 12 + 18	2.25	2.25	3.50		8.00 (2.80-8.40)	2390 (490-2830)	3.35 A	1195	10.50	1.5 + 1.5 + 2.0	2.65	2.65	4.10		9.40 (4.00-10.50)	2130 (680-3120)	4.41 A	1065	9.40
12 + 15 + 15	2.30	2.85	2.85		8.00 (2.80-8.40)	2390 (490-2820)	3.35 A	1195	10.50	1.5 + 1.7 + 1.7	2.70	3.35	3.35		9.40 (3.90-10.50)	2120 (660-3120)	4.43 A	1060	9.30
12 + 15 + 18	2.10	2.60	3.30		8.00 (2.90-8.40)	2350 (490-2820)	3.40 A	1175	10.30	1.4 + 1.6 + 1.9	2.45	3.10	3.85		9.40 (4.10-10.50)	2100 (700-3100)	4.48 A	1050	9.20
12 + 18 + 18	1.90	3.05	3.05		8.00 (2.90-8.50)	2350 (520-2810)	3.40 A	1175	10.30	1.2 + 1.7 + 1.7	2.30	3.55	3.55		9.40 (4.20-10.50)	2060 (700-3080)	4.56 A	1030	9.05
15 + 15 + 15	2.66	2.66	2.66		7.98 (2.90-8.40)	2390 (490-2840)	3.34 A	1195	10.50	1.6 + 1.6 + 1.6	3.13	3.13	3.13		9.39 (4.00-10.50)	2100 (680-3080)	4.47 A	1050	9.20
15 + 15 + 18	2.45	2.45	3.10		8.00 (2.90-8.40)	2390 (520-2810)	3.35 A	1195	10.50	1.5 + 1.5 + 1.7	2.90	2.90	3.60		9.40 (4.20-10.50)	2080 (700-3080)	4.52 A	1040	9.15

FREE MULTI 4X1 // OUTDOOR UNIT CU-4E27CBPG (Cont.)

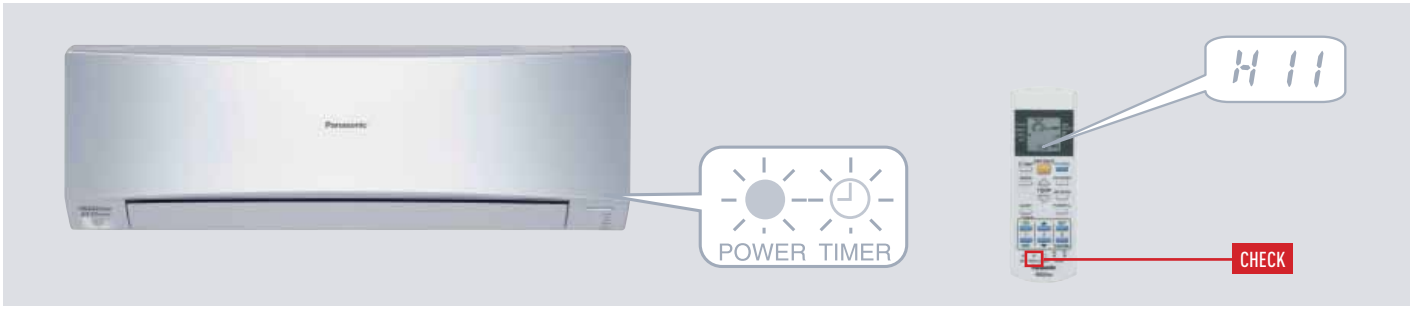
Indoor unit capacity	Cooling Capacity (kW) Room A	Room B	Room C	Room D	Total (Min.-Max.)	Input Power (W) Rating	EER W/W	A.C.E. kWh	Current 230 V (A)	Moisture Removal Volume (l/h)	Heating Capacity (kW) Room A	Room B	Room C	Room D	Total (Min.-Max.)	Input Power (W) Rating	COP W/W	A.C.E. kWh	Current 230 V (A)
4 Room																			
7 + 7 + 7 + 7	2.00	2.00	2.00	2.00	8.00 (2.70-8.80)	2150 (490-2840)	3.72 A	1075	9.50	1.3 + 1.3 + 1.3 + 1.3	2.35	2.35	2.35	2.35	9.40 (3.20-10.50)	2080 (550-3140)	4.52 A	1040	9.15
7 + 7 + 7 + 9 [1]	1.90	1.90	1.90	2.30	8.00 (2.80-8.80)	2140 (490-2880)	3.74 A	1070	9.40	1.2 + 1.2 + 1.2 + 1.5	2.20	2.20	2.20	2.80	9.40 (3.20-10.50)	2060 (550-3120)	4.56 A	1030	9.05
7 + 7 + 7 + 10 [2]	1.80	1.80	1.80	2.60	8.00 (2.80-8.80)	2140 (490-2880)	3.74 A	1070	9.40	1.2 + 1.2 + 1.2 + 1.6	2.15	2.15	2.15	2.95	9.40 (3.20-10.50)	2060 (550-3120)	4.56 A	1030	9.05
7 + 7 + 7 + 12	1.75	1.75	1.75	2.75	8.00 (2.80-8.90)	2130 (490-2880)	3.76 A	1065	9.40	1.1 + 1.1 + 1.1 + 1.6	2.05	2.05	2.05	3.25	9.40 (3.40-10.50)	2120 (590-3180)	4.43 A	1060	9.30
7 + 7 + 7 + 15	1.60	1.60	1.60	3.20	8.00 (2.80-8.90)	2110 (490-2870)	3.79 A	1055	9.30	1.0 + 1.0 + 1.0 + 1.8	1.90	1.90	1.90	3.70	9.40 (3.80-10.50)	2090 (640-3140)	4.50 A	1045	9.20
7 + 7 + 7 + 18	1.45	1.45	1.45	3.65	8.00 (2.80-8.90)	2110 (490-2840)	3.79 A	1055	9.30	0.9 + 0.9 + 0.9 + 2.1	1.70	1.70	1.70	4.30	9.40 (4.00-10.50)	2120 (680-3110)	4.43 A	1060	9.30
7 + 7 + 9 [1] + 9 [1]	1.80	1.80	2.20	2.20	8.00 (2.80-8.80)	2130 (490-2870)	3.76 A	1065	9.40	1.2 + 1.2 + 1.4 + 1.4	2.10	2.10	2.60	2.60	9.40 (3.50-10.50)	2050 (610-3110)	4.59 A	1025	9.05
7 + 7 + 9 [1] + 10 [2]	1.70	1.70	2.15	2.45	8.00 (2.80-8.80)	2130 (490-2870)	3.76 A	1065	9.40	1.1 + 1.1 + 1.4 + 1.5	2.00	2.00	2.55	2.85	9.40 (3.50-10.50)	2050 (610-3110)	4.59 A	1025	9.05
7 + 7 + 9 [1] + 12	1.65	1.65	2.05	2.65	8.00 (2.80-8.90)	2120 (490-2870)	3.77 A	1060	9.30	1.1 + 1.1 + 1.3 + 1.6	1.95	1.95	2.40	3.10	9.40 (3.70-10.50)	2100 (620-3160)	4.48 A	1050	9.20
7 + 7 + 9 [1] + 15	1.50	1.50	1.90	3.10	8.00 (2.80-8.90)	2090 (490-2840)	3.83 A	1045	9.20	1.0 + 1.0 + 1.2 + 1.7	1.80	1.80	2.20	3.60	9.40 (3.90-10.50)	2070 (660-3110)	4.54 A	1035	9.10
7 + 7 + 9 [1] + 18	1.40	1.40	1.70	3.50	8.00 (2.90-8.90)	2110 (520-2880)	3.79 A	1055	9.30	0.9 + 0.9 + 1.1 + 2.0	1.65	1.65	2.00	4.10	9.40 (4.10-10.50)	2090 (700-3100)	4.50 A	1045	9.20
7 + 7 + 10 [2] + 10 [2]	1.65	1.65	2.35	2.35	8.00 (2.80-8.80)	2130 (490-2870)	3.76 A	1065	9.40	1.1 + 1.1 + 1.5 + 1.5	1.95	1.95	2.75	2.75	9.40 (3.50-10.50)	2050 (610-3110)	4.59 A	1025	9.05
7 + 7 + 10 [2] + 12	1.60	1.60	2.25	2.55	8.00 (2.80-8.90)	2120 (490-2870)	3.77 A	1060	9.30	1.0 + 1.0 + 1.5 + 1.6	1.90	1.90	2.60	3.00	9.40 (3.70-10.50)	2100 (620-3160)	4.48 A	1050	9.20
7 + 7 + 10 [2] + 15	1.50	1.50	2.05	2.95	8.00 (2.80-8.90)	2090 (490-2840)	3.83 A	1045	9.20	1.0 + 1.0 + 1.3 + 1.7	1.75	1.75	2.40	3.50	9.40 (3.90-10.50)	2070 (660-3110)	4.54 A	1035	9.10
7 + 7 + 10 [2] + 18	1.35	1.35	1.90	3.40	8.00 (2.90-8.90)	2110 (520-2880)	3.79 A	1055	9.30	0.9 + 0.9 + 1.2 + 1.9	1.60	1.60	2.20	4.00	9.40 (4.10-10.50)	2090 (700-3100)	4.50 A	1045	9.20
7 + 7 + 12 + 12	1.55	1.55	2.45	2.45	8.00 (2.80-8.90)	2090 (500-2870)	3.83 A	1045	9.20	1.0 + 1.0 + 1.5 + 1.5	1.80	1.80	2.90	2.90	9.40 (3.80-10.50)	2110 (640-3190)	4.45 A	1055	9.30
7 + 7 + 12 + 15	1.45	1.45	2.25	2.85	8.00 (2.80-8.90)	2080 (500-2840)	3.85 A	1040	9.15	0.9 + 0.9 + 1.5 + 1.7	1.70	1.70	2.65	3.35	9.40 (4.00-10.50)	2080 (680-3150)	4.52 A	1040	9.15
7 + 7 + 12 + 18	1.30	1.30	2.10	3.30	8.00 (2.90-9.00)	2040 (520-2860)	3.92 A	1020	8.95	0.8 + 0.8 + 1.4 + 1.9	1.55	1.55	2.45	3.85	9.40 (4.10-10.50)	2110 (700-3080)	4.45 A	1055	9.30
7 + 7 + 15 + 15	1.35	1.35	2.65	2.65	8.00 (2.90-9.00)	2060 (520-2850)	3.88 A	1030	9.05	0.9 + 0.9 + 1.6 + 1.6	1.55	1.55	3.15	3.15	9.40 (4.10-10.50)	2050 (700-3110)	4.59 A	1025	9.05
7 + 7 + 15 + 18	1.25	1.25	2.40	3.10	8.00 (2.90-9.00)	2020 (520-2880)	3.96 A	1010	8.85	0.8 + 0.8 + 1.5 + 1.7	1.45	1.45	2.90	3.60	9.40 (4.20-10.50)	2080 (700-3060)	4.52 A	1040	9.15
7 + 9 [1] + 9 [1] + 9 [1]	1.70	2.10	2.10	2.10	8.00 (2.80-8.80)	2120 (490-2850)	3.77 A	1060	9.30	1.1 + 1.4 + 1.4 + 1.4	2.05	2.45	2.45	2.45	9.40 (3.80-10.50)	2040 (640-3080)	4.61 A	1020	8.95
7 + 9 [1] + 9 [1] + 10 [2]	1.60	2.05	2.05	2.30	8.00 (2.80-8.80)	2120 (490-2850)	3.77 A	1060	9.30	1.0 + 1.3 + 1.3 + 1.5	1.90	2.40	2.40	2.70	9.40 (3.80-10.50)	2040 (640-3080)	4.61 A	1020	8.95
7 + 9 [1] + 9 [1] + 12	1.55	1.95	1.95	2.55	8.00 (2.80-8.90)	2100 (490-2850)	3.81 A	1050	9.20	1.0 + 1.3 + 1.3 + 1.6	1.85	2.30	2.30	2.95	9.40 (3.90-10.50)	2080 (660-3130)	4.52 A	1040	9.15
7 + 9 [1] + 9 [1] + 15	1.45	1.80	1.80	2.95	8.00 (2.80-8.90)	2130 (490-2860)	3.76 A	1065	9.40	0.9 + 1.2 + 1.2 + 1.7	1.70	2.15	2.15	3.40	9.40 (4.00-10.50)	2050 (680-3080)	4.59 A	1025	9.05
7 + 9 [1] + 9 [1] + 18	1.35	1.65	1.65	3.35	8.00 (2.90-8.90)	2110 (520-2860)	3.79 A	1055	9.30	0.9 + 1.1 + 1.1 + 1.9	1.55	1.95	1.95	3.95	9.40 (4.20-10.50)	2080 (700-3080)	4.52 A	1040	9.15
7 + 9 [1] + 10 [2] + 10 [2]	1.60	2.00	2.20	2.20	8.00 (2.80-8.80)	2120 (490-2850)	3.77 A	1060	9.30	1.0 + 1.3 + 1.4 + 1.4	1.85	2.35	2.60	2.60	9.40 (3.80-10.50)	2040 (640-3080)	4.61 A	1020	8.95
7 + 9 [1] + 10 [2] + 12	1.50	1.90	2.15	2.45	8.00 (2.80-8.90)	2100 (490-2850)	3.81 A	1050	9.20	1.0 + 1.2 + 1.4 + 1.5	1.80	2.25	2.50	2.85	9.40 (3.90-10.50)	2080 (660-3130)	4.52 A	1040	9.15
7 + 9 [1] + 10 [2] + 15	1.40	1.75	2.00	2.85	8.00 (2.80-8.90)	2130 (490-2860)	3.76 A	1065	9.40	0.9 + 1.1 + 1.3 + 1.7	1.60	2.10	2.35	3.35	9.40 (4.00-10.50)	2050 (680-3080)	4.59 A	1025	9.05
7 + 9 [1] + 10 [2] + 18	1.30	1.65	1.80	3.25	8.00 (2.90-8.90)	2110 (520-2860)	3.79 A	1055	9.30	0.8 + 1.1 + 1.2 + 1.8	1.55	1.90	2.15	3.80	9.40 (4.20-10.50)	2080 (700-3080)	4.52 A	1040	9.15
7 + 9 [1] + 12 + 12	1.45	1.85	2.35	2.35	8.00 (2.80-8.90)	2130 (500-2850)	3.76 A	1065	9.40	0.9 + 1.2 + 1.5 + 1.5	1.70	2.20	2.75	2.75	9.40 (4.00-10.50)	2090 (680-3180)	4.50 A	1045	9.20
7 + 9 [1] + 12 + 15	1.35	1.70	2.20	2.75	8.00 (2.90-9.00)	2070 (520-2860)	3.86 A	1035	9.15	0.9 + 1.1 + 1.4 + 1.6	1.60	2.00	2.55	3.25	9.40 (4.10-10.50)	2060 (700-3120)	4.56 A	1030	9.05
7 + 9 [1] + 12 + 18	1.25	1.55	2.00	3.20	8.00 (2.90-9.00)	2030 (520-2840)	3.94 A	1015	8.95	0.8 + 1.0 + 1.3 + 1.8	1.50	1.85	2.35	3.70	9.40 (4.20-10.50)	2090 (700-3080)	4.50 A	1045	9.20
7 + 9 [1] + 15 + 15	1.30	1.60	2.55	2.55	8.00 (2.90-9.00)	2040 (520-2870)	3.92 A	1020	8.95	0.8 + 1.0 + 1.6 + 1.6	1.50	1.90	3.00	3.00	9.40 (4.20-10.50)	2030 (700-3080)	4.63 A	1015	8.95
7 + 9 [1] + 15 + 18	1.20	1.50	2.35	2.95	8.00 (2.90-9.00)	2020 (520-2880)	3.96 A	1010	8.85	0.7 + 1.0 + 1.5 + 1.7	1.35	1.75	2.80	3.50	9.40 (4.20-10.50)	2080 (700-3060)	4.52 A	1040	9.15
7 + 10 [2] + 10 [2] + 10 [2]	1.55	2.15	2.15	2.15	8.00 (2.80-8.80)	2120 (490-2850)	3.77 A	1060	9.30	1.0 + 1.4 + 1.4 + 1.4	1.75	2.55	2.55	2.55	9.40 (3.80-10.50)	2040 (640-3080)	4.61 A	1020	8.95
7 + 10 [2] + 10 [2] + 12	1.50	2.05	2.05	2.40	8.00 (2.80-8.90)	2100 (490-2850)	3.81 A	1050	9.20	1.0 + 1.3 + 1.3 + 1.5	1.70	2.45	2.45	2.80	9.40 (3.90-10.50)	2080 (660-3130)	4.52 A	1040	9.15
7 + 10 [2] + 10 [2] + 15	1.35	1.95	1.95	2.75	8.00 (2.80-8.90)	2130 (490-2860)	3.76 A	1065	9.40	0.9 + 1.3 + 1.3 + 1.6	1.60	2.25	2.25	3.30	9.40 (4.00-10.50)	2050 (680-3080)	4.59 A	1025	9.05
7 + 10 [2] + 10 [2] + 18	1.25	1.80	1.80	3.15	8.00 (2.90-8.90)	2110 (520-2860)	3.79 A	1055	9.30	0.8 + 1.2 + 1.2 + 1.8	1.45	2.10	2.10	3.75	9.40 (4.20-10.50)	2080 (700-3080)	4.52 A	1040	9.15
7 + 10 [2] + 12 + 12	1.40	2.00	2.30	2.30	8.00 (2.80-8.90)	2130 (500-2850)	3.76 A	1065	9.40	0.9 + 1.3 + 1.5 + 1.5	1.65	2.35	2.70	2.70	9.40 (4.00-10.50)	2090 (680-3180)	4.50 A	1045	9.20
7 + 10 [2] + 12 + 15	1.35	1.85	2.15	2.65	8.00 (2.90-9.00)	2070 (520-2860)	3.86 A	1035	9.15	0.9 + 1.2 + 1.4 + 1.6	1.55	2.20	2.50	3.15	9.40 (4.10-10.50)	2060 (700-3120)	4.56 A	1030	9.05
7 + 10 [2] + 12 + 18	1.25	1.70	1.95	3.10	8.00 (2.90-9.00)	2030 (520-2840)	3.94 A	1015	8.95	0.8 + 1.1 + 1.3 + 1.7	1.45	2.00	2.30	3.65	9.40 (4.20-10.50)	2090 (700-3080)	4.50 A	1045	9.20
7 + 10 [2] + 15 + 15	1.25	1.75	2.50	2.50	8.00 (2.90-9.00)	2040 (520-2870)	3.92 A	1020	8.95	0.8 + 1.1 + 1.5 + 1.5	1.45	2.05	2.95	2.95	9.40 (4.20-10.50)	2030 (700-3080)	4.63 A	1015	8.95
7 + 12 + 12 + 12	1.40	2.20	2.20	2.20	8.00 (2.80-9.10)	2040 (500-2870)	3.92 A	1020	8.95	0.9 + 1.4 + 1.4 + 1.4	1.60	2.60	2.60	2.60	9.40 (4.00-10.60)	2110 (680-3120)	4.45 A	1055	9.30
7 + 12 + 12 + 15	1.30	2.05	2.05	2.60	8.00 (2.90-9.10)	2020 (520-2840)	3.96 A	1010	8.85	0.8 + 1.3 + 1.3 + 1.6	1.45	2.45	2.45	3.05	9.40 (4.10-10.60)	2080 (700-3080)	4.52 A	1040	9.15
7 + 12 + 12 + 18	1.20	1.90	1.90	3.00	8.00 (3.00-9.20)	2000 (530-2870)	4.00 A	1000	8.80	0.7 + 1.2 + 1.2 + 1.7	1.40	2.25	2.25	3.50	9.40 (4.20-10.60)	2110 (700-3060)	4.45 A	1055	9.30
7 + 12 + 15 + 15	1.20	2.00	2.40	2.40	8.00 (2.90-9.10)	2090 (520-2860)	3.83 A	1045	9.20	0.7 + 1.3 + 1.5 + 1.5	1.40	2.30	2.85	2.85	9.40 (4.20-10.60)	2060 (700-3060)	4.56 A	1030	9.05
9 [1] + 9 [1] + 9 [1] + 9 [1]	2.00	2.00	2.00	2.00	8.00 (2.80-8.80)	2110 (490-2840)	3.79 A	1055	9.30	1.3 + 1.3 + 1.3 + 1.3	2.35	2.35	2.35	2.35	9.40 (3.90-10.50)	2030 (660-3080)	4.63 A	1015	8.95
9 [1] + 9 [1] + 9 [1] + 10 [2]	1.95	1.95	1.95	2.15	8.00 (2.80-8.80)	2110 (490-2840)	3.79 A	1055	9.30	1.3 + 1.3 + 1.3 + 1.4	2.30	2.30	2.30	2.50	9.40 (3.90-10.50)	2030 (660-3080)	4.63 A	1015	8.95
9 [1] + 9 [1] + 9 [1] + 12	1.85	1.85	1.85	2.45	8.00 (2.80-8.90)	2090 (490-2870)	3.83 A	1045	9.20	1.2 + 1.2 + 1.2 + 1.5	2.20	2.20	2.20	2.80	9.40 (4.00-10.50)	2060 (680-3100)	4.56 A	1030	9.05
9 [1] + 9 [1] + 9 [1] + 15	1.75	1.75	1.75	2.75	8.00 (2.90-8.90)	2120 (520-2850)	3.77 A	1060	9.30	1.1 + 1.1 + 1.1 + 1.6	2.05	2.05	2.05	3.25	9.40 (4.10-10.50)	2040 (700-3070)	4.61 A	1020	8.95
9 [1] + 9 [1] + 9 [1] + 18	1.60	1.60	1.60	3.20	8.00 (2.90-8.90)	2110 (520-2850)	3.79 A	1055	9.30	1.0 + 1.0 + 1.0 + 1.8	1.90	1.90	1.90	3.70	9.40 (4.20-10.50)	2070 (700-3070)	4.54 A	1035	9.15
9 [1] + 9 [1] + 10 [2] + 10 [2]	1.90	1.90	2.10	2.10	8.00 (2.80-8.80)	2110 (490-2840)	3.79 A	1055	9.30	1.2 + 1.2 + 1.4 + 1.4	2.20	2.20	2.50	2.50	9.40 (3.90-10.50)	2030 (660-3080)	4.63 A	1015	8.95
9 [1] + 9 [1] + 10 [2] + 12	1.80	1.80	2.05	2.35	8.00 (2.80-8.90)	2090 (490-2870)	3.83 A	1045	9.20	1.2 + 1.2 + 1.3 + 1.5	2.15	2.15	2.35	2.75	9.40 (4.00-10.50)	2060 (680-3100)	4.56 A	1030	9.05
9 [1] + 9 [1] + 10 [2] + 15	1.70	1.70	1.90	2.70	8.00 (2.90-8.90)	2120 (520-2850)	3.77 A	1060	9.30	1.1 + 1.1 + 1.2 + 1.6	2.00	2.00	2.20	3.20	9.40 (4.10-10.50)	2040 (700-3070)	4.61 A	1020	8.95
9 [1] + 9 [1] + 10 [2] + 18	1.55	1.55	1.75	3.15	8.00 (2.90-8.90)	2110 (520-2850)	3.79 A	1055	9.30	1.0 + 1.0 + 1.1 + 1.8	1.85	1.85	2.05	3.65	9.40 (4.20-10.50)	2070 (700-3070)	4.54 A	1035	9.15
9 [1] + 9 [1] + 12 + 12	1.75	1.75	2.25	2.25	8.00 (2.90-9.00)	2080 (500-2870)	3.85 A	1040	9.15	1.1 + 1.1 + 1.5 + 1.5	2.05	2.05	2.65	2.65	9.40 (4.00-10.50)	2070 (680-3140)	4.54 A	1035	9.15
9 [1] + 9 [1] + 12 + 15	1.65	1.65	2.10	2.60	8.00 (2.90-9.00)	2050 (520-2880)	3.90 A	1025	9.05	1.1 + 1.1 + 1.4 + 1.6	1.95	1.95	2.40	3.10	9.40 (4.20-10.50)	2040 (700-3080)	4.61 A	1020	8.95
9 [1] + 9 [1] + 12 + 18	1.50	1.50	1.95	3.05	8.00 (2.90-9.00)	2030 (520-2840)	3.94 A	1015	8.95	1.0 + 1.0 + 1.3 + 1.7	1.80	1.80	2.25	3.55	9.40 (4.20-10.50)	2090 (700-3080)	4.50 A	1045	9.20
9 [1] + 9 [1] + 15 + 15	1.55	1.55	2.45	2.45	8.00 (3.00-9.00)	2040 (520-2860)	3.92 A	1020	8.95	1.0 + 1.0 + 1.5 + 1.5	1.80	1.80	2.90	2.90	9.40 (4.20-10.50)	2020 (700-3070)	4.65 A	1010	8.85
9 [1] + 10 [2] + 10 [2] + 10 [2]	1.85	2.05	2.05	2.05	8.00 (2.80-8.80)	2110 (490-2840)	3.79 A	1055	9.30	1.2 + 1.3 + 1.3 + 1.3	2.20	2.40	2.40	2.40	9.40 (3.90-10.50)	2030 (660-3080)	4.63 A	1015	8.95
9 [1] + 10 [2] + 10 [2] + 12	1.75	2.00	2.00	2.25	8.00 (2.80-8.90)	2090 (490-2870)	3.83 A	1045	9.20	1.1 + 1.3 + 1.3 + 1.5	2.05	2.35	2.35	2.65	9.40 (4.00-10.50)	2060 (680-3100)	4.56 A	1030	9.05
9 [1] + 10 [2] + 10 [2] + 15	1.65	1.85	1.85	2.65	8.00 (2.90-8.90)	2120 (520-2850)	3.77 A	1060	9.30	1.1 + 1.2 + 1.2 + 1.6	1.90	2.20	2.20	3.10	9.40 (4.10-10.50)	2040 (700-3070)	4.61 A	1020	8.95
9 [1] + 10 [2] + 10 [2] + 18	1.55	1.70	1.70	3.05	8.00 (2.90-8.90)	2110 (520-2850)	3.79 A	1055	9.30	1.0 + 1.1 + 1.1 + 1.7	1.80	2.00	2.00	3.60	9.40 (4.20-10.50)	2070 (700-3070)	4.54 A	1035	9.15
9 [1] + 10 [2] + 12 + 12	1.70	1.90	2.20	2.20	8.00 (2.80-8.90)	2130 (500-2850)	3.76 A	1065	9.40	1.1 + 1.2 + 1.4 + 1.4	2.00	2.30	2.55	2.55	9.40 (4.00-10.50)	2090 (680-3180)	4.50 A	1045	9.20
9 [1] + 10 [2] + 12 + 15	1.60	1.80	2.05	2.55	8.00 (2.90-9.00)	2070 (520-2860)	3.86 A	1035	9.15	1.0 + 1.2 + 1.3 + 1.6	1.90	2.10	2.40	3.00	9.40 (4.10-10.50)	2060 (700-3120)	4.56 A	1030	9.05
9 [1] + 10 [2] + 12 + 18	1.50	1.65	1.90	2.95	8.00 (2.90-9.00)	2030 (520-2840)	3.94 A	1015	8.95	1.0 + 1.1 + 1.2 + 1.7	1.70	1.95	2.25	3.50	9.40 (4.20-10.50)	2090 (700-3080)	4.50 A	1045	9.20
9 [1] + 10 [2] + 15 + 15	1.50	1.70	2.40	2.40	8.00 (2.90-9.00)	2040 (520-2870)	3.92 A	1020	8.95	1.0 + 1.1 + 1.5 + 1.5	1.70	2.00	2.85	2.85	9.40 (4.20-10.50)	2030 (700-3080)	4.63 A	1015	8.95
9 [1] + 12 + 12 + 12	1.70	2.10	2.10	2.10	8.00 (2.90-9.10)	2030 (520-2860)	3.94 A	1015	8.95	1.1 + 1.4 + 1.4 + 1.4	1.90	2.50	2.50	2.50	9.40 (4.10-10.60)	2090 (700-3100)	4.50 A	1045	9.20
9 [1] + 12 + 12 + 15	1.50	2.00	2.00	2.50	8.00 (2.90-9.10)	2020 (520-2840)	3.96 A	1010	8.85	1.0 + 1.3 + 1.3 + 1.5	1.80	2.35	2.35	2.90	9.40 (4.10-10.60)	2080 (700-3080)	4.52 A	1040	9.15
10 [2] + 10 [2] + 10 [2] + 10 [2]	2.00	2.00	2.00	2.00	8.00 (2.80-8.80)	2110 (490-2840)	3.79 A	1055	9.30	1.3 + 1.3 + 1.3 + 1.3	2.35	2.35	2.35	2.35	9.40 (3.90-10.50)	2030 (660-3080)	4.63 A	1015	8.95
10 [2] + 10 [2] + 10 [2] + 12	1.95	1.95	1.95	2.15	8.00 (2.80-8.90)	2090 (490-2870)	3.83 A	1045	9.20	1.3 + 1.3 + 1.3 + 1.4	2.25	2.25	2.25	2.65	9.40 (4.00-10.50)	2060 (680-3100)	4.56 A	1030	9.05
10 [2] + 10 [2] + 10 [2] + 15	1.80	1.80	1.80	2.60	8.00 (2.90-8.90)	2120 (520-2850)	3.77 A	1060	9.30	1.2 + 1.2 + 1.2 + 1.6	2.10	2.10	2.10	3.10	9.40 (4.10-10.50)	2040 (700-3070)	4.61 A	1020	8.95
10 [2] + 10 [2] + 10 [2] + 18	1.65	1.65	1.65	3.05	8.00 (2.90-8.90)	2110 (520-2850)	3.79 A	1055	9.30	1.1 + 1.1 + 1.1 + 1.7	1.95	1.95	1.95	3.55	9.40 (4.20-10.50)	2070 (700-3070)	4.54 A	1035	9.15
10 [2] + 10 [2] + 12 + 12	1.85	1.85	2.15	2.15	8.00 (2.90-9.00)	2080 (500-2870)	3.85 A	1040	9.15	1.2 + 1.2 + 1.4 + 1.4	2.20	2.20	2.50	2.50	9.40 (4.00-10.50)	2070 (680-3140)	4.54 A	1035	9.15
10 [2] + 10 [2] + 12 + 15	1.75	1.75	2.00	2.50	8.00 (2.90-9.00)	2050 (520-2880)	3.90 A	1025	9.05	1.1 + 1.1 + 1.3 + 1.5	2.05	2.05	2.35	2.95	9.40 (4.20-10.50)	2040 (700-3080)	4.61 A	1020	8.95
10 [2] + 10 [2] + 15 + 15	1.65	1.65	2.35	2.35	8.00 (3.00-9.00)	2040 (520-2860)	3.92 A	1020	8.95	1.1 + 1.1 + 1.5 + 1.5	1.95	1.95	2.75	2.75	9.40 (4.20-10.50)	2020 (700-3070)	4.65 A	1010	8.85
10 [2] + 12 + 12 + 12	1.85	2.05	2.05	2.05	8.00 (2.90-9.10)	2030 (520-2860)	3.94 A	1015	8.95	1.2 + 1.3 + 1.3 + 1.3	2.05	2.45	2.45	2.45	9.40 (4.10-10.60)	2090 (700-3100)	4.50 A	1045	9.20
10 [2] + 12 + 12 + 15	1.70	1.95	1.95	2.40	8.00 (2.90-9.10)	2010 (520-2880)	3.98 A	1005	8.85	1.1 + 1.3 + 1.3 + 1.5	1.95	2.30	2.30	2.85	9.40 (4.20-10.60)	2070 (700-3080)	4.54 A	1035	9.15
12 + 12 + 12 + 12	2.00	2.00	2.00	2.00	8.00 (2.90-9.20)	2000 (530-2850)	4.00 A	1000	8.80	1.3 + 1.3 + 1.3 + 1.3	2.35	2.35	2.35	2.35	9.40 (4.20-10.60)	2110 (700-3080)	4.45 A	1055	9.30
12 + 12 + 12 + 15	1.90	1.90	1.90	2.30	8.00 (3.00-9.20)	1980 (530-2870)	4.04 A	990	8.70	1.2 + 1.2 + 1.2 + 1.5	2.20	2.20	2.20	2.80	9.40 (4.20-10.6)	2080 (700-3060)	4.52 A	1040	9.10

1) For wall type, hyde away, 60x60 cassette.
2) For one way cassette, floor/ceiling, floor console.
Connectivity restriction : CS-E/XE_LKE units are only compatible with CU-2E15LBE, CU-2E18LBE, CU-3E18LBE, CU-4E23LBE and CU-4E27CBPG outdoor units. No other outdoor unit can be connected.

SELF DIAGNOSIS DESCRIPTION AND CHECK POINT TABLE

In the event of breakdown, proceed as follows to detect the error code.

1. Press "CHECK" button at the remote control continuously for more than five seconds to turn on diagnosis mode. "_ _" will be displayed at the remote control LCD.
2. By pressing the TIMER "▲" button once, the next error code (if any) will be displayed; press "▼" button once, previous error code will be displayed.
3. If error code displayed matches the error code saved in unit memory (abnormality detected) Indoor PCB will buzzer for 4 seconds to indicate the correct error code.
4. If "CHECK" button is pressed again or without any operation for 30 seconds, the diagnosis mode will turn off.
5. Turn ON the unit and reset the error code by pressing the AC reset.



ERROR CODES TABLE

Warning: Electrical power must be disconnected when terminal protective cover is not in place to protect against electrocution.

Diagnosis Display	Abnormality / Protection Control	Diagnosis Method	Diagnosis Checkpoint
H11	Indoor/Outdoor abnormal communication	This trouble display appears when indoor/outdoor unit communication fails to be established after 30 or more seconds.	Measure the voltages of the indoor/outdoor unit communication cables, and check whether the voltage is being supplied properly to the outdoor unit or whether it is being returned from the outdoor unit to the indoor units.
H12	Indoor unit capacity unmatched	This trouble display appears when wrong in the total connection capacity and wrong connection in each capacity. The trouble is determined within 2 minutes after the power is turned on.	Check the total capacity of the units connected and check that the models are compatible for connection.
H14	Intake air temp. sensor	This trouble display appears when the intake air temperature has exceeded above 46ºC continuously for 2 minutes or dropped below -54ºC continuously for 5 seconds during operation.	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector is to blame.
H15	Outdoor compressor temperature sensor abnormality	—	Check the sensor, and if open-circuit (more than 500 k) or (short-circuit) (less than 6.5 k) is not found, defective contact of the connector is to blame.
H16	Outdoor Current Transformer	CU-2E: When a value of under 1.5A has been detected for the total current during operation beyond the set capacity, the compressor operates with its operating frequency controlled to a maximum of 38Hz for 3 minutes, and if it continues to operate at a total current of under 1.5A for another 3 minutes, its operation stops. CU-3E/4E: When the total current has dropped below the set current level continuously for 20 seconds during operation beyond the set capacity, operation is stopped. Three minutes later, operation is started up again, and when the trouble occurs on 4 successive occasions, the trouble display appears (the timer lamp blinks).	1. Check the refrigerant cycle: Gas may be leaking (the amount of refrigerant is extremely low). 2. Check the control PCB: Check for a broken wire (open circuit) in the current transformer. (If an open circuit is found, replace the control PCB) In the case of a scroll compressor (DC motor), H16 is detected only when the regular compressor is operating.
H19	Indoor fan motor mechanism lock	• High-voltage PWM: When a state in which the fan motor speed is not synchronized with the control signal has been detected on 7 successive occasions. • Low-voltage PAM: When the fan lock detection signal has been detected on 7 successive occasions or it has been detected continuously for 25 seconds or when a state in which the fan motor speed is not synchronized with the control signal has been detected on 7 successive occasions: The trouble display appears (the timer lamp blinks).	1. Check the nature of the fan lockup trouble. 2. Check for disconnections of the fan motor connectors and for defects in contact, in the fan motor and in the control PCB.
H23	Indoor heat exchanger temp. sensor	This trouble display appears when a temperature of under approximately -40ºC or above approximately 80ºC has been detected by the heat exchanger temperature sensor continuously for 5 seconds. (This trouble is not detected during de-icing.)	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if (open-circuit) (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H26	Ionizer Abnormality	—	1. Measure the voltages of the indoor unit communication cables, and check whether the voltage is being supplied properly. 2. Check the ionizer needle and grounding plate is dust free.
H27	Outdoor air temp. sensor	This trouble display appears when a temperature of under approximately -40ºC or above approximately 150ºC has been detected by the outside air temperature sensor for 2 to 5 seconds. (This trouble is not detected during de-icing.)	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit isnot found, defective contact of the connector or a defective control PCB is to blame.
H28	Outdoor heat exchanger temp. sensor 1	This trouble display appears when a temperature of under approximately -60ºC or above approximately 110ºC has been detected by the heat exchanger temperature sensor for 2 to 5 seconds. (This trouble is not detected during de-icing.)	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H30	Outdoor discharge pipe temp. sensor	CU-2E: This trouble display appears when a temperature of under approximately -16ºC or above approximately 200ºC has been detected by the outlet temperature sensor for 2 to 5 seconds. CU-3E/4E: Disconnected discharge sensor • When the condensation temperature is higher than the discharge temperature + (plus) 6ºC, a sensor disconnection is detected, operation stops, and the trouble display appears (the timer lamp blinks).	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H32	Outdoor heat exchanger temp. sensor 2 (discharge pipe temp.)	This trouble display appears when a temperature of under approximately -60ºC or over approximately 110ºC has been detected continuously for 2 to 5 seconds by the outlet temperature sensor of the heat exchanger.	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H33	Indoor / Outdoor wrong connection	Indoor / Outdoor different model junction, 100V charge into 200V outdoor unit.	Check whether the voltage is being supplied properly to the outdoor unit or whether it is being returned from the outdoor unit to the indoor units.
H34	Outdoor heat sink temp. sensor	This trouble display appears when a temperature of under -43ºC or above 80ºC has been detected by the outdoor unit radiator fin sensor continuously for 2 seconds.	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H36	Abnormal gas pipe temp. sensor	This trouble display appears when a temperature of under approximately -45ºC or above approximately 149ºC has been detected by the outdoor unit gas side pipe temperature sensor continuously for 2 to 5 seconds.	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H37	Outdoor liquid pipe temp. sensor	This trouble display appears when a temperature of under -45ºC or above 149ºC has been detected by the outdoor unit liquid side pipe temperature sensor continuously for 2 seconds.	This trouble display appears when a temperature which is impossibly high or low from a normal standpoint has been detected. Check the sensor, and if open-circuiting (0L or ∞) or short-circuit is not found, defective contact of the connector or a defective control PCB is to blame.
H38	Indoor / Outdoor mismatch (brand code)	—	—
H39	Abnormal indoor operating unit or standBy units	This display appears in rooms other than one in which indoor freezing trouble has occurred when the pipes have been connected incorrectly, when an outdoor expansion valve is defective or when an expansion valve connector has become disconnected.	—
H41	Abnormal wiring or piping connection	CU-2E only This display appears when this kind of trouble is detected 3 minutes after a forced cooling operation was conducted for one room during the initial operation after the power was turned on. It appears when: • The indoor unit pipe temperature in a room without the capacity supply available at an outside air temperature above 5ºC has dropped by more than 20ºC to 5ºC or lower 3 minutes after the compressor started up. • The outdoor unit gas pipe temperature in a room without the capacity supply available has dropped by more than 5ºC to 5ºC or lower 3 minutes after the compressor started up.	—
H50	Ventilation failure	This display appears when ventilation motor is lock.	1. Check the voltage drop at pin 1 & 2 of CNVENT to have 14Vdc. 2. Check the ventilation hose condition from ventilation opening until tip cover. 3. Check air fl ow from tip cover by hand.

H51	Vacuum Nozzle Failure	This display appears when the vacuum nozzle stop.	This trouble display appears when suction nozzle stop at centre of the Filter Cleaning device: 1. Check the filter setting position. 2. Check the nozzle drive stepper motor running condition. This trouble display appears when suction nozzle stop at left side of Filter Cleaning device: 1. Check vacuum nozzle position. 2. Check the left limit switch switching function by multitester. This trouble display appears when suction nozzle stop at left side of Filter Cleaning Device: 1. Check the Right Limit Switch switching function by multitester.
H52	Limit Switch Failure	This display appears when both Limit Switch (left & right) detected short circuit.	1. Unplug the CNSIDESW connector and check Pin 1-2 and Pin 3-4 condition on PCB. 2. Check wiring condition at limit switch (left & right). 3. Check switching function of limit switch (left & right).
H97	Outdoor fan motor mechanism lock	CU-2E: When trouble, which is defi ned as a state in which the fan motor speed is not synchronized with the control signal has been detected on 5 successive occasions, has occurred for the third time in a 60-minute period and twice during a 30-minute period, the trouble display appears, and operation stops. CU-3E/4E: When the fan motor speed detected when its maximum output is demanded is below 30 rpm continuously for 15 seconds, the fan motor stops for 3 minutes and then restarted. When this happens on 16 occasions (the trouble display is cleared when the value is normal for 5 minutes), the H97 diagnostic symbol is stored in the memory, and the fan motor stops.	1. Check the nature of the fan lockup trouble. 2. Check for disconnections of the fan motor connectors and for defects in contact, in the fan motor and in the control PCB.
H98	Indoor high pressure protection	The restriction on the compressor frequency is started when the temperature of the indoor unit heat exchanger source is between 50ºC and 52ºC, the compressor stops at a temperature from 62ºC to 65ºC, it is restarted 3 minutes later at below 62ºC to 65ºC, and the restriction on the compressor frequency is released at a temperature between 48ºC and 50ºC. (No trouble display appears.)	1. Check the indoor unit heat exchanger temperature sensor (check for changes in its characteristics and check its resistance): Symptoms include no hot start when operation is started, a failure of the thermostat to turn on (no outdoor unit operation). And frequent repetition of stopping and startup. 2. Check also for short circuits indoors and clogging of the air fi lters.
H99	Indoor operating unit freezing	The restriction on the compressor frequency is started when the indoor unit heat exchanger temperature is between 8ºC and 12ºC. Operation stops if a temperature below 0ºC continues for 6 minutes. Three minutes later, operation is started up at a temperature from 3ºC to 8ºC. The restriction on the compressor frequency is released at a temperature between 13ºC and 14ºC.	1. A cooling or dry mode operation conducted at a low outside air temperature is mainly to blame: this is not indicative of any malfunctioning. If the outside air temperature rises during automatic operation in the winter months, the dry mode operation is selected. The H99 diagnostic display also appears at such a time. 2. Check the refrigerating cycle: Gas may be leaking (the amount of refrigerant is low) or a pipe may be broken, etc. 3. Check also for short circuits indoors and clogging of the air fi lters.
F11	4-way valve switching failure	CU-2E: When the indoor unit heat exchanger temperature is under -5ºC during a warming operation or above 45ºC during a cooling or dry mode operation four minutes after the compressor has started up, the F11 diagnostic symbol is stored in the memory, and operation stops. 3 minutes later, operation is restarted. This trouble display appears when this happens on 4 occasions in a 30 minutes period. CU-3E/4E: When a difference of 0ºC to 5ºC has been detected between the outdoor unit heat exchanger temperature and liquid side pipe temperature on 5 occasions, the trouble display appears.	1. Check the 4-way valve coil: Check that no power is supplied to the coil during cooling and dry mode operations, and that power is supplied during heating operations. Inspect the coil for broken wires (open circuits). 2. If the coil is troublefree, the switching action of the 4-way valve may be defective.
F17	Indoor standBy units freezing	CU-2E: After the operation of one indoor unit stops continuously for 5 minutes. The hole operation stops when the stopping indoor unit pipe temperature is under -5ºC continuously for 1 minute or under 0ºC continuously for 5 minutes, and operation restarts after 3 minutes. This trouble display appears if that trouble happens on 3 occasions in a 30 minutes period. CU-3E/4E: When the difference of an intake temperature (room temperature sensor) and the indoor unit heat exchanger temperature (piping sensor) is higher than 10ºC or an indoor unit heat exchanger temperature of below -1ºC has been detected continuously for 5 minutes, operation stops. Three minutes later, it is started up, and the trouble display appears when this has occurred on 3 consecutive occasions.	1. Check the refrigerating cycle: Expansion valve leakage. 2. Check the indoor unit pipe temperature sensor (check for changes in its characteristics and check its resistance).
F90	PFC circuit protection (CU-2E) Main circuit low voltage (CU-3E/4E)	CU-2E: When the reputation of the compressor is not synchronized with the control signal, the F93 diagnostic display is stored in the memory, and operation stops. 3 minutes later, operation is restarted. This trouble display appears when this happens on 4 occasions in a 20 minutes period. CU-3E/4E: When a state in which the rotation of the compressor is not synchronized with the control signal has been detected on 8 successive occasions, operation stops, and the trouble display appears.	1. To check whether the 2-way or 3 -way valve has been left open by mistake, operation is performed for one to several minutes after the compressor has started up, F93 is stopped in the memory as the symptom, and operation stops. 2. Check the Inverter circuit (for open circuits) in the control PCB: Check the IPM base current (6 locations) within 3 minutes after the power has been turned back on. As the symptom, F93 is stored in the memory 30 seconds after the compressor has started up, and operation stops. The trouble display appears after 4 restarts. 3. Check for broken wires (open circuits) in the compressor winding: Approximately 1 ohm under normal conditions for each phase (same symptom as in 2.)
F91	Refrigeration cycle abnormality	CU-2E: When the rotation speed of the compressor exceeds the setting frequency and the total current is 1.5A or higher to 1.9A or lower continuously for 5 minutes, operation stops if the indoor unit heat exchanger temperature is higher than 20ºC during cooling or dry operation or if it is under 25ºC during heating. Three minutes later, it is restarted, and if the trouble occurs on 2 consecutive occasions in a 20 minutes period, the trouble display appears. CU-3E/4E: When the compressor frequency is above 55 Hz and the current drops below the prescribed level continuously for 7 minutes, operation stops, and it is restarted 3 minutes later. When the compressor discharge temperature has exceeded the setting and the expansion valve has remained fully open for 80 seconds, operation stops, and it is restarted 3 minutes later. When the stopping described above has occurred on 4 occasions, operation stops, and the trouble display appear.	Check the refrigerating cycle: Gas may be leaking (more than onehalf of the volume of the gas has gone). The diagnostic displays resulting from a gas leak generally change in the following sequence depending on the extent of the gas leak: H99 → F97 → F91 → H16. The range of this trouble (F91) is limited. (Compressor protection at the start of the season).
F93	Compressor abnormal revolution	CU-2E: When the reputation of the compressor is not synchronized with the control signal, the F93 diagnostic display is stored in the memory, and operation stops. 3 minutes later, operation is restarted. This trouble display appears when this happens on 4 occasions in a 20 minutes period. CU-3E/4E: When a state in which the rotation of the compressor is not synchronized with the control signal has been detected on 8 successive occasions, operation stops, and the trouble display appears.	1. To check whether the 2-way or 3 -way valve has been left open by mistake, operation is performed for one to several minutes after the compressor has started up, F93 is stopped in the memory as the symptom, and operation stops. 2. Check the Inverter circuit (for open circuits) in the control PCB: Check the IPM base current (6 locations) within 3 minutes after the power has been turned back on. As the symptom, F93 is stored in the memory 30 seconds after the compressor has started up, and operation stops. The trouble display appears after 4 restarts. 3. Check for broken wires (open circuits) in the compressor winding: Approximately 1 ohm under normal conditions for each phase (same symptom as in 2.)
F95	Outdoor high pressure protection	CU-2E only: When the temperature of the outdoor unit heat exchanger temperature sensor exceeds 63ºC, the F95 diagnostic symbol is stored in the memory, and operation stops. 3 minutes later, operation is restarted at a temperature below 56ºC. This trouble display appears when this happens on 4 occasions in a 20-minutes period.	1. Check the outdoor unit heat exchanger temperature sensor (check for changes in its characteristics and check its resistance). 2. Check whether something is interfering with the dissipation of the heat outdoors.
F96	Power transistor module or compressor overheating (CU-2E) Compressor high discharge temperature (CU-3E/4E)	CU-2E: Heating is detected inside the IPM which shuts itself off, the F96 diagnostic symbol is stored in the memory, and operation stops. 3 minutes later, operation is restarted. The trouble display appears when this happens on 4 occasions in a 30-minutes period. CU-3E/4E: When this trouble is detected from the electrical parts radiation fi n temperature sensor and OLP output during operation, operation stops, and it is restarted 3 minutes later. If the trouble occurs on 4 occasions, operation stops, and the trouble display appears.	1. Something may be interfering with the dissipation of the heat outdoors or the outdoor unit fan may be defective. (The outdoor unit fan is not running.). 2. Defective IPM (outdoor unit control PCB). 3. Gas leaks. 2-way or 3-way valve is not opened.
F97	Compressor high discharge temperature	When the temperature of the compressor temperature sensor exceeds 112 to 120ºC, the F97 diagnostic symbol is stored in the memory, and operation steps. Two minutes later, operation is restarted at a temperature below 107 to 110ºC. CU-2E: The trouble display appears and operation stops when this happens on 4 occasions in a 20 minutes period. CU-3E/4E: This trouble display appears and operation stops when this happens on 6 occasions (it is cleared when the operation is normal for 20 minutes).	1. Check the refrigerating cycle: Gas may be leaking (the amount of refrigerant is low). The stopping of the outdoor unit from time to time is a symptom of this trouble. 2. When operation steps with this trouble display appearing, check the compressor temperature sensor (check for changes in its characteristics and check its resistance). 3. Something may be interfering with the dissipation of the heat outdoors or the outdoor unit fan may be defective. (The fan will not run because of an open circuit.) (The protection function may be activated by an overload, and the F97 trouble display will remain stored in the memory.).
F98	Total running current protection	CU-2E: When the total current exceeds the setting, the F98 diagnostic display is stored in the memory, and operation stops. 3 minutes later, operation is restarted. The trouble display appears and operation stops when this happens on 3 occasions in a 20-minutes period. CU-3E/4E: When the total current exceeds the setting (17A to 20A), frequency control is started, and if it then exceeds the setting, operation stops, and the trouble display appears.	1. Check the AC voltage at the outdoor unit terminal board during operation: The voltage drop must be within 5% of the voltage when operation has stopped (± 110% of rated voltage even during operation). If the voltage drop exceeds 5% or if the voltage changes suddenly, inspect whether the power supply cord and indoor/outdoor unit connection cables are too long or too small in diameter, etc. 2. Check whether something is interfering with the dissipation of the heat outdoors (during cooling operations): Normally, the capacity is limited by the current so that the outdoor unit don't stop, and the diagnostic display does not appear.
F99	DC peak detection	CU-2E: If the current level exceeds 22.5A after startup, the compressor stops, and it is restarted 3 minutes later. When this occurs on 7 consecutive occasions, operation stops, and the trouble display appears. CU-3E/4E: When "Output current trouble", which occurs when the prescribed current level is exceeded, has occurred on 16 consecutive occasions, operation stops, and the trouble display appears.	1. Check whether the compressor is defective (locked up or shorted winding). Check the outdoor unit control PCB.

OPTIONAL ACCESSORIES

REPLACEMENT ANTI-ALLERGEN FILTER

CS-E9/12/15/18/21HKEA

CS-PW9/12/18GKE, CS-PW24JKE, CS-V7DKE, CS-V9DKE, CS-V12DKE, CS-V18DKE, CS-V24DKE, CS-V28EKE, CS-E15DTE, CS-E18DTE, CS-E21DTE

CS-RE9/12/18/24JKE-1

PIPE REDUCER (for Multi)

CZ-MA1P is to be used to reduce the connection size on the indoor unit to 3/8". CS-E15/18J/LKEW, CS-E15/18DTEW, CS-E15/18HB4EA, CS-E15/18JD3EA, CS-E18GFEW, CS-E18GFEW

PIPE EXPANDER (for Multi)

CZ-MA2P is to be used to increase the connection size on the outdoor unit to 1/2". CS-E21JKEW, CS-XE21JKEW, CS-E21LKEW, CS-XE21LKEW, CS-E21JB4EA

WELCOME TO COMMERCIAL RANGE

Welcome to Commercial range. Welcome to healthier air. A range which confirms its commitment to the environment. All our air conditioners use R410A gas. This environmentally friendly gas is totally harmless for the ozone layer. Our Inverter compressors optimise performance and thus reduce energy costs.
Here are some of your new air conditioner's major features.

Inverter+ products improve on the characteristics of standard Inverter range by over 20%. A Inverter plus is also A class on cooling and heating mode.

Provides greater efficiency, more comfort and less noise. The system provides more precise temperature control and keeps the ambient temperature constant.

Eliminates the allergens it captures. It combines three functions in one (anti-allergen, anti-virus and anti-bacteria) to keep room air clean and healthy.

The air conditioner works in heat pump mode with an outdoor temperature as low as -20°C.

The air conditioner works in heating only mode with an outdoor temperature of -15°C.

The air conditioner works in cooling only mode with an outdoor temperature of -15°C.

Environmentally friendly refrigerant.

Warranty on the compressor.

COMMERCIAL RANGES

INVERTER+ | INVERTER | HEAT PUMP

LOW STATIC PRESSURE HIDE-AWAY FS TYPE

Panasonic has also thought of integrating its technology into current architecture. Hide-away models are the answer. The small-sized indoor units are easily accommodated in false ceilings.

HIGH STATIC PRESSURE HIDE-AWAY FS TYPE

Panasonic has developed hide-away units with high static pressure power, ideal for business centres.

60X60 CASSETTE TYPE

Panasonic's 60x60 cassettes are particularly suitable for small or medium-sized offices. Their dimensions fit perfectly into European 60x60 detachable ceiling panels.

90X90 FS CASSETTE TYPE

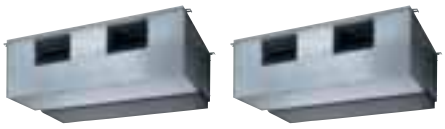
Panasonic has developed air conditioners with revolutionary designs in both format and function. As an added benefit, they offer the option of selecting airflow patterns in two or four different directions, at the click of a button.

CEILING TYPE

Especially suited for shopping centres or very large areas, these air conditioners are practically invisible due to their slimness, lightness and absolutely silent operation.

HIGH PRESSURE HIDE-AWAY US TYPE

Panasonic has developed hide-away units with high static pressure power, ideal for business centres.



ISO 9000 Series Certification
CERTIFIED TO MS ISO 9002:1994
Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM) (Formerly know as Matsushita Industrial Corp. Sdn. Bhd.) Registration No.: AR 0866

Enviroment Management Systems Approval Certificate
CERTIFIED TO MS ISO 14001:1997
Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM) (Formerly know as Matsushita Industrial Corp. Sdn. Bhd.) Certification No.: M015802127

FS TECHNOLOGY

Flexi System Series

FS INVERTER, IMPROVED ENERGY PERFORMANCE

All Panasonic's FS Inverter series models are equipped with DC Inverters to give operation with improved energy efficiency. Their new quiet, highly efficient design reduces operating costs.

1. HYPER WAVE INVERTER

The FS series quickly warms the room up to the set temperature and maintains it within the comfort zone while ensuring energy efficiency and savings.

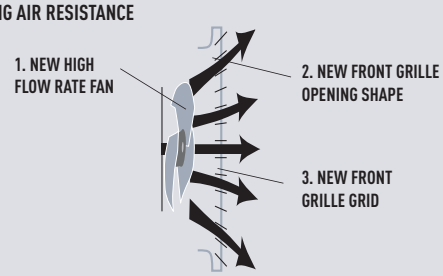
2. HIGH EFFICIENCY COMPRESSOR

A powerful neodymium magnet helps make the motor more compact.

3. NEW DIAGONAL FAN

The following improvements minimise air resistance:

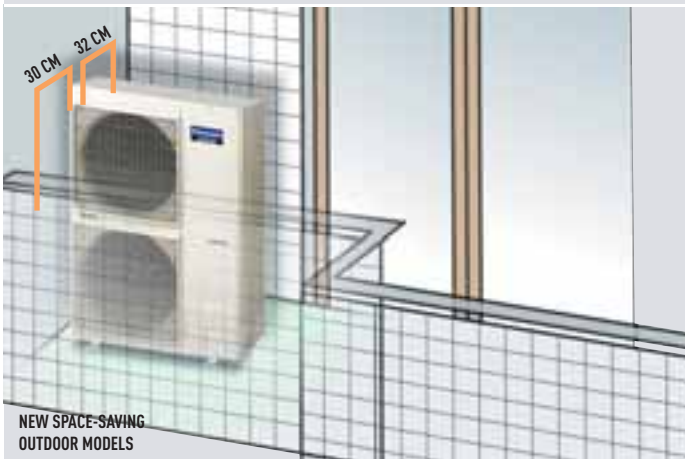
REDUCING AIR RESISTANCE



SPACE-SAVING DESIGN

Thanks to its improved fan, the outdoor unit can be installed in smaller spaces where conventional models would not fit. It achieves higher efficiency without sacrificing quietness.

ONLY NEEDS



NEW SPACE-SAVING OUTDOOR MODELS

FOR CASSETTE AND CEILING MODELS

SUPER ALLERU-BUSTER FILTER

SUPER alleru-buster filter usesthree types of functionalmaterials that make it possibleto inactivate various harmfulairborne elements includingallergens, viruses, and bacteria This filter is available as an option.

allergy preventionair
ALLERU-BUSTER FILTER

ANTI-ALLERGEN

CATECHIN

BIO

CZ-SA11P (FOR CASSETTE TYPE) // CZ-SA12P (FOR CEILING TYPE)

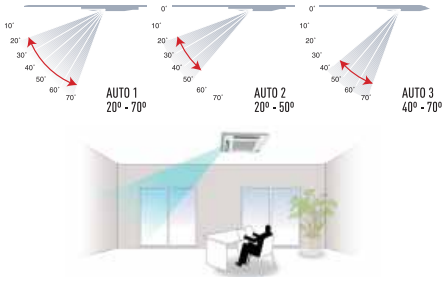
CONTROL UNIT

MAXIMUM COMFORT IN EVERY DETAIL

The Panasonic FS series includes a control unit for precise selection of the desired degree of comfort. It offers control of detailed parameters for adjusting air quality and flow.

1. MULTI COMFORT AIR CONTROL

Newly developed control technology offers various airflow angle options. Select from the 3-pattern auto swings to avoid direct exposure to the air (total 50-degree swing width).

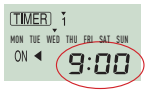


2. WEEKLY TIMER

Weekly timer setting (each day of a week) is available to control the air conditioner. Max. 6 settings/day and 42 settings/week can be run.

HOW TO SET

1 SELECT THE DAY



2 ENTER THE TIME

3. ODOUR WASH

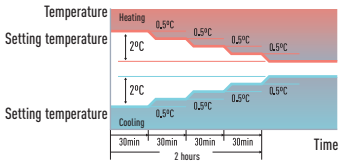
Odour Wash reduces any unpleasant odours produced by the air conditioner's heat exchanger.

4. ECONOMY MODE

An approximate 20% energy-saving operation is achieved. The air conditioner analyses ambient conditions and approaches the temperature set by the user in 0.5 degree steps (up to a maximum of 2 degrees), thus saving energy.

5. VENTILATION

When an external device such as a fan is connected to the indoor unit, the fan's ON/OFF switch can be controlled by the wired remote control



* During operating in the cooling mode at the remote control set temperature of 25 under the cooling standard temperature conditions.
Can be operated with the wireless remote control.

FS INDOOR UNITS

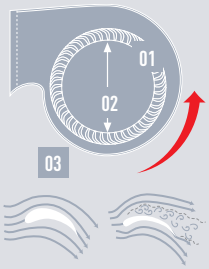
HIDE-AWAY RANGE

Environmentally friendly, efficient and easy to install.

- Save 26% of space.
- Easy installation in false ceilings with limited height.
- Dimensions: 120 x 25 x 65 cm (W x H x D).

NEW SIROCCO FAN

High-performance, large diameter fan. Designed precisely for airflow trajectory. The key to saving space.



1. Its **aerodynamic shape** increases static pressure (new flow rate and air distribution).

2. **The large diameter**, highly efficient fan has been achieved by reducing the scroll and the number of fans.

3. **High-performance casing** results in the maximum air efficiency. The height has been reduced by expanding the bottom part.

SMALLER THAN CONVENTIONAL UNITS

26 %

THE MOST COMPACT IN THE INDUSTRY

CASSETTE RANGE

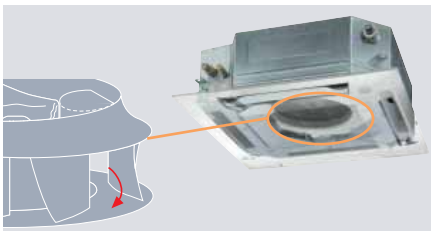
Advanced unit design: First-in-class indoor unit

- Selectable airflow rate and direction.
- Silent operation.
- Customised programming.

The indoor cassette unit is equipped with a hi-tech turbo fan. Its innovative blade design produces higher air speed and flow rate. The DC fan motor offers complete control. It is almost twice as efficient as a conventional motor and enables comfortable operation and energy savings. Likewise, the possibility of connecting two indoor units to one outdoor unit means considerable savings across the board.

IMPROVED AIR INLET AND OUTLET

The new three-dimensional blade shape stabilises airflow.
Optimising layout of the indoor heat exchanger and the fan allows an increase in fan diameter.



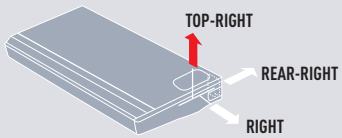
CEILING RANGE

Trouble-free installation

- Easy setup.
- Multi-way connection.
- Broad range of air outlets.

ANTI-MOULD LONG-LIFE AIR FILTER

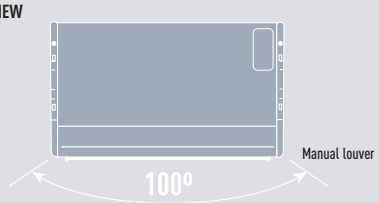
POSSIBLE CONNECTIONS



BROAD RANGE OF AIR OUTLETS

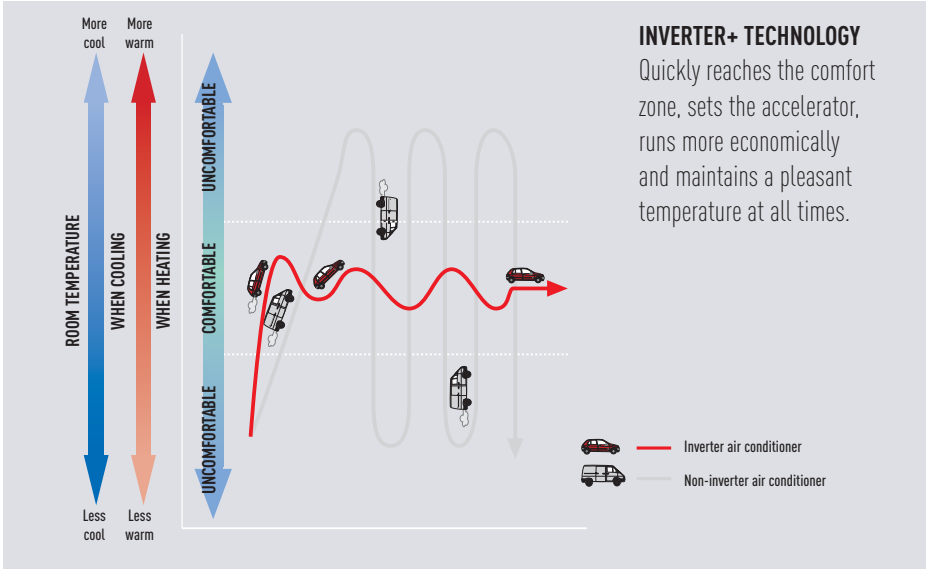
SIDE VIEW

TOP VIEW



INVERTER+ OUTDOOR UNITS

- GREATER ENERGY SAVINGS
- MORE INSTALLATION OPTIONS
- QUIETER

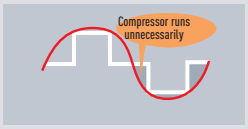


INVERTER+ TECHNOLOGY
Quickly reaches the comfort zone, sets the accelerator, runs more economically and maintains a pleasant temperature at all times.

HIGH EFFICIENCY COMPRESSOR

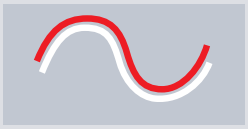
COMPRESSOR OPERATION INVERTER / HEAT PUMP

INVERTER / HEAT PUMP



The heat pump waveform deviates from the motor waveform, so power is wasted.

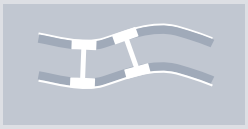
HYPER WAVE INVERTER



The compressor speed pattern perfectly fits the thermal needs at all times.

COMPARE THIS TO A CAR ROUNDING A CORNER

Power is lost when the car swings off course.



When the car stays on course, there is no power loss.

ENERGY-SAVING OPERATION

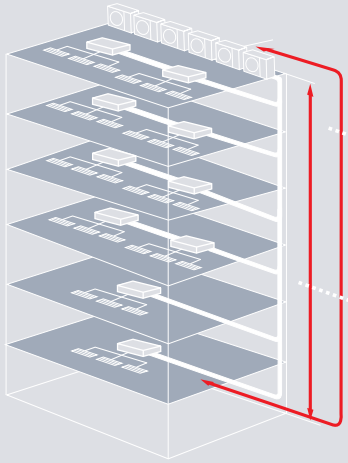
The new design provides quiet, highly efficient operation and reduces running costs.

HIGH EFFICIENCY COMPRESSOR

The new electric motor achieves lower distortion of the magnetic field to give greater efficiency.

INVERTER+ INSTALLATION FLEXIBILITY

INSTALLATION WITH SIGNIFICANT HEIGHT DIFFERENCES WITHOUT LOSS OF EFFICIENCY.



MAXIMUM PIPE LENGHT OF 30 M WITHOUT ADDITIONAL LOAD AND 50 M WITH ADDITIONAL LOAD.

MAXIMUM HEIGHT DIFFERENCE OF 50 M EQUIVALENT TO 17/18 FLOORS.

NEW MORE COMPACT OUTDOOR UNITS SAVE SPACE
Thanks to the new outdoor unit design, installation can be carried out in more limited spaces.

INSTALLATION SPACE
A BEFORE 50 CM, NOW ONLY 30 CM
B OUTDOOR ONLY 32 CM DEEP

OPERATING RANGE

The units can be used for cooling even when the outdoor temperature is extremely low. This is ideal for spaces which need cooling even in winter.

Normal cooling conditions	-15°C to 43°C (outside temperature)
Normal heating conditions	-20°C to 24°C (outside temperature)

YL INVERTER OUTDOOR UNITS

- MORE COMPACT OUTDOOR UNITS
- INCREASED PIPE LENGTH
- INSTALLATION USING EXISTING PIPES

NEW OUTDOOR UNITS INVERTER YH

The new commercial YH Inverter range: more compact, easier to install and with improved performance. All these outdoor units are perfectly compatible with indoor units of the low silhouette hide-away, high pressure hide-away, cassette and ceiling types.

2.5 H.P. CU-YL24HBE5	3.0 H.P. CU-YL28HBE5	4.0 H.P. CU-YL34HBE5	5.0 H.P. CU-YL43HBE5
		40 % SMALLER 	

FLEXIBLE RETROFITTING TO EXISTING INSTALLATIONS

COMPATIBILITY OF FS INVERTER AND INVERTER+ SYSTEMS WITH VARIOUS PIPE DIAMETERS

Panasonic provides this new tool for retrofitting its equipment to any existing air conditioning installation. By using this simple compatibility table you will be able to check how the equipment works with different pipe diameters. Pipes should be cleaned correctly in all cases, taking special care to fully remove the remains of R22 refrigerating gas from the cooling circuit in systems that use that refrigerant.

	Ø Liquid pipe	1/4" (0.8 mm)			3/8" (0.8 mm)			1/2" (0.8 mm)	
	Ø Gas pipe	3/8" (0.8 mm)	1/2" (0.8 mm)	5/8" (1.0 mm)	1/2" (0.8 mm)	5/8" (1.0 mm)	3/4" (1.0 mm)	5/8" (1.0 mm)	3/4" (1.0 mm)
2.5 H.P.	Max. pipe length	No	No	10 m	No	50 m 1) - 30 m 2)	No	25 m	No
	Max. height			10 m		30 m 1) - 25 m 2)		15 m	
	Additional load			-		50 g/m		80 g/m	
3.0 H.P.	Max. pipe length	No	No	10 m	No	50 m 1) - 30 m 2)	No	25 m	No
	Max. height			10 m		30 m 1) - 25 m 2)		15 m	
	Additional load			-		50 g/m		80 g/m	
4-6 H.P.	Max. pipe length	No	No	10 m	No	50 m 1) - 30 m 2)	25 m	25 m	25 m
	Max. height			10 m		30 m 1) - 25 m 2)	15 m	15 m	15 m
	Additional load			-		80 g/m	80 g/m	100 g/m	100 g/m

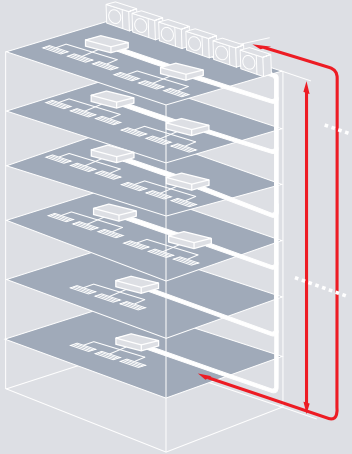
1) INVERTER+ range (CU-L)
2) Inverter range (CU-YL)

Correct Possible Not recommended Installation not possible

Minimum piping lengh= 7.5m for all systems.

EASY INSTALLATION YH INVERTER

Thanks to the improvements in the new FS series Inverter you save space and installation time.



MAXIMUM PIPE LENGHT OF 30 M WITHOUT ADDITIONAL LOAD AND 50 M WITH ADDITIONAL LOAD.

MAXIMUM HEIGHT DIFFERENCE OF 30 M EQUIVALENT TO 10/11 FLOORS.

NEW MORE COMPACT UNITS

The new outdoor units are up to 40% smaller (model CU-YL34HBE5) than the previous range.

OPERATING RANGE

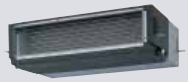
The units can be used for cooling even when the outdoor temperature is extremely low. This is ideal for spaces which need cooling even in winter.

Normal cooling conditions	-15ºC to 43ºC (outside temperature)
Normal heating conditions	-20ºC to 24ºC (outside temperature)

INSTALLATION SPACE

A BEFORE 50 CM, NOW ONLY 30 CM
B OUTDOOR ONLY 32 CM DEEP

RANGE OF INDOOR UNITS FS

		1.0 H.P.	1.5 H.P.	2.0 H.P.	2.25 H.P.
4-WAY 60X60 CASSETTE	INVERTER // PAGE 12	CS-E10KB4EA	CS-E15HB4EA	CS-E18HB4EA	CS-E21JB4EA
					
4-WAY 90X90 CASSETTE	INVERTER+ // PAGE 14				
	INVERTER // PAGE 16				
	HEAT PUMP // PAGE 18		CS-F14DB4E5	CS-F18DB4E5	
	COOLING ONLY // PAGE 20		CS-F14DB4E5	CS-F18DB4E5	
LOW STATIC PRESSURE HIDE-AWAY	INVERTER+ // PAGE 22				
	INVERTER // PAGE 24	CS-E10KD3EA	CS-E15JD3EA	CS-E18JD3EA	
	HEAT PUMP // PAGE 26		CS-F14DD3E5	CS-F18DD3E5	
	COOLING ONLY // PAGE 28		CS-F14DD3E5	CS-F18DD3E5	
HIGH STATIC PRESSURE HIDE-AWAY	INVERTER+ // PAGE 30				
	INVERTER // PAGE 32				
	HEAT PUMP // PAGE 34				
	COOLING ONLY // PAGE 36				
CEILING	INVERTER+ // PAGE 38				
	INVERTER // PAGE 40				
	HEAT PUMP // PAGE 42			CS-F18DTE5	
	COOLING ONLY // PAGE 44			CS-F18DTE5	
HIGH PRESSURE HIDE-AWAY	INVERTER // PAGE 46				
					

RANGE OF OUTDOOR UNITS

	1.0 H.P.	1.5 H.P.	2.0 H.P.	2.25 H.P.
INVERTER+				
INVERTER	 CU-E10HBEA [I]	 CU-E15HBEA [I]	 CU-E18HBEA [I]	 CU-E21HBEA [I]
HEAT PUMP		 CU-B14DBE5 [I]	 CU-B18DBE5 [I]	
COOLING ONLY		 CU-J14DBE5 [I]	 CU-J18DBE5 [I]	

[I] Single-phase [III] Three-phase

2.5 H.P.	3.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.	8.0 H.P.	10 H.P.
CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5		
CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5			
CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5		
CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5		
CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5		
CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5			
CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5		
CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5		
CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5		
CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5			
CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5		
CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5		
CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5		
CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5			
CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5		
CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5		
					S-200E1DPQ1	S-250E1DPQ1

2.5 H.P.	3.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.	8.0 H.P.	10 H.P.
						
CU-L24DBE5 [I]	CU-L28DBE5 [I]	CU-L34DBE5 [I] / L34DBE8 [III]	CU-L43DBE5 [I] / L43DBE 8 [III]	CU-L50DBE8 [III]		
						
CU-YL24HBE5 [I]	CU-YL28HBE5 [I]	CU-YL34HBE5 [I]	CU-YL43HBE5 [I]		U-200X2XPQ [III]	U-250X2XPQ [III]
						
CU-B24DBE5 [I]	CU-B28DBE5 [I] / B28DBE8 [III]	CU-B34DBE5 [I] / B34DBE8 [III]	CU-B43DBE8 [III]	CU-B50DBE8 [III]		
						
CU-J24DBE5 [I] / J24DBE8 [III]	CU-J28DBE5 [I] / J28DBE8 [III]	CU-J34DBE5 [I] / J34DBE8 [III]	CU-J43DBE8 [III]	CU-J50DBE8 [III]		

TECHNICAL ZOOM

- EASY INSTALLATION ON THE CAP CEILING 60X60
- OPERATION DOWN TO -10ºC IN COOLING AND HEATING MODES
- PIPING LENGTH UP TO 30M
- MAXIMUM ELEVATION DIFFERENCE UP TO 20M
- ULTRA COMPACT OUTDOOR UNITS FOR EASY INSTALLATION
- 24 HOUR ON/OFF TIMER

4-WAY 60X60 CASSETTE FS // INVERTER TYPE

Small and powerful, ideal for offices and restaurants

OPTIONAL

4-WAY 60X60 CASSETTE FS // INVERTER TYPE

			1 H.P.	1.5 H.P.	2 H.P.	2.25 H.P.
KIT			**KIT-E10-HB4EA**	**KIT-E15-HB4EA**	**KIT-E18-HB4EA**	**KIT-E21-JB4EA**
Indoor			**CS-E10KB4EA**	**CS-E15HB4EA**	**CS-E18HB4EA**	**CS-E21JB4EA**
Outdoor			**CU-E10HBEA**	**CU-E15HBEA**	**CU-E18HBEA**	**CU-E21HBEA**
Panel			**CZ-BT20E**	**CZ-BT20E**	**CZ-BT20E**	**CZ-BT20E**
Wireless control	**Included on the kit**		**Include on the indoor unit**	**Include on the indoor unit**	**Include on the indoor unit**	**Include on the indoor unit**
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.60 - 3.20)	4.10 (0.9 - 4.8)	4.8 (0.9 - 5.70)	5.9 (0.9 - 6.3)
	Nominal (Min - Max)	kCal/h	2,150 (516 - 2,752)	3,530 (770 - 4,130)	4,130 (770 - 4,900)	5,070 (770 - 5,420)
EER [1]	**Nominal (Min - Max)**		**4.03 (4.14 - 3.68) A**	**3.15 (3.48 - 3.27) B**	**3.14 (3.53 - 2.95) B**	**2.88 (3.52 - 2.86) C**
Power input Cooling	Nominal (Min - Max)	kW	0.620 (0.145 - 0.870)	1.300 (0.255 - 1.170)	1.539 (0.255 - 1.930)	2.050 (0.255 - 2.200)
Heating capacity	Nominal (Min - Max)	kW	3.20 (0.60 - 5.10)	5.10 (0.9 - 6.20)	5.60 (0.90 - 7.10)	7 (0.9 - 8.0)
	Nominal (Min - Max)	kCal/h	2,752 (516 - 4,300)	4,390 (770 - 5,330)	4,820 (770 - 6,110)	6,020 (770 - 6,880)
COP [1]	**Nominal (Min - Max)**		**3.90 (4.80 - 3.51) A**	**2.88 (3.46 - 2.84) D**	**2.95 (3.46 - 2.90) D**	**2.86 (3.46 - 2.84) D**
Power input Heating	Nominal (Min - Max)	kW	0.820 (0.125 - 1.450)	1.770 (0.260 - 2.180)	1.900 (0.260 - 2.450)	2.450 (0.260 - 2.820)
Annual Energy Consumption [2]		kWh	310	650	765	1,025
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	630 / 648	630 / 648	660 / 690	768 / 840
Moisture removal volume		l/h	1.5	2.3	2.6	3.3
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	34 / 26 / 23	34 / 26 / 23	36 / 28 / 25	41 / 33 / 30
	Heating (Hi / Lo / S-Lo)	dB(A)	35 / 28 / 25	35 / 28 / 25	37 / 29 / 26	42 / 34 / 31
Sound power Level	Cooling (Hi)	dB	47	47	49	54
	Heating (Hi)	dB	58	48	50	55
Dimensions	Indoor (H x W x D)	mm	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575
	Panel (H x W x D)	mm	51 x 700 x 700	51 x 700 x 700	51 x 700 x 700	51 x 700 x 700
Net weight	Indoor	Kg	18	18	18	18
	Panel	Kg	2.5	2.5	2.5	2.5
Dust filter			Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA13P	CZ-SA13P	CZ-SA13P	CZ-SA13P
Outdoor unit						
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240
Connection		mm^2	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5
Current Cooling	Nominal (Min / Max)	A	2.9	6.0	7.0	9.2
Current Heating	Nominal (Min / Max)	A	3.8	8.0	8.5	10.9
Air Volume	Cooling / Heating	m^3/h	1,728	2,808	2,400	2568
Sound pressure Level [3]	Cooling (Hi)	dB(A)	45	45	47	49
	Heating (Hi)	dB(A)	46	47	48	49
Sound power Level	Cooling (Hi)	dB	58	58	60	62
	Heating (Hi)	dB	59	60	61	62
Dimensions	H x W x D	mm	540 x 780+70 [4] x 289	750 x 875+70 [4] x 345	750 x 875+70 [4] x 345	750 x 875+70 [4] x 345
Net weight		Kg	35	48	48	48
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)
	Gas pipe	inch (mm)	3/8" (9.52)	1/2" (12.70)	1/2" (12.70)	1/2" (12.70)
Refrigerant Loading	R410A	Kg	1.15	1.23	1.06	1.15
Elevation difference (in/out) [5]	Max	m	15	15	20	20
Piping length	Min - Max	m	3 - 20	3 - 20	3 - 30	3 - 30
Piping length without refrigerent increase	Max	m	10	10	10	10
Additional gas		g/m	20	20	20	20
Operating range [3]	Cooling (Min / Max)	°C	- 10 / 43	- 10 / 43	- 10 / 43	- 10 / 43
	Heating (Min / Max)	°C	- 10 / 24	- 10 / 24	- 10 / 24	- 10 / 24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) 70mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

INCLUDED WITH THE
INDOOR UNIT

CU-E10HBEA
CU-E15HBEA
CU-E18HBEA
CU-E21HBEA

KIT-E10-HB4EA // KIT-E15-HB4EA // KIT-E18-HB4EA // KIT-E21-JB4EA

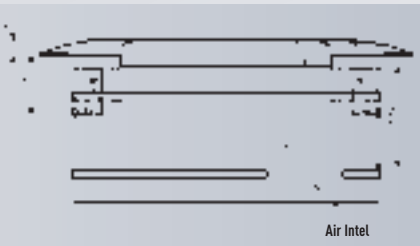
HEALTHY AIR
- CZ-SA13P Alleru-buster antiallergic filter (optional)
- Odour-removing function

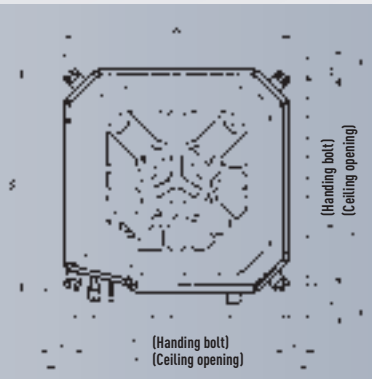
ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system

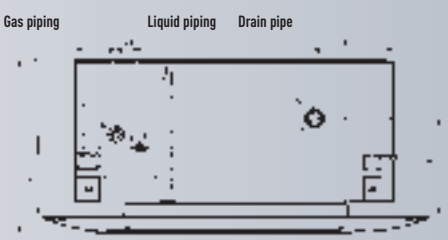
COMFORT
- Super Quiet mode
- Powerful mode
- Automatic vertical airflow control ambient temperature
- Hot start mode
- 24 hour On/Off timer
- Automatic restart after power cut

EASE OF USE
- Ergonomic infrared remote control

EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel of the indoor unit
- Top panel maintenance access for the outdoor unit







TECHNICAL ZOOM

- HIGHER ENERGY CLASS FOR HIGH SAVINGS, EVEN AT -20°C
- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 3 OPENING ANGLES FOR THE PRE-PROGRAMMED GRILLES
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

4-WAY 90X90 CASSETTE // INVERTER+ FS TYPE

A complete line up of compact, efficient , quieter and powerful cassette 90x90, for the most demanding customers, from 2.5 H.P. to 6.0 H.P. Single-phase and three-phase

OPTIONAL

4-WAY 90X90 CASSETTE // INVERTER+ FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F24DB4E5	KIT-F28DB4E5	KIT-F34DB4E5	KIT-F34DB4E8	KIT-F43DB4E5	KIT-F43DB4E8	KIT-F50DB4E8
Indoor			CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F43DB4E5	CS-F50DB4E5
Outdoor			CU-L24DBE5	CU-L28DBE5	CU-L34DBE5	CU-L34DBE8	CU-L43DBE5	CU-L43DBE8	CU-L50DBE8
Panel			CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P
Wireless control	**Included on the kit**		CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B
Wired remote control	**Optional**		CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	6.30 (2.10-7.10)	7.10 (2.20-8.00)	10.00 (4.00-12.00)	10.00 (4.00-12.00)	12.50 (4.00-14.00)	12.50 (4.00-14.00)	14.00 (4.00-16.00)
	Nominal (Min-Max)	kCal/h	5,418 (1,806-6,106)	6,106 (1,892-6,880)	8,600 (3,440-10,320)	8,600 (3,440-10,320)	10,750 (3,440-12,040)	10,750 (3,440-12,040)	12,040 (3,440-13,760)
EER [1]	**Nominal (Min-Max)**		**3.71 (4.20-3.23) A**	**3.55 (3.67-3.34) A**	**3.86 (3.48-3.75) A**	**3.86 (3.48-3.75) A**	**3.43 (3.34-3.69) A**	**3.43 (3.34-3.69) A**	**3.01 (3.34-3.23) B**
Power input Cooling	Nominal (Min-Max)	kW	1.70 (0.50-2.20)	2.00 (0.60-2.40)	2.59 (1.15-3.20)	2.59 (1.15-3.20)	3.64 (1.20-3.80)	3.64 (1.20-3.80)	4.65 (1.20-4.95)
Heating capacity	Nominal (Min-Max)	kW	7.10 (2.20-8.00)	8.00 (2.30-8.50)	11.20 (4.00-14.00)	11.20 (4.00-14.00)	14.00 (4.00-16.00)	14.00 (4.00-16.00)	16.00 (4.00-18.00)
	Nominal (Min-Max)	kCal/h	6,106 (1,892-6,880)	6,880 (1,978-7,310)	9.632 (3,440-12,040)	9.632 (3,440-12,040)	12,040 (3,440-13,760)	12,040 (3,440-13,760)	13,760 (3,440-15,480)
COP [1]	**Nominal (Min-Max)**		**3.86 (4.40-2.58) A**	**3.79 (3.83-2.65) A**	**3.86 (3.64-3.41) A**	**3.86 (3.64-3.41) A**	**3.61 (3.48-3.27) A**	**3.61 (3.48-3.27) A**	**3.41 (3.48-3.05) B**
Power input Heating	Nominal (Min-Max)	kW	1.84 (0.50-3.10)	2.11 (0.60-3.20)	2.90 (1.10-4.10)	2.90 (1.10-4.10)	3.88 (1.15-4.90)	3.88 (1.15-4.90)	4.69 (1.15-5.90)
Annual Energy Consumption [2]		kWh	850	1000	1295	1295	1820	1820	2325
Indoor unit									
Air Volume	Cooling / Heating	m³/h	1,080 / 1,080	1,200 / 1,200	1,620 / 1,620	1,620 / 1,620	1,860 / 1,860	1,860 / 1,860	1,920 / 1,920
Moisture removal volume		l/h	3.6	4.2	6.0	6.0	7.9	7.9	9.0
Sound pressure Level [3]	Cooling (Hi / Lo)	dB(A)	36 / 32	38 / 33	42 / 37	42 / 37	46 / 41	46 / 41	47 / 42
	Heating (Hi / Lo)	dB(A)	36 / 32	38 / 33	42 / 37	42 / 37	46 / 41	46 / 41	47 / 42
Sound power Level	Cooling (Hi)	dB	51	53	57	57	61	61	62
	Heating (Hi)	dB	51	53	57	57	61	61	62
Dimensions	Indoor (H x W x D)	mm	246 x 840 x 840	246 x 840 x 840	288 x 840 x 840	288 x 840 x 840	288 x 840 x 840	288 x 840 x 840	288 x 840 x 840
	Panel (H x W x D)	mm	45 x 950 x 950	45 x 950 x 950	45 x 950 x 950	45 x 950 x 950	45 x 950 x 950	45 x 950 x 950	45 x 950 x 950
Net weight	Indoor	Kg	26	26	28.5	28.5	28.5	28.5	28.5
	Panel	Kg	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P
Outdoor unit									
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415
Connection		mm²	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	7.7	9.2	11.7	4.1	16.5	5.8	7.1
Current Heating	Nominal (Min / Max)	A	8.4	9.6	13.2	4.6	17.6	6.1	7.2
Air Volume	Cooling / Heating	m³/h	2,880 / 2,880	2,880 / 2,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48	52	52	53	53	54
	Heating (Hi)	dB(A)	49	50	54	54	55	55	56
Sound power Level	Cooling (Hi)	dB	63	64	66	66	67	67	68
	Heating (Hi)	dB	65	66	68	68	69	69	70
Dimensions	H x W x D	mm	795 x 900 x 320	795 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320
Net weight		Kg	71	71	110	110	105	105	105
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	2.13	2.35	3.3	3.3	3.3	3.3	3.5
Elevation difference (in/out) [4]	Max	m	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
	Heating Min / Max	°C	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP classification is at 220 - 240V in accordance with EU directive 2002/31/EC
2) The annual consumption is calculated by multiplying the input power at 220 - 240V by an avarage of 500-hr per year in cooling mode
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification
4) When installing the outdoor unit at a higher position than the indoor unit

CZ-RL513B

CZ-RD513C

CU-L24DBE5
CU-L28DBE5

CU-L34DBE5 CU-L43DBE8
CU-L34DBE8 CU-L50DBE8
CU-L43DBE5

KIT-F24DB4E5 // KIT-F28DB4E5 // KIT-F34DB4E5 // KIT-F34DB4E8 // KIT-F43DB4E5 // KIT-F43DB4E8 // KIT-F50DB4E8

HEALTHY AIR
- CZ-SA11P Alleru-buster antiallergic filter (optional)

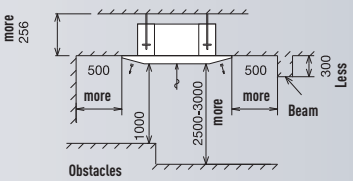
ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT
- Cooling with low outdoor temperatures (down to -20 ºC)
- 3 types of air emission (3 opening angles for the pre-programmed grilles)
- Automatic deflectors
- Automatic start after a power cut
- Automatic fan operation mode

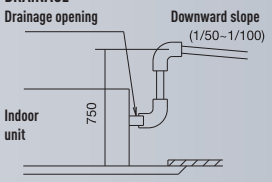
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Installation using existing pipes
- Drain pump (up to 750 mm)
- Self-diagnostic function
- Condensation control
- Removable, washable indoor unit panel

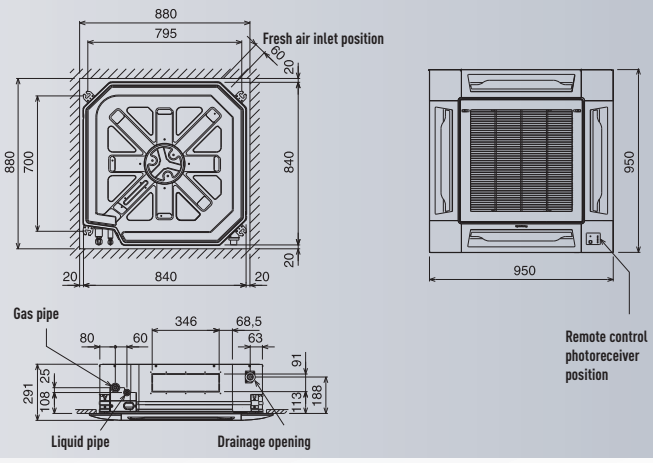
SPACE NEEDED FOR INSTALLATION



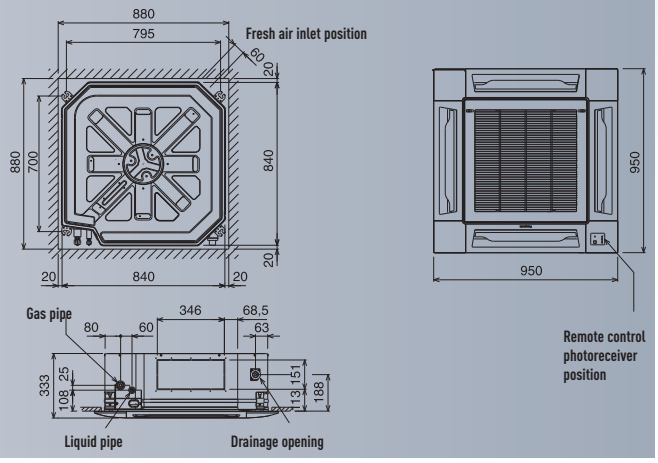
DRAINAGE



INDOOR UNIT DIMENSIONS // CS-F24DB4E5 // CS-F28DB4E5



INDOOR UNIT DIMENSIONS // CS-F34DB4E5 // CS-F43DB4E5 // CS-F50DB4E5



TECHNICAL ZOOM

- ULTRA COMPACT OUTDOOR UNITS (-40% REDUCED SIZE FOR THE CU-YL34HBE5)
- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 3 OPENING ANGLES FOR THE PRE-PROGRAMMED GRILLES
- 25 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

4-WAY 90X90 CASSETTE // INVERTER FS TYPE

Compact line up of inverter cassette, from 2.5 H.P. to 5.0 H.P. Single-phase

OPTIONAL

4-WAY 90X90 CASSETTE // INVERTER FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	5.0 H.P.
KIT			KIT-YH24DB4E5	KIT-YH28DB4E5	KIT-YH34DB4E5	KIT-YH43DB4E5
Indoor			CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5
Outdoor			CU-YL24HBE5	CU-YL28HBE5	CU-YL34HBE5	CU-YL43HBE5
Panel			CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P
Wireless control	**Included on the kit**		CZ-RL513C	CZ-RL513C	CZ-RL513C	CZ-RL513C
Wired remote control	**Optional**		CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B
Cooling capacity	Nominal (Min - Max)	kW	5.60 (2 - 6.30)	7.10 (2.10 - 7.70)	10.00 (3.8 - 11.00)	12.50 (3.80 - 13.00)
	Nominal (Min - Max)	kCal/h	4,816 (1,720 - 5,418)	6,106 (1,806 - 6,622)	8,600 (3,268 - 9,460)	10,750 (3,268 - 11,180)
EER [1]	**Nominal (Min - Max)**		**3.01 (3.64 - 2.86) B**	**3.01 (3.23 - 2.96) B**	**3.01 (3.04 - 2.78) B**	**3.01 (3.04 - 2.92) B**
Power input Cooling	Nominal (Min - Max)	kW	1.86 (0.55 - 2.20)	2.36 (0.65 - 2.60)	3.32 (1.25 - 3.95)	4.15 (1.25 - 4.45)
Heating capacity	Nominal (Min - Max)	kW	7.00 (2.10 - 7.60)	8.00 (2.20 - 8.30)	11.20 (3.80 - 13.00)	14.00 (3.80 - 15.00)
	Nominal (Min - Max)	kCal/h	6,020 (1,806 - 6,536)	6,880 (1,892 - 7,138)	9,632 (3,268 - 11,180)	12,040 (3,268 - 12,900)
COP [1]	**Nominal (Min - Max)**		**3.41 (4.20 - 2.71) B**	**3.42 (3.67 - 2.59) B**	**3.41 (3.45 - 3.17) B**	**3.41 (3.45 - 3.06) B**
Power input Heating	Nominal (Min - Max)	kW	2.05 (0.50 - 2.80)	2.34 (0.60 - 3.20)	3.28 (1.10 - 4.10)	4.15 (1.10 - 4.90)
Annual Energy Consumption [2]		kWh	930	1180	1660	2075
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	1,080 / 1,080	1,200 / 1,200	1,620 / 1,620	1,860 / 1,860
Moisture removal volume		l/h	3.6	4.2	6.0	7.9
Sound pressure Level [3]	Cooling (Hi / Lo)	dB(A)	36 / 32	38 / 33	42 / 37	46 / 41
	Heating (Hi / Lo)	dB(A)	36 / 32	38 / 33	42 / 37	46 / 41
Sound power Level	Cooling (Hi)	dB	51	53	57	61
	Heating (Hi)	dB	51	53	57	61
Dimensions	Indoor (H x W x D)	mm	246 x 840 x 840	246 x 840 x 840	288 x 840 x 840	288 x 840 x 840
	Panel (H x W x D)	mm	950 x 950 x 45	950 x 950 x 45	950 x 950 x 45	950 x 950 x 45
Net weight	Indoor	Kg	26	26	28.5	28.5
	Panel	Kg	4.5	4.5	4.5	4.5
Dust filter			Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P
Outdoor unit						
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240
Connection		mm^2	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5
Current Cooling	Nominal (Min / Max)	A	8.30	10.60	15.20	19.00
Current Heating	Nominal (Min / Max)	A	9.20	10.50	15.00	18.80
Air Volume	Cooling / Heating	m^3/h	3,180	3,480	3720	5,640
Sound pressure Level [3]	Cooling (Hi)	dB(A)	49	50	54	55
	Heating (Hi)	dB(A)	51	52	56	56
Sound power Level	Cooling (Hi)	dB	67	68	71	72
	Heating (Hi)	dB	68	69	73	73
Dimensions	H x W x D	mm	795 x 875+70 [4] x 320	795x 875+70 [4] x 320	795 x 900 x 320	1,170 x 900 x 320
Net weight		Kg	1/4" (6.35)	65	66	94
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1,63	2.05	2.8	2.8
Elevation difference (in/out) [5]	Max	m	25	25	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50
Piping lenght without refrigerent increase	Max	m	30	30	30	30
Additional gas		g/m	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 44	-5 / 45	-5 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 25	-15 / 26	-15 / 27

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513B

CZ-RD513C

CU-YL24HBE5
CU-YL28HBE5

CU-YL34HBE5

CU-YL43HBE5

KIT-YH24DB4E5 // KIT-YH28DB4E5 // KIT-YH34DB4E5 // KIT-YH43DB4E5

HEALTHY AIR
- CZ-SA11P Alleru-buster antiallergic filter (optional)

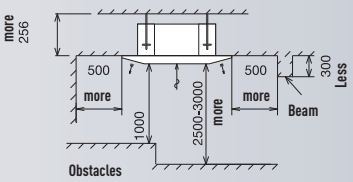
ENERGY EFFICIENCY AND ECOLOGY
- Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT
- Cooling with low outdoor temperatures (down to -15 ºC)
- 3 types of air emission (3 opening angles for the pre-programmed grilles)
- Automatic deflectors
- Automatic start after a power cut
- Automatic fan operation mode

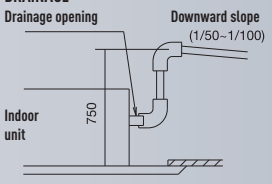
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Installation using existing pipes (only for YL*HBE5 units)
- Drain pump (up to 750 mm)
- Self-diagnostic function
- Condensation control
- Removable, washable indoor unit panel

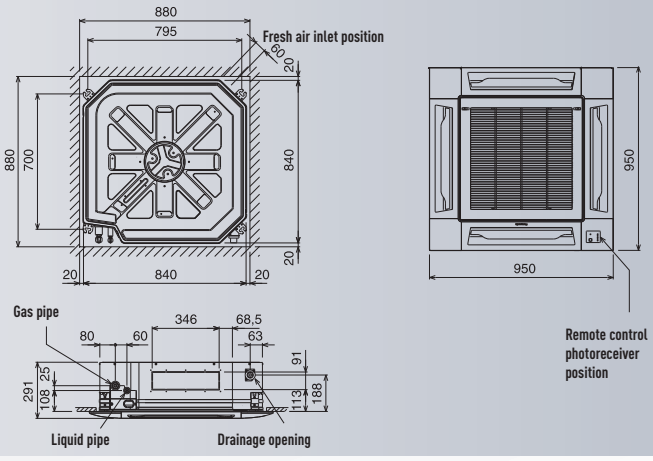
SPACE NEEDED FOR INSTALLATION



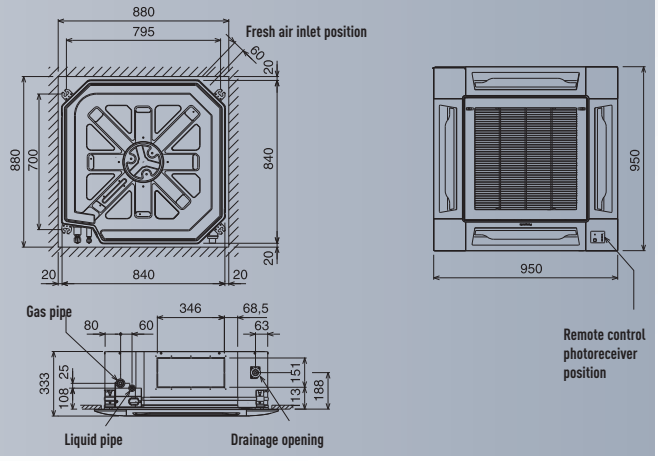
DRAINAGE



INDOOR UNIT DIMENSIONS // CS-F24DB4E5 // CS-F28DB4E5



INDOOR UNIT DIMENSIONS // CS-F34DB4E5 // CS-F43DB4E5



TECHNICAL ZOOM

- ECO MODE FOR 20% ENERGY SAVING
- 3 OPENING ANGLES FOR THE PRE-PROGRAMMED GRILLES
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

4-WAY 90X90 CASSETTE // HEAT PUMP FS TYPE

Full line up of heat pump no-inverter cassette, from 1.5 H.P. to 6.0 H.P. Single-phase and three-phase

OPTIONAL

4-WAY 90X90 CASSETTE // HEAT PUMP FS TYPE

			1.5 H.P.	2.0 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F14DB4E5-C	KIT-F18DB4E5-C	KIT-F24DB4E5-C	KIT-F28DB4E5-C	KIT-F28DB4E8-C	KIT-F34DB4E5-C	KIT-F34DB4E8-C	KIT-F43DB4E8-C	KIT-F50DB4E8-C
Indoor			CS-F14DB4E5	CS-F18DB4E5	CS-F24DB4E5	CS-F28DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5
Outdoor			CU-B14DBE5	CU-B18DBE5	CU-B24DBE5	CU-B28DBE5	CU-B28DBE8	CU-B34DBE5	CU-B34DBE8	CU-B43DBE8	CU-B50DBE8
Panel			CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P
Wireless control	**Included on the kit**		CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B
Wired remote control	**Optional**		CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	3.80	5.00	6.60	7.3	7.3	10	10	12.5	13.5
	Nominal (Min-Max)	kCal/h	3268	4300	5676	6278	6278	8600	8600	10750	11610
EER [1]	**Nominal (Min-Max)**		**3.09 B**	**2.91 C**	**2.63 D**	**2.61 D**	**2.61 D**	**2.62 D**	**2.72 D**	**2.69 D**	**2.67 D**
Power input Cooling	Nominal (Min-Max)	kW	1.23 (1.2-1.6)	1.72 (1.69-1.75)	2.51(2.46-2.57)	2.80 (2.74-2.85)	2.80 (2.74-2.85)	3.81 (3.76-3.86)	3.68 (3.63-3.73)	4.65 (4.6-4.7)	5.06 (5.01-5.15)
Heating capacity	Nominal (Min-Max)	kW	4.30	5.60	7.1	8.0	8.0	11.2	11.2	14.0	15.0
	Nominal (Min-Max)	kCal/h	3698	4816	6106	6880	6880	9632	9632	12040	12900
COP [1]	**Nominal (Min-Max)**		**3.52 B**	**3.46 B**	**3.01 D**	**3.08 D**	**3.08 D**	**2.90 D**	**2.96 D**	**3.05 D**	**3.04 D**
Power input Heating	Nominal (Min-Max)	kW	1.22 (1.19-1.25)	1.62 (1.59-1.65)	2.36 (2.31-2.41)	2.60 (2.55-2.65)	2.60 (2.55-2.65)	3.86 (3.81-3.91)	3.78 (3.73-3.83)	4.59 (4.54-4.64)	4.93 (4.88-4.98)
Annual Energy Consumption [2]		kWh	615	860	1255	1400	1400	1905	1840	2325	2530
Indoor unit											
Air Volume	Cooling / Heating	m³/h	900 / 900	960 / 960	1,080 / 1,080	1,200 / 1,200	1,200 / 1,200	1,620 / 1,620	1,620 / 1,620	1,860 / 1,860	1,920 / 1,920
Moisture removal volume		l/h	2.2	2.8	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [3]	Cooling (Hi / Lo)	dB(A)	34 / 31	35 / 32	36 / 32	38 / 33	38 / 33	42 / 37	42 / 37	46 / 41	47 / 42
	Heating (Hi / Lo)	dB(A)	34 / 31	34 / 31	36 / 32	38 / 33	38 / 33	42 / 37	42 / 37	46 / 41	47 / 42
Sound power Level	Cooling (Hi)	dB	49	50	51	53	53	57	57	61	62
	Heating (Hi)	dB	49	49	51	53	53	57	57	61	62
Dimensions	Indoor (H x W x D)	mm	246x840x840	246x840x840	246x840x840	246x840x840	246x840x840	288x840x840	288x840x840	288x840x840	288x840x840
	Panel (H x W x D)	mm	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950
Net weight	Indoor	Kg	25	26	26	26	26	28.5	28.5	28.5	28.5
	Panel	Kg	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P
Outdoor unit											
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm²	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	5.5	7.7	12.4	12.8	4.85	18.1	6.1	7.9	8.5
Current Heating	Nominal (Min / Max)	A	5.45	7.2	11.2	11.8	4.3	17.7	6.0	7.7	8.0
Air Volume	Cooling / Heating	m³/h	3,240	3,420	3,600	3,780	3,780	5,640	5,640	5,640	5,760
Sound pressure Level [3]	Cooling (Hi)	dB(A)	49	49	50	52	52	55	55	56	56
	Heating (Hi)	dB(A)	50	50	51	53	53	56	56	57	57
Sound power Level	Cooling (Hi)	dB	65	65	66	67	67	69	69	70	70
	Heating (Hi)	dB	66	66	67	68	68	70	70	71	71
Dimensions	H x W x D	mm	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	1,170x900x320	1,170x900x320	1,170x900x320	1,170x900x320
Net weight		Kg	55	57	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.10	1.35	1.70	2.05	2.05	2.70	2.70	3.10	3.40
Elevation difference (in/out) [4]	Max	m	20	20	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	20	20	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43
	Heating Min / Max	°C	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP classification is at 220 - 240V in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V by an avarage of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513B

CZ-RD513C

CU-B14DBE5 CU-B28DBE5
CU-B18DBE5 CU-B28DBE8
CU-B24DBE5

CU-B34DBE5 CU-B43DBE8
CU-B34DBE8 CU-B50DBE8

KIT-F14DB4E5-C // KIT-F18DB4E5-C // KIT-F24DB4E5-C // KIT-F28DB4E5-C // KIT-F28DB4E8-C // KIT-F34DB4E5-C // KIT-F34DB4E8-C // KIT-F43DB4E8-C // KIT-F50DB4E8-C

HEALTHY AIR
- CZ-SA11P Alleru-buster antiallergic filter (optional)

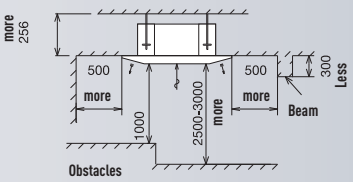
ENERGY EFFICIENCY AND ECOLOGY
- R410A environmentally friendly refrigerant gas

COMFORT
- 3 types of air emission (3 opening angles for the pre-programmed grilles)
- Automatic deflectors
- Automatic start after a power cut
- Automatic fan operation mode

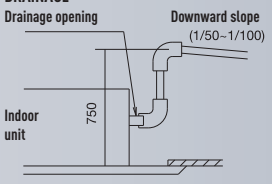
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Self-diagnostic function
- Drain pump (up to 750 mm)
- Condensation control
- Removable, washable indoor unit panel

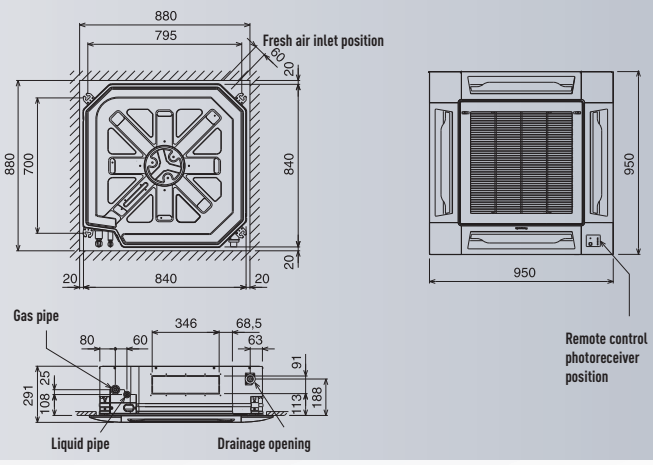
SPACE NEEDED FOR INSTALLATION



DRAINAGE



INDOOR UNIT DIMENSIONS // CS-F14DB4E5 // CS-F18DB4E5 // CS-F24DB4E5 // CS-F28DB4E5



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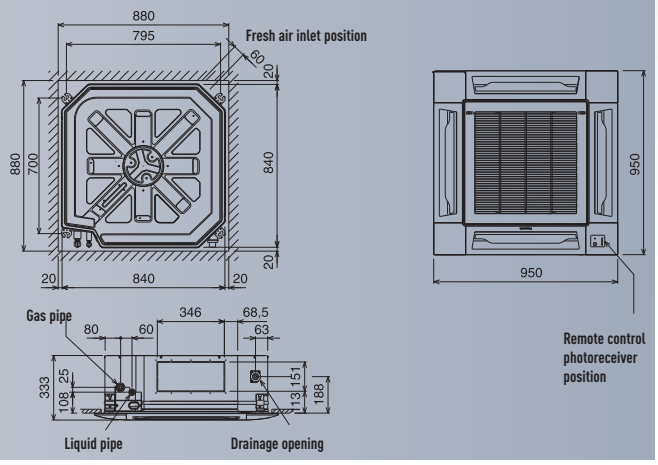


TECHNICAL ZOOM

- ECO MODE FOR 20% ENERGY SAVING
- 3 OPENING ANGLES FOR THE PRE-PROGRAMMED GRILLES
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

4-WAY 90X90 CASSETTE // COOLING ONLY FS TYPE

Full line up of cooling only no-inverter cassette, from 1.5 H.P. to 6.0 H.P. Single-phase and three-phase

OPTIONAL

4-WAY 90X90 CASSETTE // COOLING ONLY FS TYPE

			1.5 H.P.	2.0 H.P.	2.5 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F14DB4E5-F	KIT-F18DB4E5-F	KIT-F24DB4E5-F	KIT-F24DB4E8-F	KIT-F28DB4E5-F	KIT-F28DB4E8-F	KIT-F34DB4E5-F	KIT-F34DB4E8-F	KIT-F43DB4E8-F	KIT-F50DB4E8-F
Indoor			CS-F14DB4E5	CS-F18DB4E5	CS-F24DB4E5	CS-F24DB4E5	CS-F28DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5
Outdoor			CU-J14DBE5	CU-J18DBE5	CU-J24DBE5	CU-J24DBE8	CU-J28DBE5	CU-J28DBE8	CU-J34DBE5	CU-J34DBE8	CU-J43DBE8	CU-J50DBE8
Panel			CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P
Wireless control	**Included on the kit**		CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B	CZ-RL513B
Wired remote control	**Optional**		CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	3.80	5.00	6.60	6.60	7.3	7.3	10	10	12.5	13.5
	Nominal (Min-Max)	kCal/h	3,268	4,300	5,676	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min-Max)**		3.02 B	2.91 C	2.58 E	2.56 E	2.61 D	2.61 D	2.54 E	2.63 D	2.61 D	2.61 D
Power input Cooling	Nominal (Min-Max)	kW	1.26 (1.2-1.29)	1.72 (1.69-1.75)	2.58(2.53-2.63)	2.58(2.53-2.63)	2.80 (2.74-2.85)	2.80 (2.74-2.85)	3.93 (3.88-3.98)	3.80 (3.63-3.85)	4.79 (4.74-4.84)	5.18 (5.13-5.23)
Annual Energy Consumption [2]		kWh	630	860	1,290	1,290	1,400	1,400	1,965	1,900	2,395	2,590
Indoor unit												
Air Volume		m^3/h	900	960	1,080	1,080	1,200	1,200	1,620	1,620	1,860	1,920
Moisture removal volume		l/h	2.2	2.8	3.8	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [3]	Hi / Lo	dB(A)	34 / 31	35 / 32	36 / 32	36 / 32	38 / 33	38 / 33	42 / 37	42 / 37	46 / 41	47 / 42
Sound power Level	Hi	dB	49	50	51	51	53	53	57	57	61	62
Dimensions	Indoor (H x W x D)	mm	246x840x840	246x840x840	246x840x840	246x840x840	246x840x840	246x840x840	288x840x840	288x840x840	288x840x840	288x840x840
	Panel (H x W x D)	mm	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950	45x950x950
Net weight	Indoor	Kg	25	26	26	26	26	26	28.5	28.5	28.5	28.5
	Panel	Kg	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P	CZ-SA11P
Outdoor unit												
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	5.7	7.7	13.2	4.55	12.9	4.9	18.1	6.2	8	8.5
Air Volume		m^3/h	3,240	3,420	3,600	3,600	3,780	3,780	5,640	5,640	5,640	5,760
Sound pressure Level [3]	Hi	dB(A)	49	49	50	50	52	52	55	55	56	56
Sound power Level	Hi	dB	65	65	66	66	67	67	69	69	70	70
Dimensions	H x W x D	mm	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	1,170x900x320	1,170x900x320	1,170x900x320	1,170x900x320
Net weight		Kg	55	57	69	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.1	1.35	1.7	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [4]	Max	m	20	20	30	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	20	20	30	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43

GLOBAL REMARKS

Rating conditions	Cooling
Inside air temperature	27°C DB / 19°C WB
Outside air temperature	35°C DB / 24°C WB

DB : Dry buld; WB : Wet buld

1) EER, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513B

CZ-RD513C

CU-J14DBE5 CU-J24DBE8
CU-J18DBE5 CU-J28DBE5
CU-J24DBE5 CU-J28DBE8

CU-J34DBE5 CU-J43DBE8
CU-J34DBE8 CU-J50DBE8

KIT-F14DB4E5-F // KIT-F18DB4E5-F // KIT-F24DB4E5-F // KIT-F24DB4E8-F // KIT-F28DB4E5-F // KIT-F28DB4E8-F // KIT-F34DB4E5-F // KIT-F34DB4E8-F // KIT-F43DB4E8-F // KIT-F50DB4E8-F

HEALTHY AIR
- CZ-SA11P Alleru-buster antiallergic filter (optional)

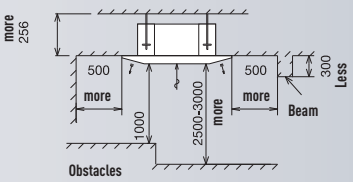
ENERGY EFFICIENCY AND ECOLOGY
- R410A environmentally friendly refrigerant gas

COMFORT
- 3 types of air emission (3 opening angles for the pre-programmed grilles)
- Automatic deflectors
- Automatic start after a power cut
- Automatic fan operation mode

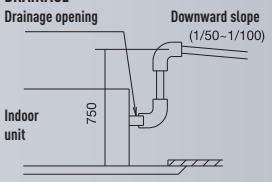
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Self-diagnostic function
- Drain pump (up to 750 mm)
- Condensation control
- Removable, washable indoor unit panel

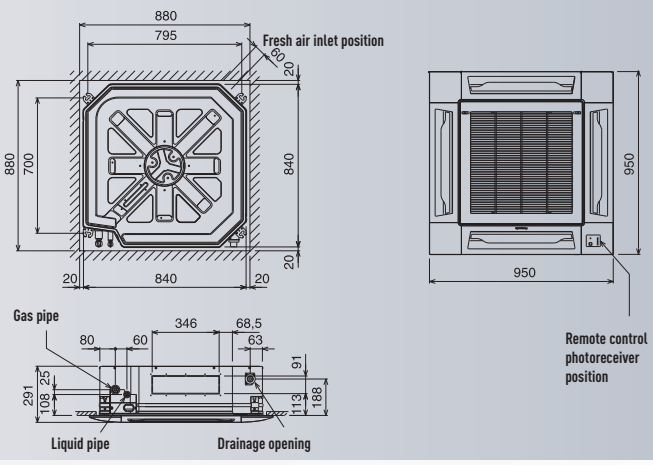
SPACE NEEDED FOR INSTALLATION



DRAINAGE



INDOOR UNIT DIMENSIONS // CS-F14DB4E5 // CS-F18DB4E5 // CS-F24DB4E5 // CS-F28DB4E5



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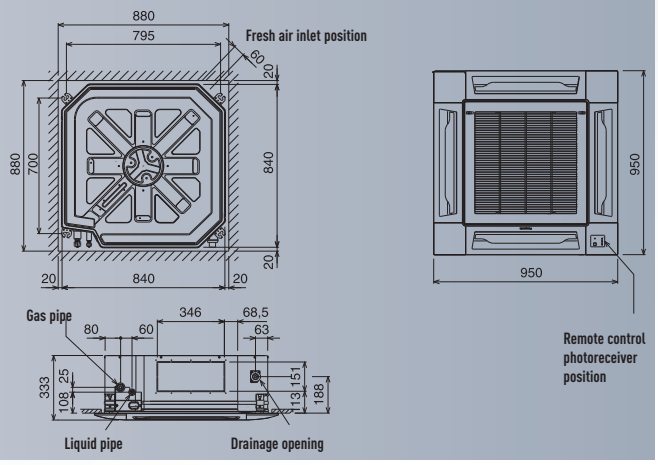


TECHNICAL ZOOM

- HIGHER ENERGY CLASS FOR HIGH SAVINGS, EVEN AT -20°C
- ECO MODE FOR 20% ENERGY SAVING
- EXTREMELY COMPACT INDOOR UNITS WITHOUT LOSING STATIC PRESSURE (ONLY 250MM HIGH)
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

LOW STATIC PRESSURE HIDE AWAY // INVERTER+ FS TYPE

A complete line up of compact, efficient, quieter and powerful hide away, for the most demanding customers, from 2.5 H.P. to 6.0 H.P. Single-phase and three-phase

LOW STATIC PRESSURE HIDE AWAY // INVERTER+ FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F24DD3E5	KIT-F28DD3E5	KIT-F34DD3E5	KIT-F34DD3E8	KIT-F43DD3E5	KIT-F43DD3E8	KIT-F50DD3E8
Indoor			CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F43DD3E5	CS-F50DD3E5
Outdoor			CU-L24DBE5	CU-L28DBE5	CU-L34DBE5	CU-L34DBE8	CU-L43DBE5	CU-L43DBE8	CU-L50DBE8
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	6.30 (2.00-6.50)	7.10 (2.10-7.50)	10.00 (4.00-12.00)	10.00 (4.00-12.00)	12.50 (4.00-13.50)	12.50 (4.00-13.50)	14.00 (4.00-16.00)
	Nominal (Min-Max)	kCal/h	5,418 (1,720-5,590)	6,106 (1,806-6,450)	8,600 (3,440-10,320)	8,600 (3,440-10,320)	10,750 (3,440-11,610)	10,750 (3,440-11,610)	12,040 (3,440-13,760)
EER [1]	**Nominal (Min-Max)**		3.21 (3.33-2.71) A	3.21 (3.23-3.06) A	3.61 (3.08-3.48) A	3.61 (3.08-3.48) A	3.01 (2.86-3.07) B	3.01 (2.86-3.07) B	2.81 (2.76-3.08) B
Power input Cooling	Nominal (Min-Max)	kW	1.96 (0.6-2.4)	2.21 (0.65-2.45)	2.77 (1.3-3.45)	2.77 (1.3-3.45)	4.15 (1.4-4.4)	4.15 (1.4-4.4)	4.98 (1.45-5.2)
Heating capacity	Nominal (Min-Max)	kW	7.10 (2.10-7.50)	8.00 (2.20-8.50)	11.20 (4.00-13.50)	11.20 (4.00-13.50)	14.00 (4.00-15.50)	14.00 (4.00-15.50)	16.00 (4.00-18.00)
	Nominal (Min-Max)	kCal/h	6,106 (1,806-6,450)	6,880 (1,892-7,310)	9,632 (3,440-11,610)	9,632 (3,440-11,610)	12,040 (3,440-13,330)	12,040 (3,440-13,330)	13,760 (3,440-15,480)
COP [1]	**Nominal (Min-Max)**		3.41 (3.50-2.38) B	3.42 (3.38-2.62) B	3.41 (3.08-3.18) B	3.41 (3.08-3.18) B	3.41 (2.86-3.04) B	3.41 (2.86-3.04) B	3.21 (2.86-2.95) C
Power input Heating	Nominal (Min-Max)	kW	2.08 (0.6-3.15)	2.34 (0.65-3.25)	3.28 (1.3-4.25)	3.28 (1.3-4.25)	4.11 (1.4-5.1)	4.11 (1.4-5.1)	4.98 (1.4-6.1)
Annual Energy Consumption [2]		kWh	980	1,105	1,385	1,385	2,075	2,075	2,490
Indoor unit									
External static pressure [3]	High (Shigh)	mmAq	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])
	Medium	mmAq	2.6	2.6	2.8	2.8	2.8	2.8	3
	Low	mmAq	1.8	1.8	2	2	2	2	2.5
Air Volume	High (Shigh)	m^3/h	1,320 [7] (1,200 [8])	1,320 [7] (1,200 [8])	2,160 [7] (2,010 [8])	2,160 [7] (2,010 [8])	2,400 [7] (2,190 [8])	2,400 [7] (2,190 [8])	2,640 [7] (2,430 [8])
	Medium	m^3/h	984	984	1,620	1,620	1,770	1,770	1,920
	Low	m^3/h	810	810	1,320	1,320	1,420	1,420	1,560
Moisture removal volume		l/h	2.3	2.8	3.8	4.3	6.0	7.9	9.0
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	43 / 39	43 / 39	47 / 43	45 / 41	45 / 41	45 / 41	46 / 42
	Heating (Hi / Lo)	dB(A)	43 / 39	43 / 39	45 / 41	44 / 40	44 / 40	44 / 40	45 / 41
Sound power Level	Cooling (Hi)	dB	59	59	60	60	60	60	61
	Heating (Hi)	dB	59	59	59	59	59	59	60
Dimension	Indoor (H x W x D)	mm	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650
Net weight	Indoor	Kg	41	41	47	47	47	47	47
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Outdoor unit									
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	9.0	10.1	12.6	4.4	18.8	6.5	7.6
Current Heating	Nominal (Min / Max)	A	9.5	10.6	14.9	5.2	18.7	6.5	7.6
Air Volume	Cooling / Heating	m^3/h	2,880 / 2,880	2,880 / 2,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880
Sound pressure Level [4]	Cooling (Hi)	dB(A)	47	48	52	52	53	53	54
	Heating (Hi)	dB(A)	49	50	54	54	55	55	56
Sound power Level	Cooling (Hi)	dB	63	64	66	66	67	67	68
	Heating (Hi)	dB	65	66	68	68	69	69	70
Dimensions	H x W x D	mm	795x900x320	795x900x320	1,340x900x320	1,340x900x320	1,340x900x320	1,340x900x320	1,340x900x320
Net weight		Kg	71	71	110	105	110	105	105
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	2.13	2.35	3.3	3.3	3.3	3.3	3.5
Elevation difference (in/out) [6]	Max	m	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50
Piping length without refrigerent increase	Max	m	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
	Heating Min / Max	°C	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.
7) Change connector on fan motor from Hi to SHi.
8) By reducing the air volume on the air duct.

KIT-F24DD3E5 // KIT-F28DD3E5 // KIT-F34DD3E5 // KIT-F34DD3E8 // KIT-F43DD3E5 // KIT-F43DD3E8 // KIT-F50DD3E8

CZ-RD513C

CU-L24DBE5
CU-L28DBE5

CU-L34DBE5 CU-L43DBE8
CU-L34DBE8 CU-L50DBE8
CU-L43DBE5

ENERGY EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT

- Cooling with low outdoor temperatures (down to -20 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at indoor unit or wired remote control

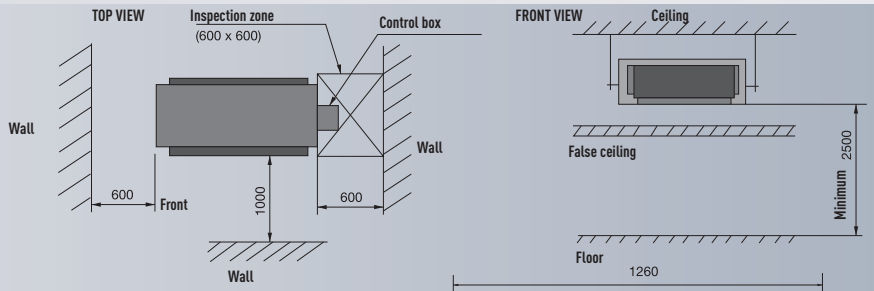
EASE OF USE

- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

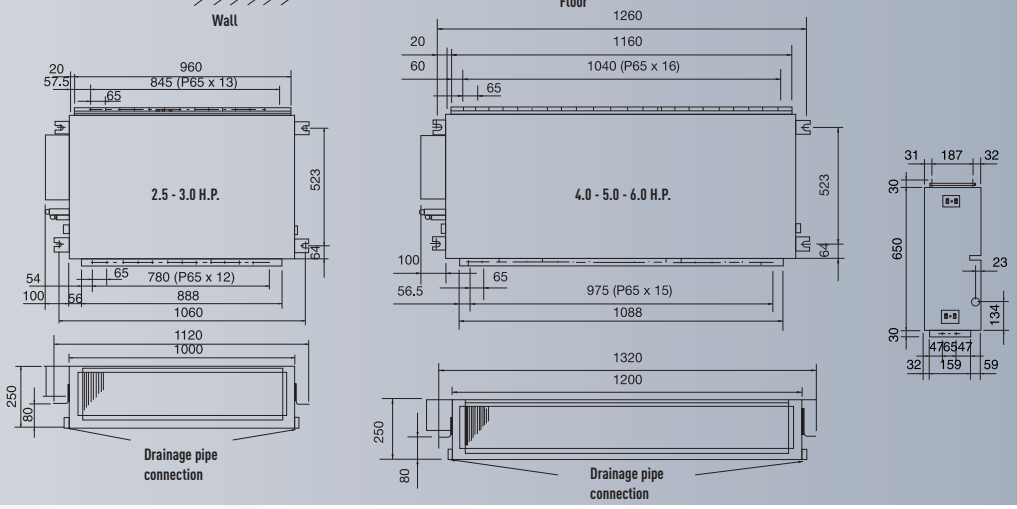
EASY INSTALLATION AND MAINTENANCE

- Installation using existing pipes
- Selectable static pressure up to 7 mmAq
- Self-diagnostic function
- Condensation control
- Ultra compact indoor unit

SPACE NEEDED FOR INSTALLATION



INDOOR UNIT DIMENSIONS



TECHNICAL ZOOM

- ULTRA COMPACT OUTDOOR UNITS (-40% REDUCED SIZE FOR THE CU-YL34HBE5)
- ECO MODE FOR 20% ENERGY SAVING
- EXTREMELY COMPACT INDOOR UNITS WITHOUT LOSING STATIC PRESSURE (ONLY 250MM HIGH)
- COOLING WITH LOW OUTDOOR TEMPERATURES (DOWN TO -20 ºC)
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- EASY CHECK MODE FOR FAILURE DETECTION

LOW STATIC PRESSURE HIDE AWAY // INVERTER FS TYPE

Compact line up of inverter Hide away, from 1.0 H.P. to 5.0 H.P. Single-phase

LOW STATIC PRESSURE HIDE AWAY // INVERTER FS TYPE

			1 HP	1.5 HP	2 HP	2.5 HP	3.0 HP	4.0 HP	5.0 HP
KIT			KIT-E10-JD3EA	KIT-E15-JD3EA	KIT-E18-JD3EA	KIT-YH24DD3E5	KIT-YH28DD3E5	KIT-YH34DD3E5	KIT-YH43DD3E5
Indoor			CS-E10KD3EA	CS-E15JD3EA	CS-E18JD3EA	CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5
Outdoor			CU-E10HBEA	CU-E15HBEA	CU-E18HBEA	CU-YL24HBE5	CU-YL28HBE5	CU-YL34HBE5	CU-YL43HBE5
Wired remote control			CZ-RD52CP	CZ-RD52CP	CZ-RD52CP	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.80-3.00)	4.10 (0.90-4.70)	5.10 (0.90-5.70)	5.60 (2 - 6.30)	7.10 (2.10 - 7.50)	10.00 (3.8 - 10.50)	12.50 (3.80 - 13.00)
	Nominal (Min - Max)	kCal/h	2150 (690-2580)	3530 (770-4040)	4390 (770-4900)	4816 (1720-5418)	6106 (1806-6450)	8600 (3268-9030)	10750 (3268-11180)
EER [1]	**Nominal (Min - Max)**		**3.68 (3.87-3.53) A**	**3.31 (3.53-3.13) A**	**3.15 (3.53-3.10) B**	**2.81 (3.64-2.86) C**	**2.81 (3.23-2.88) C**	**2.61 (2.92-2.56) D**	**3.81 (2.92-2.77) C**
Power input Cooling	Nominal (Min-Max)	kW	0.680 (0.155-0.850)	1.240 (0.255-1.500)	1.620 (0.250-1.840)	1.990 (0.550-2.200)	2.530 (0.650-2.600)	3.560 (1.300-4.100)	4.450 (1.300-4.700)
Heating capacity	Nominal (Min - Max)	kW	3.20 (0.60-5.00)	4.80 (0.90-55.0)	6.10 (0.90-7.10)	7.00 (2.10-7.50)	8.00 (2.20-8.30)	11.20 (3.80-12.50)	14.00 (3.80-14.50)
	Nominal (Min - Max)	kCal/h	2752 (516-4300)	4130 (770-4730)	5250 (770-6110)	6020 (1806-6450)	6880 (1892-7138)	9632 (3268-10750)	12040 (3268-12470)
COP [1]	**Nominal (Min - Max)**		**3.64 (4.44-3.27) A**	**2.64 (3.46-2.63) E**	**3.30 (3.46-3.23) C**	**2.81 (4.20-2.68) D**	**2.81 (3.67-2.59) D**	**3.01 (3.17-2.94) C**	**3.01 (3.17-2.90) C**
Power input Heating	Nominal (Min - Max)	kW	0.880 (0.135-1.530)	1.820 (0.260-2.090)	1.850 (0.260-2.200)	2.490 (0.500-2.800)	2.850 (0.600-3.200)	3.720 (1.200-4.250)	4.650 (1.200-5.000)
Annual Energy Consumption [2]		kWh	340	620	810	995	1,265	1,780	2,225
Indoor unit									
External static pressure [3]	High (Shigh)	mmAq	3.5 (5.5 [7])	3.5 (7.0 [7])	3.5 (6.0 [7])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])
	Medium	mmAq	1.5	1.5	1.5	2.6	2.6	2.8	2.8
	Low	mmAq	1	1	1	1.8	1.8	2	2
Air Volume	High (Shigh)	m³/h	414 (660 [7])	474 (660 [7])	624 (750 [7])	1.320 [7] (1.200 [8])	1.320 [7] (1.200 [8])	2.160 [7] (2.010 [8])	2.400 [7] (2.190 [8])
	Medium	m³/h	402	402	528	984	984	1,620	1,770
	Low	m³/h	330	330	444	810	810	1,320	1,420
Moisture removal volume		l/h	1.50	2.30	2.80	3.20	4.20	6.00	7.90
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	33 / 24	33 / 24	41 / 27	43 / 39	43 / 39	45 / 41	45 / 41
	Heating (Hi / Lo)	dB(A)	35 / 25	35 / 25	41 / 29	43 / 39	43 / 39	44 / 40	44 / 40
Sound power Level	Cooling (Hi)	dB	49	49	57	59	59	60	60
	Heating (Hi)	dB	51	51	57	59	59	60	60
Dimensions	H x W x D	mm	235x750+65 [5]x370	235x750+65 [5]x370	285x750+65 [5]x370	250x1,000+100 [5]x650	250x1,000+100 [5]x650	250x1,200+100 [5]x650	250x1,200+100 [5]x650
Net weight	Indoor	Kg	17	18	18	41	41	47	47
Dust filter			No	No	No	Yes	Yes	Yes	Yes
Outdoor unit									
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240
Connection		mm²	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5
Current Cooling	Nominal (Min / Max)	A	2.9	5.7	7.3	9.00	11.40	16.30	20.30
Current Heating	Nominal (Min / Max)	A	3.8	8.2	8.3	11.30	12.20	17.00	21.20
Air Volume	Cooling / Heating	m³/h	1,728	2,808	2,400	3,180	3,480	3,720	5,640
Sound pressure Level [4]	Cooling (Hi)	dB(A)	45	46	47	49	50	53	54
	Heating (Hi)	dB(A)	46	47	48	51	52	56	56
Sound power Level	Cooling (Hi)	dB	58	59	60	67	68	71	72
	Heating (Hi)	dB	59	60	61	68	69	73	73
Dimensions	H x W x D	mm	540x780+70 [5]x289	750x875+70 [5]x345	750x875+70 [5]x345	795x875+70 [5]x320	795x875+70 [5]x320	795x900x320	1170x900x320
Net weight		Kg	35	48	48	65	65	66	94
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	3/8" (9.52)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.15	1.23	1.06	1.63	2.05	2.8	2.8
Elevation difference (in/out) [6]	Max	m	15	15	20	25	25	25	25
Piping length	Min - Max	m	3 - 20	3 - 20	3 - 30	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	10	10	10	25	25	25	25
Additional gas		g/m	20	20	20	50	50	50	50
Area control accessory						EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-10/43	-10/43	-10/43	-5 / 43	-5 / 44	-5 / 45	-5 / 46
	Heating Min / Max	°C	-10/24	-10/24	-10/24	-15 / 24	-15 / 25	-15 / 26	-15 / 27

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground
The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.
7) Change connector on fan motor from Hi to SHi.
8) By reducing the air volume on the air duct.

KIT-E10-JD3EA // KIT-E15-JD3EA // KIT-E18-JD3EA // KIT-YH24DD3E5 // KIT-YH28DD3E5 // KIT-YH34DD3E5 // KIT-YH43DD3E5

CZ-RD513C / CZ-RD52CP
WIRED

CU-E10HBEA CU-E18HBEA
CU-E15HBEA

CU-YL24HBE5
CU-YL28HBE5

CU-YL34HBE5

CU-YL43HBE5

ENERGY EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT

- Cooling with low outdoor temperatures (down to -15 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at indoor unit or wired remote control

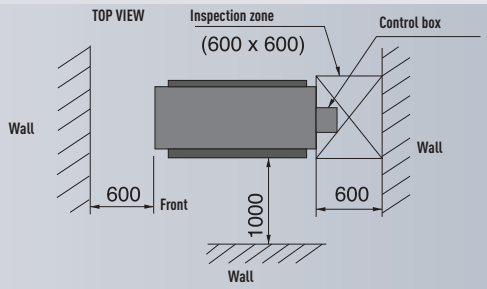
EASE OF USE

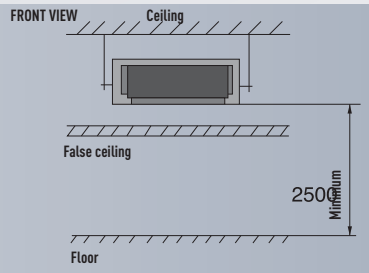
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

EASY INSTALLATION AND MAINTENANCE

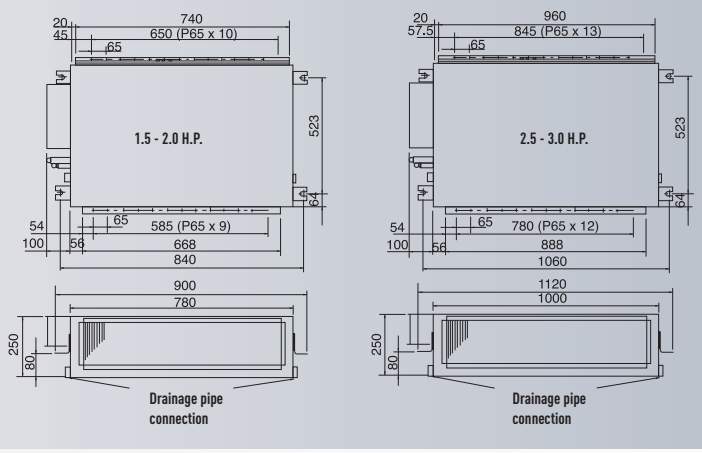
- Installation using existing pipes
- Selectable static pressure up to 7 mmAq
- Self-diagnostic function
- Condensation control
- Ultra compact indoor unit

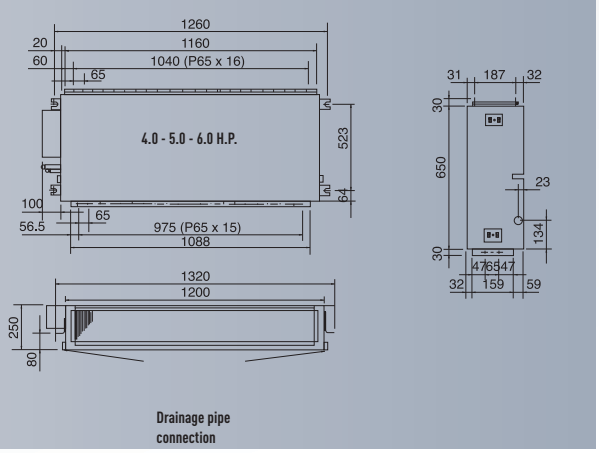
SPACE NEEDED FOR INSTALLATION





INDOOR UNIT DIMENSIONS





TECHNICAL ZOOM

- EXTREMELY COMPACT INDOOR UNITS WITHOUT LOSING STATIC PRESSURE (ONLY 250MM HIGH)
- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- EASY CHECK MODE FOR FAILURE DETECTION

LOW STATIC PRESSURE
HIDE AWAY // HEAT PUMP FS TYPE

Full line up of heat pump no-inverter Hide away, from 1.5 H.P. to 6.0 H.P. Single-phase and three-phase

LOW STATIC PRESSURE HIDE AWAY // HEAT PUMP FS TYPE

			1.5 H.P.	2.0 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F14DD3E5-C	KIT-F18DD3E5-C	KIT-F24DD3E5-C	KIT-F28DD3E5-C	KIT-F28DD3E8-C	KIT-F34DD3E5-C	KIT-F34DD3E8-C	KIT-F43DD3E8-C	KIT-F50DD3E8-C
Indoor			CS-F14DD3E5	CS-F18DD3E5	CS-F24DD3E5	CS-F28DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5
Outdoor			CU-B14DBE5	CU-B18DBE5	CU-B24DBE5	CU-B28DBE5	CU-B28DBE8	CU-B34DBE5	CU-B34DBE8	CU-B43DBE8	CU-B50DBE8
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	3.80	5.00	6.60	7.30	7.30	10.00	10.00	12.50	13.50
	Nominal (Min-Max)	kCal/h	3,268	4,300	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min-Max)**		2.88 C	2.66 D	2.55 E	2.57 E	2.57 E	2.58 E	2.67 E	2.60 E	2.54 E
Power input Cooling	Nominal (Min-Max)	kW	1.35 (1.32-1.38)	1.89 (1.86-1.92)	2.59 (2.56-2.64)	2.84 (2.78-2.89)	2.84 (2.78-2.89)	3.88 (3.83-4.05)	3.75 (3.7-3.8)	4.80 (4.75-4.87)	5.31 (5.26-5.46)
Heating capacity	Nominal (Min-Max)	kW	4.30	5.60	7.10	8.00	8.00	11.20	11.20	14.00	15.00
	Nominal (Min-Max)	kCal/h	3,698	4,816	6,106	6,880	6,880	9,632	9,632	12,040	12,900
COP [1]	**Nominal (Min-Max)**		3.31 C	3.29 C	2.87 D	2.97 D	2.97 D	2.84 D	3.13 D	2.99 D	2.95 D
Power input Heating	Nominal (Min-Max)	kW	1.21 (1.18-1.24)	1.70 (1.67-1.73)	2.47 (2.4-2.56)	2.69 (2.61-2.78)	2.69 (2.61-2.78)	3.94 (3.86-4.0)	3.58 (3.54-3.64)	4.68 (4.61-4.78)	5.08 (5.03-5.13)
Annual Energy Consumption [2]		kWh	675	945	1,295	1,420	1,420	1,940	1,875	2,400	2,655
Indoor unit											
External static pressure [3]	High (Shigh)	mmAq	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])	5,1 [7] (7,0 [8])
	Medium	mmAq	2.5	2.5	2.6	2.6	2.6	2.8	2.8	2.8	3
	Low	mmAq	1.7	1.7	1.8	1.8	1.8	2	2	2	2.5
Air Volume	High (Shigh)	m^3/h	1,020	1,020	1,320 [7] (1,200 [8])	1,320 [7] (1,200 [8])	1,320 [7] (1,200 [8])	2,160 [7] (2,010 [8])	2,160 [7] (2,010 [8])	2,400 [7] (2,190 [8])	2,640 [7] (2,430 [8])
	Medium	m^3/h	798	798	984	984	984	1,620	1,620	1,770	1,920
	Low	m^3/h	660	660	810	810	810	1,320	1,320	1,420	1,560
Moisture removal volume		l/h	2.2	2.8	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	42 / 38	42 / 38	43 / 39	43 / 39	43 / 39	45 / 41	45 / 41	45 / 41	46 / 42
	Heating (Hi / Lo)	dB(A)	40 / 36	40 / 36	43 / 39	43 / 39	43 / 39	44 / 40	44 / 40	44 / 40	45 / 41
Sound power Level	Cooling (Hi)	dB	58	58	59	59	59	60	60	60	61
	Heating (Hi)	dB	56	56	59	59	59	59	59	59	60
Dimensions. indoor	H x W x D	mm	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650
Net weight	Indoor	Kg	34	34	41	41	41	47	47	47	47
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Outdoor unit											
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	6.31	8.53	12.9	13.5	4.9	18.6	6.45	8.1	8.8
Current Heating	Nominal (Min / Max)	A	5.36	7.63	11.8	12.6	4.7	18.6	6.2	7.9	8.4
Air Volume	Cooling / Heating	m^3/h	3,240 / 3,240	3,420 / 3,429	3,600 / 3,600	3,780 / 3,780	3,780 / 3,780	5,640 / 5,640	5,640 / 5,640	5,640 / 5,640	5,760 / 5,760
Sound pressure Level [4]	Cooling (Hi)	dB(A)	49	49	50	52	52	55	55	56	56
	Heating (Hi)	dB(A)	50	50	51	53	53	56	56	57	57
Sound power Level	Cooling (Hi)	dB	65	65	66	67	67	69	69	70	70
	Heating (Hi)	dB	66	66	67	68	68	70	70	71	71
Dimensions	H x W x D	mm	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	1,170x900x320	1,170x900x320	1,170x900x320	1,170x900x320
Net weight		Kg	55	57	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.1	1.35	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [6]	Max	m	20	20	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	20	20	30	30	30	30	30	30	30
Additional gas		g/m	20	20	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43
	Heating Min / Max	°C	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground
The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.
7) Change connector on fan motor from Hi to SHi.
8) By reducing the air volume on the air duct.

CZ-RD513C

CU-B14DBE5 CU-B28DBE5
CU-B18DBE5 CU-B28DBE8
CU-B24DBE5

CU-B34DBE5 CU-B43DBE8
CU-B34DBE8 CU-B50DBE8

KIT-F14DD3E5-C // KIT-F18DD3E5-C // KIT-F24DD3E5-C // KIT-F28DD3E5-C // KIT-F28DD3E8-C // KIT-F34DD3E5-C // KIT-F34DD3E8-C // KIT-F43DD3E8-C // KIT-F50DD3E8-C

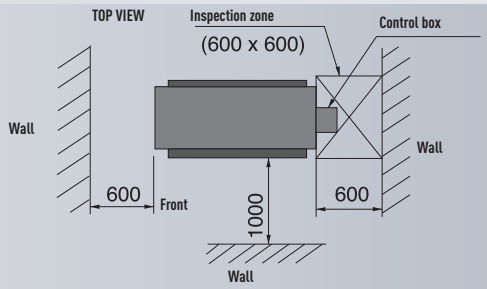
ENERGY EFFICIENCY AND ECOLOGY
- R410A environmentally friendly refrigerant gas

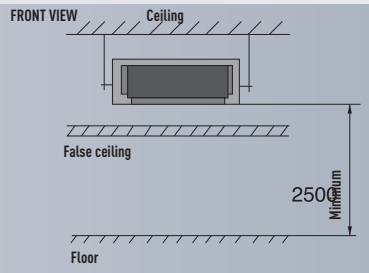
COMFORT
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at the indoor unit or the wired remote control

EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

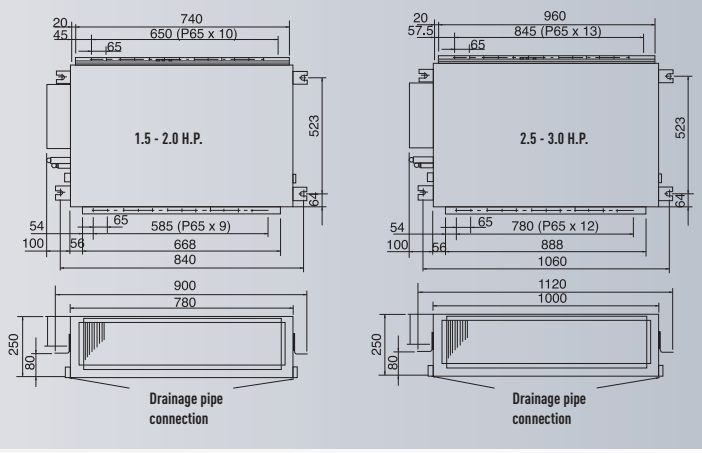
EASY INSTALLATION AND MAINTENANCE
- Selectable static pressure up to 7 mmAq
- Self-diagnostic function
- Condensation control
- Ultra compact indoor unit

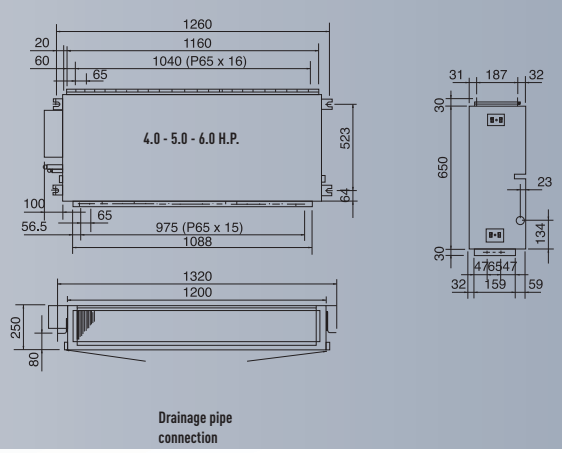
SPACE NEEDED FOR INSTALLATION





INDOOR UNIT DIMENSIONS





TECHNICAL ZOOM

- EXTREMELY COMPACT INDOOR UNITS WITHOUT LOSING STATIC PRESSURE (ONLY 250MM HIGH)
- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- EASY CHECK MODE FOR FAILURE DETECTION

LOW STATIC PRESSURE
HIDE AWAY // COOLING ONLY FS TYPE

Full line up of cooling only no-inverter Hide away, from 1.5 H.P. to 6.0 H.P. Single-phase and three-phase

LOW STATIC PRESSURE HIDE AWAY // COOLING ONLY FS TYPE

			1.5 H.P.	2.0 H.P.	2.5 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F14DD3E5-F	KIT-F18DD3E5-F	KIT-F24DD3E5-F	KIT-F24DD3E8-F	KIT-F28DD3E5-F	KIT-F28DD3E8-F	KIT-F34DD3E5-F	KIT-F34DD3E8-F	KIT-F43DD3E8-F	KIT-F50DD3E8-F
Indoor			CS-F14DD3E5	CS-F18DD3E5	CS-F24DD3E5	CS-F24DD3E5	CS-F28DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5
Outdoor			CU-J14DBE5	CU-J18DBE5	CU-J24DBE5	CU-J24DBE8	CU-J28DBE5	CU-J28DBE8	CU-J34DBE5	CU-J34DBE8	CU-J43DBE8	CU-J50DBE8
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min - Max)	kW	3.80	5.00	6.60	6.60	7.30	7.30	10.00	10.00	12.50	13.50
	Nominal (Min - Max)	kCal/h	3,268	4,300	5,676	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min - Max)**		2.81 C	2.69 D	2.48 E	2.48 E	2.53 E	2.53 E	2.48 E	2.63 D	2.58 E	2.50 E
Power input Cooling	Nominal (Min - Max)	kW	1.35 (1.32-1.38)	1.86 (1.83-1.89)	2.66 (2.62-2.70)	2.66 (2.62-2.70)	2.89 (2.83-2.94)	2.89 (2.83-2.94)	4.04 (3.95-4.12)	3.80 (3.75-3.85)	4.84 (4.80-4.95)	5.41 (5.36-5.51)
Annual Energy Consumption [2]		kWh	675	930	1,330	1,330	1,445	1,445	2,020	1,900	2,420	2,655
Indoor unit												
External static pressure [3]	High (Shigh)	mmAq	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])	5.1 [7] (7.0 [8])
	Medium	mmAq	2.5	2.5	2.6	2.6	2.6	2.6	2.8	2.8	2.8	3
	Low	mmAq	1.7	1.7	1.8	1.8	1.8	1.8	2	2	2	2.5
Air Volume	High (Shigh)	m^3/h	1,020	1,020	1,320 [7] (1,200 [8])	1,320 [7] (1,200 [8])	1,320 [7] (1,200 [8])	1,320 [7] (1,200 [8])	2,160 [7] (2,010 [8])	2,160 [7] (2,010 [8])	2,400 [7] (2,190 [8])	2,640 [7] (2,430 [8])
	Medium	m^3/h	798	798	984	984	984	984	1,620	1,620	1,770	1,920
	Low	m^3/h	660	660	810	810	810	810	1,320	1,320	1,420	1,560
Moisture removal volume		l/h	2.2	2.8	3.8	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [4]	Hi / Lo	dB(A)	42 / 38	42 / 38	43 / 39	43 / 39	43 / 39	43 / 39	45 / 41	45 / 41	45 / 41	46 / 42
Sound power Level	Hi	dB	58	58	59	59	59	59	60	60	60	61
Dimensions. indoor	H x W x D	mm	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,000+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650	250x1,200+100[5]x650
Net weight	Indoor	Kg	34	34	41	41	41	41	47	47	47	47
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Outdoor unit												
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	6.21	8.53	12.9	4.54	13.5	4.9	18.6	6.45	8.1	8.8
Air Volume	Cooling	m^3/h	3,240	3,420	3,600	3,600	3,780	3,780	5,640	5,640	5,640	5,760
Sound pressure Level [4]	Hi	dB(A)	49	49	50	50	52	52	55	55	56	56
Sound power Level	Hi	dB	65	65	66	66	67	67	69	69	70	70
Dimensions	H x W x D	mm	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	1,170x900x320	1,170x900x320	1,170x900x320	1,170x900x320
Net weight		Kg	55	57	69	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	1/2" (12.70)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.1	1.35	1.7	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [6]	Max	m	20	20	30	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	20	20	30	30	30	30	30	30	30	30
Additional gas		g/m	20	20	50	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43

GLOBAL REMARKS	Rating conditions	Cooling
	Inside air temperature	27°C DB / 19°C WB
	Outside air temperature	35°C DB / 24°C WB

DB : Dry buld; WB : Wet buld

1) EER, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.
7) Change connector on fan motor from Hi to SHi.
8) By reducing the air volume on the air duct.

CZ-RD513C

CU-J14DBE5 CU-J24DBE8
CU-J18DBE5 CU-J28DBE5
CU-J24DBE5 CU-J28DBE8

CU-J34DBE5 CU-J43DBE8
CU-J34DBE8 CU-J50DBE8

KIT-F14DD3E5-F // KIT-F18DD3E5-F // KIT-F24DD3E5-F // KIT-F24DD3E8-F // KIT-F28DD3E5-F // KIT-F28DD3E8-F // KIT-F34DD3E5-F // KIT-F34DD3E8-F // KIT-F43DD3E8-F // KIT-F50DD3E8-F

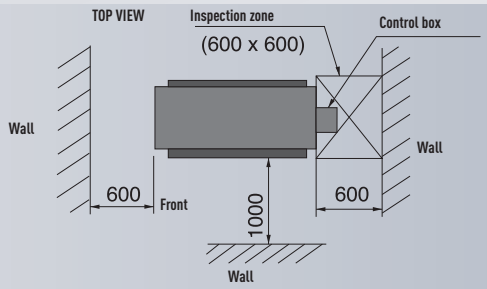
ENERGY EFFICIENCY AND ECOLOGY
- R410A environmentally friendly refrigerant gas

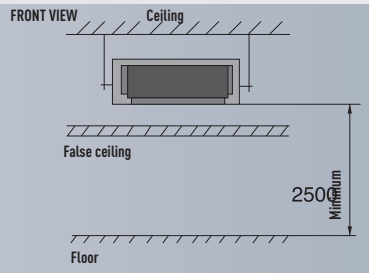
COMFORT
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at the indoor unit or the wired remote control

EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

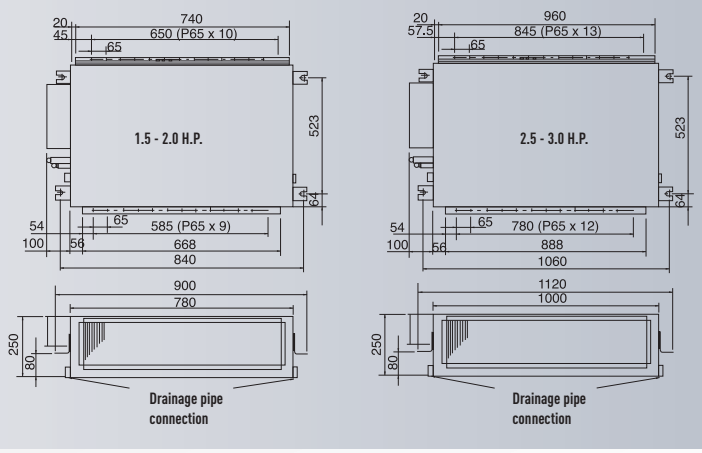
EASY INSTALLATION AND MAINTENANCE
- Selectable static pressure up to 7 mmAq
- Self-diagnostic function
- Condensation control
- Ultra compact indoor unit

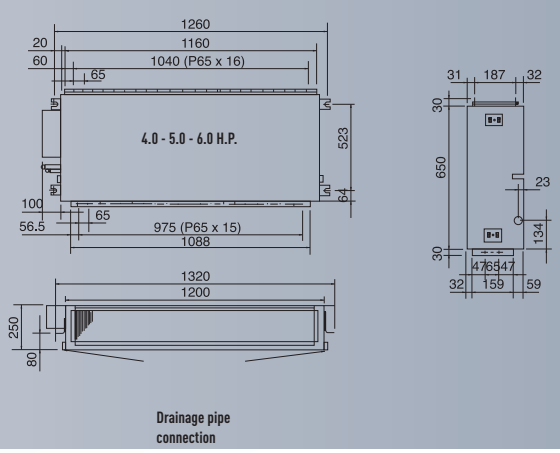
SPACE NEEDED FOR INSTALLATION





INDOOR UNIT DIMENSIONS





TECHNICAL ZOOM

- HIGHER ENERGY CLASS FOR HIGH SAVINGS, EVEN AT -20°C
- ECO MODE FOR 20% ENERGY SAVING
- STATIC PRESSURE TILL 10MMAQ
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- MAX ELEVATION DIFFERENCE 30M
- EASY CHECK MODE FOR FAILURE DETECTION

HIGH STATIC PRESSURE HIDE AWAY // INVERTER+ FS TYPE

A complete line up of efficient and powerful high static pressure hide away, for the most demanding customers, from 2.5 H.P. to 6.0 H.P. Single-phase and three-phase

HIGH STATIC PRESSURE HIDE AWAY // INVERTER+ FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F24DD2E5	KIT-F28DD2E5	KIT-F34DD2E5	KIT-F34DD2E8	KIT-F43DD2E5	KIT-F43DD2E8	KIT-F50DD2E8
Indoor			CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F43DD2E5	CS-F50DD2E5
Outdoor			CU-L24DBE5	CU-L28DBE5	CU-L34DBE5	CU-L34DBE8	CU-L43DBE5	CU-L43DBE8	CU-L50DBE8
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	6.30 (2.00-6.50)	7.10 (2.10-7.50)	10.00 (4.00-12.00)	10.00 (4.00-12.00)	12.50 (4.00-13.50)	12.50 (4.00-13.50)	14.00 (4.00-16.00)
	Nominal (Min-Max)	kCal/h	5,418 (1,720-5,590)	6,106 (1,806-6,450)	8,600 (3,440-10,320)	8,600 (3,440-10,320)	10,750 (3,440-11,610)	10,750 (3,440-11,610)	12,040 (3,440-13,760)
EER [1]	**Nominal (Min-Max)**		**3.01 (3.33-2.71) B**	**3.01 (3.23-3.06) B**	**3.27 (2.96-3.43) A**	**3.27 (2.96-3.43) A**	**3.01 (2.86-3.00) B**	**3.01 (2.86-3.00) B**	**2.77 (2.76-2.96) D**
Power input Cooling	Nominal (Min-Max)	kW	2.09 (0.6-2.4)	2.36 (0.65-2.45)	3.06 (1.35-3.5)	3.06 (1.35-3.5)	4.15 (1.4-4.5)	4.15 (1.4-4.5)	5.06 (1.45-5.4)
Heating capacity	Nominal (Min-Max)	kW	7.10 (2.10-7.50)	8.00 (2.20-8.50)	11.20 (4.00-13.50)	11.20 (4.00-13.50)	14.00 (4.00-15.50)	14.00 (4.00-15.50)	16.00 (4.00-18.00)
	Nominal (Min-Max)	kCal/h	6,106 (1,806-6,450)	6,880 (1,892-7,310)	9,632 (3,440-11,610)	9,632 (3,440-11,610)	12,040 (3,440-13,330)	12,040 (3,440-13,330)	13,760 (3,440-15,480)
COP [1]	**Nominal (Min-Max)**		**3.41 (3.50-2.38) B**	**3.42 (3.38-2.62) B**	**3.41 (2.96-3.14) B**	**3.41 (2.96-3.14) B**	**3.21 (2.86-3.04) C**	**3.21 (2.86-3.04) C**	**3.30 (2.86-2.95) C**
Power input Heating	Nominal (Min-Max)	kW	2.08 (0.6-3.15)	2.34 (0.65-3.25)	3.28 (1.35-4.3)	3.28 (1.35-4.3)	4.36 (1.4-5.1)	4.36 (1.4-5.1)	4.85 (1.4-6.1)
Annual Energy Consumption [2]		kWh	1,045	1,180	1,530	1,530	2,075	2,075	2,530
Indoor unit									
External static pressure [3]	High	mmAq	7	7	10	10	10	10	10
	Medium	mmAq	5	5	6.6	6.6	6.6	6.6	6.6
	Low	mmAq	4.1	4.1	5.1	5.1	5.1	5.1	5.6
Air Volume	High	m^3/h	1,320	1,320	2,280	2,280	2,400	2,400	2,700
	Medium	m^3/h	1,020	1,020	1,920	1,920	1,980	1,980	2,100
	Low	m^3/h	870	870	1,620	1,620	1,680	1,680	1,740
Moisture removal volume		l/h	3.8	4.3	6.0	6.0	7.9	7.9	9.0
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	45 / 41	45 / 41	49 / 45	49 / 45	49 / 45	49 / 45	49 / 45
	Heating (Hi / Lo)	dB(A)	43 / 39	43 / 39	47 / 44	47 / 44	47 / 44	47 / 44	47 / 44
Sound power Level	Cooling (Hi)	dB	61	61	64	64	64	64	64
	Heating (Hi)	dB	59	59	62	62	62	62	62
Dimensions. indoor	H x W x D	mm	290x1,000+100[5]x500	290x1,000+100[5]x500	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650
Net weight	Indoor	Kg	35	35	48	48	48	48	48
Dust filter			No	No	No	No	No	No	No
Outdoor unit									
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	9.5	10.7	13.8	4.8	18.8	6.5	7.7
Current Heating	Nominal (Min / Max)	A	9.5	10.6	14.9	5.2	19.7	6.8	7.4
Air Volume	Cooling / Heating	m^3/h	2,880 / 2,880	2,880 / 2,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5,880
Sound pressure Level [4]	Cooling (Hi)	dB(A)	47	48	52	52	53	53	54
	Heating (Hi)	dB(A)	49	50	54	54	55	55	56
Sound power Level	Cooling (Hi)	dB	63	64	66	66	67	67	68
	Heating (Hi)	dB	65	66	68	68	69	69	70
Dimensions	H x W x D	mm	795 x 900 x 320	795 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320
Net weight		Kg	71	71	110	110	110	110	105
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	2.13	2.35	3.3	3.3	3.3	3.3	3.5
Elevation difference (in/out) [6]	Max	m	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
	Heating Min / Max	°C	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.

KIT-F24DD2E5 // KIT-F28DD2E5 // KIT-F34DD2E5 // KIT-F34DD2E8 // KIT-F43DD2E5 // KIT-F43DD2E8 // KIT-F50DD2E8

CZ-RD513C

CU-L24DBE5
CU-L28DBE5

CU-L34DBE5 CU-L43DBE8
CU-L34DBE8 CU-L50DBE8
CU-L43DBE5

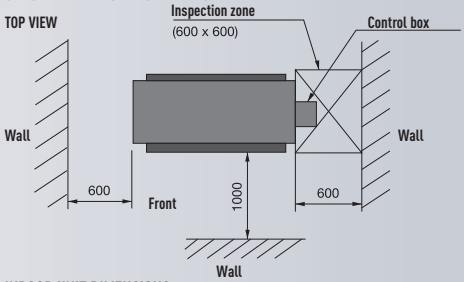
ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

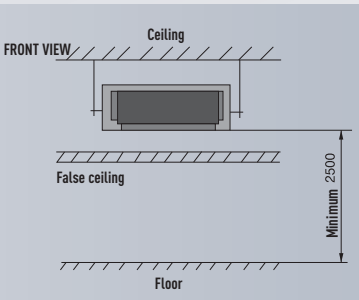
COMFORT
- Cooling with low outdoor temperatures (down to -20 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at indoor unit or wired remote control

EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

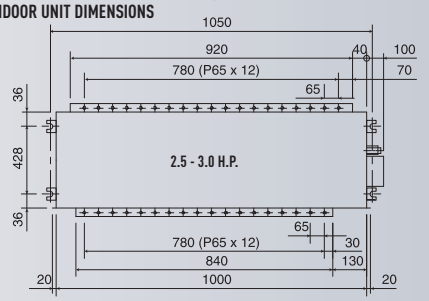
EASY INSTALLATION AND MAINTENANCE
- Installation using existing pipes
- High static pressure units ideal for shops and offices
- Selectable static pressure up to 10 mmAq
- Self-diagnostic function
- Ultra compact indoor unit

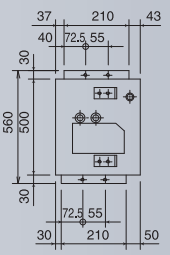
SPACE NEEDED FOR INSTALLATION

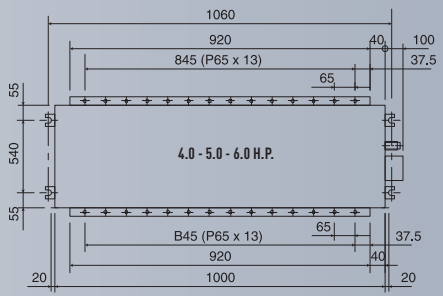


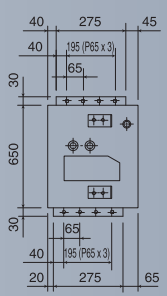


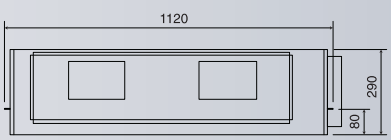
INDOOR UNIT DIMENSIONS

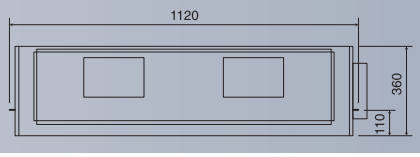












TECHNICAL ZOOM

- ULTRA COMPACT OUTDOOR UNITS (-40% REDUCED SIZE FOR THE CU-YL34HBE5)
- ECO MODE FOR 20% ENERGY SAVING
- COOLING WITH LOW OUTDOOR TEMPERATURES (DOWN TO -20 ºC)
- STATIC PRESSURE TILL 10MMAQ
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- EASY CHECK MODE FOR FAILURE DETECTION

HIGH STATIC PRESSURE HIDE AWAY // INVERTER FS TYPE

Compact line up of inverter High static Hide away, from 1.0 H.P. to 5.0 H.P. Single-phase

HIGH STATIC PRESSURE HIDE AWAY // INVERTER FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	5.0 H.P.
KIT			KIT-YH24DD2E5	KIT-YH28DD2E5	KIT-YH34DD2E5	KIT-YH43DD2E5
Indoor			CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5
Outdoor			CU-YL24HBE5	CU-YL28HBE5	CU-YL34HBE5	CU-YL43HBE5
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min - Max)	kW	5.60 (2 - 6.30)	7.10 (2.10 - 7.70)	10.00 (3.8 - 10.50)	12.50 (3.80 - 13.00)
	Nominal (Min - Max)	kCal/h	4,816 (1,720 - 5,418)	6,106 (1,806 - 6,622)	8,600 (3,268 - 9,030)	10,750 (3,268 - 11,180)
EER [1]	**Nominal (Min - Max)**		**2.81 (3.64 - 2.86) C**	**2.81 (3.23 - 2.96) C**	**2.81 (2.92 - 2.56) D**	**2.81 (2.92 - 2.77) C**
Power input Cooling	Nominal (Min - Max)	kW	1.99 (0.55 - 2.20)	2.53 (0.65 - 2.60)	3.56 (1.30 - 4.10)	4.45 (1.30 - 4.70)
Heating capacity	Nominal (Min - Max)	kW	7.00 (2.10 - 7.60)	8.00 (2.20 - 8.30)	11.20 (3.80 - 12.50)	14.00 (3.80 - 14.50)
	Nominal (Min - Max)	kCal/h	6,020 (1,806 - 6,450)	6,880 (1,892 - 7,138)	9,632 (3,268 - 10,750)	12,040 (3,268 - 12,470)
COP [1]	**Nominal (Min - Max)**		**2.81 (4.20 - 2.68) D**	**2.81 (3.67 - 2.59) D**	**3.01 (3.17 - 2.94) C**	**3.01 (3.17 - 2.90) C**
Power input Heating	Nominal (Min - Max)	kW	2.49 (0.50 - 2.80)	2.85 (0.60 - 3.20)	3.72 (1.20 - 4.25)	4.65 (1.20 - 5.00)
Annual Energy Consumption [2]		kWh	995	1,265	1,780	2,225
Indoor unit						
External static pressure [3]	High	mmAq	7	7	10	10
	Medium	mmAq	5	5	6.6	6.6
	Low	mmAq	4.1	4.1	5.1	5.1
Air Volume	High	m^3/h	1,320	1,320	2,400	2,400
	Medium	m^3/h	1,020	1,020	1,980	1,980
	Low	m^3/h	870	870	1,680	1,680
Moisture removal volume		l/h	3.20	4.20	6.00	7.90
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	45 / 41	45 / 41	49 / 45	49 / 45
	Heating (Hi / Lo)	dB(A)	43 / 39	43 / 39	47 / 44	47 / 44
Sound power Level	Cooling (Hi)	dB	67	68	71	72
	Heating (Hi)	dB	68	69	73	73
Dimensions. indoor	H x W x D	mm	290 x 1,000+100 [5] x 500	290 x 1,000+100 [5] x 500	390 x 1,000+100 [5] x 650	390 x 1,000+100 [5] x 650
Net weight	Indoor	Kg	35	35	48	48
Dust filter			No	No	No	No
Outdoor unit						
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240
Connection		mm^2	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5
Current Cooling	Nominal (Min / Max)	A	9.00	11.50	16.30	20.30
Current Heating	Nominal (Min / Max)	A	11.30	12.80	17.00	21.20
Air Volume	Cooling / Heating	m^3/h	2,880	2,880	5,880	5,880
Sound pressure Level [4]	Cooling (Hi)	dB(A)	49	50	53	54
	Heating (Hi)	dB(A)	51	52	56	56
Sound power Level	Cooling (Hi)	dB	67	68	71	72
	Heating (Hi)	dB	68	69	73	73
Dimensions	H x W x D	mm	795 x 875+70 [5] x 320	795 x 875+70 [5] x 320	795 x 900 x 320	1,170 x 900 x 320
Net weight		Kg	65	65	66	94
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.63	2.05	2.8	2.8
Elevation difference (in/out) [6]	Max	m	25	25	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	30	30	30	30
Additional gas		g/m	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 44	-5 / 45	-5 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 25	-15 / 26	-15 / 27

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground
The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.

KIT-YH24DD2E5 // KIT-YH28DD2E5 // KIT-YH34DD2E5 // KIT-YH43DD2E5

CZ-RD513C

CU-YL24HBE5
CU-YL28HBE5

CU-YL34HBE5

CU-YL43HBE5

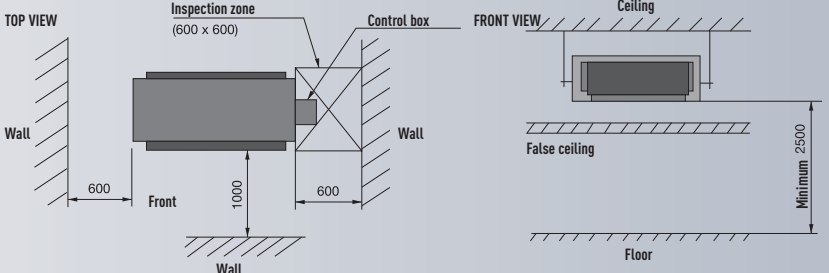
ENERGY EFFICIENCY AND ECOLOGY
- Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT
- Cooling with low outdoor temperatures (down to -15 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at indoor unit or wired remote control

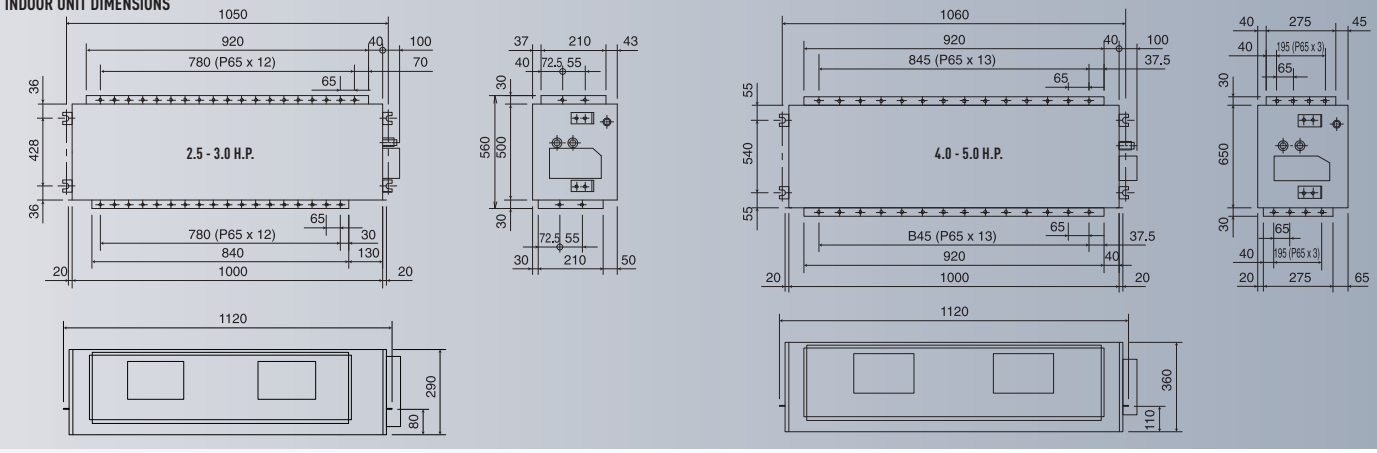
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

EASY INSTALLATION AND MAINTENANCE
- Installation using existing pipes
- Selectable static pressure up to 10 mmAq
- Self-diagnostic function
- Condensation control
- Ultra compact indoor unit

SPACE NEEDED FOR INSTALLATION



INDOOR UNIT DIMENSIONS



TECHNICAL ZOOM

+ STATIC PRESSURE TILL 10MMAQ
+ ECO MODE FOR 20% ENERGY SAVING
+ MAX ELEVATION DIFFERENCE 30M
+ EASY CHECK MODE FOR FAILURE DETECTION

HIGH STATIC PRESSURE
HIDE AWAY // HEAT PUMP FS TYPE

Full line up of heat pump no-inverter High static pressure Hide away, from 2.5 H.P. to 6.0 H.P. Single-phase and three-phase

HIGH STATIC PRESSURE HIDE AWAY // HEAT PUMP FS TYPE

			2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F24DD2E5-C	KIT-F28DD2E5-C	KIT-F28DD2E8-C	KIT-F34DD2E5-C	KIT-F34DD2E8-C	KIT-F43DD2E8-C	KIT-F50DD2E8-C
Indoor			CS-F24DD2E5	CS-F28DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5
Outdoor			CU-B24DBE5	CU-B28DBE5	CU-B28DBE8	CU-B34DBE5	CU-B34DBE8	CU-B43DBE8	CU-B50DBE8
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min - Max)	kW	6.60	7.30	7.30	10,00	10,00	12.50	13.50
	Nominal (Min - Max)	kCal/h	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min - Max)**		**2.50 E**	**2.55 E**	**2.55 E**	**2,52 E**	**2,61 D**	**2.54 E**	**2.52 E**
Power input Cooling	Nominal (Min - Max)	kW	2.64 (2.61-6.7)	2.86 (2.81-2.91)	2.86 (2.81-2.91)	3.97 (3.89-4.08)	3.83 (3.79-3.92)	4.92 (4.85-5.04)	5.36 (5.31-5.46)
Heating capacity	Nominal (Min - Max)	kW	7.10	8.00	8.00	11.20	11.20	14.00	15.00
	Nominal (Min - Max)	kCal/h	6,106	6,880	6,880	9,632	9,632	12,040	12,900
COP [1]	**Nominal (Min - Max)**		**2.81 D**	**2.95 D**	**2.95 D**	**2.81 D**	**3.04 D**	**3.00 D**	**2.92 D**
Power input Heating	Nominal (Min - Max)	kW	2.53 (2.45-2.62)	2.71 (2.62-2.8)	2.71 (2.62-2.8)	3.98 (3.9-4.05)	3.68 (3.63-3.75)	4.66 (4.56-4.78)	5.13 (5.08-5.18)
Annual Energy Consumption [2]		kWh	1,320	1,430	1,430	1,985	1,915	2,460	2,680
Indoor unit									
External static pressure [3]	High	mmAq	7	7	7	10	10	10	10
	Medium	mmAq	5	5	5	6.6	6.6	6.6	6.6
	Low	mmAq	4.1	4.1	4.1	5.1	5.1	5.1	5.6
Air Volume	High	m^3/h	1,320	1,320	1,320	2,280	2,280	2,400	2,700
	Medium	m^3/h	1,020	1,020	1,020	1,920	1,920	1,980	2,100
	Low	m^3/h	870	870	870	1,620	1,620	1,680	1,740
Moisture removal volume		l/h	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	45 / 41	45 / 41	45 / 41	49 / 45	49 / 45	49 / 45	49 / 45
	Heating (Hi / Lo)	dB(A)	43 / 39	43 / 39	43 / 39	47 / 44	47 / 44	47 / 44	47 / 44
Sound power Level	Cooling (Hi)	dB	61	61	61	64	64	64	64
	Heating (Hi)	dB	59	59	59	62	62	62	62
Dimensions. indoor	H x W x D	mm	290x1,000+100[5]x500	290x1,000+100x500	290x1,000+100x500	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650
Net weight	Indoor	Kg	35	35	35	48	48	48	48
Dust filter			No	No	No	No	No	No	No
Outdoor unit									
Power source		V	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	13.1	13.7	4.9	18.8	6.5	8.2	8.9
Current Heating	Nominal (Min / Max)	A	11.9	12.6	4.7	18.7	6.4	8.0	8.5
Air Volume	Cooling / Heating	m^3/h	3,600 / 3,600	3,780 / 3,780	3,780 / 3,780	5,640 / 5,640	5,640 / 5,640	5,640 / 5,640	5,760 / 5,760
Sound pressure Level [4]	Cooling (Hi)	dB(A)	50	52	52	55	55	56	56
	Heating (Hi)	dB(A)	51	53	53	56	56	57	57
Sound power Level	Cooling (Hi)	dB	66	67	67	69	69	70	70
	Heating (Hi)	dB	67	68	68	70	70	71	71
Dimensions	H x W x D	mm	795 x 900 x 320	795 x 900 x 320	795 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320
Net weight		Kg	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [6]	Max	m	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50
Piping length without refrigerent increase	Max	m	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43
	Heating Min / Max	°C	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.

KIT-F24DD2E5-C // KIT-F28DD2E5-C // KIT-F28DD2E8-C // KIT-F34DD2E5-C // KIT-F34DD2E8-C // KIT-F43DD2E8-C // KIT-F50DD2E8-C

CZ-RD513C

CU-B24DBE5 CU-B28DBE8
CU-B28DBE5

CU-B34DBE5 CU-B43DBE8
CU-B34DBE8 CU-B50DBE8

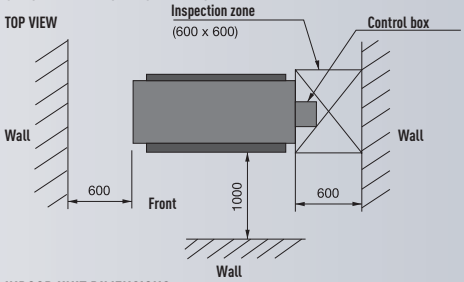
ENERGY EFFICIENCY AND ECOLOGY
+ R410A environmentally friendly refrigerant gas

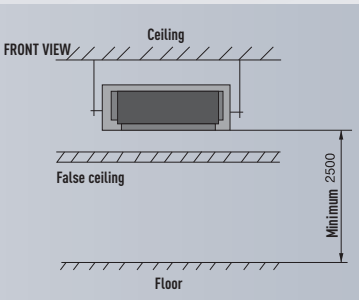
COMFORT
+ Automatic start after a power cut
+ Automatic fan operation mode
+ Soft dry operation mode
+ Hot start mode
+ Selection of temperature sensor at the indoor unit or the wired remote control

EASE OF USE
+ Weekly On/Off timer (6 settings per day and 42 per week)
+ Wired remote control

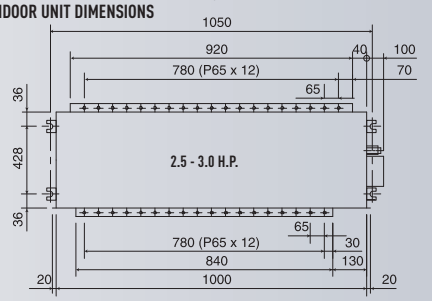
EASY INSTALLATION AND MAINTENANCE
+ High static pressure units ideal for shops and offices
+ Selectable static pressure up to 10 mmAq
+ Self-diagnostic function
+ Ultra compact indoor unit

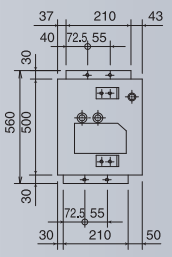
SPACE NEEDED FOR INSTALLATION

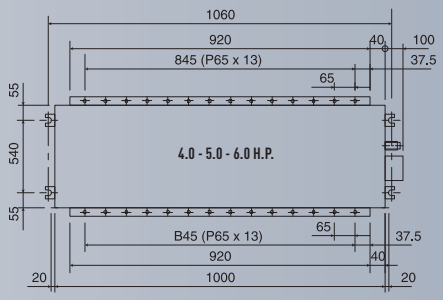


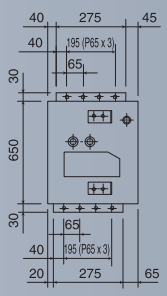


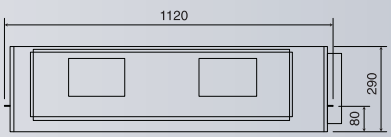
INDOOR UNIT DIMENSIONS

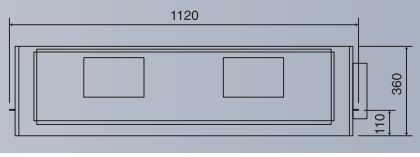












TECHNICAL ZOOM

- STATIC PRESSURE TILL 10MMAQ
- ECO MODE FOR 20% ENERGY SAVING
- MAX ELEVATION DIFFERENCE 30M
- EASY CHECK MODE FOR FAILURE DETECTION

HIGH STATIC PRESSURE
HIDE AWAY // COOLING ONLY FS TYPE

Full line up of cooling only no-inverter High static pressure Hide Away, from 2.5 H.P. to 6.0 H.P. Single-phase and three-phase

HIGH STATIC PRESSURE HIDE AWAY // COOLING ONLY FS TYPE

			2.5 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F24DD2E5-F	KIT-F24DD2E8-F	KIT-F28DD2E5-F	KIT-F28DD2E8-F	KIT-F34DD2E5-F	KIT-F34DD2E8-F	KIT-F43DD2E8-F	KIT-F50DD2E8-F
Indoor			CS-F24DD2E5	CS-F24DD2E5	CS-F28DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5
Outdoor			CU-J24DBE5	CU-J24DBE8	CU-J28DBE5	CU-J28DBE8	CU-J34DBE5	CU-J34DBE8	CU-J43DBE8	CU-J50DBE8
Wired remote control			CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min - Max)	kW	6.60	6.60	7.30	7.30	10.00	10.00	12.50	13.50
	Nominal (Min - Max)	kCal/h	5,676	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min - Max)**		2.44 E	2.44 E	2.51 E	2.51 E	2,44 E	2,55 E	2.51 E	2.47 E
Power input Cooling	Nominal (Min - Max)	kW	2.70 (2.66-2.74)	2.70 (2.66-2.74)	2.91 (2.86-2.96)	2.91 (2.86-2.96)	4.10 (4.03-4.15)	3.92 (3.86-3.96)	4.96 (4.90-5.12)	5.46 (5.41-5.51)
Annual Energy Consumption [2]		kWh	1,350	1,350	1,455	1,455	2,050	1,960	2,490	2,680
Indoor unit										
External static pressure [3]	High	mmAq	7	7	7	7	10	10	10	10
	Medium	mmAq	5	5	5	5	6.6	6.6	6.6	6.6
	Low	mmAq	4.1	4.1	4.1	4.1	5.1	5.1	5.1	5.6
Air Volume	High	m^3/h	1,320	1,320	1,320	1,320	2,280	2,280	2,400	2,700
	Medium	m^3/h	1,020	1,020	1,020	1,020	1,920	1,920	1,980	2,100
	Low	m^3/h	870	870	870	870	1,620	1,620	1,680	1,740
Moisture removal volume		l/h	3.8	4.3	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [4]	Hi / Lo	dB(A)	45 / 41	45 / 41	45 / 41	45 / 41	49 / 45	49 / 45	49 / 45	49 / 45
Sound power Level	Hi	dB	61	61	61	61	64	64	64	64
Dimensions. indoor	H x W x D	mm	290x1,000+100[5]x500	290x1,000+100[5]x500	290x1,000+100[5]x500	290x1,000+100[5]x500	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650	360x1,000+100[5]x650
Net weight	Indoor	Kg	35	35	35	35	48	48	48	48
Dust filter			No	No	No	No	No	No	No	No
Outdoor unit										
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	13.1	4.63	13.7	4.9	18.8	6.5	8.2	9.0
Air Volume		m^3/h	3,600	3,600	3,780	3,780	5,640	5,640	5,640	5,760
Sound pressure Level [4]	Hi	dB(A)	50	50	52	52	55	55	56	56
Sound power Level	Hi	dB	66	66	67	67	69	69	70	70
Dimensions	H x W x D	mm	795 x 900 x 320	795 x 900 x 320	795 x 900 x 320	795 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320
Net weight		Kg	69	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.7	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [6]	Max	m	30	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50	7.5-50
Piping length without refrigerent increase	Max	m	30	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43

GLOBAL REMARKS	Rating conditions	Cooling
	Inside air temperature	27°C DB / 19°C WB
	Outside air temperature	35°C DB / 24°C WB

DB : Dry buld; WB : Wet buld

1) EER, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground
The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) Add 100mm for indoor unit or 70mm for outdoor unit for piping port.
6) When installing the outdoor unit at a higher position than the indoor unit.

KIT-F24DD2E5-F // KIT-F24DD2E8-F // KIT-F28DD2E5-F // KIT-F28DD2E8-F // KIT-F32DD2E5-F // KIT-F34DD2E8-F // KIT-F43DD2E8-F // KIT-F50DD2E8-F

CZ-RD513C

CU-J24DBE5 CU-J28DBE5
CU-J24DBE8 CU-J28DBE8

CU-J34DBE5 CU-J43DBE8
CU-J34DBE8 CU-J50DBE8

ENERGY EFFICIENCY AND ECOLOGY

- R410A environmentally friendly refrigerant gas

COMFORT

- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at the indoor unit or the wired remote control

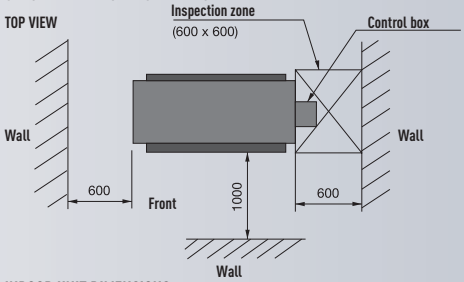
EASE OF USE

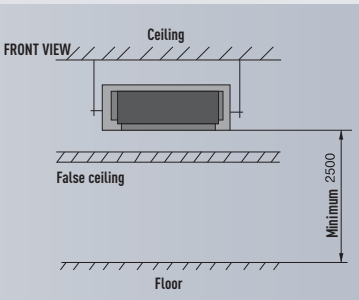
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

EASY INSTALLATION AND MAINTENANCE

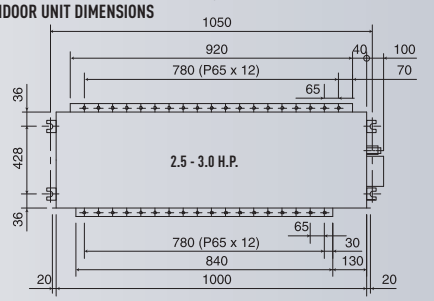
- High static pressure units ideal for shops and offices
- Selectable static pressure up to 10 mmAq
- Self-diagnostic function
- Ultra compact indoor unit

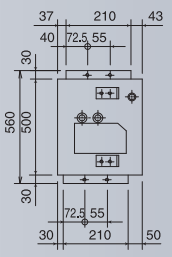
SPACE NEEDED FOR INSTALLATION

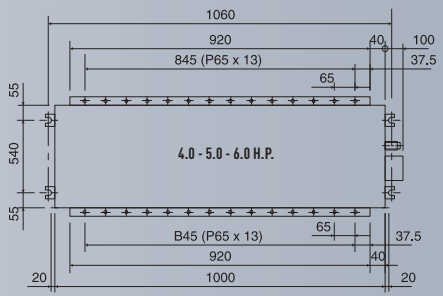


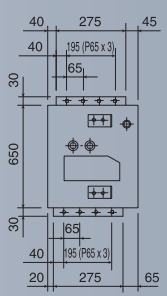


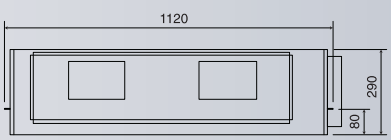
INDOOR UNIT DIMENSIONS

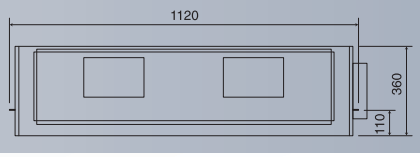












TECHNICAL ZOOM

- HIGHER ENERGY CLASS FOR HIGH SAVINGS, EVEN AT -20°C
- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- ULTRA COMPACT OUTDOOR UNITS WHICH ARE EASY TO INSTALL
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

CEILING // INVERTER+ FS TYPE

A complete line up of compact, efficient , quieter and powerful Ceiling, for the most demanding customers, from 2.5 H.P. to 6.0 H.P. Single-phase and three-phase

OPTIONAL

CEILING // INVERTER+ FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F24DTE5	KIT-F28DTE5	KIT-F34DTE5	KIT-F34DTE8	KIT-F43DTE5	KIT-F43DTE8	KIT-F50DTE8
Indoor			CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F34DTE5	CS-F43DTE5	CS-F43DTE5	CS-F50DTE5
Outdoor			CU-L24DBE5	CU-L28DBE5	CU-L34DBE5	CU-L34DBE8	CU-L43DBE5	CU-L43DBE8	CU-L50DBE8
Wireless control	**Included on the kit**		CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T
Wired remote control	**Optional**		CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	6.30 (2.00-6.50)	7.10 (2.10-7.50)	10.00 (4.00-12.00)	10.00 (4.00-12.00)	12.50 (4.00-13.50)	12.50 (4.00-13.50)	14.00 (4.00-16.00)
	Nominal (Min-Max)	kCal/h	5,418 (1,720-5,590)	6,106 (1806-6450)	8,600 (3,440-10,320)	8,600 (3,440-10,320)	10,750 (3,440-11,610)	10,750 (3,440-11,610)	12,040 (3,440-13,760)
EER [1]	**Nominal (Min-Max)**		3.21 (3.64-2.83) A	2.91 (3.23-3.06) C	3.33 (3.20-3.53) A	3.33 (3.20-3.53) A	3.01 (3.08-3.14) C	3.01 (3.08-3.14) C	2.91 (2.96-3.14) C
Power input Cooling	Nominal (Min-Max)	kW	1.96 (0.55-2.30)	2.44 (0.65-2.45)	3.00 (1.25-3.40)	3.00 (1.25-3.40)	4.15 (1.3-4.30)	4.15 (1.3-4.30)	4.81 (1.35-5.10)
Heating capacity	Nominal (Min-Max)	kW	7.10 (2.10-7.50)	8.00 (2.20-8.50)	11.20 (4.00-13.50)	11.20 (4.00-13.50)	14.00 (4.00-15.50)	14.00 (4.00-15.50)	16.0 (4.00-18.00)
	Nominal (Min-Max)	kCal/h	6,106 (1,806-6,450)	6,880 (1,892-7,310)	9,632 (3,440-11,610)	9,632 (3,440-11,610)	12,040 (3,440-13,330)	12,040 (3,440-13,330)	13,760 (3,440-15,480)
COP [1]	**Nominal (Min-Max)**		3.21 (3.82-2.38) C	3.02 (3.38-2.62) D	3.41 (3.20-3.21) B	3.41 (3.20-3.21) B	3.50 (3.20-3.10) B	3.50 (3.20-3.10) B	3.41 (3.08-3.00) B
Power input Heating	Nominal (Min-Max)	kW	2.21 (0.55-3.15)	2.65 (0.65-3.25)	3.28 (1.25-4.20)	3.28 (1.25-4.20)	4.00 (1.25-5.00)	4.00 (1.25-5.00)	4.69 (1.30-6.00)
Annual Energy Consumption [2]		kWh	980	1,220	1,500	1,500	2,075	2,075	2,405
Indoor unit									
Air Volume	Cooling / Heating	m^3/h	1,020 / 1,020	1,080 / 1,080	1,740 / 1,740	1,740 / 1,740	1,860 / 1,860	1,860 / 1,860	1,920 / 1,920
Moisture removal volume		l/h	3.6	4.2	6.0	6.0	7.9	7.9	9.0
Sound pressure Level [3]	Cooling (Hi / Lo)	dB(A)	43 / 39	45 / 41	47 / 43	47 / 43	49 / 45	49 / 45	50 / 46
	Heating (Hi / Lo)	dB(A)	43 / 39	45 / 41	47 / 43	47 / 43	49 / 45	49 / 45	50 / 46
Sound power Level	Cooling (Hi)	dB	60	62	64	64	66	66	67
	Heating (Hi)	dB	60	62	64	64	66	66	67
Dimensions	Indoor (H x W x D)	mm	210 x 1,245 x 700	210 x 1,245 x 700	250 x 1,600 x 700	250 x 1,600 x 700	250 x 1,600 x 700	250 x 1,600 x 700	250 x 1,600 x 700
Net weight	Indoor	Kg	33	33	43	43	47	47	47
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P
Outdoor unit									
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	8.9	11.1	13.0	4.7	18.8	6.5	7.4
Current Heating	Nominal (Min / Max)	A	10.0	12.0	14.9	5.2	18.2	6.3	7.2
Air Volume	Cooling / Heating	m^3/h	2,880 / 2,880	2,880 / 2,880	5,880 / 5,880	5,880 / 5,880	5,880 / 5880	5,880 / 5,880	5,880 / 5,880
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48	52	52	53	53	54
	Heating (Hi)	dB(A)	49	50	54	54	55	55	56
Sound power Level	Cooling (Hi)	dB	63	64	66	66	67	67	68
	Heating (Hi)	dB	65	66	68	68	69	69	70
Dimensions	H x W x D	mm	795 x 900 x 320	795 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900x 320
Net weight		Kg	71	71	110	110	110	110	105
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	2.13	2.35	3.3	3.3	3.3	3.3	3.5
Elevation difference (in/out) [4]	Max	m	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43	-5 / 43
	Heating Min / Max	°C	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24	-20 / 24

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513T

CZ-RD513C

CU-L24DBE5
CU-L28DBE5

CU-L34DBE5 CU-L43DBE8
CU-L34DBE8 CU-L50DBE8
CU-L43DBE5

KIT-F24DTE5 // KIT-F28DTE5 // KIT-F34DTE5 // KIT-F34DTE8 // KIT-F43DTE5 // KIT-F43DTE8 // KIT-F50DTE8

HEALTHY AIR
- Anti-Mould long life air filter
- CZ-SA12P Alleru-buster antiallergic filter (optional)

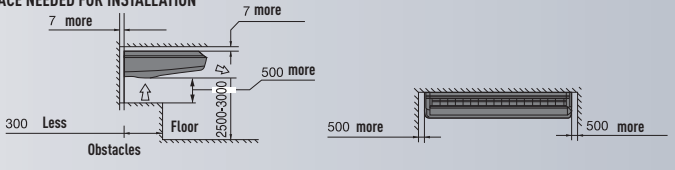
ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT
- Cooling with low outdoor temperatures (down to -20 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Automatic air deflector system
- Hot start mode
- Super wide air outlet (100 degrees horizontally)

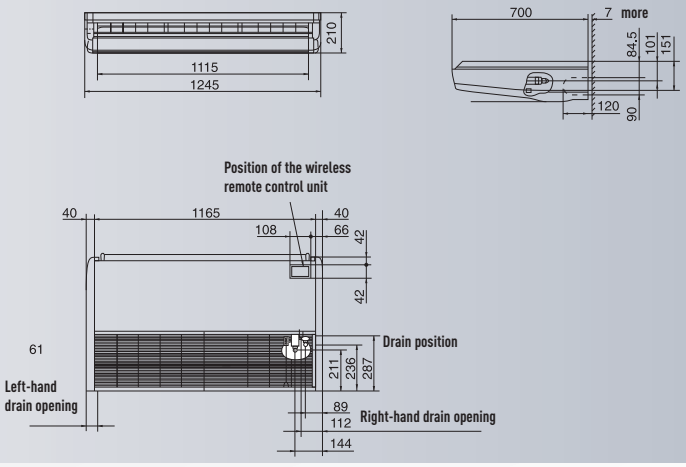
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Wired remote control optional

EASY INSTALLATION AND MAINTENANCE
- Installation using existing pipes
- Self-diagnostic function
- Condensation control

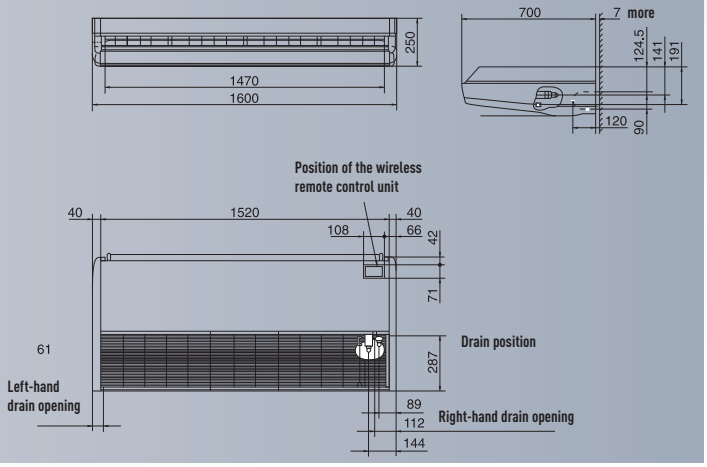
SPACE NEEDED FOR INSTALLATION



INDOOR UNIT DIMENSIONS CS-F24DTE5 // CS-F28DTE5



INDOOR UNIT DIMENSIONS CS-F34DTE5 // CS-F43DTE5 // CS-F50DTE5



TECHNICAL ZOOM

- ULTRA COMPACT OUTDOOR UNITS (-40% REDUCED SIZE FOR THE CU-YL34HBE5)
- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 25 M MAXIMUM ELEVATION DIFFERENCE
- COOLING WITH LOW OUTDOOR TEMPERATURES (DOWN TO -20 ºC)
- EASY CHECK MODE FOR FAILURE DETECTION

CEILING // INVERTER FS TYPE

Compact line up of inverter Ceiling, from 2.5 H.P. to 5.0 H.P. Single-phase

OPTIONAL

CEILING // INVERTER FS TYPE

			2.5 H.P.	3.0 H.P.	4.0 H.P.	5.0 H.P.
KIT			KIT-YH24DTE5	KIT-YH28DTE5	KIT-YH34DTE5	KIT-YH43DTE5
Indoor			CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5
Outdoor			CU-YL24HBE5	CU-YL28HBE5	CU-YL34HBE5	CU-YL43HBE5
Wireless control	**Included on the kit**		CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T
Wired remote control	**Optional**		CZ-RL513C	CZ-RL513C	CZ-RL513C	CZ-RL513C
Cooling capacity	Nominal (Min - Max)	kW	5.60 (2 - 6.30)	7.10 (2.10 - 7.50)	10.00 (3.8 - 10.50)	12.50 (3.80 - 13.00)
	Nominal (Min - Max)	kCal/h	4,816 (1,720 - 5,418)	6,106 (1,806 - 6,450)	8,600 (3,268 - 9,030)	10,750 (3,268 - 11,180)
EER [1]	**Nominal (Min - Max)**		**2.81 (3.03 - 2.68) C**	**2.81 (3.00 - 2.78) C**	**2.61 (2.92 - 2.56) D**	**3.81 (2.92 - 2.77) C**
Power input Cooling	Nominal (Min - Max)	kW	1.99 (0.66 - 2.35)	2.53 (0.70 - 2.70)	3.83 (1.30 - 4.10)	4.45 (1.30 - 4.70)
Heating capacity	Nominal (Min - Max)	kW	7.00 (2.10 - 7.50)	8.00 (2.20 - 8.30)	11.20 (3.80 - 12.50)	14.00 (3.80 - 14.50)
	Nominal (Min - Max)	kCal/h	6,020 (1,806 - 6,450)	6,880 (1,892 - 7,138)	9,632 (3,268 - 10,750)	12,040 (3,268 - 12,470)
COP [1]	**Nominal (Min - Max)**		**2.81 (3.82 - 2.54) D**	**2.81 (3.38 - 2.55) D**	**3.21 (3.30 - 2.98) C**	**3.31 (3.39 - 2.90) C**
Power input Heating	Nominal (Min - Max)	kW	2.49 (0.55 - 2.95)	2.855 (0.65 - 3.25)	3.49 (1.15 - 4.20)	4.23 (1.12 - 5.00)
Annual Energy Consumption [2]		kWh	995	1,265	1,915	2,225
Indoor unit						
Air Volume	Cooling / Heating	m^3/h	1,020 / 1,020	1,080 / 1,080	1,740 / 1,740	1,860 / 1,860
Moisture removal volume		l/h	3.20	4.20	6.00	7.90
Sound pressure Level [3]	Cooling (Hi / Lo)	dB(A)	43 / 39	45 / 41	47 / 43	49 / 45
	Heating (Hi / Lo)	dB(A)	43 / 39	45 / 41	47 / 43	49 / 45
Sound power Level	Cooling (Hi)	dB	60	62	64	66
	Heating (Hi)	dB	60	62	64	66
Dimensions	Indoor (H x W x D)	mm	210 x 1,245 x 700	210 x 1,245 x 700	210 x 1,600 x 700	210 x 1,600 x 700
Net weight	Indoor	Kg	33	33	43	47
Dust filter			Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P
Outdoor unit						
Power source		V	220 - 240	220 - 240	220 - 240	220 - 240
Connection		mm^2	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5	4 x 1.5 to 2.5
Current Cooling	Nominal (Min / Max)	A	8.9	11.3	17.5	20.3
Current Heating	Nominal (Min / Max)	A	11.2	12.8	16	19.4
Air Volume	Cooling / Heating	m^3/h	3,180	3,480	3,720	5,640
Sound pressure Level [3]	Cooling (Hi)	dB(A)	49	50	53	54
	Heating (Hi)	dB(A)	51	52	56	56
Sound power Level	Cooling (Hi)	dB	60	62	64	66
	Heating (Hi)	dB	60	62	64	66
Dimensions	H x W x D	mm	795 x 875+70 [4] x 320	795 x 875+70 [4] x 320	795 x 900 x 320	1,170 x 900 x 320
Net weight		Kg	65	65	66	94
Piping connections	Liquid pipe	inch (mm)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.63	2.05	2.8	2.8
Elevation difference (in/out) [5]	Max	m	25	25	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 30	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	30	30	30	30
Additional gas		g/m	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 43	-5 / 44	-5 / 45	-5 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 25	-15 / 26	-15 / 27

GLOBAL REMARKS

Rating conditions	Cooling	Heating
Inside air temperature	27°C DB / 19°C WB	20°C DB
Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) Add 70mm for piping port.
5) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513T

CZ-RD513C

CU-YL24HBE5
CU-YL28HBE5

CU-YL34HBE5

CU-YL43HBE5

KIT-YH24DTE5 // KIT-YH28DTE5 // KIT-YH34DTE5 // KIT-YH43DTE5

HEALTHY AIR
- Anti-Mould long life air filter
- CZ-SA12P Alleru-buster antiallergic filter (optional)

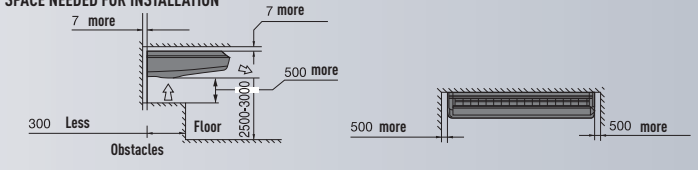
ENERGY EFFICIENCY AND ECOLOGY
- Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT
- Cooling with low outdoor temperatures (down to -15 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Automatic air deflector system
- Hot start mode
- Super wide air outlet (100 degrees horizontally)

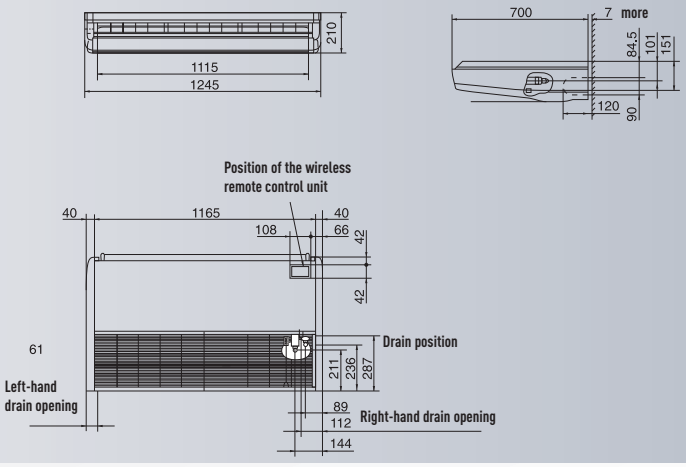
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Installation using existing pipes (only for YL*HBE5 units)
- Self-diagnostic function
- Condensation control

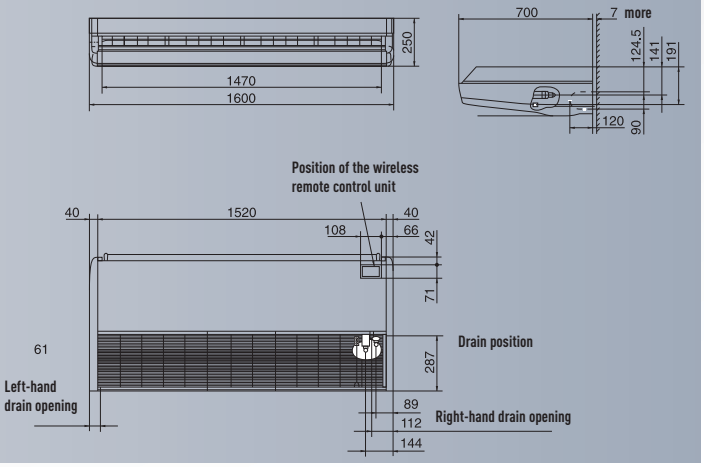
SPACE NEEDED FOR INSTALLATION



INDOOR UNIT DIMENSIONS CS-F24DTE5 // CS-F28DTE5



INDOOR UNIT DIMENSIONS CS-F34DTE5 // CS-F43DTE5



TECHNICAL ZOOM

- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

CEILING // HEAT PUMP FS TYPE

Full line up of heat pump no-inverter Ceiling, from 2 H.P. to 6.0 H.P. Single-phase and three-phase

OPTIONAL

CEILING // HEAT PUMP FS TYPE

			2.0 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F18DTE5-C	KIT-F24DTE5-C	KIT-F28DTE5-C	KIT-F28DTE8-C	KIT-F34DTE5-C	KIT-F34DTE8-C	KIT-F43DTE8-C	KIT-F50DTE8-C
Indoor			CS-F18DTE5	CS-F24DTE5	CS-F28DTE5	CS-F28DTE5	CS-F34DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5
Outdoor			CU-B18DBE5	CU-B24DBE5	CU-B28DBE5	CU-B28DBE8	CU-B34DBE5	CU-B34DBE8	CU-B43DBE8	CU-B50DBE8
Wireless control	**Included on the kit**		CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T
Wired remote control	**Optional**		CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	5.00	6.60	7.30	7.30	10.00	10.00	12.50	13.50
	Nominal (Min-Max)	kCal/h	4,300	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min-Max)**		2.76 D	2.57 E	2.56 E	2.56 E	2.56 D	2.65 D	2.63 D	2.62 E
Power input Cooling	Nominal (Min-Max)	kW	1.81 (1.75-1.84)	2.57 (2.51-2.63)	2.85 (2.8-2.9)	2.85 (2.8-2.9)	3.66 (3.85-3.95)	3.77 (3.72-3.82)	4.75 (4.7-4.8)	5.16 (5.11-5.28)
Heating capacity	Nominal (Min-Max)	kW	5.60	7.10	7.80	7.80	11.20	11.20	14.00	15.00
	Nominal (Min-Max)	kCal/h	4,816	6,106	6,708	6,708	9,632	9,632	12,040	12,900
COP [1]	**Nominal (Min-Max)**		3.22 C	2.85 D	2.84 D	2.84 D	2.81 E	2.86 E	2.99 D	2.98 D
Power input Heating	Nominal (Min-Max)	kW	1.74 (1.71-1.77)	2.49 (2.44-2.62)	2.75 (2.7-2.8)	2.75 (2.7-2.8)	3.99 (3.94-4.04)	3.91 (3.86-3.96)	4.69 (4.64-4.74)	5.03 (4.98-5.08)
Annual Energy Consumption [2]		kWh	905	1285	1425	1425	1950	1885	2375	2580
Indoor unit										
Air Volume	Cooling / Heating	m^3/h	840 / 840	1,020 / 1,020	1,080 / 1,080	1,080 / 1,080	1,740 / 1,740	1,740 / 1,740	1,860 / 1,860	1,920 / 1,920
Moisture removal volume		l/h	2.8	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [3]	Cooling (Hi / Lo)	dB(A)	41 / 37	43 / 39	45 / 41	45 / 41	47 / 43	47 / 43	49 / 45	50 / 46
	Heating (Hi / Lo)	dB(A)	41 / 37	43 / 39	45 / 41	45 / 41	47 / 43	47 / 43	49 / 45	50 / 46
Sound power Level	Cooling (Hi)	dB	58	60	62	62	64	64	66	67
	Heating (Hi)	dB	58	60	62	62	64	64	66	67
Dimensions	Indoor (H x W x D)	mm	210 x 1,245 x 700	210 x 1,245 x 700	210 x 1,245 x 700	210 x 1,245 x 700	250 x 1,600 x 700	250 x 1,600 x 700	250 x 1,600 x 700	250 x 1,600 x 700
Net weight	Indoor	Kg	33	33	33	33	43	43	47	47
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P
Outdoor unit										
Power source		V	220 - 240	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	8.1	12.6	12.9	4.9	18.2	6.1	8.0	8.6
Current Heating	Nominal (Min / Max)	A	7.75	12.6	13.0	4.7	18.2	6.4	7.8	8.0
Air Volume	Cooling / Heating	m^3/h	3,420	3,600	3,780	3,780	5,640	5,640	5,640	5,760
Sound pressure Level [3]	Cooling (Hi)	dB(A)	49	50	52	52	55	55	56	56
	Heating (Hi)	dB(A)	50	51	53	53	56	56	57	57
Sound power Level	Cooling (Hi)	dB	65	66	67	67	69	69	70	70
	Heating (Hi)	dB	66	67	68	68	70	70	71	71
Dimensions	H x W x D	mm	795 x 900 x 320	795 x 900 x 320	795 x 900 x 320	795 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320
Net weight		Kg	57	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.35	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [4]	Max	m	20	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	20	30	30	30	30	30	30	30
Additional gas		g/m	20	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43
	Heating Min / Max	°C	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24

GLOBAL REMARKS	Rating conditions	Cooling	Heating
	Inside air temperature	27°C DB / 19°C WB	20°C DB
	Outside air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513T

CZ-RD513C

CU-B18DBE5 CU-B28DBE5
CU-B24DBE5 CU-B28DBE8

CU-B34DBE5 CU-B43DBE8
CU-B34DBE8 CU-B50DBE8

KIT-F18DTE5-C // KIT-F24DTE5-C // KIT-F28DTE5-C // KIT-F28DTE8-C // KIT-F34DTE5-C // KIT-F34DTE8-C // KIT-F43DTE8-C // KIT-F50DTE8-C

HEALTHY AIR
- Anti-Mould long life air filter
- CZ-SA12P Alleru-buster antiallergic filter (optional)

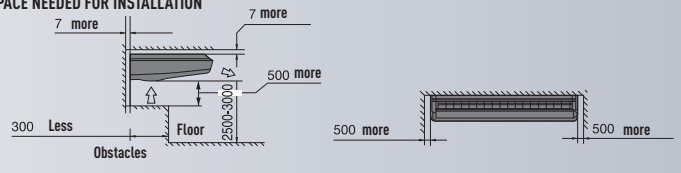
ENERGY EFFICIENCY AND ECOLOGY
- R410A environmentally friendly refrigerant gas

COMFORT
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Automatic air deflector system
- Hot start mode
- Super wide air outlet (100 degrees horizontally)

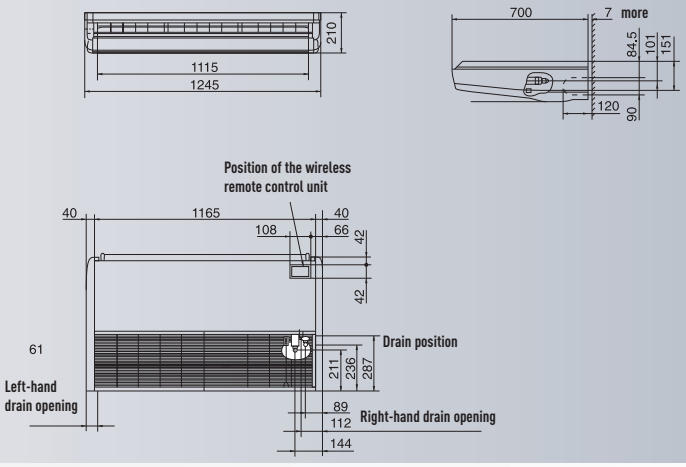
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Self-diagnostic function
- Condensation control

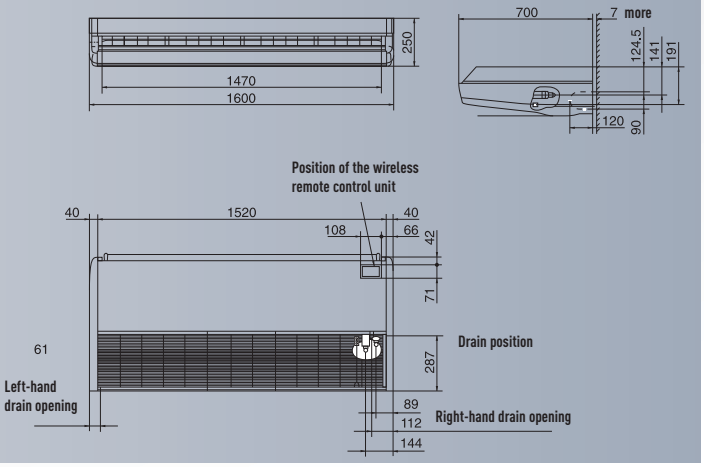
SPACE NEEDED FOR INSTALLATION



INDOOR UNIT DIMENSIONS CS-F18DTE5 // CS-F24DTE5 // CS-F28DTE5



INDOOR UNIT DIMENSIONS CS-F34DTE5 // CS-F43DTE5 // CS-F50DTE5



TECHNICAL ZOOM

- ECO MODE FOR 20% ENERGY SAVING
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- 30 M MAXIMUM ELEVATION DIFFERENCE
- EASY CHECK MODE FOR FAILURE DETECTION

CEILING // COOLING ONLY FS TYPE

Full line up of cooling only no-inverter Ceiling, from 2 H.P. to 6.0 H.P. Single-phase and three-phase

OPTIONAL

CEILING // COOLING ONLY FS TYPE

			2.0 H.P.	2.5 H.P.	2.5 H.P.	3.0 H.P.	3.0 H.P.	4.0 H.P.	4.0 H.P.	5.0 H.P.	6.0 H.P.
KIT			KIT-F18DTE5-F	KIT-F24DTE5-F	KIT-F24DTE8-F	KIT-F28DTE5-F	KIT-F28DTE8-F	KIT-F34DTE5-F	KIT-F34DTE8-F	KIT-F43DTE8-F	KIT-F50DTE8-F
Indoor			CS-F18DTE5	CS-F24DTE5	CS-F24DTE5	CS-F28DTE5	CS-F28DTE5	CS-F34DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5
Outdoor			CU-J18DBE5	CU-J24DBE5	CU-J24DBE8	CU-J28DBE5	CU-J28DBE8	CU-J34DBE5	CU-J34DBE8	CU-J43DBE8	CU-J50DBE8
Wireless control	**Included on the kit**		CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T	CZ-RL513T
Wired remote control	**Optional**		CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C	CZ-RD513C
Cooling capacity	Nominal (Min-Max)	kW	5.00	6.60	6.60	7.30	7.30	10.00	10.00	12.50	13.50
	Nominal (Min-Max)	kCal/h	4,300	5,676	5,676	6,278	6,278	8,600	8,600	10,750	11,610
EER [1]	**Nominal (Min-Max)**		2.76 D	2.51 E	2.51 E	2.56 E	2.56 E	2.49 E	2.57 E	2.56 E	2.56 E
Power input Cooling	Nominal (Min-Max)	kW	1.81 (1.75-1.84)	2.63 (2.58-2.68)	2.63 (2.58-2.68)	2.85 (2.8-2.9)	2.85 (2.8-2.9)	4.02 (3.97-4.07)	3.99 (3.84-3.94)	3.99 (3.84-3.94)	5.28 (5.23-5.33)
Annual Energy Consumption [2]		kWh	905	1.315	1.315	1.425	1.425	2.010	1.945	2.445	2.640
Indoor unit											
Air Volume		m^3/h	840	1,020	1,020	1,080	1,080	1,740	1,740	1,860	1,920
Moisture removal volume		l/h	2.8	3.8	3.8	4.3	4.3	6.0	6.0	7.9	8.6
Sound pressure Level [3]	Hi / Lo	dB(A)	41 / 37	43 / 39	43 / 39	45 / 41	45 / 41	47 / 43	47 / 43	49 / 45	50 / 46
Sound power Level	Hi	dB	58	60	60	62	62	64	64	66	67
Dimensions	Indoor (H x W x D)	mm	210x1,245x700	210x1,245x700	210x1,245x700	210x1,245x700	210x1,245x700	250x1,600x700	250x1,600x700	250x1,600x700	250x1,600x700
Net weight	Indoor	Kg	33	33	33	33	33	43	43	47	47
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Antialergic filter	Optional		CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P	CZ-SA12P
Outdoor unit											
Power source		V	220 - 240	220 - 240	380 - 415	220 - 240	380 - 415	220 - 240	380 - 415	380 - 415	380 - 415
Connection		mm^2	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	8.1	13.3	4.6	13	4.95	18.5	6.1	8.2	8.6
Air Volume		m^3/h	3,420	3,600	3,600	3,780	3,780	5,640	5,640	5,640	5,760
Sound pressure Level [3]	Hi	dB(A)	49	50	50	52	52	55	55	56	56
Sound power Level	Hi	dB	65	66	66	67	67	69	69	70	70
Dimensions	H x W x D	mm	795x900x320	795x900x320	795x900x320	795x900x320	795x900x320	1,170x900x320	1,170x900x320	1,170x900x320	1,170x900x320
Net weight		Kg	57	69	69	69	69	102	100	102	102
Piping connections	Liquid pipe	inch (mm)	1/4" (6.35)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)	3/8" (9.52)
	Gas pipe	inch (mm)	1/2" (12.70)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)	5/8" (15.88)
Refrigerant Loading	R410A	Kg	1.35	1.7	1.7	2.05	2.05	2.7	2.7	3.1	3.4
Elevation difference (in/out) [4]	Max	m	20	30	30	30	30	30	30	30	30
Piping length	Min - Max	m	7.5 - 30	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50	7.5 - 50
Piping length without refrigerent increase	Max	m	20	30	30	30	30	30	30	30	30
Additional gas		g/m	50	50	50	50	50	50	50	50	50
Area control accessory			EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire	EKRORO wire
Operating range [3]	Min / Max	°C	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43	-10 / 43

GLOBAL REMARKS

Rating conditions	Cooling
Inside air temperature	27°C DB / 19°C WB
Outside air temperature	35°C DB / 24°C WB

DB : Dry buld; WB : Wet buld

1) EER, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
4) When installing the outdoor unit at a higher position than the indoor unit.

CZ-RL513T

CZ-RD513C

CU-J18DBE5 CU-J28DBE5
CU-J24DBE5 CU-J28DBE8
CU-J24DBE8

CU-J34DBE5 CU-J43DBE8
CU-J34DBE8 CU-J50DBE8

KIT-F18DTE5-F // KIT-F24DTE5-F // KIT-F28DTE8-F // KIT-F28DTE5-F // KIT-F28DTE8-F // KIT-F34DTE5-F // KIT-F34DTE8-F // KIT-F43DTE8-F // KIT-F50DTE8-F

HEALTHY AIR
- Anti-Mould long life air filter
- CZ-SA12P Alleru-buster antiallergic filter (optional)

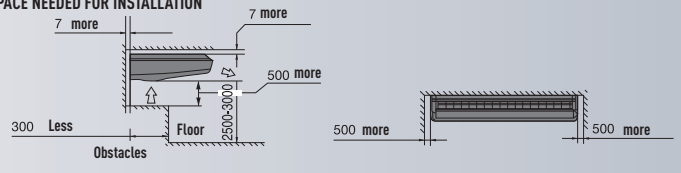
ENERGY EFFICIENCY AND ECOLOGY
- R410A environmentally friendly refrigerant gas

COMFORT
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Automatic air deflector system
- Hot start mode
- Super wide air outlet (100 degrees horizontally)

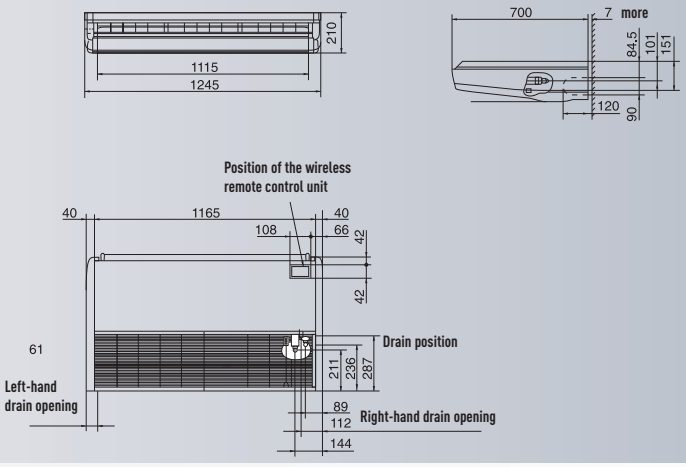
EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Infrared remote control
- Optional wired remote control

EASY INSTALLATION AND MAINTENANCE
- Self-diagnostic function
- Condensation control

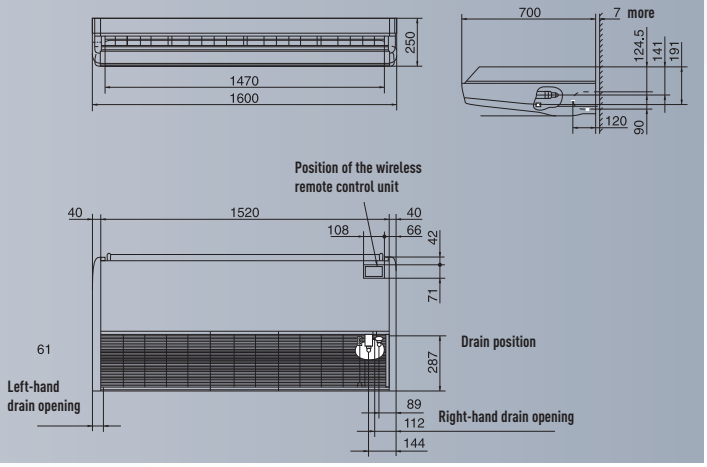
SPACE NEEDED FOR INSTALLATION



INDOOR UNIT DIMENSIONS CS-F18DTE5 // CS-F24DTE5 // CS-F28DTE5



INDOOR UNIT DIMENSIONS CS-F34DTE5 // CS-F43DTE5 // CS-F50DTE5



TECHNICAL ZOOM

- SELECTABLE STATIC PRESSURE UP TO 25 MMAQ
- HEATING WITH LOW OUTDOOR TEMPERATURES (DOWN TO -15 ºC)
- WEEKLY TIMER, 42 SETTINGS PER WEEK
- EASY CHECK MODE FOR FAILURE DETECTION

HIGH STATIC PRESSURE HIDE AWAY 8-10 H.P. // INVERTER US TYPE

Inverter High static pressure Hide away, 8 - 10 H.P. three-phase

HIGH STATIC PRESSURE HIDE AWAY 8-10 H.P. // INVERTER US TYPE

			8.0 H.P.	10.0 H.P.
KIT			**KIT-200X2XPQ**	**KIT-250X2XPQ**
Indoor			**S-200E1DPQ1**	**S-250E1DPQ1**
Outdoor			**U-200X2XPQ**	**U-250X2XPQ**
Wired remote control			**CZ-02RT11P**	**CZ-02RT11P**
Cooling capacity	Nominal (Min - Max)	kW	20.00 (10.00 - 22.00)	25.0 (12.5 - 27.5)
	Nominal (Min - Max)	kCal/h	17,200 (17,200 - 18,920)	21,500 (10,750-23,650)
EER [1]	**Nominal (Min - Max)**		**3.21 (3.11 - 3.10) A**	**2,81 (2.98 - 2.99) C**
Power input Cooling	Nominal (Min - Max)	kW	6.23 (3.22 - 7.09)	8.58 (4.20 - 9.20)
Heating capacity	Nominal (Min - Max)	kW	23.0 (11.5 - 25.3)	27.0 (13.0 - 29.7)
	Nominal (Min - Max)	kCal/h	19,780 (9,890 - 21,758)	23,220 (11,180 - 25,540)
COP [1]	**Nominal (Min - Max)**		**3.41 (3.04 - 3.05) B**	**3.28 (3.02 - 3.03) C**
Power input Heating	Nominal (Min - Max)	kW	6.74 (3.78 - 8.3)	8.22 (4.30 - 9.80)
Annual Energy Consumption [2]		kWh	3115	4290
Indoor unit				
Power source		V	220 - 240	220 - 240
External static pressure [3]	High	mmAq	25	25
	Medium	mmAq		
	Low	mmAq		
Air Volume	High	m³/h	4,200	5,340
	Medium	m³/h		
	Low	m³/h		
Moisture removal volume		l/h		
Sound pressure Level [4]	Cooling (Hi / Lo)	dB(A)	45	45
	Heating (Hi / Lo)	dB(A)	45	45
Sound power Level	Cooling (Hi)	dB		
	Heating (Hi)	dB		
Dimensions	H x W x D	mm	450 x 1,400 x 900	450 x 1,400 x 900
Net weight	Indoor	Kg	87	92
Dust filter			Yes	Yes
Outdoor unit				
Power source		V	380 - 415	380 - 415
Connection		mm²	4 x 1'5 to 2'5	4 x 1'5 to 2'5
Current Cooling	Nominal (Min / Max)	A	20	24.1
Current Heating	Nominal (Min / Max)	A	23	16.4
Air Volume	Cooling / Heating	m³/h	10,500	10,500
Sound pressure Level [4]	Cooling (Hi)	dB(A)	57	57
	Heating (Hi)	dB(A)	57	57
Sound power Level	Cooling (Hi)	dB		
	Heating (Hi)	dB		
Dimensions	H x W x D	mm	1,680 x 930 x 765	1,680 x 930 x 765
Net weight		Kg	198	198
Piping connections	Liquid pipe	inch (mm)	3/8	1/2
	Gas pipe	inch (mm)	7/8	7/8
Refrigerant Loading	R410A	Kg	8	9
Elevation difference (in/out) [5]	Max	m	30	30
Piping length	Min - Max	m	5 - 100	5 - 100
Piping length without refrigerent increase	Max	m	30	30
Additional gas		g/m	see installation manual	see installation manual
Area control accessory			EKRORO wire	EKRORO wire
Operating range [3]	Cooling Min / Max	°C	-5 / 46	-5 / 46
	Heating Min / Max	°C	-15 / 15	-15 / 15

GLOBAL REMARKS	Rating conditions	Cooling
	Inside air temperature	27°C DB / 19°C WB
	Outside air temperature	35°C DB / 24°C WB

DB : Dry buld; WB : Wet buld

1) EER and COP, Energy Saving Classification, is at 220 - 240V (380 - 415V) only in accordance with EU directive 2002/31/EC.
2) The annual consumption is calculated by multiplying the input power at 220 - 240V (380 - 415V) by an average of 500-hr per year in cooling mode.
3) The specification listed on the table indicates values under the condition of 50Pa (5,1 mmAq) which are applied for factory default setting.
4) The sound pressure Level of the units shows the value measured of a position 1 meter in front of the main body and 1,5 from the ground. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification.
5) When installing the outdoor unit at a higher position than the indoor unit.

CZ-02RT11P

U-200X2XPQ
U-250X2XPQ

KIT-200X2XPQ // KIT-250X2XPQ

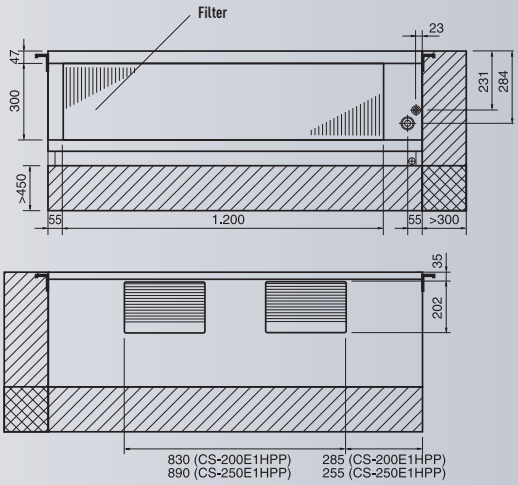
ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

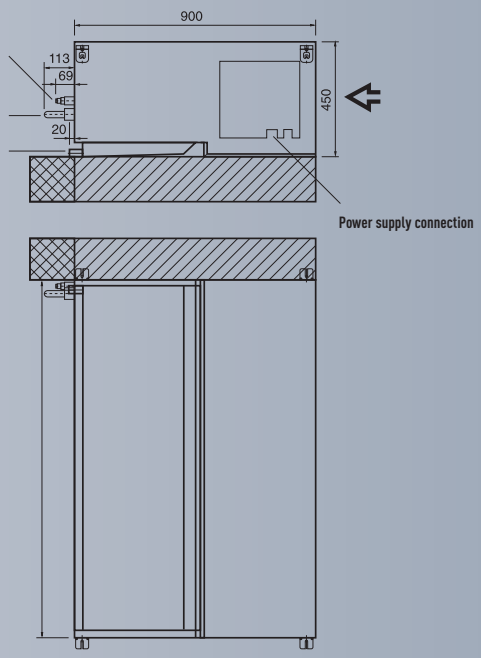
COMFORT
- Cooling with low outdoor temperatures (down to -15 ºC)
- Automatic start after a power cut
- Automatic fan operation mode
- Soft dry operation mode
- Hot start mode
- Selection of temperature sensor at indoor unit or wired remote control
- Outdoor air inlet
- Filter included

EASE OF USE
- Weekly On/Off timer (6 settings per day and 42 per week)
- Wired remote control

EASY INSTALLATION AND MAINTENANCE
- High static pressure units ideal for shops and offices
- Selectable static pressure up to 25 mmAq
- Self-diagnostic function

INDOOR UNIT DIMENSIONS





Service space

Additional service space for another drain pump

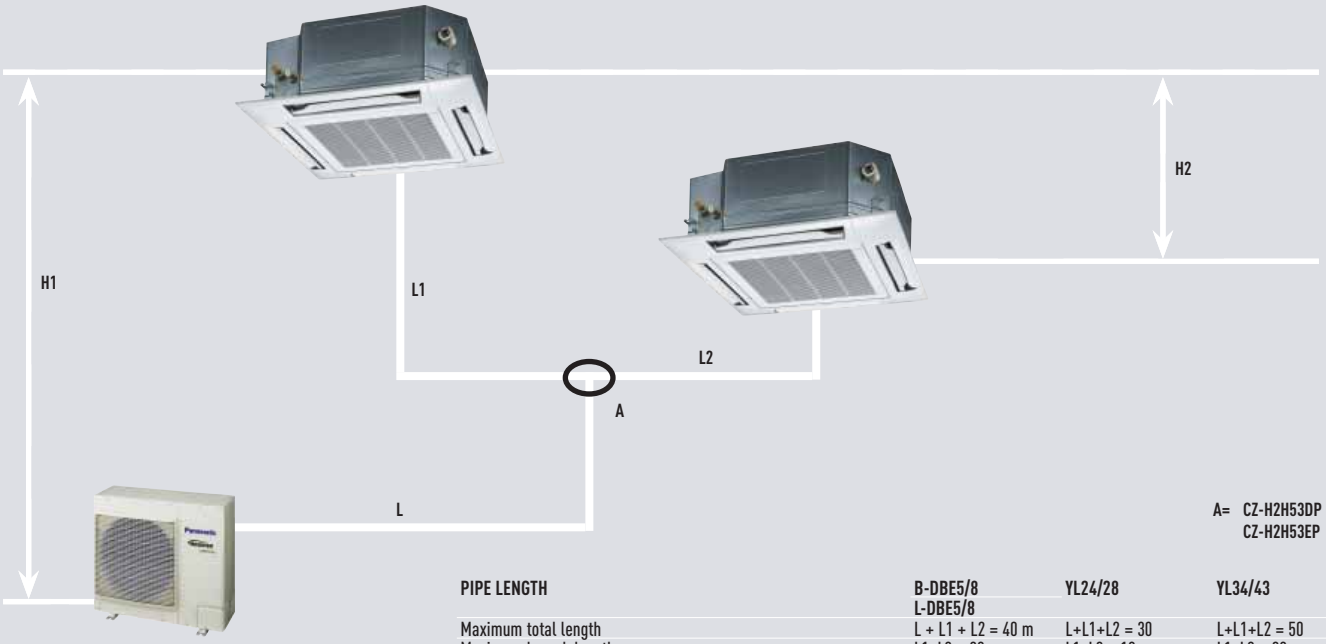
1. Liquid pipe connection:
   CS-200E1: Single 1/2'' or 12.7 mm connection
   CS-250E1: Single 5/8'' or 15.9 mm connection
2. Gas pipe connection:
   CS-200 | 250E1: 1 1/8'' (28.6 mm) ≤ outside diameter
3. Drainage connector with outside diameter of Ø 25

TWIN FLEXI SYSTEM FS // INVERTER+ // INVERTER // HEAT PUMP // COOLING ONLY FS

Panasonic's FS units can be installed as Twin systems (two indoor units of the same type with one outdoor unit). The indoor units can be combined in any of the different available ratings (1.5 H.P. 2 H.P. 2.5 H.P. and 3 H.P.).
The total power of indoor units will coincide with the power of the outdoor unit in all cases so that their operation will always be simultaneous*. The outdoor units are available in ratings of 3 H.P. 4 H.P. 5 H.P. and 6 H.P.

*** Simultaneous operation of indoor units in all cases.**

TABLE OF TWIN COMBINATIONS



A= CZ-H2H53DP
CZ-H2H53EP

PIPE LENGTH	B-DBE5/8 L-DBE5/8	YL24/28	YL34/43
Maximum total length	L + L1 + L2 = 40 m	L+L1+L2 = 30	L+L1+L2 = 50
Maximum branch length	L1, L2 = 20 m	L1, L2 = 10 m	L1, L2 = 20 m
Maximum difference in branch lengths	L1 – L2 = 10 m	L1 - L2 = 5 m	L1 - L2 = 10 m
Maximum gradient between the outdoor unit and the indoor unit	H1 = 30 m (20 m*)	H1 = 25 m (20 m)	H1 = 30 m (20 m)
Maximum gradient between indoor units	H2 = 0.5 m	H2 = 0.5 m	H2 = 0.5 m

* If the outdoor unit is below the indoor units.

TABLE OF COMBINATIONS FOR FS HEAT PUMP // FS INVERTER+

OUTDOOR UNIT	STANDARD TWIN			DIVERTER	OUTDOOR UNIT	STANDARD TWIN			DIVERTER
3.0 H.P. (CU-28)	3.0 H.P. (CU-28)	1.5 H.P. (CS-14)	1.5 H.P. (CS-14)	CZ-H2H53DP	5.0 H.P. (CU-43)	5.0 H.P. (CU-43)	2.5 H.P. (CS-24)	2.5 H.P. (CS-24)	CZ-H2H53EP
4.0 H.P. (CU-34)	4.0 H.P. (CU-34)	2.0 H.P. (CS-18)	2.0 H.P. (CS-18)	CZ-H2H53DP	6.0 H.P. (CU-50)	6.0 H.P. (CU-50)	3.0 H.P. (CS-28)	3.0 H.P. (CS-28)	CZ-H2H53EP

COMPATIBLE INDOOR UNITS

CS-F14DB4E5 / CS-F18DB4E5
CS-F24DB4E5 / CS-F28DB4E5

CS-F18DTE5 / CS-F24DTE5 / CS-F28DTE5

CS-F14DD3E5 / CS-F18DD3E5
CS-F24DD3E5 / CS-F28DD3E5

CS-F24DD2E5 / CS-F28DD2E5

COMPATIBLE OUTDOOR UNITS

CU-J28DBE5/8

CU-B28DBE5/8

CU-L28DBE5

CU-YL28HBE5
CU-YL34HBE5

CU-J34DBE5/8
CU-J43DBE8
CU-J50DBE8

CU-B34DBE5/8
CU-B43DBE8
CU-B50DBE8

CU-L34DBE5/8
CU-L43DBE5/8
CU-L50DBE8

CU-YL43HBE5

COMPATIBLE INDOOR UNITS

			(14) 1,5 H.P.	(18) 2,0 H.P.	(24) 2,5 H.P.	(28) 3,0 H.P.
SPLIT CASSETTE TYPE			**CS-F14DB4E5**	**CS-F18DB4E5**	**CS-F24DB4E5**	**CS-F28DB4E5**
Panel			CZ-BT03P	CZ-BT03P	CZ-BT03P	CZ-BT03P
Power input	Cooling	kW - kcal/h	3.8 - 3,268	5.0 - 4,300	6.6 - 5,676	7.3 - 6,278
	Heating	kW - kcal/h	4.3 - 3,698	5.6 - 4,816	7.1 - 6,106	8.0 - 6,880
Dimensions (H x W x D)	Indoor	mm	246 x 840 x 840	246 x 840 x 840	246 x 840 x 840	246 x 840 x 840
	Panel	mm	30 x 950 x 950	30 x 950 x 950	30 x 950 x 950	30 x 950 x 950
Sound pressure Level		dB(A)	31	32	32	36
Air Volume		m^3/h	900	960	1,080	1,200
SPLIT CEILING TYPE			—	**CS-F18DTE5**	**CS-F24DTE5**	**CS-F28DTE5**
Power input	Cooling	kW - kcal/h	—	5.0 - 4,300	6.6 - 5,676	7.3 - 6,278
	Heating	kW - kcal/h	—	5.6 - 4,816	7.1 - 6,106	7.8 - 6,708
Dimensions	H x W x D	mm	—	210 x 1,245 x 700	210 x 1,245 x 700	210 x 1,245 x 700
Sound pressure Level		dB(A)	—	34	39	41
Air Volume		m^3/h	—	840	1,020	1,080
LOW STATIC PRESSURE HIDE-AWAY TYPE			**CS-F14DD3E5**	**CS-F18DD3E5**	**CS-F24DD3E5**	**CS-F28DD3E5**
Power input	Cooling	kW - kcal/h	3.8 - 3,268	5.0 - 4,300	6.6 - 5,676	7.3 - 6,278
	Heating	kW - kcal/h	4.3 - 3,698	5.6 - 4,816	7.1 - 6,106	8.0 - 6,880
Dimensions	H x W x D	mm	270 x 780+100 x 650	270 x 780+100 x 650	270 x 1,000+100 x 650	270 x 1,000+100 x 650
Sound pressure Level		dB(A)	35	38	43	43
Air Volume		m^3/h	900	1,020	1320	1,320
HIGH PRESSURE HIDE-AWAY TYPE			—	—	**CS-F24DD2E5**	**CS-F28DD2E5**
Power input	Cooling	kW - kcal/h	—	—	6.6 - 5,676	7.10 - 6,106
	Heating	kW - kcal/h	—	—	7.1 - 6,106	8.00 - 6,880
Dimensions	H x W x D	mm	—	—	290 x 1,000+100 x 500	290 x 1,000+100 x 500
Sound pressure Level		dB(A)	—	—	41	44
Air Volume		m^3/h	—	—	1,320	1,320

OUTDOOR UNITS

INVERTER+ FS			**CU-L28DBE5 [I]**	**CU-L34DBE5 [I]**	**CU-L43DBE5 [I]**	**CU-L50DBE5 [III]**
Power input		kW - kcal/h	7.10 - 6,106	10.00 - 8,600	12.50 - 10,750	14.00 - 12,040
Dimensions	H x W x D	mm	795 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320	1,340 x 900 x 320
Sound pressure Level		dB(A)	48	52	53	54
Power source		V	220	220	220	380
INVERTER FS			**CU-YL28HBE5 [I]**	**CU-YL34HBE5 [I]**	**CU-YL43HBE5 [I]**	
Power input		kW - kcal/h	7.10 - 6,106	10.00 - 8,600	12.50 - 10,750	
Dimensions		mm	795 x 875 x 320	795 x 900 x 320	1,170 x 900 x 320	
Sound pressure Level		dB(A)	50	54	55	
Power source		V	220	220	220	
HEAT PUMP FS			**CU-B28DBE5 [I] / CU-B28DBE8 [III]**	**CU-B34DBE5 [I] / CU-B34DBE8 [III]**	**CU-B43DBE8 [III]**	**CU-B50DBE8 [III]**
Power input		kW - kcal/h	7.3 - 6,275	10.45 - 9,000	13.0 - 11,200	14.5 - 12,100
Dimensions	H x W x D	mm	795 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320
Sound pressure Level		dB(A)	52	55	56	56
Power source		V	220 - 240 [I] / 380 [III]	220 - 240 [I] / 380 [III]	380 [III]	380 [III]
COOLING ONLY FS			**CU-J28DBE5 [I] / CU-J28DBE8 [III]**	**CU-J34DBE5 [I] / CU-J34DBE8 [III]**	**CU-J43DBE8 [III]**	**CU-J50DBE8 [III]**
Power input		kW - kcal/h	7.3 - 6,275	10.45 - 9,000	13.0 - 11,200	14.5 - 12,100
Dimensions	H x W x D	mm	795 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320	1,170 x 900 x 320
Sound pressure Level		dB(A)	52	55	56	56
Power source		V	220 - 240 [I] / 380 [III]	220 - 240 [I] / 380 [III]	380 [III]	380 [III]

[I] Single-phase [III] Three-phase

CONNECTIVITY

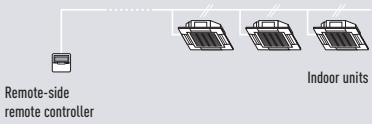
CONTROL SYSTEM

Panasonic's Twin systems can be controlled from a wired remote control or an infrared remote control.
Multi Mix systems also have various control options.
Group control: It is possible to control up to 16 systems at the same time using a single wired or infrared control. The operating settings will be the same for all the connected systems, but the compressors will start in sequence.

WIRED REMOTE CONTROL
FS HEAT PUMP / FS INVERTER
CZ-RL513C (HIDE-AWAY, CASSETTE AND CEILING)

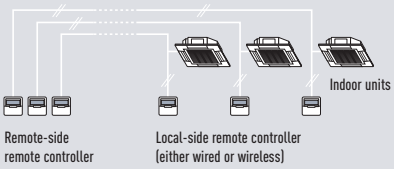
INFRARED REMOTE CONTROL
FS HEAT PUMP / FS INVERTER
CZ-RL513B (CASSETTE)
CZ-RL513T (CEILING)

GROUP CONTROL BY A SINGLE REMOTE CONTROLLER



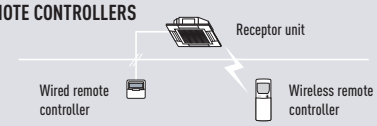
- All indoor units operate in the same mode.

SEPARATE CONTROL BY TWIN REMOTE CONTROLLERS



- Each indoor unit can be operated by either of the two remote controllers.
- Apart from the timer setting time, the displays for the two remote controllers are identical.
- The last button pressed has priority (The main or slave attribute is set with the remote controller).

COMMON CONTROL BY BOTH WIRED AND WIRELESS REMOTE CONTROLLERS



- The last button pressed has priority (using either wired or wireless remote controllers).

CZ-TA31P
ADAPTER FOR EXTERNAL SIGNALS
- A fan outside the indoor unit can be controlled
- External remote controller for switching the indoor unit ON/OFF
- Indoor unit status outputs (operating mode, fault)

CZ-TA40P
ADAPTER FOR URBAN NET
- Connecting board for Urban Net for centralised control of FS range indoor units

CZ-TA50P
ADAPTER FOR ADDRESSING
- Board for manual adjustment of indoor unit addresses for centralised control. Use for setting addresses before connecting the indoor unit to the power and when there is no remote control

CZ-TE20P
POWER SUPPLY
- Power supply for Urban Net (one unit for each Urban Net network)

CZ-20GWAP
CONNECTION INTERFACE FOR URBAN NET AND UM NET
- Indoor units controllable: 64
- Control functions: ON/OFF, Operating mode, Temperature adjustment, Fan speed, Air direction, Fault information, Suction temperature, Filter status information.

CZ-01FULAP
SERIAL INTERFACE UNIT
- Indoor units controllable: 64
- External connection: RS232C

CZ-01ESW11P
PROGRAMMER CONTROLLER
Enables programming of 64 groups.
- Up to 128 indoor units can be controlled
- 8 types of weekly programming
- Stand-by power supply for a maximum of 48 hours
- Maximum wiring length, 1,000 m (total: 2,000 m)

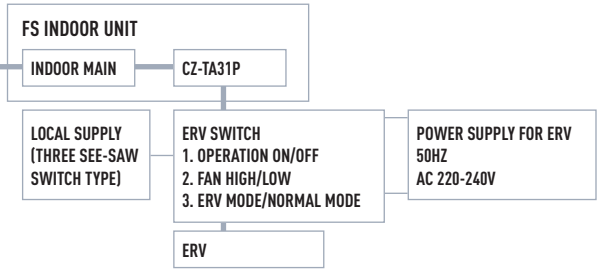
CZ-01ANA11P
UNIFIED ON/OFF CONTROLLER
Permits individual and simultaneous control of 16 groups of indoor units.
- Up to 16 groups can be controlled (128 indoor units)
- Use of 2 remote controls located in different places for operating mode (normal, alarm)
- Centralised control indicator
- Maximum wiring length, 1,000 m (total: 2,000 m)

CZ-02ESM11P
CENTRALISED REMOTE CONTROL
Permits individual control of 64 groups (areas) of indoor units.
- Up to 64 groups can be controlled (128 indoor units, max. of 10 outdoor units)
- 128 groups, maximum, can be controlled (128 indoor units, max. of 10 outdoor units) using 2 centralised remote controllers located in separate locations
- Zone control
- Fault code indicator
- Maximum wiring length, 1,000 m (total: 2,000 m)

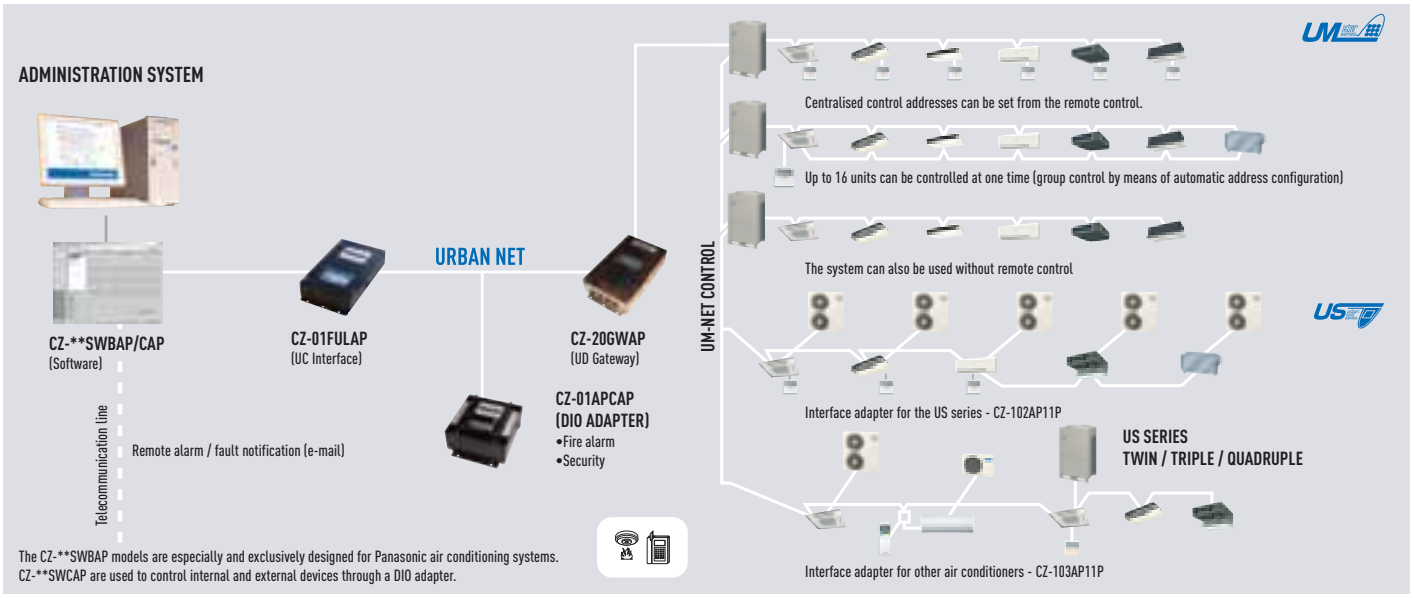
CZ-TA31P OPERATION MODE WITH CZ-RD513C (REMOTE CONTROLLER)

CZ-RD513C mode*	Ventilation button (on/off)	Interlink with FS system FS operation from Off to On	FS operation from On to Off	Ventilation button operation and interlink Operation	Remarks
000	No function	No function	No function	No operation happend even push ventilation button	Factory default setting
001	On/Off possible	No function	No function	ERV individual On/Off possible	No interlink with FS side, ERV can select operate On/Off
002	On/Off possible	No function	Forced ventilation Off	• "ERV ventilation On" can be selected by Ventilation button • In case FS system switched Off, also "Forced ventilation Off"	In case required ventilation continually even at FS system operation is Off mode, ventilation button must be switch On.
003	On/Off possible	Forced ventilation On	Forced ventilation Off	• FS system operation On same time ERV ventilation On. • FS system operation Off on same time ERV ventilation Off	• Manual On/Off possible at FS operation keep On • Manual On/Off possible at FS operation at Off mode • In case continually required ventilation On, ventilation button must be switch On.

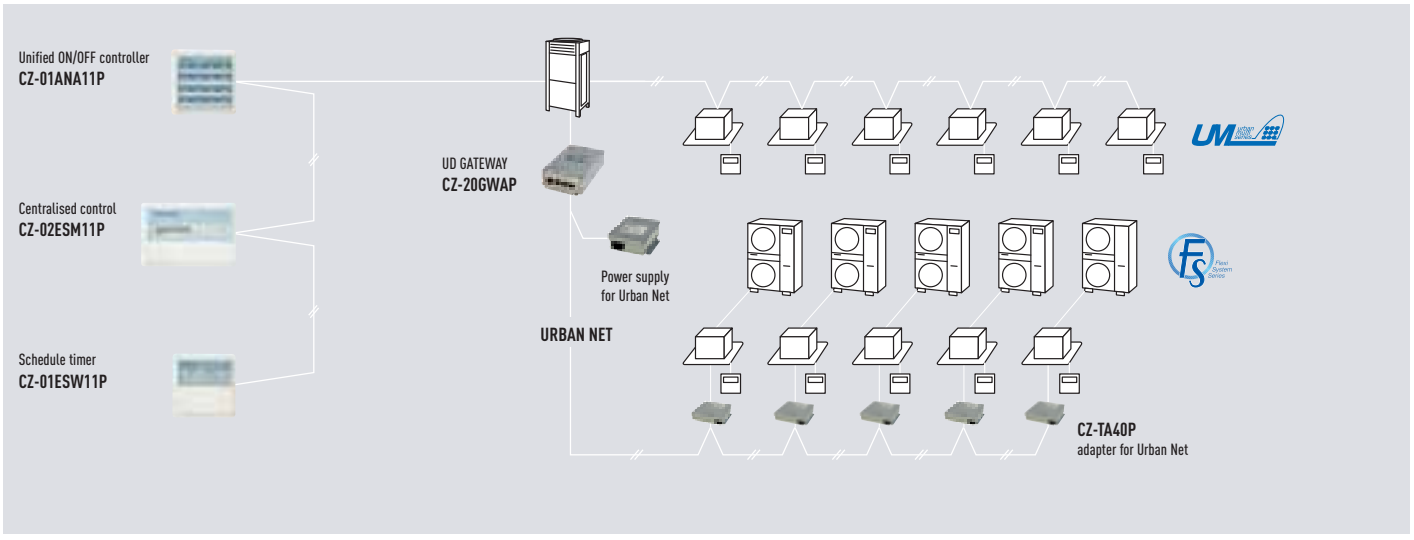
*Be sure to select either 001, 002, or 003. ERV: Energy Recovery Ventilators



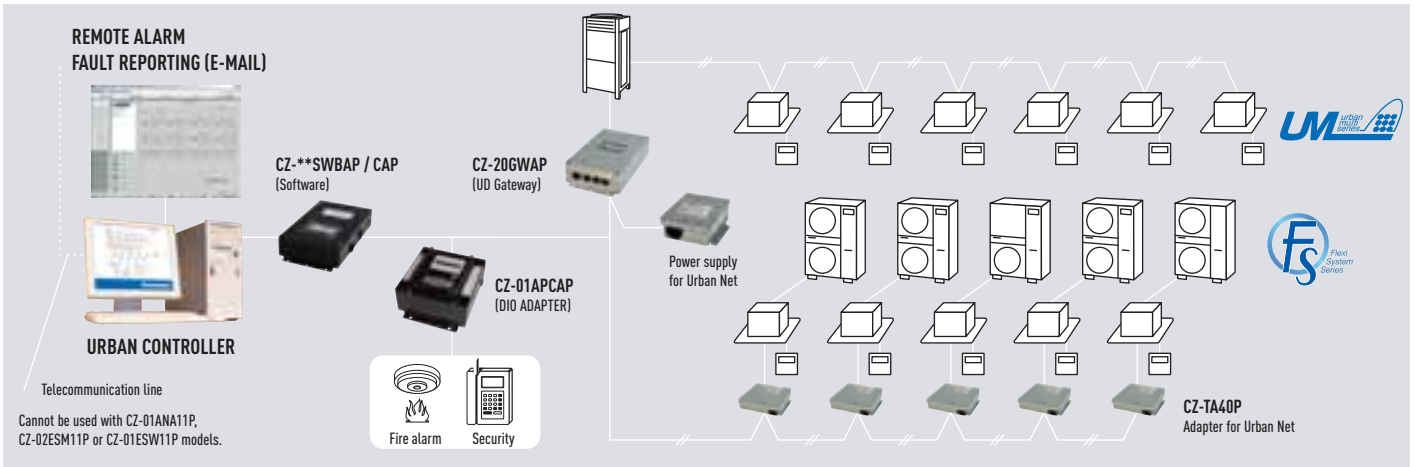
URBAN CONTROLLER TEMPERATURE CONTROL NETWORK COMBINED WITH THE US RANGE



EXAMPLE OF A SYSTEM WITH CENTRALISED CONTROL (UM NET)



URBAN CONTROLLER TEMPERATURE CONTROL NETWORK COMBINED WITH THE FS RANGE



SELF DIAGNOSIS DESCRIPTION AND CHECK POINT TABLE

SELF DIAGNOSIS FUNCTION

Once abnormality detected during operation, the unit will immediately stop its operation (Self Diagnosis LED at the outdoor unit printed circuit board will light on) and an error code (abnormality) will be saved in memory. The abnormality of the operation can be identifi ed through the below breakdown diagnosis method:

FS WIRED REMOTE CONTROL TYPE

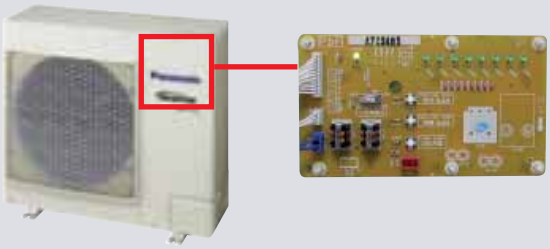
CS-F24/28/34/43/50DB4E5 (CASSETTE TYPE)

CS-F24/28/34/43/50DTE5 (CEILING TYPE)

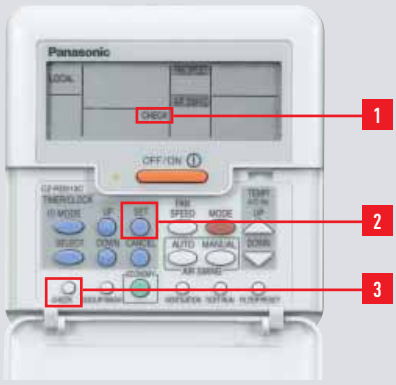
CS-F24/28/34/43/50DD1E5/50DD2E5/50DD3E5 (DUCTED TYPE)

1. When an abnormality occurs, "CHECK" fl ashes in the remote control display.
2. Press the CHECK button when the display is fl ashing. The timer display will change and error code (eg. "F20") will be displayed.
3. Press TIMER SET button while the error code is displayed. The error code display will change to detail display.

OUTDOOR UNIT



WIRED REMOTE CONTROL



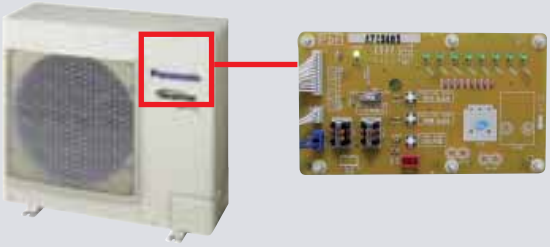
FS WIRELESS REMOTE CONTROL TYPE

CS-F24/28/34/43/50DB4E5 (CASSETTE TYPE)

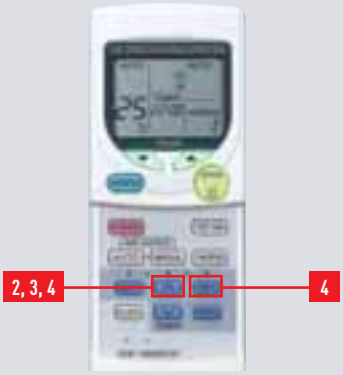
CS-F24/28/34/43/50DTE5 (CEILING TYPE)

1. When an abnormality occurs, TIMER LED blinks at the indoor receiver indicator.
2. .ress the "^" button control continuously for more than 5 seconds to turn on self diagnosis mode. " _ _:_ _"
3. Press "^" button again, "F 00:00" is displayed.
4. By pressing the "^" or "v" button again, the display will change from "F0" to "F9". If beep sound is heard from the indoor unit, press SET button, then the error number will shift to the next digit. Once the error shift to the lowest digit, error code is determined.
5. If no input of "^" or "v" button for more than 30 seconds, the self diagnosis mode will be cancelled.

OUTDOOR UNIT



WIRELESS REMOTE CONTROL



ERROR CODES TABLE // INVERTER MODEL

Warning: Electrical power must be disconnected when terminal protective cover is not in place to protect against electrocution.

LED 301 (green) illuminates to indicate that the microprocessor on the printed circuit board is operating in normal condition. If LED 301 flashing irregularly, check the power supply. Reset the power.

Remote Control		Outdoor unit printed circuit board LED								Check point location
Code	Detail	302	303	304	305	306	307	308	309	
F15	-01		☼	☼	☼	☼		(✳)	(✳)	Drain level float switch
F16	-01						☼	(✳)	(✳)	Louver switch
F17	-02	☼	☼				☼	(✳)	(✳)	DC fan motor
F20	-01				☼		☼	(✳)	(✳)	Indoor temperature sensor
	-02	☼			☼		☼	(✳)	(✳)	Remote control thermistor
F21	-01		☼		☼		☼	(✳)	(✳)	Pipe temp. sensor (indoor)
F26	-01			☼		☼	☼	(✳)	(✳)	Remote control transmission
F27	-01		☼	☼		☼	☼	(✳)	(✳)	Indoor / Outdoor unit disconnected
	-05	☼	☼	☼		☼	☼	(✳)	(✳)	In. / Out. unit connection problem
F27	-01	☼		☼		☼				Indoor / Outdoor unit disconnected
	-05					☼				In. / Out. unit connection problem
F30	-01						☼			System problem
	-02			☼			☼			Open phase, or reversed phase of supply
F31	-01		☼							Suction pressure protection
	-02	☼								High-pressure cut-off
	-06			☼	☼					4-way valve
	-09		☼	☼	☼					Leakage of refrigerant
	-10		☼	☼		☼				Refrigerant system

Remote Control		Outdoor unit printed circuit board LED								Check point location
Code	Detail	302	303	304	305	306	307	308	309	
F32	-03			☼		☼				Inverter protection (Low DC voltage)
	-04	☼	☼			☼				Inverter protection (IPM protection)
	-05	☼	☼							Compressor overcurrent protection
	-06	☼	☼		☼					Compressor discharge temp. protection
	-08	☼		☼	☼					Inverter protection (PFC protection)
	-09	☼				☼				Inverter protection (DC current protection)
	-10	☼	☼	☼	☼					Number of rotation compressor problem
F35	-02		☼			☼				DC Fan motor lock
F40	-01			☼						Outlet temperature sensor
	-11				☼					Compressor suction temp. sensor
	-21	☼		☼						Heat exchanger outlet temp. sensor
	-31	☼	☼	☼						DEF temperature sensor
	-51		☼	☼						Compressor discharge temp. sensor
F41	-02	☼	☼				☼			High pressure switch open circuit
	-11	☼					☼			Low pressure sensor
F42	-11		☼		☼					Current detector open circuit
F44	-01	☼			☼					Inverter protection (IPM temp. sensor problem)

☼: Blinking ● : Illuminated Blank : OFF

(✳)	308	309
	●	Master
		● Slave

ERROR CODES TABLE // NON INVERTER MODEL

Warning: Electrical power must be disconnected when terminal protective cover is not in place to protect against electrocution.

LED 1 (green) illuminates to indicate that the microprocessor on the printed circuit board is operating in normal condition. If LED fl ashing irregularly, check the power supply. Reset the power.

Remote Control		Outdoor unit printed circuit board LED							Check point location
Code	Detail	2	3	4	5	6	7	8	
F15	-01		☼	☼	☼		☼	(✳)	Drain level fl oat switch
F16	-01						☼	(✳)	Louver switch
F17	-02	☼	☼				☼	(✳)	DC fan motor
F20	-01				☼		☼	(✳)	Indoor temperature sensor
	-02	☼			☼		☼	(✳)	Remote control thermistor
F21	-01		☼		☼		☼	(✳)	Pipe temp. sensor (indoor)
F26	-01			☼		☼	☼	(✳)	Remote control transmission
F27	-01		☼	☼		☼	☼	(✳)	Indoor / Outdoor unit disconnected
	-05	☼	☼	☼		☼	☼	(✳)	Indoor / Outdoor unit connection problem
F27	-01	☼		☼		☼			Indoor / Outdoor unit disconnected
	-05					☼			Indoor / Outdoor unit connection problem
F30	-01				☼	☼			System problem
	-02			☼	☼	☼			Open phase, or reversed phase of supply

Remote Control		Outdoor unit printed circuit board LED							Check point location
Code	Detail	2	3	4	5	6	7	8	
F31	-01		☼						Suction pressure protection
	-02	☼							High-pressure cut-off
F31	-06			☼	☼				4-way valve
	-10		☼	☼		☼			Refrigerant system
F32	-05	☼	☼						Compressor overcurrent protection
	-06	☼	☼		☼				Compressor discharge temp. protection
F40	-21	☼		☼					Heat exchanger outlet temperature sensor
	-51		☼	☼					Compressor discharge temperature sensor
F41	-02	☼	☼		☼	☼			High pressure switch open circuit
	-12	☼		☼	☼	☼			Low pressure sensor
F42	-11		☼		☼				Current detector open circuit

☼: Blinking ● : Illuminated Blank : OFF

(✳)	8
	● Master
	☼ Slave

NEW10

NEW FS MULTI

With unique Etherea wall mounted (white and silver), design indoor units arrive to professional applications!

NEW FS MULTI FROM PANASONIC AN OUTSTANDING VRF SOLUTION!

The FS Multi is the new range of VRF which capitalizes on Panasonic's experience in air conditioning buildings and large surface areas with its Urban Multi series and VRF - R410A technology. Ideal for commercial areas as well as for uses in the home, the FS Multi always meets the requirements of the most demanding customers.

THE ADVANTAGES OF PANASONIC'S FS MULTI

- Up to 6 different indoor unit types.
- Up to 30 indoor units in total, from 2.2 kW to 9 kW.
- Possibility to connect a unique wall type Etherea design, white and silver.
- 3 outdoor unit ratings: 4,5 and 6 H.P. single-phase.
- Panasonic Inverter technology with R410A gas, for greater comfort and economy with lower consumption.
- Ease of installation. Thanks to the reduced dimensions of the outdoor unit it can be taken to the roof of the building in a lift.
- Easy control in a centralized or individual form, or even by computer control with a range of functions for achieving optimum climate management in your business.
- Allows you to choose the best option depending on architectural needs and decoration criteria.

OUTDOOR UNITS

A new outdoor unit design which is more adapted to today's building and architectural requirements.

- Up to 8 indoor units can be connected
- Capacities from 11.2 to 15.5 kW
- A 30 m difference in elevation

FS MULTI

AIR CONDITIONING SYSTEM

maximum flexibility VRF | A energy saving air INVERTER+ | 5 years warranty on compressor | R410A environmentally friendly refrigerant | down to -15°C in heating mode OUTDOOR TEMPERATURE

ETHEREA
designed to care for you

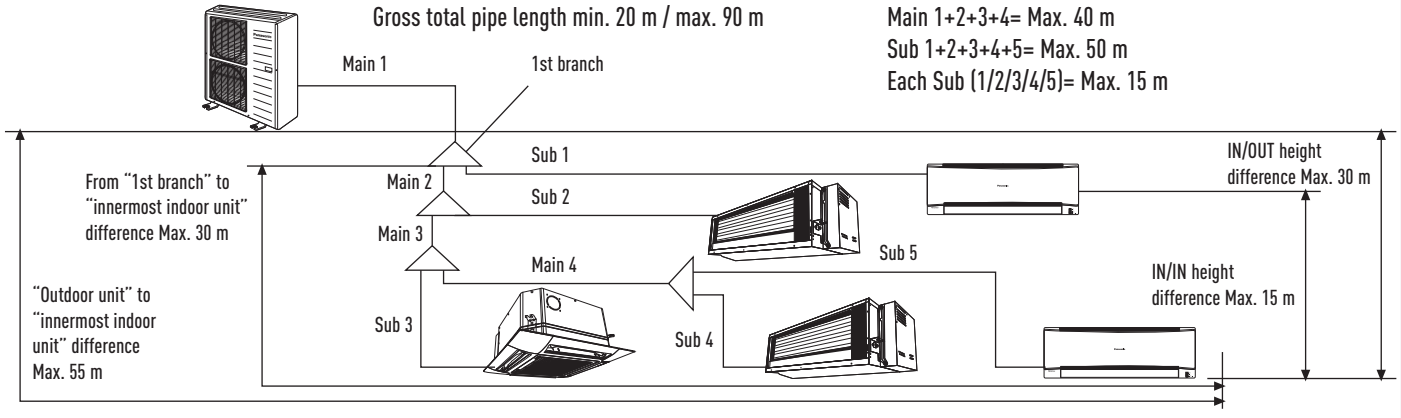
Mini-VRF Outdoor unit			4 H.P.	5 H.P.	6 H.P.
			U-4LA1E5	U-5LA1E5	U-6LA1E5
Cooling Capacity		kW	11.2	14	15.5
Heating Capacity		kW	12.5	16	18
Maximum Connection Ratio		%	130	130	130
Indoor unit selection allowance			5.6 kW to 14.5 kW within max 6 indoor	7.0 kW to 18.2 kW within max 8 indoor	7.7 kW to 20.1 kW within max 8 indoor
Power consumption Cooling / Heating		kW	3.10 / 3.04	4.31 / 3.97	5.15 / 4.69
EER	Cooling	-	3.61 A	3.25 A	3.01 B
COP	Heating	-	4.11 A	4.03 A	3.84 A
Operating current Cooling / Heating		A	23.50 / 21.40	19.80 / 18.10	14.20 / 13.90
Starting current		A	14	20	24
Max current		A	22.5	26	29
Maximum power input Cooling / Heating		kW	4.4 / 4.7	5.7 / 5.7	6.2 / 6.2
Power source		V/Hz	230 / 50	230 / 50	230 / 50
Recommended fuse size		A	30	30	30
Sound pressure level Cooling / Heating		dB(A)	52 / 54	53 / 55	55 / 57
Sound power		dB	74	72	71
Dimension	H x W x D	mm	1340 x 900 x 350	1340 x 900 x 350	1340 x 900 x 350
Net weight		kg	115	123	123
Air flow rate		m^3/min	92	95	98
Outdoor temperature Cooling / Heating		°C	-5 to +43 / -15 to +24	-5 to +43 / -15 to +24	-5 to +43 / -15 to +24
Pipe length (min. - max.)		m	20-90	20-90	20-90
Height difference ID - OD		m	30	30	30
Pipe diameter Liquid / Gas		mm (inch)	9.52 (3/8) / 15.88 (5/8)	9.52 (3/8) / 15.88 (5/8)	9.52 (3/8) / 15.88 (5/8)

EXAMPLE OF CORRECT COMBINATION:
Outdoor unit: U-4LA1E5 (minimum combination capacity: 5.6 kW, maximum combination capacity: 14.5 kW)
Indoors: S-22KA1E5 (2.2 kW) + S-28KA1E5 (2.8 kW) + S-36YA1E5 (3.6 kW)
Total capacity of indoor units selected: 8.6 kW.

EXAMPLE OF INCORRECT COMBINATION:
Outdoor unit: U-4LA1E5 (minimum combination capacity: 5.6 kW, maximum combination capacity: 14.5 kW)
Indoors: S-22KA1E5 (2.2 kW) + S-28KA1E5 (2.8 kW)
Total capacity of indoor units selected: 5.0 kW. The total indoor capacity is lower than the minimum permitted.

EXAMPLE OF INCORRECT COMBINATION:
Outdoor unit: U-4LA1E5 (minimum combination capacity: 5.6 kW, maximum combination capacity: 14.5 kW)
Indoors: S-22KA1E5 (2.2 kW) + S-28KA1E5 (2.8 kW) + S-90UA1E5 (9.0 kW) +S-56NA1E5 (5.6 kW)
Total capacity of indoor units selected: 19.6 kW. The total indoor capacity is higher than the maximum permitted.

REFRIGERANT PIPE LENGTH



* Not for all combinations.

EER and COP classification is at 230V in accordance with EU directive 2002/31/EC.

WALL TYPE WHITE, KA1 SERIES, ETHEREA DESIGN

Elegant and exclusive design, inspired by Etherea's domestic best seller. **Capacity: 2.2, 2.8, 3.6, 4.5, 5.6, 6.3, 7.1 kW**

Mini-VRF Wall KA1 series		0.8 H.P. - 2.2 kW S-22KA1E5	1.0 H.P. - 2.8 kW S-28KA1E5	1.5 H.P. - 3.6 kW S-36KA1E5	1.75 H.P. - 4.5 kW S-45KA1E5	2.0 H.P. - 5.6 kW S-56KA1E5	2.5 H.P. - 6.3 kW S-63KA1E5	3.0 H.P. - 7.1 kW S-71KA1E5
Cooling Capacity	kW	2.2	2.8	3.6	4.5	5.6	6.3	7.1
Heating Capacity	kW	2.5	3.2	4.2	5.1	6.4	7.1	8
Power consumption Cooling / Heating	kW	0.025 / 0.025	0.027 / 0.027	0.03 / 0.03	0.035 / 0.035	0.045 / 0.045	0.05 / 0.05	0.055 / 0.055
Dimension (H x W x D) / Net weight	mm / kg	290 x 870 x 204 / 9	290 x 870 x 204 / 9	290 x 870 x 204 / 9	290 x 870 x 204 / 9	290 x 1070 x 235 / 11	290 x 1070 x 235 / 12	290 x 1070 x 235 / 12
Sound pressure level Low / High	dB(A)*	33 / 38	33 / 39	34 / 42	35 / 43	38 / 44	39 / 46	40 / 48
Pipe diameter Liquid / Gas	mm (inch)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	9.52 (3/8) 15.88 (5/8)

Remote controls not included, see next page for references.

WALL TYPE SILVER, KA1 SERIES, ETHEREA DESIGN

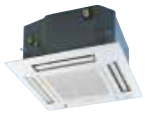
Elegant and exclusive design, inspired by Etherea's domestic best seller. **Capacity: 2.2, 2.8, 3.6, 4.5 kW**

Mini-VRF Wall KA1 series		0.8 H.P. - 2.2 kW S-22KA1E5S	1.0 H.P. - 2.8 kW S-28KA1E5S	1.5 H.P. - 3.6 kW S-36KA1E5S	1.75 H.P. - 4.5 kW S-45KA1E5S
Cooling Capacity	kW	2.2	2.8	3.6	4.5
Heating Capacity	kW	2.5	3.2	4.2	5.1
Power consumption Cooling / Heating	kW	0.025 / 0.025	0.027 / 0.027	0.03 / 0.03	0.035 / 0.035
Dimension (H x W x D) / Net weight	mm / kg	290 x 870 x 204 / 9	290 x 870 x 204 / 9	290 x 870 x 204 / 9	290 x 870 x 204 / 9
Sound pressure level Low / High	dB(A)*	33 / 38	33 / 39	34 / 42	35 / 43
Pipe diameter Liquid / Gas	mm (inch)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)

Remote controls not included, see next page for references.

CASSETTE 60X60, YA1 SERIES

Stylish and compact, it can be installed in ceilings and standard architectural modules. **Capacity: 2.2, 2.8, 3.6, 4.5, 5.6 kW**



Mini-VRF Mini-Casette YA1 series		0.8 H.P. - 2.2 kW S-22YA1E5	1.0 H.P. - 2.8 kW S-28YA1E5	1.5 H.P. - 3.6 kW S-36YA1E5	1.75 H.P. - 4.5 kW S-45YA1E5	2.0 H.P. - 5.6 kW S-56YA1E5
Panel (not included)		CZ-KPY1	CZ-KPY1	CZ-KPY1	CZ-KPY1	CZ-KPY1
Cooling Capacity	kW	2.2	2.8	3.6	4.5	5.6
Heating Capacity	kW	2.5	3.2	4.2	5.1	6.4
Power consumption Cooling / Heating	kW	0.035 / 0.035	0.035 / 0.035	0.040 / 0.040	0.040 / 0.040	0.045 / 0.045
Dimension (H x W x D) / Net weight	mm / kg	260 x 575 x 575 / 18	260 x 575 x 575 / 18	260 x 575 x 575 / 18	260 x 575 x 575 / 18	260 x 575 x 575 / 18
Sound pressure level Low / High	dB(A)*	33 / 36	33 / 37	34 / 38	35 / 39	36 / 40
Pipe diameter Liquid / Gas	mm (inch)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)

750 mm drain-up mechanism included. Remote controls not included, see next page for references.

CASSETTE 90X90, UA1 SERIES

Elegant design and high airflow rate for a comfortable and appealing environment. **Capacity: 6.3, 7.1, 9.0 kW**

Mini-VRF Casette comparison UA1 series		2.5 H.P. - 6.3 kW S-63UA1E5	3.0 H.P. - 7.1 kW S-71UA1E5	3.5 H.P. - 9.0 kW S-90UA1E5
Panel (not included)		CZ-BT03P	CZ-BT03P	CZ-BT03P
Cooling Capacity	kW	6.3	7.1	9.0
Heating Capacity	kW	7.1	8	10
Power consumption Cooling / Heating	kW	0.11 / 0.11	0.115 / 0.115	0.115 / 0.115
Dimension (H x W x D) / Net weight	mm / kg	246 x 840 x840 / 26	246 x 840 x840 / 26	246 x 840 x840 / 26
Sound pressure level Low / High	dB(A)*	35 / 41	36 / 42	36 / 42
Pipe diameter Liquid / Gas	mm (inch)	6.35 (1/4) / 12.70 (1/2)	9.52 (3/8) 15.88 (5/8)	9.52 (3/8) 15.88 (5/8)

750 mm drain-up mechanism included. Remote controls not included, see next page for references.

HIDE AWAY 0-3 MMAQ, NA1 SERIES

Compact design. Guarantees good air distribution. 0-3 mmAq. **Capacity: 2.2, 2.8, 3.2, 3.6, 4.5, 5.6 kW**

Mini-VRF Duct NA1 series (D4)		0.8 H.P. - 2.2 kW S-22NA1E5	1.0 H.P. - 2.8 kW S-28NA1E5	1.25 H.P. - 3.2 kW S-32NA1E5	1.5 H.P. - 3.6 kW S-36NA1E5	1.75 H.P. - 4.5 kW S-45NA1E5	2.0 H.P. - 5.6 kW S-56NA1E5
Cooling Capacity	kW	2.2	2.8	3.2	3.6	4.5	5.6
Heating Capacity	kW	2.5	3.2	3.6	4.2	5.1	6.4
Power consumption Cooling / Heating	kW	0.075 / 0.075	0.08 / 0.08	0.085 / 0.085	0.085 / 0.085	0.095 / 0.095	0.105 / 0.105
Dimension (H x W x D) / Net weight	mm / kg	200 x 900 x 550 / 21	200 x 900 x 550 / 21	200 x 900 x 550 / 22	200 x 900 x 550 / 22	200 x 900 x 550 / 22	200 x 900 x 550 / 22
Air flow rate	m^3/min	6-8-10	7-9-11	7-9-11	7-9-11	8-10-12	8.5-10.5-12.5
External static pressure	Pa/mmAq	0 or 29 / 0 or 3 mmAq (factory defalut 0 mmAq)					
Sound pressure level Low / High	dB(A)*	30 / 36	30 / 37	31 / 38	31 / 38	32 / 39	32 / 39
Pipe diameter Liquid / Gas	mm (inch)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)

Remote controls not included, see next page for references. Filter for S-_NA1E5 not available.

HIDE AWAY 5-7 MMAQ, MA1 SERIES

Unit designed to offer maximum flexibility in terms of installation methods. 5-7 mmAq. **Capacity: 4.5, 5.6, 6.3, 7.1, 9.0 kW**

Mini-VRF Duct MA1 series (D3)		1.75 H.P. - 4.5 kW S-45MA1E5	2.0 H.P. - 5.6 kW S-56MA1E5	2.5 H.P. - 6.3 kW S-63MA1E5	3.0 H.P. - 7.1 kW S-71MA1E5	3.5 H.P. - 9.0 kW S-90MA1E5
Cooling Capacity	kW	4.5	5.6	6.3	7.1	9.0
Heating Capacity	kW	5.1	6.4	7.1	8.0	10
Power consumption Cooling / Heating	kW	0.135 / 0.135	0.135 / 0.135	0.135 / 0.135	0.135 / 0.135	0.175 / 0.175
Dimension (H x W x D) / Net weight	mm / kg	250 x 780+100 x 650 / 29	250 x 780+100 x 650 / 29	250 x 1000+100 x 650 / 32	250 x 1000+100 x 650 / 32	250 x 1000+100 x 650 / 32
Air flow rate	m^3/min	11-13-15	11-13-15	13-15-17	13-15-17	15-17-19
External static pressure	Pa/mmAq	49 or 69 / 5-7 (factory default 5 mmAq)				
Sound pressure level Low / High	dB(A)*	35 / 42	35 / 42	36 / 43	36 / 43	37 / 44
Pipe diameter Liquid / Gas	mm (inch)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	6.35 (1/4) / 12.70 (1/2)	9.52 (3/8) 15.88 (5/8)	9.52 (3/8) 15.88 (5/8)

Remote controls not included, see next page for references. S-_MA1E5 with dust filter.

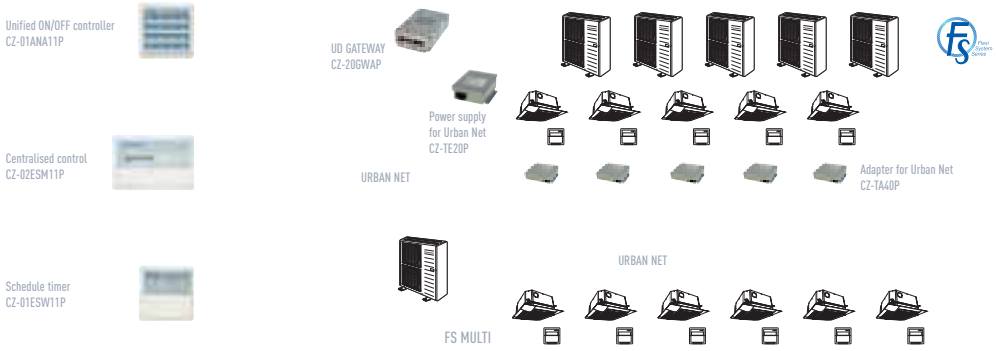
* Indoor noise level measured at 230 V.

INDOOR UNITS

	2.2 kW	2.8 kW	3.2 kW	3.6 kW	4.5 kW	5.6 kW	6.3 kW	7.1 kW	9.0 kW
Wall type White S-_KA1E5									
Wall type Silver S-_KA1E5S									
Cassette 60x60 S-_YA1E5									
Cassette 90x90 S-_UA1E5									
Hide away 0-3 mmAq S-_NA1E5									
Hide away 5-7 mmAq S-_MA1E5									

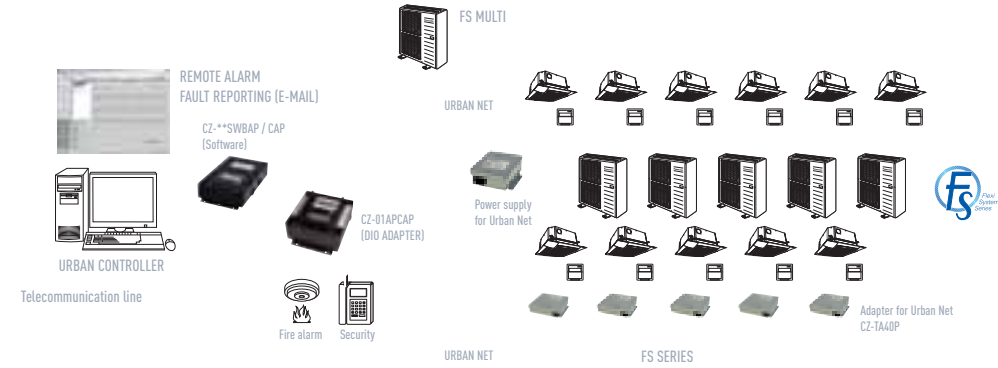
CONNECTIVITY. EASY CONNECTION WITH URBAN CONTROLLER SOFTWARE

EXAMPLE OF A SYSTEM WITH CENTRALISED CONTROL



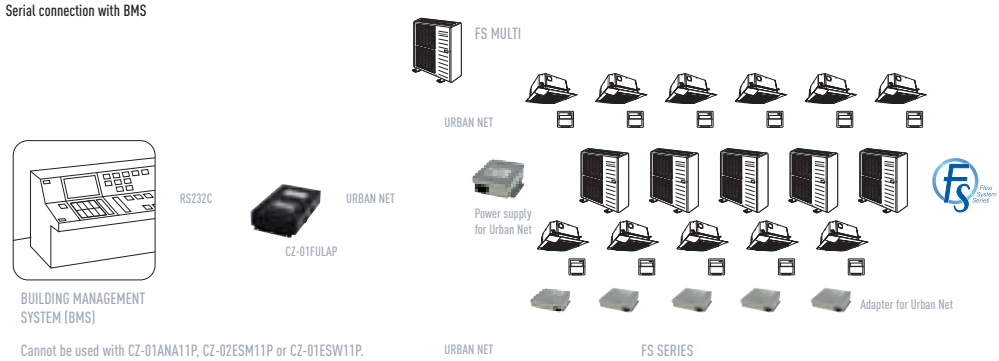
URBAN CONTROLLER TEMPERATURE CONTROL NETWORK COMBINED WITH THE FS RANGE

PEW made PC based "Urban controller"



EXAMPLE OF A SYSTEM WITH BMS CONTROL (RS232C SERIAL CONNECTION)

Serial connection with BMS



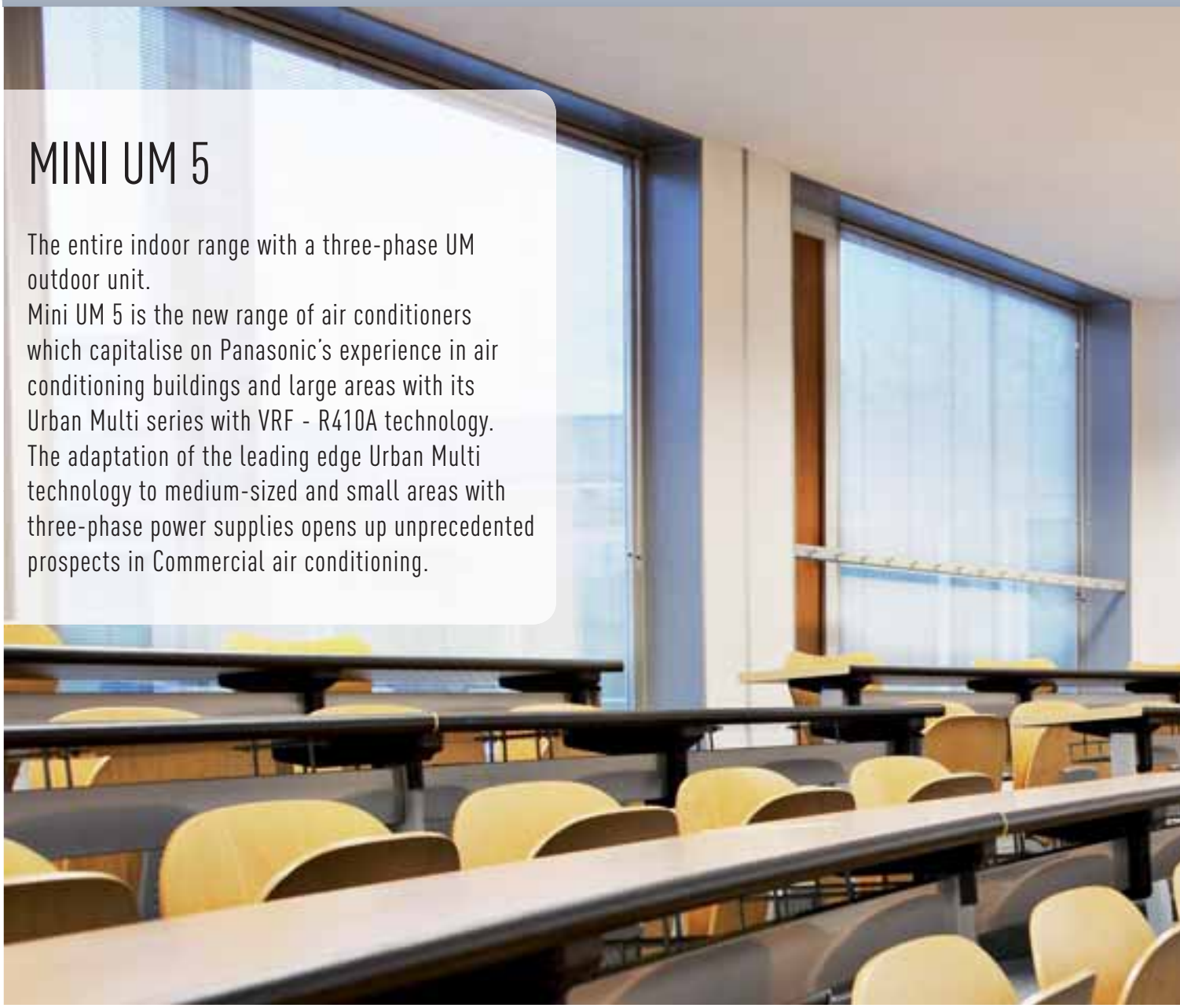
Cannot be used with CZ-01ANA11P, CZ-02ESM11P or CZ-01ESW11P.

Wired remote control CZ-RT1
The weekly timer CZ-RT1 offers control of detailed parameters for adjusting air quality and flow for each indoor unit.

Infrared receiver (for Ducted MA&NA series only)
CZ-RWRM1
Infrared receiver for UA Cassette only (infrared receiver included on the YA Cassette)
CZ-RWRU1
Infrared remote control (for all Heat Pump)
CZ-RWS1
Infrared remote control (for all Cooling Only)
CZ-RWC1
Infrared remote control CZ-RWS1

Line Branch Pipe
CZ-P155BK1

Adapter for external signals
CZ-TA31P



MINI UM 5

The entire indoor range with a three-phase UM outdoor unit.
Mini UM 5 is the new range of air conditioners which capitalise on Panasonic's experience in air conditioning buildings and large areas with its Urban Multi series with VRF - R410A technology.
The adaptation of the leading edge Urban Multi technology to medium-sized and small areas with three-phase power supplies opens up unprecedented prospects in Commercial air conditioning.

ADVANTAGES OF MINI UM 5 - R410A

- Total freedom of choice. Up to 11 different indoor unit models. Allows you to choose the best option depending on architectural needs and decoration criteria.
- Three outdoor unit ratings: 4, 5 and 6 H.P. three-phase.
- Inverter technology with R410A gas, "greater comfort and economy with lower consumption".
- Greatest space reduction. A single outdoor unit feeds up to 9 indoor units.
- Ease of installation. Thanks to the reduced dimensions of the outdoor unit it can be taken to the roof of the building in the lift.
- Total control. In a centralised or individual form, or even by computer control with an infinity of functions for achieving optimum climate management in your business.

COMBINATION TABLE

Reference	Outdoor unit	Maximum indoor unit	Maximum combination capacity	Minimum combination capacity
U-4ML5XPQ	4.0 H.P.	6	130	50
U-5ML5XPQ	5.0 H.P.	8	162	62
U-6ML5XPQ	6.0 H.P.	9	195	75

COMBINATION EXAMPLE

CORRECT

	Reference	Quantity	Capacity	Minimum capacity	Maximum capacity
Outdoor	U-6ML5XPQ	1	-	75	195
Indoor	S-20KM3HPR	1	20	-	-
	S-32KM3HPR	2	(32 x 2) 64	-	-
	S-20FM3HPQ	1	20	-	-
	S-25FM3HPQ	3	(25 x3) 75	-	-
Total indoor capacity		7	179		

INCORRECT

	Reference	Quantity	Capacity	Minimum capacity	Maximum capacity
Outdoor	U-6ML5XPQ	1	-	75	195
Indoor	S-20KM3HPR	1	20	-	-
	S-32KM3HPR	2	(32 x 2) 64	-	-
	S-40FM3HPQ	1	40	-	-
	S-20FM3HPQ	1	20	-	-
	S-25FM3HPQ	3	(25 x3) 75	-	-
Total indoor capacity		8	219		

INCORRECT

	Reference	Quantity	Capacity	Minimum capacity	Maximum capacity
Outdoor	U-6ML5XPQ	1	-	75	195
Indoor	S-20KM3HPR	1	20	-	-
	S-20FM3HPQ	1	20	-	-
	S-25FM3HPQ	1	25	-	-
Total indoor capacity		3	65		

* Indoor capacity lower than the minimum permitted.

All the UM 4 series indoor units are available for the three-phase Mini UM units. You can check the characteristics of these indoor units on pages 144 to 155 of this catalogue.

01 SPLIT 60X60 CASSETTES TYPE
Stylish and compact, it can be installed in ceilings and standard architectural modules.
Ratings: 20, 25, 32, 40, 50
Ref.: S-[power] YM3HPQ

02 CASSETTE 360º 90X90 TYPE
Elegant design and high airflow rate for a comfortable and appealing environment.
Ratings: 20, 25, 32, 40, 50, 63, 80, 100, 125
Ref.: S-[power] UM4JPQ

03 2-WAY CASSETTE TYPE
Reduced volume enabling the unit to be installed in false ceilings only 35 mm deep.
Ratings: 20, 25, 32, 40, 50, 63, 80, 125
Ref.: S-[power] LM3HPQ

04 HIGH PRESSURE HIDE-AWAY TYPE
Complete high pressure duct system for top quality air conditioners.
Ratings: 40, 50, 63, 80, 100, 125, 200, 250
Ref.: S-[power] EM3HPS

1) Confirm availability.

05 LOW SILHOUETTE HIDE-AWAY TYPE
Unit designed to offer maximum flexibility in terms of installation methods.
Ratings: 20, 25, 32, 40, 50, 63, 80, 100, 125
Ref.: S-[power] FM3HPQ / FM4 [1)]

06 HOTEL TYPE DUCT TYPE
Compact design ideal for installation in hotels and housing. Very easy to mount in false ceilings.
Ratings: 20, 25
Ref.: S-[power] NM3HPQ

07 1-WAY CASSETTE TYPE
Automatic orientation mechanism. Can be installed in false ceilings only 22 cm deep.
Ratings: 25, 32, 40, 63
Ref.: S-[power] DM3HPS

08 WALL TYPE
Elegant design and good airflow rate for greater comfort. Automatic oscillation function.
Ratings: 20, 25, 32, 40, 50, 63
Ref.: S-[power] KM3HPR

09 CEILING TYPE
Ultra quiet operation combined with elegant and stylish design. Guarantees good air distribution.
Ratings: 32, 63, 100
Ref.: S-[power] TM3JPR

10 CONSOLE TYPE
Intended for installation under windows. Reduced base of only 22 cm and height of 60 cm.
Ratings: 20, 25, 32, 40, 50, 63
Ref.: S-[power] PM3HPS

11 CONSOLE WITHOUT CASING
Easy to build in, representing a substantial saving in installation space needed.
Ratings: 20, 25, 32, 40, 50, 63
Ref.: S-[power] RM3HPS

PANASONIC'S ENERGY RECOVERY VENTILATOR UNIT OFFERS MAXIMUM COMFORT AND GREATER ENERGY SAVINGS

Energy recovery ventilators offer ventilation which increases comfort and saves energy. They efficiently recover the heat lost in ventilation during the heat recovery process.

20% ENERGY SAVING

Energy consumption is dramatically reduced by using a counter-flow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings.

LIGHTWEIGHT STRUCTURE

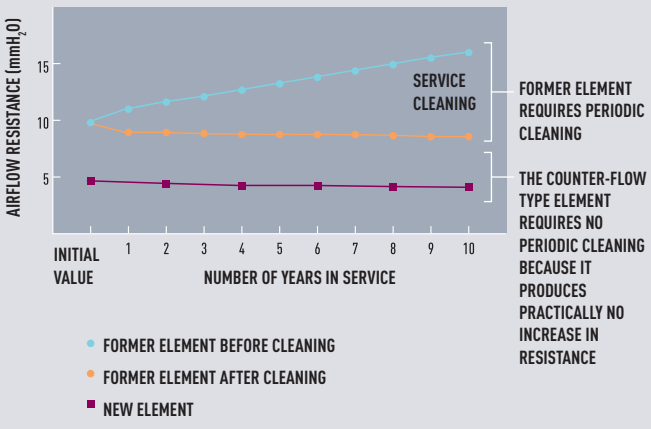
The lightweight structure makes installation easier.

QUIET OPERATION

Low noise operation results in noticeably quieter units. All models with capacities below 500 m³/h run at noise levels below 32 dB (High setting) and even our largest 1,000 m³/h-capacity model runs at only 37.5 dB (High setting).

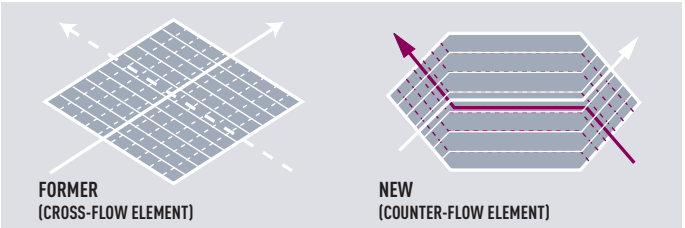
LONG HEAT-EXCHANGE ELEMENT SERVICE LIFE

CHANGES IN AIRFLOW RESISTANCE BASED ON NUMBER OF YEARS IN SERVICE



The heat exchanger is made up of a membrane manufactured from a special material covered in resin for optimal heat transmission. The nylon/polyester fibre filter offers high dust retention capacity. We have also redesigned the air ducts to obtain a long-lasting heat exchange system which does not need periodic cleaning.

HEAT EXCHANGER CHARACTERISTICS



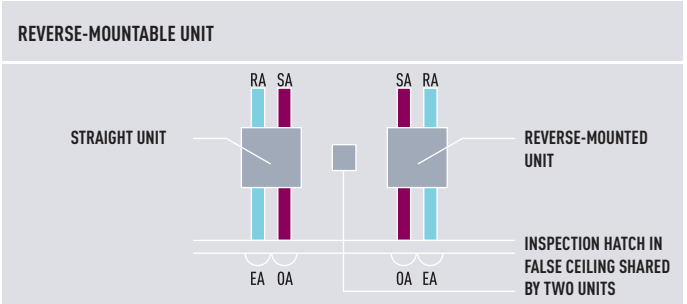
With the cross-flow element, air moves in a straight line across the element. With the counter-flow element, air flows through the element for a longer time (longer distance), so the heat-exchange effect remains unchanged even if the element is made thinner.

CHARACTERISTICS COMMON TO ALL MODELS

- Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.
- All maintenance can be performed through a single inspection hole.
- Straight air supply / exhaust system used for easier installation.
- Each unit can be mounted in reverse position.
- Equipped with an Extra-High setting.
- Can incorporate a medium performance filter (optional, installed on site).

SLIM SHAPE AND EASIER INSTALLATION

Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



TECHNICAL ZOOM

- HIGH ENERGY SAVING, UP TO 20%
- COUNTER CROSS FLOW TECHNOLOGY FOR BETTER EFFICIENCY
- LONG LIFE ELEMENT CORE
- EASY INSTALLATION AND 20% LESS THICK-NESS
- EASY CONNECTION TO AIR CONDITIONING UNITS
- SUPER QUIET UNITS

ENERGY RECOVERY VENTILATION SYSTEM

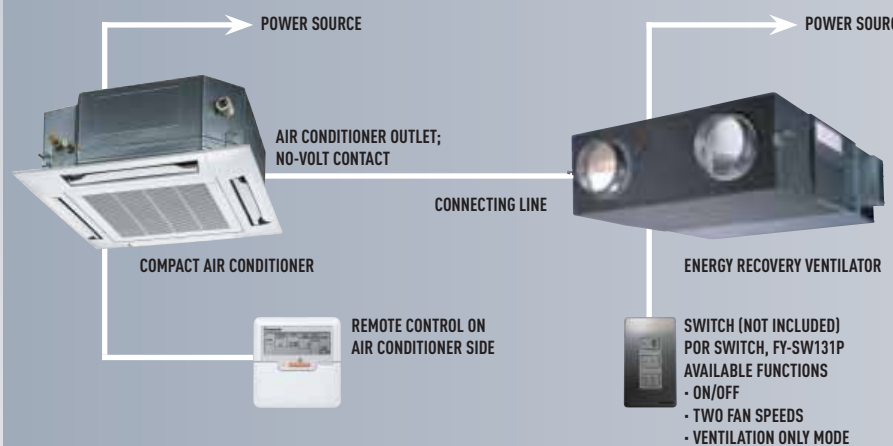
Recovers up to 77% of the heat in the outgoing air, for aN ecological and energy saving building

ENERGY RECOVERY VENTILATION SYSTEM

Rated flow rate			**250 m³/h**	**350 m³/h**	**500 m³/h**	**800 m³/h**	**1000 m³/h**
Models			**FY-250ZDY2**	**FY-350ZDY2**	**FY-500ZDY2**	**FY-800ZDY2**	**FY-01KZDY2A**
Power Source		V A.C	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240
Frequency		Hz	50	50	50	50	50
Heat Exchange Ventilation							
Input	Extra High	W	104 - 119	137 - 154	188 - 214	316 - 347	399 - 445
	High	W	99 - 114	124 - 137	169 - 188	309 - 329	360 - 399
	Low	W	79 - 90	117 - 128	151 - 166	302 - 327	332 - 367
Current	Extra High	A	0.48 - 0.50	0.63 - 0.65	0.86 - 0.90	1.51 - 1.54	1.97 - 2.04
	High	A	0.46 - 0.48	0.59 - 0.60	0.79 - 0.81	1.48 - 1.50	1.85 - 1.93
	Low	A	0.37 - 0.39	0.56 - 0.57	0.72 - 0.73	1.44 - 1.46	1.68 - 1.76
Air Volume	Extra High / High / Low	m³/h	250 / 250 / 170	350 / 350 / 280	500 / 500 / 370	800 / 800 / 650	1000 / 1000 / 810
Air Volume	Extra High / High / Low	ft3/min	148 / 148 / 100	207 / 207 / 165	295 / 295 / 218	472 / 472 / 384	590 / 590 / 478
External Static Pressure	Extra High / High / Low	Pa	90 / 80 / 37	95 / 65 / 42	105 / 70 / 38	140 / 110 / 70	90 / 55 / 35
Temperature Exchange Efficiency	Extra High / High / Low	%	75 / 75 / 77	75 / 75 / 77	75 / 75 / 77	75 / 75 / 76	75 / 75 / 76
Enthalpy Exchange Efficiency	Extra High / High / Low	Cooling %	63 / 63 / 66	66 / 66 / 69	62 / 62 / 67	65 / 65 / 68	65 / 65 / 68
	Extra High / High / Low	Heating %	70 / 70 / 73	69 / 69 / 71	67 / 67 / 71	71 / 71 / 74	71 / 71 / 73
Normal Ventilation							
Input	Extra High	W	103 - 119	133 - 151	184 - 210	309 - 337	392 - 438
	High	W	98 - 114	119 - 132	161 - 182	300 - 325	358 - 392
	Low	W	79 - 90	113 - 125	145 - 164	297 - 316	329 - 362
Current	Extra High	A	0.47 - 0.50	0.61 - 0.63	0.84 - 0.88	1.47 - 1.50	1.95 - 2.03
	High	A	0.46 - 0.48	0.57 - 0.60	0.76 - 0.77	1.45 - 1.48	1.84 - 1.92
	Low	A	0.37 - 0.39	0.54 - 0.56	0.71 - 0.73	1.41 - 1.43	1.67 - 1.74
Air Volume	Extra High / High / Low	m³/h	250 / 250 / 170	350 / 350 / 280	500 / 500 / 370	800 / 800 / 650	1000 / 1000 / 810
External Static Pressure	Extra High / High / Low	Pa	90 / 80 / 37	95 / 65 / 42	105 / 70 / 38	140 / 110 / 70	90 / 55 / 35
Noise	Extra High	dB	27 - 28	31 - 32	34 - 35	38.5 - 39.5	38 - 39
	High	dB	26.5 - 27.5	30 - 31	32 - 33	37 - 38	36.5 - 37.5
	Low	dB	21.5 - 22.5	26 - 27	26.5 - 27.5	33.35	31.5 - 33.5
Product Weight		Kg	29	37	43	71	83

- This noise of the product is the value which was measured at the acoustic room. Actually, in the established condition, that undergo influence by the echoing of the room and so that become bigger than the display numerical value.
- The input, the current and the exchange efficiency are values at the time of the mentioned air volume.
- The noise level shall be measured 1.5m below the center of the unit.
- The temperature exchange efficiency averages that of when cooling and when heating.

TYPICAL SYSTEM LINKED TO A CASSETTE TYPE AIR CONDITIONER



USE CONDITIONS

OUTDOOR AIR CONDITIONS
TEMPERATURE RANGE: -10 ºC – 40 ºC
RELATIVE HUMIDITY: 85% OR LESS

INDOOR AIR CONDITIONS
TEMPERATURE RANGE: -10 ºC – 40 ºC
RELATIVE HUMIDITY: 85% OR LESS

REQUIREMENTS FOR INSTALLATION
USE IS TO BE AVOIDED IN REFRIGERATED CHAMBERS OR OTHER PLACES WHERE THE TEMPERATURE MAY UNDERGO SIGNIFICANT FLUCTUATIONS, EVEN WHEN THE TEMPERATURE RANGE IS ACCEPTABLE.

FY-250ZDY2

FY-350ZDY2

FY-500ZDY2

FY-800ZDY2

FY-01KZDY2A

FY-10ESPNAH // FY-10ELPNAH

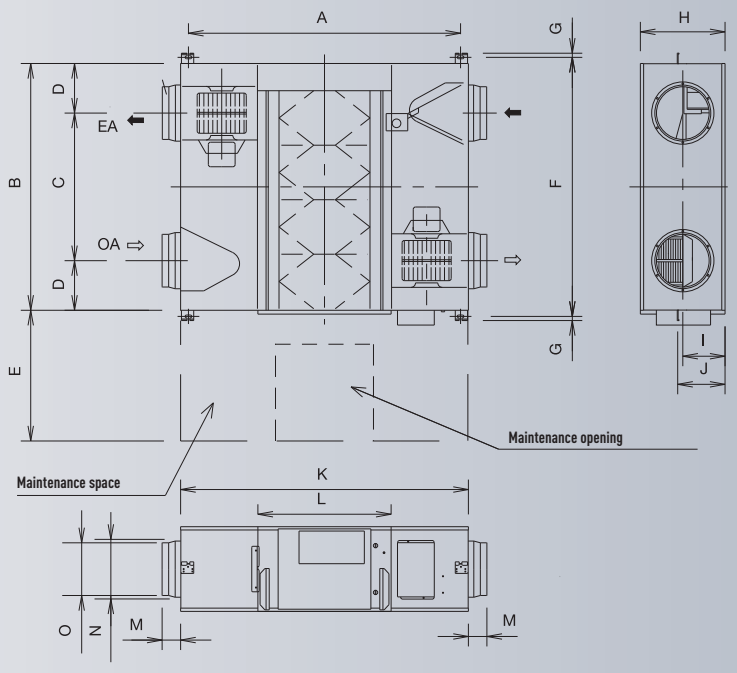
HEALTHY AIR
- The filter guarantees healthier air

ENERGY EFFICIENCY AND ECOLOGY
- Up to 20% energy saving in the installation
- Recovers up to 77% of the heat in the outgoing air

COMFORT
- Quiet units (21,5 dB for the FY-250ZDY2)
- Cleaning reduced due to the revolutionary structure of the exchanger (recommended every 6 months)
- Ideal for indoor spaces without windows

EASY INSTALLATION AND MAINTENANCE
- Five models for easier selection
- Reduced system height (270 mm and 388 mm)
- Side opening for cleaning (inspection of filter, motor and other parts)
- Installation can be reversed to share an inspection opening between 2 machines
- Easy connection to the air conditioning unit (without additional elements)
- Installation in false ceilings
- Units operate at 220 - 240V
- High static pressure for easier installation

INDOOR UNIT DIMENSIONS



	FY-250ZDY2	FY-350ZDY2	FY-500ZDY2	FY-800ZDY2	FY-01KZDY2A
A	810	810	890	1,250	1,250
B	599	804	904	884	1,134
C	315	480	500	428	678
D	142	162	202	228	228
E	600	600	600	600	600
F	655	860	960	940	1,190
G	19	19	19	19	19
H	270	270	270	288	388
I	135	145	145	194	194
J	159	159	159	218	218
K	882	882	962	1,322	1,322
L	414	414	414	612	612
M	95	95	107	85	85
N	219	219	246	258	258
O	144	144	194	242	242

TECHNICAL ZOOM

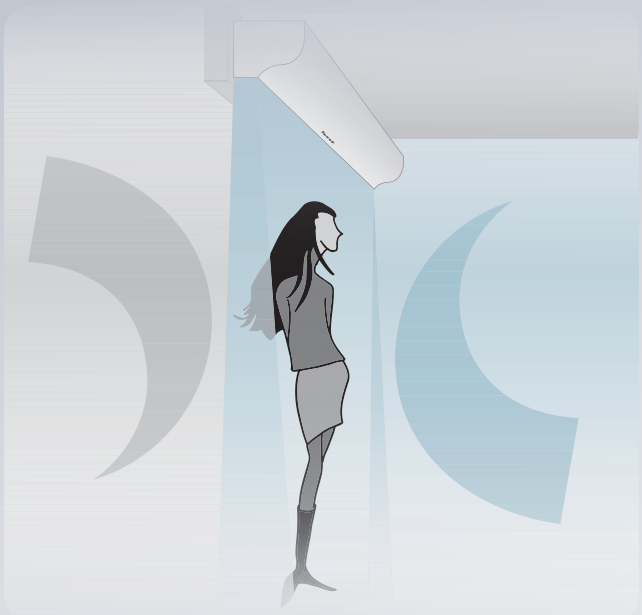
- 2 SIZES : 900MM AND 1200MM
- POWERFUL AIR FLOW (10 M/S)
- VERY LOW NOISE, ONLY 42DB

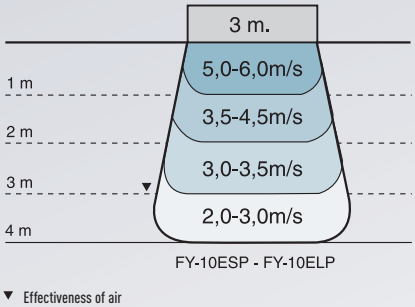
AIR CURTAIN

2 sizes for 900mm and 1200mm air curtains. Ideal for separating areas and energy saving

AIR CURTAIN

			FY-10ESPNAH	FY-10ELPNAH
Width			900	1,200
Watts	Hi	W	71.5	96
	Lo	W	61.5	74
Current	Hi	A	0.40	0.54
	Lo	A	0.29	0.35
Air speed	Hi	m/s	13.0	13.1
	Lo	m/s	11.1	11.0
Air volume	Hi	m^3/h	750	1,000
	Lo	m^3/h	630	830
Noise lever	Hi	dB(A)	46	46
	Lo	dB(A)	42	41
Weight		Kg	11	14





FY-10ESP - FY-10ELP

▼ Effectiveness of air

FY-10ESPNAH // FY-10ELPNAH

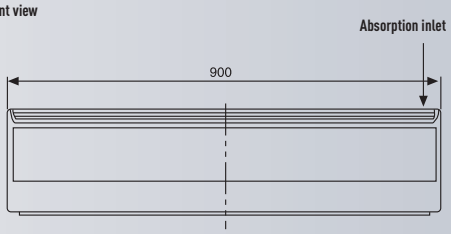
COMFORT
- Easy redirection of airflow by means of the manual deflector

EASE OF USE
- Speed selector (high and low) on the unit itself

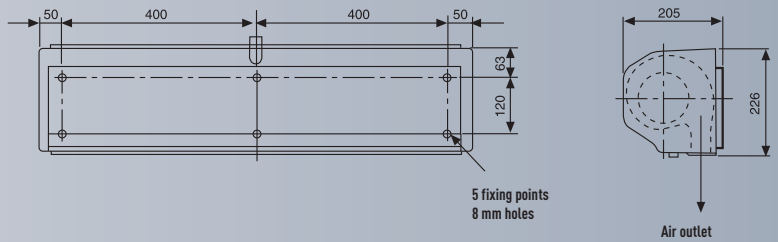
EASY INSTALLATION AND MAINTENANCE
- Simple installation
- Its compact dimensions improve installation and positioning in any space

INDOOR UNIT DIMENSIONS FY-10ESPNAH

Front view



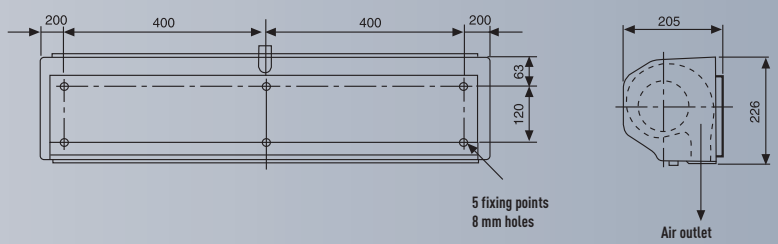
Back view



INDOOR UNIT DIMENSIONS FY-10ELPNAH

Front view

Back view



WELCOME TO INDUSTRIAL RANGE

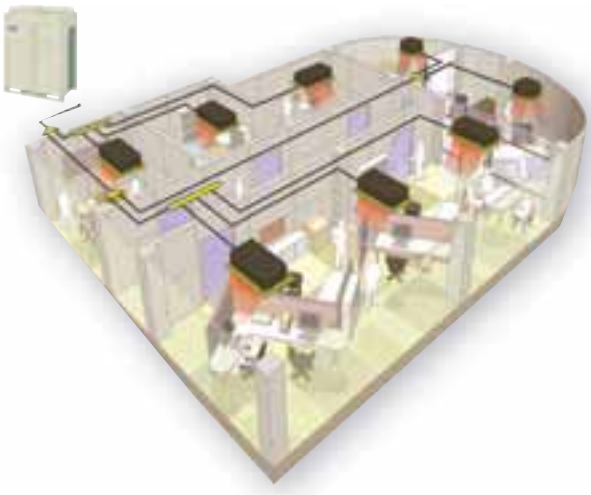
And to cap it all, the industrial range considerably improves efficiency thanks to all of Panasonic's efforts in this area – large buildings benefit from a high-level of comfort with less consumption – showing that the company is serious in its wager to conserve the environment.

Inverter+ products improve on the characteristics of standard Inverter range by over 20%. A Inverter plus is also A class on cooling and heating mode.

The air conditioner works in heat pump mode with an outdoor temperature as low as -15°C.

Environmentally friendly refrigerant.

Panasonic has developed the new ME4 VRF Inverter heat recovery system.
The ME4 heat recovery range demonstrates the continuous, significan improvements of our professional solutions:



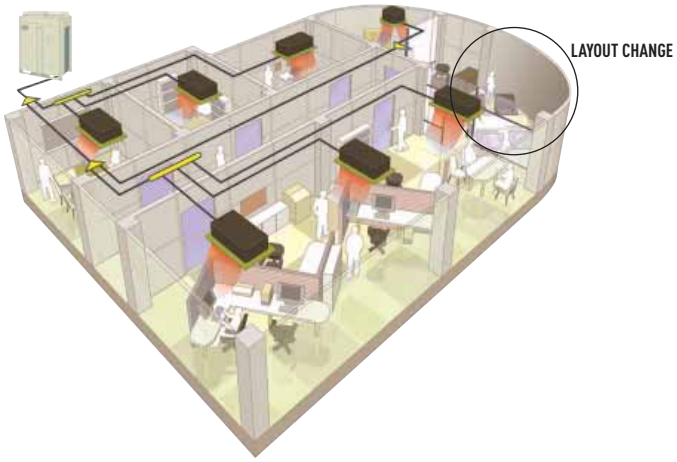
URBAN MULTI 4 RANGE

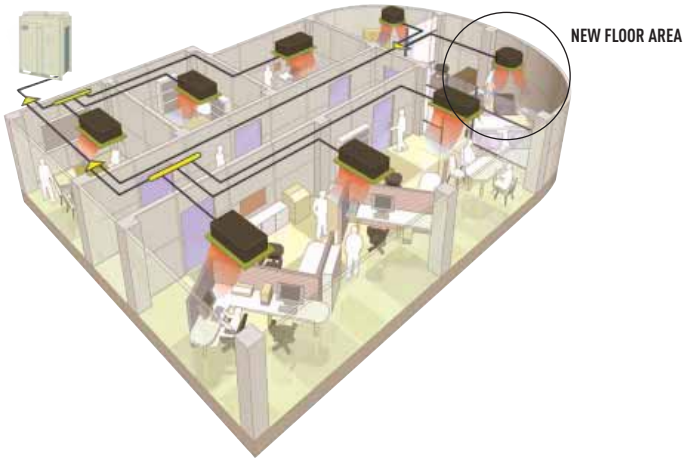
- MX4 heat pump range from 5 HP to 54 HP
- ME4 heat recovery range from 8 HP to 48 HP
- New three-phase Mini UM range from 4 HP to 6 HP

- 14% more efficient than the former range on average, 20% more efficient in individual units.
- COPs and EERs of up to 4.4 and 4.2, respectively, connected at 100%.
- Up to 64 indoor units can be connected to a single outdoor unit (one third more than the previous ME3 range).
- Outdoor units of up to 48 HP in 2 HP steps to better adapt to project needs.
- Individual units of up to 16 HP with two heat recovery elements permitting greater installation flexibility.
- Connection ratio of up to 200% with a single outdoor unit and between 160% and 130% for double or triple combinations.
- Improved range of operation: from -5 °C to 43 °C in cooling and from -20 °C to 15.5 °C in heat pump mode.
- "Night quiet" mode which enables a reduction of up to 45 dB(A) in the outdoor unit's sound level (in automatic or manual mode) at night.
- Needs 10% less refrigerant load than the previous range.
- Outdoor unit flow rate increased by between 3% and 10% for greater efficiency.

TOTAL FLEXIBILITY OF AIR CONDITIONING INSTALLATION

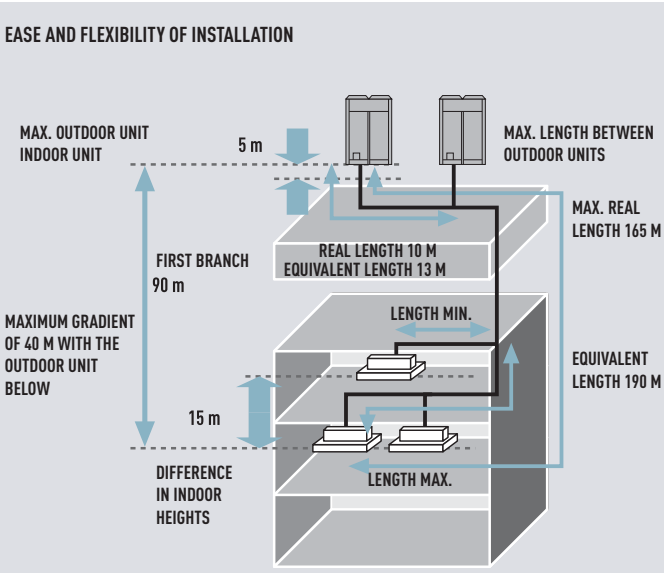
The indoor cooling/heating capacity of the Urban Multi 4 inverter system can be extended by adding several indoor units to the outdoor unit, when it has excess capacity. Indoor units of up to 200% of the capacity of the outdoor unit can be added to cover possible changes in floor layout. The installation can be designed depending on the flexible combination of outdoor units, enabling maximum operating efficiency (COP) or for minimum use of space.
The maximum connection ratio of 200% enables you to activate cooling from the other side of the building to avoid localised heating caused by the sun in the morning or the afternoon.



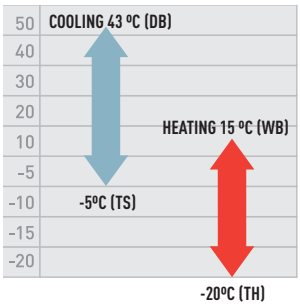


PIPES OF UP TO 165 M UP TO 27 FLOORS IN HEIGHT

The length of the cooling pipe between a system's indoor and outdoor units can be extended up to 165 metres, with a height difference of up to 50 metres (90 m in some cases). These ample limits make it possible to place the outdoor unit on the roof of a 27-floor building. The maximum height difference between indoor units in the same system may be up to 15 metres, thus covering 4 or 5 floors in the same system. The total length of the pipes extends from 300 to an incredible 1,000 metres.



BROAD OPERATING RANGE

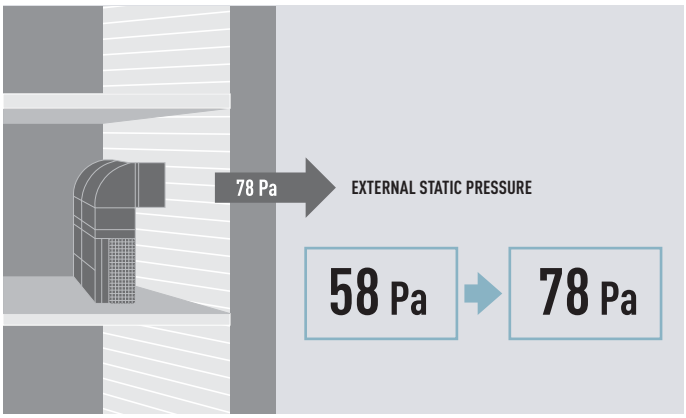


WORKS OUTDOORS DOWN TO -20 ºC.

The heating function will remain stable indoors even when the temperature outside drops to -20 ºC, thus meeting users' different needs. Moreover, the cooling function operates from -5 ºC to 43 ºC.

HIGH EXTERNAL STATIC FAN PRESSURE

Panasonic has increased the static pressure of the Urban Multi 4 outdoor unit from 6 mm H_2O to a high level of 8 mmAq to satisfy the pipe discharge options demanded by customers.



DESIGN FLEXIBILITY

UP TO 34% REDUCTION IN OUTDOOR UNITS MX4 RANGE

The Urban Multi 4 inverter system drastically reduces the space required for installation, making it the most space-economising system in the industry.
For example, you only need one outdoor unit to obtain 18 HP, unlike the Urban Multi 3 system, which requires two units.

REDUCTION
34%

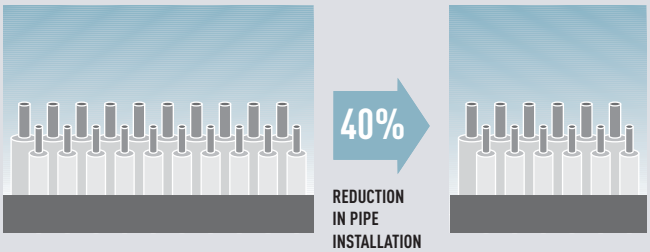
INSTALLATION SPACE (18 HP)

1.44 m^2 → 0.95 m^2

EASY TO INSTALL

Thanks to its unique system of pipes and wiring and its lightweight, compact indoor units, the Urban Multi 4 system can be installed easily and rapidly by few operators. Its automatic address configuration function, as well as its self-diagnosis of piping and wiring connection errors enables technicians to install expansion air conditioning equipment.

QUICK AND EASY INSTALLATION



PIPING FLEXIBILITY

The new Urban Multi 4 design allows for a drastic increase in the run length of the pipes, from 300 to 1,000 m. The length of cooling pipes between outdoor and indoor units in a system can extend up to 165 m. The horizontal distance between the first indoor unit and the last one has been increased by 40 m and the vertical distance has gone from 50 m to 90 m. This makes the Urban Multi 4 system the ideal solution for cooling needs in multi-storey buildings.

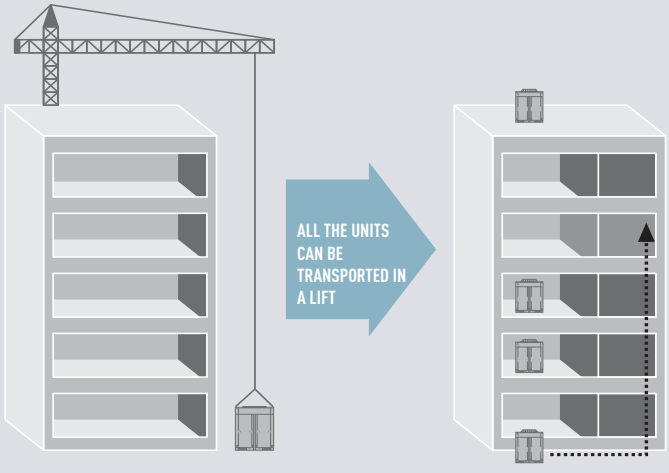
GREATER CONNECTION CAPACITY

The new Urban Multi 4 attains a mass connection capacity of up to 200% in the unit's connection range, depending on the selection of outdoor and indoor models. Unlike the old MX3 10 HP, which could only be connected to 16 indoor units, the MX4 of the same power can be connected to 25 indoor units.

DESIGNED FOR QUICK INSTALLATION

No cranes or hoists are needed to transport the units to rooftops. Thanks to the new outdoor units' small size they can be transported to the rooftop in the building's lift.

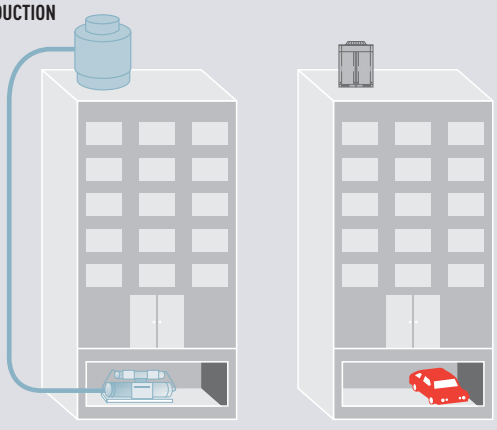
QUICK INSTALLATION



SPACE SAVINGS AS COMPARED TO OTHER TYPES OF INSTALLATIONS

Urban Multi 4's single cooling refrigerant circuit system saves more space. There is no need for a special machine room in buildings, so available space is used most efficiently. You may select the external configuration depending on your needs, minimum space or high COP. You decide.

SPACE REDUCTION



SIMPLIFIED WIRING

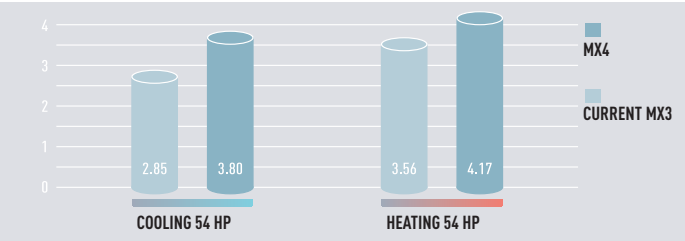
The wiring system enables several indoor units to be connected to one outdoor unit, thus simplifying installation. The wiring system has been designed both for communication between indoor and outdoor units and for centralising the control system. A high degree of control can be achieved with a simple wiring operation. Even if you have a centralised control system, only one connection is required between the control unit and the outdoor units.

PANASONIC CARES ABOUT THE ENVIRONMENT

Panasonic is well aware of the delicate balance between progress and sustainability Realising that our job is both to innovate and conserve, our HCFC-based refrigerant gas replacement programme was years ahead of related EU requirements. We have also ensured that we comply with RoHS Directive requirements and, indeed, exceed them. Our long record of research into new refrigerants has allowed us to adopt R410A gas for our range of air conditioners. "R410A is the option that offers optimal performance without the need to forego comfort and involves 'no environmental cost' since it does not harm the ozone layer". Panasonic, quality of life now, quality of life tomorrow.

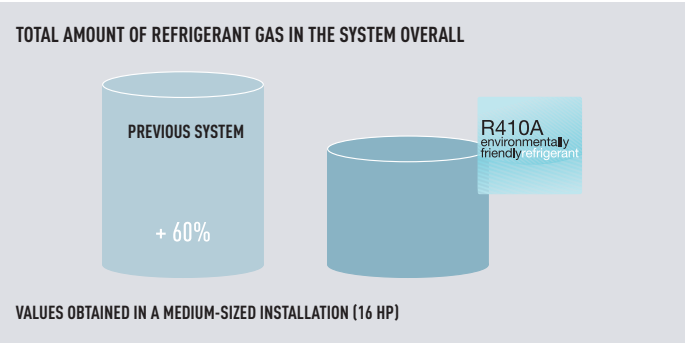
THE BEST FEATURES

Quality features translate into energy savings thanks to greater energy efficiency. This efficiency is due to the fact that each room is individually controlled and only the rooms that require air-conditioning are heated or cooled. Moreover, thanks to Inverter technology, the level of air conditioning can be adjusted precisely depending on each room's condition. The high COP of our machines is attained using cutting-edge technology, like the highly efficient type G compressor with its reduced friction losses. This all contributes to smooth and cost-effective operation. In addition, the Inverter-type outdoor unit consumption drops to zero in standby mode when indoor units are disconnected using the remote control (30% reduction in standby consumption).



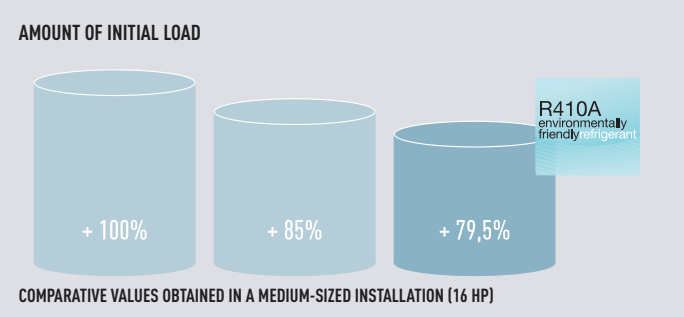
REDUCED REFRIGERANT VOLUME

Reduction in the total amount of refrigerant throughout the circuit. The adoption of R410A refrigerant gas, together with the optimization and reduction of pipe diameters, allows for a major reduction in the volume of the whole circuit.



REDUCTION OF THE INITIAL REFRIGERANT LOAD

Thanks to research results and the use of a more effective gas, the new UM R410A series offers considerable savings in the initial load with regard to previous models of more than 20% compared to the old R22s.



CLEANER PRODUCTION, GREATER DURABILITY AND RECYCLABLE MATERIALS

The RoHS Directive came into force in Europe in July 2006. The Directive prohibits the launching onto the EU market in the of new electrical and electronic equipment in which levels of lead, cadmium, mercury, hexavalent chromium and polybromobiphenyl (PBB) and polybromodiphenyl ether (PBDE) type flame retardants exceed those permitted. All Panasonic's VRF products comply with this regulation.

HIGH RELIABILITY

IMPROVED NIGHT-TIME FUNCTION

The noise control range has been extended, making the following adjustments possible: Step 1 (50 dB) and Step 2 (45 dB) (system with a single outdoor unit). Substantially quieter night-time operation.

NIGHT-TIME FUNCTION

		5 HP	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP
STEP 2	CAPACITY KW	11.9	15.1	15.1	15.6	15.5	15.6	15.6
45 DB		93%	74%	59%	51%	43%	38%	34%
STEP 1	CAPACITY KW	14.7	19.9	19.9	20.9	19.9	20.1	20.2
50DB		116%	98%	78%	69%	55%	49%	44%

With step 2 silent operation, sound level of 45 dB at 10 HP, 25 ºC, 41% reduction in capacity.

The capacity priority adjustment included, as in conventional systems, ensures that sufficient capacity is available when it is absolutely necessary. The personalised mode continues to allow the user to choose the operating mode activation and deactivation time (external adapter and timer required for the outdoor unit).

IMPROVED NOISE REDUCTION

To continue reducing noise levels, the MX4 series has a compressor which is 5 dB quieter than in the previous system. The improved acoustic insulation offers a 3 dB sound reduction thanks to 200% more insulation. Finally, a fan masking control ensures silent operation all year round, even at night, preventing compressor noise being heard even during fan control.

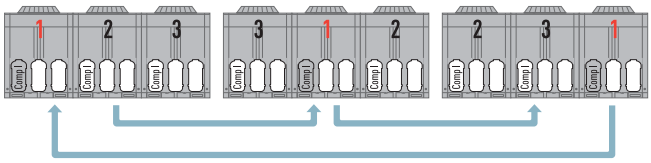
CONTROL OF THE COMPRESSOR START-UP CYCLE

VRF systems incorporate a mechanism which manages the operation of each compressor to extend its life. This cycle control covers a maximum of nine compressors. The start-up sequence order is controlled by a group of outdoor units.

REFRIGERANT RECOVERY FUNCTION

This function opens the valves to facilitate recovery of the refrigerant using a recovery unit.

QUICK AND EASY INSTALLATION



ANTICORROSIVE TREATMENT

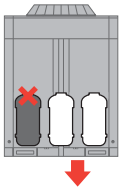
The heat exchanger's special anticorrosive treatment offers six times better resistance to saline corrosion and/or acid rain. The bottom part has a stainless steel plate to give the unit additional protection.

CROSS-SECTION OF THE HEAT EXCHANGER WITH ANTICORROSIVE TREATMENT

CONVENTIONAL DOUBLE BACKUP IN OUTDOOR UNITS

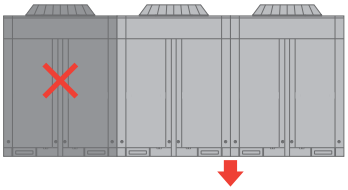
Conventional VRF or water systems require an expensive and bulky stand-by unit to prevent an emergency shutdown in the event of a system malfunction.
In contrast, faults only affect one part of the Urban Multi 4 system, not all of it. If one of the three compressors of an outdoor unit malfunctions, one of the remaining compressors starts to work in emergency mode. In addition, if there is a fault in a double or triple system unit, the other outdoor units will work in emergency mode until the fault is repaired.

WHEN A COMPRESSOR FAILS

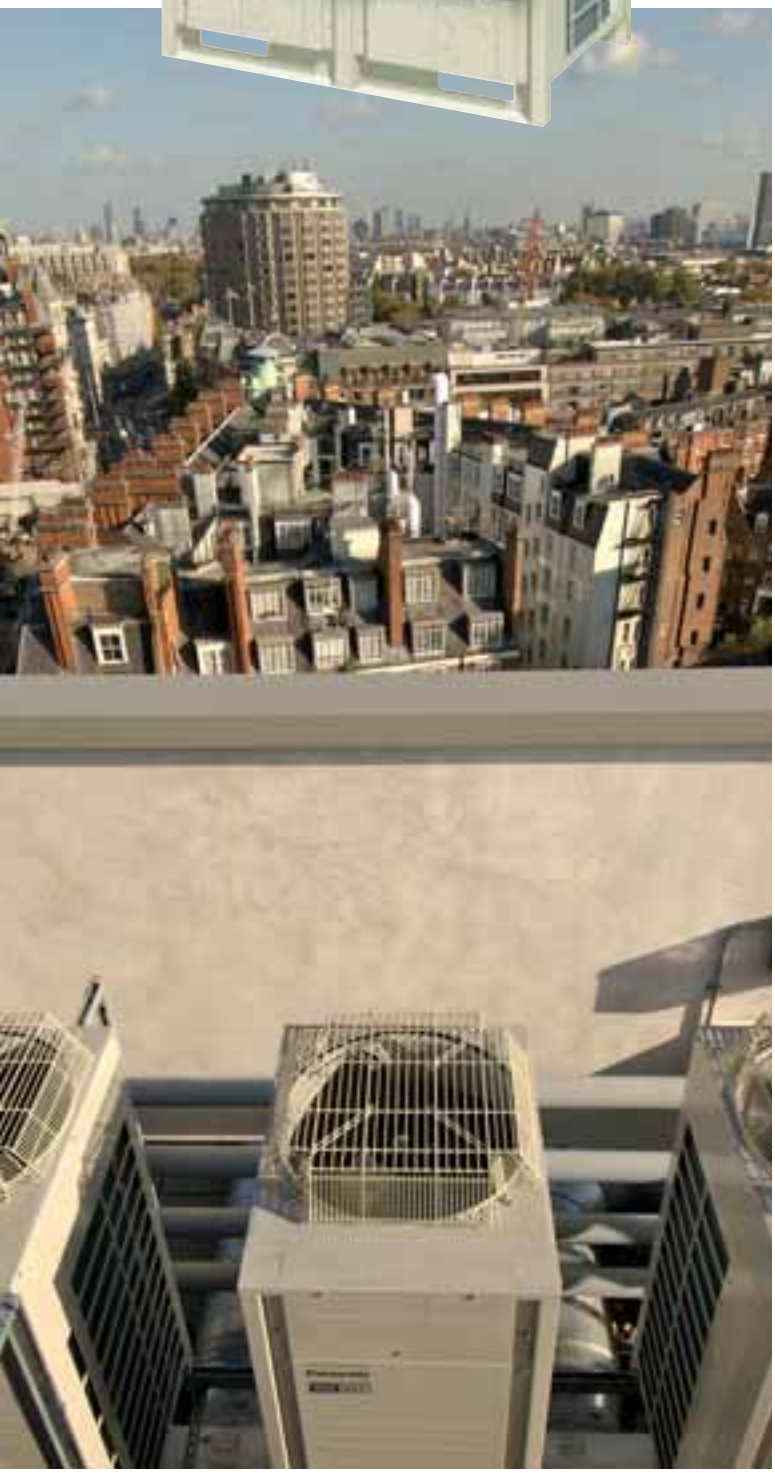


THEY OPERATE IN THE EVENT OF AN EMERGENCY

WHEN AN OUTDOOR UNIT FAILS



THEY OPERATE IN THE EVENT OF AN EMERGENCY



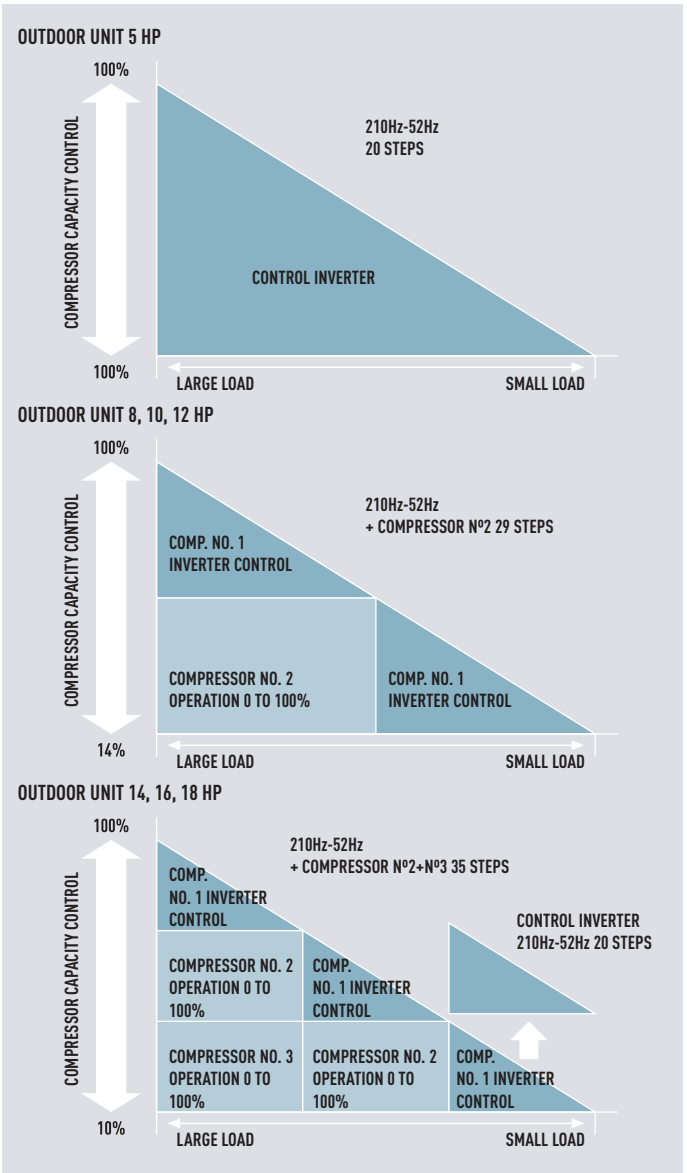
HI-TECH OUTDOOR UNITS

A energy saving air

INVERTER +

INVERTER TECHNOLOGY MX4 AND ME4

Urban Multi 4 outdoor units have advanced control based on the cooling load. This way, by using two compressors, one fixed speed and the other inverter, compressor capacity can be controlled step by step if a low-capacity indoor unit is used. The 5 HP model only uses the inverter compressor.

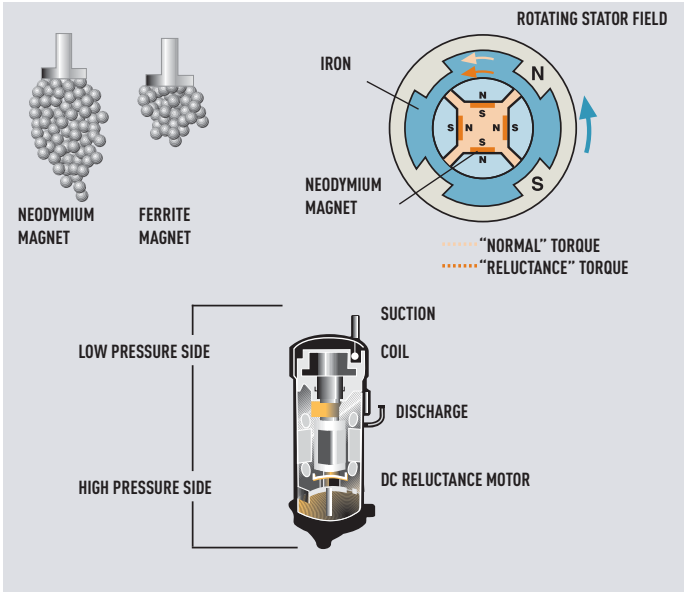


NEW DC RELUCTANCE COMPRESSOR MX4 AND ME4

Neodymium magnets improve motor torque and increase compressor efficiency. They also achieve a 70% volume reduction.

THE SECRET OF EVER GREATER EFFICIENCY: POWERFUL MAGNETS

The neodymium magnet is 12 times more powerful than the ferrite magnet.



NEW COMPACT BOX

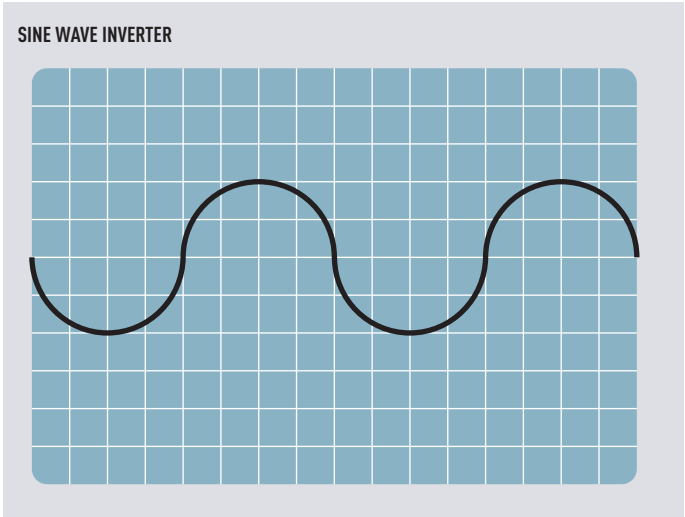
The new layout of the PCBs for the Inverter and control optimises internal design and results in a new, more compact and aerodynamic box, thus reducing the outdoor unit fan sound level and energy consumption.

NEW REFRIGERANT CONTROL CIRCUIT

The sub-cooling of the refrigerant has been improved by the new E-Bridge circuit. This maintains the refrigerant liquid over longer distances with less refrigerant volume, thus permitting a reduction in piping diameter.

NEW SMOOTHER SINE WAVE DC INVERTER

By adopting a sine wave, the rotation of the compressor motor is smoothed, considerably increasing efficiency.

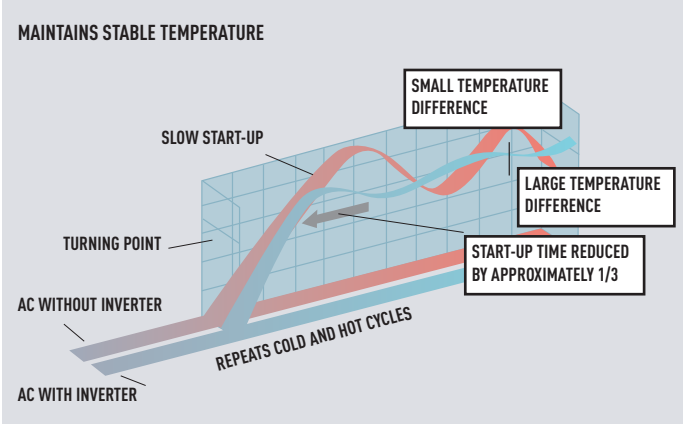


R410A REFRIGERANT

A refrigerant with "ZERO" impact on ozone depletion, as it does not contain chlorine. R410A is a new refrigerant mixture which exhibits superior safety characteristics. Even with zero ozone layer depletion potential R410A offers better performance that the conventional R22.

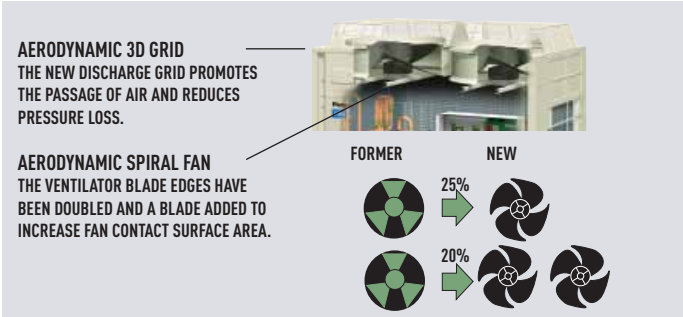
SMART CONTROL PROVIDES GREATER COMFORT MX4 Y ME4

An electronic expansion valve using a PID control continually adjusts the refrigerant volume to respond to load variations in the indoor units. So the VRF system maintains comfortable ambient temperatures at a virtually constant level without the typical variations in temperature of ON/OFF control systems.



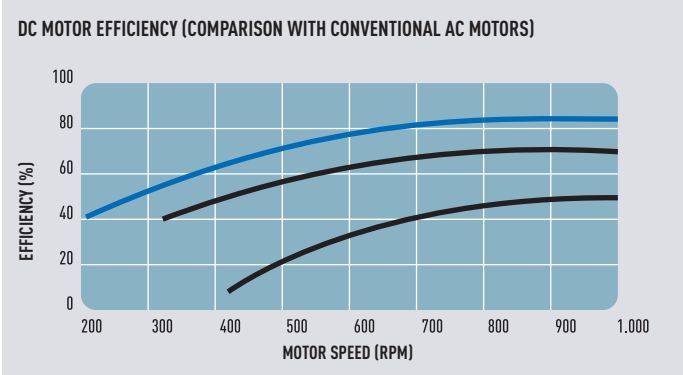
NEW AERODYNAMIC FAN AND COIL GRID

These new elements achieve lower noise in large-volume fans, and they offer a compact cover design along with the compressor technology.



DC FAN MOTOR

For the first time ever these are included in the entire range (from 5 to 54 HP). Proven efficiency from 40%, especially at slow speeds.



MINI UM 5

The whole indoor range with three-phase outdoor unit

Air conditioning spaces can now take on a new dimension. If you have bought a new property or residence which is still in the construction phase, or if you are refurbishing, Panasonic offers you the chance to enjoy global Mini UM 5 air conditioning. Mini UM is the new range of air conditioners which harnesses Panasonic's experience in air conditioning buildings and large areas with its Urban Multi series with VRF R410A technology. Urban Multi's cutting edge technology is perfectly suited to medium-sized and small areas, with three-phase power source, with advanced Inverter technology, opening up previously unimagined possibilities in the world of air conditioning.

ADVANTAGES OF MINI UM 5

- Automatic refrigerant loading system to ensure optimal operation and activation of non-invasive analysis of refrigerant escape tests.
- Complete freedom of choice. Up to 11 different indoor unit models. Choose the best option according to the architectural and decoration criteria.
- Three outdoor unit power levels: 4,5 and 6 HP, three-phase.
- Inverter Technology with R410A gas, "Greater comfort and economy with less consumption".
- Best use of space. A single outdoor unit feeds up to 9 indoor units.
- Easy to install Thanks to its small size, the outdoor unit can be hoisted to the roof using the building's lift.
- Total control. You can get optimal centralised or individualised climate management in your home, or using the Urban Controller PC-based software program.

ONE-PHASE & THREE-PHASE UNITS

Power	4 HP	5 HP	6 HP
			
Reference	U-4ML5XPQ	U-5ML5XPQ	U-6ML5XPQ
Maximum combination of indoor units	6	8	9
Power rates	50 - 130	62 - 162	70 - 182
Power supply (V)	400	400	400

All the UM 4 series indoor units are available for the single and three-phase Mini UM units. You can check the characteristics of these indoor units on pages 26 to 37 of this catalogue.

OUTDOOR UNIT TECHNICAL CHARACTERISTICS

Model			U-4ML5XPQ	U-5ML5XPQ	U-6ML5XPQ
Cooling	Capacity	kW	11.2	14,0	15.5
	Consumption	kW	2.89	3,61	4.65
	EER		3.88	3,88	3.33
	Noise level	dB(A)	50	51	53
Heating	Capacity	kW	12.5	16,0	18.0
	Consumption	kW	2.82	3,97	4.70
	COP		4.43	4,03	3.83
	Noise level	dB(A)	52	53	55
Connectable indoor units			6	8	9
Power supply		V	400	400	400
Refrigerant gas			R410A	R410A	R410A
Dimensions	H x W x D	mm	1,345 x 900 x 320	1,345 x 900 x 320	1,345 x 900 x 320
Weight		Kg	120	120	120
Diameter of pipes		Inches	3/8 - 5/8	3/8 - 5/8	3/8 - 3/4
Max. pipe length		m	300	300	300
Max. length between indoor and outdoor units		m	150	150	150
Max. height between outdoor / indoor units		m	50 (40 m if the outdoor unit is below the indoor unit)		
Max. height between indoor units		m	15		
Operating range		ºC	(Cooling) -5 a 46 / (Heating) -20 a 15.5		

Complies with regulation on harmonics in force from February 2008 (EN 61000-312)
Calculations of capacities and consumptions based on the use of indoor units (S-**UM4JPQ)

NEW OUTDOOR UNITS, MORE POWER IN LESS SPACE. MX4 RANGE

The MX4 outdoor units for the Urban Multi system offer even more advantages than traditional units.
Now you can design around your space constraints in any combination you need within the scope of 5 to 54 HP and 3 outdoor units. A compact, elegant design and multiple power steps, reduced installation time and automatic refrigerant loading. Just some of the advantages which make our equipment the most reliable on the market.

RANGE OF MX4 OUTDOOR UNITS

Outdoor units		5 HP	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP	22 HP	24 HP	26 HP
												
Minimum space	Heat pump	5MX4	8MX4	10MX4	12MX4	14MX4	16MX4	18MX4	20MX4	22MX4	24MX4	26MX4
	Number of outdoor units	1	1	1	1	1	1	1	2	2	2	2
Maximum COP	Heat pump	-	-	-	-	-	16MX4	18MX4	20MX4	22MX4	24MX4	26MX4
	Number of outdoor units	-	-	-	-	-	2	2	2	2	3	3
Max. No. units connectable [1]		8	13	16	19	23	26	29	32	35	39	42
Power rates [2]		62.5~250	100~400	125~500	150~600	175~700	200~800	225~900	250~800	275~880	300-960	325-1,040

1) Maximum number of indoor units connectable for Minimum Space Combination. For other combinations consult Panasonic's Technical Department.
2) 200% simultaneity is permitted when the indoor unit models are of the S-NM3HPQ, S-FM3HPQ and S-KM3HPR type. System simultaneity cannot exceed 130% with S-20UM4JPQ and S-25UM4JPQ models connected.

R410A environmentally friendly refrigerant

A energy saving air INVERTER+

28 HP	30 HP	32 HP	34 HP	36 HP	38 HP	40 HP	42 HP	44 HP	46 HP	48 HP	50 HP	52 HP	54 HP
													
28MX4	30MX4	32MX4	34MX4	36MX4	38MX4	40MX4	42MX4	44MX4	46MX4	48MX4	50MX4	52MX4	54MX4
2	2	2	2	2	3	3	3	3	3	3	3	3	3
28MX4	30MX4	32MX4	34MX4	36MX4	-	-	-	-	-	-	-	-	-
3	3	3	3	3	-	-	-	-	-	-	-	-	-
45	49	52	55	58	61	64	64	64	64	64	64	64	64
350-1,120	375-1,200	400-1,280	425-1,360	450-1,440	475-1,235	500-1,300	525-1,365	550-1,430	575-1,495	600-1,560	625~1,625	650~1,690	675~1,755

MX4 SERIES MINIMUM SPACE HEAT PUMP

Independent unit models									Combination unit models				
Power			5 HP	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP	22 HP	24 HP	26 HP
400V (III) 50 Hz			U-5MX4XPQ	U-8MX4XPQ1	U-10MX4XPQ	U-12MX4XPQ	U-14MX4XPQ-1	U-16MX4XPQ-1	U-18MX4XPQ-1	U-8MX4XPQ1 U-12MX4XPQ	U-10MX4XPQ U-12MX4XPQ	U-12MX4XPQ U-12MX4XPQ	U-8MX4XPQ1 U-18MX4XPQ-1
Cooling capacity [1]		kW	14.0	22.4	28.0	33.5	40.0	45.0	49.0	55.9	61.5	67.0	71.4
		Kcal/h	12,040	19,264	24,080	28,810	34,400	38,700	42,140	48,074	52,890	57,620	61,404
Heating capacity [2]		kW	16.0	25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0	75.0	81.5
		Kcal/h	13,760	21,500	27,090	32,250	38,700	43,000	48,590	53,750	59,340	64,500	70,090
Consumption	Cooling	kW	3.52	5.22	7.42	9.62	12.40	14.20	16.20	14.71	17.00	19.20	21.80
	Heating	kW	4.00	5.56	7.70	9.44	11.30	12.90	15.30	14.95	17.10	18.90	21.20
EER		kW	3.98	4.29	3.77	3.48	3.23	3.17	3.02	3.80	3.62	3.49	3.41
COP		kW	4.00	4.50	4.09	3.97	3.98	3.88	3.69	4.18	4.04	3.97	3.94
Airflow rate		m^3/min	95	171	185	196	233	233	239	367	381	392	410
Sound pressure level [3]		dB(A)	54	57	58	60	60	60	63	-	-	-	-
Dimensions	HxWxD	mm	1,680x635x765	1,680x930x765	1,680x930x765	1,680x930x765	1,680x1,240x765	1,680x1,240x765	1,680x1,240x765	1,680x1,765x765	1,680x1,765x765	1,680x1,765x765	1,680x2,170x765
Weight		Kg	159	187	240	240	317	317	325	427	480	480	512
Piping connection	Gas	Inches	5/8	3/4	7/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8	1-3/8	1-3/8
Refrigerant	Liquid	Inches	3/8	3/8	3/8	1/2	1/2	1/2	5/8	5/8	5/8	5/8	3/4
Compressor	Number/type		1 (inv)	1 (inv)	2 (1xinv)	2 (1xinv),	3 (1xinv),	3 (1xinv) ,	3 (1xinv,)	3 (2xinv),	4 (2xinv),	4 (2xinv),	4 (2xinv),
	Capacity control	%	28 ~ 100	20 ~ 100	14 ~100	14 ~ 100	10 ~ 100	10 ~ 100	9 ~ 100	8 ~ 100	7 ~ 100	6 ~ 100	6 ~ 100
	Motor	kW	2.8	3.8	1.2	2.8 + 4.5	0.03 + (4.5x2)	1.4 + (4.5x2)	3.0 + (4.5x2)	3.8 + 2.8+ 4.5	1.2 + 2.8 + 4.5	2.8 + 2.8 +	3.8 + 3.0+
Fan	Number/type	Unit	1 x	1 x	1 x	1 x	2 x	2 x	2 x	2 x	2 x	2 x	3 x
	Motor	kW	0.35	0.75	0.75	0.75	0.35 + 0.35	0.35 + 0.35	0.75 + 0.75	0.75 + 0.75	0.75 + 0.75	0.75 + 0.75	0.75 +
Oil (type and load)	Synthetic oil	L	1.7	2.10	3.9	3.9	5.7	5.7	5.8	2.1 + 3.9	3.9 + 3.9	3.9 + 3.9	2.1 + 5.8
Refrigerant (load)			6.2	7.7	8.4	8.6	11.3	11.5	11.7	7.7 + 8.6	8.4 + 8.6	8.6 + 8.6	7.7 + 11.7

Technical data for minimum space combinations.
1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
3) The sound level for a combination of modules is determined by the sound level of the individual modules.

5 HP

8,10,12 HP

14, 16, 18 HP

R410A environmentally friendly refrigerant

A energy saving air INVERTER+

COMBINATION MX4 STD

	U-5MX4XPQ	U-8MX4XPQ1	U-10MX4XPQ	U-12MX4XPQ	U-14MX4XPQ-1	U-16MX4XPQ-1	U-18MX4XPQ-1
BOMBA DE CALOR							
U-5MX4XPQ	1						
U-8MX4XPQ1		1					
U-10MX4XPQ			1				
U-12MX4XPQ				1			
U-14MX4XPQ-1					1		
U-16MX4XPQ-1						1	
U-18MX4XPQ-1							1
MULTIPLE COMBINATION WITH 2 OUTDOOR UNITS							
20 HP		1		1			
22 HP			1	1			
24 HP				2			
26 HP		1					1
28 HP			1				1
30 HP				1			1
32 HP					1		1
34 HP						1	1
36 HP							2
MULTIPLE COMBINATION WITH 3 OUTDOOR UNITS							
38 HP		1		1			1
40 HP			1	1			1
42 HP				2			1
44 HP		1					2
46 HP			1				2
48 HP				1			2
50 HP					1		2
52 HP						1	2
54 HP							3

28 HP	30 HP	32 HP	34 HP	36 HP	38 HP	40 HP	42 HP	44 HP	46 HP	48 HP	50 HP	52 HP	54 HP
U-10MX4XPQ U-18MX4XPQ-1	U-12MX4XPQ U-18MX4XPQ-1	U-14MX4XPQ-1 U-18MX4XPQ-1	U-16MX4XPQ-1 U-18MX4XPQ-1	U-18MX4XPQ-1 U-18MX4XPQ-1	U-8MX4XPQ1 U-12MX4XPQ U-18MX4XPQ-1	U-10MX4XPQ U-12MX4XPQ U-18MX4XPQ-1	U-12MX4XPQ U-18MX4XPQ-1	U-8MX4XPQ1 U-18MX4XPQ-1 U-18MX4XPQ-1	U-10MX4XPQ U-18MX4XPQ-1 U-18MX4XPQ-1	U-12MX4XPQ U-18MX4XPQ-1 U-18MX4XPQ-1	U-14MX4XPQ-1 U-18MX4XPQ-1 U-18MX4XPQ-1	U-16MX4XPQ-1 U-18MX4XPQ-1 U-18MX4XPQ-1	U-18MX4XPQ-1 U-18MX4XPQ-1 U-18MX4XPQ-1
77.0	82.5	89.0	94.0	98.0	105.0	111.0	116.0	120.4	126.0	132.0	138.0	143.0	147
66,220	70,950	76,540	80,840	84,280	90,300	95,460	99,760	103,544	108,360	113,520	118,680	122,980	126,420
87.5	95.0	100.0	108.0	113.0	119.0	126.0	132.0	138.0	145.0	151.0	158.0	163.0	170.0
75,250	81,700	86,000	92,880	97,180	102,340	108,360	113,520	118,680	124,700	129,860	135,880	140,180	146,200
23.60	25.80	28.60	30.40	32.40	30.60	33.20	35.40	37,05	39.80	42.00	44.80	46.60	48.60
23.00	24.70	26.60	28.20	30.60	30.12	32.40	34.20	35,94	38.30	40.00	41.90	43.50	45.90
3.26	3.20	3.11	3.09	3.02	3.43	3.34	3.28	3.17	3.17	3.14	3.08	3.07	3.02
3.80	3.85	3.76	3.83	3.69	3.95	3.89	3.86	3.78	3.79	3.78	3.77	3.75	3.70
424	435	472	472	478	606	620	631	649	663	674	711	711	717
-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,680x2,170x765	1,680x2,170x765	1,680x2,480x765	1,680x2,480x765	1,680x2,480x765	1,680x3,100x765	1,680x3,100x765	1,680x3,100x765	1,680x3,410x765	1,680x3,410x765	1,680x3,410x765	1,680x3,720x765	1,680x3,720x765	1,680x3,720x765
565	565	642	642	650	752	805	805	837	890	890	967	967	975
1-3/8	1-3/8	1-3/8	1-3/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8
3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
5 (2xinv)	5 (2xinv)	6 (2xinv,	6 (2xinv) ,	6 (3xinv),	6 (3xinv),	8 (3xinv),	7 (3xinv),	7 (3xinv),	8 (3xinv),	8 (3xinv),	9 (3xinv),	9 (3xinv),	9 (3xinv),
5 ~ 100	5 ~ 100	5 ~ 100	5 ~ 100	4 ~ 100	4 ~ 100	4 ~ 100	4 ~ 100	4 ~ 100	3 ~ 100	3 ~ 100	3 ~ 100	3 ~ 100	3 ~ 100
1.2 + 3.0 +	2.8 + 3.0+	0.3 + 3.0+	1.4 + 3.0+	3.0 + 3.0+	3.8 + 2.8 +	1.2 + 2.8 +	2.8 + 2.8 +	3.8 + 3.0 +	1.2 + 3.0 +	2.8 + 3.0 +	0.3 + 3.0 +	1.4 + 3.0 +	3.0 + 3.0 +
3 x	3 x	4 x	4 x	4 x	4 x	4 x	4 x	5 x	5 x	5 x	6 x	6 x	6 x
0.75 +	0.75 +	(2 x0.35) +	(2 x0.35) +	(2x0.75) +	750 + 750 +	750 + 750 +	750 + 750 +	750 +	750 +	750 +	(2x350) +	(2x350) +	(2x750) +
3.9 + 5.8	3.9 + 5.8	5.7 + 5.8	5.7 + 5.8	5.8 + 5.8	2.1 + 3.9 + 5.8	3.9 + 3.9 + 5.8	3.9 + 3.9 + 5.8	2.1 + 5.8 + 5.8	3.9 + 5.8 + 5.8	3.9 + 5.8 + 5.8	5.7 + 5.8 + 5.8	5.7 + 5.8 + 5.8	5.8 + 5.8 + 5.8 Daphne FVC68D
8.4 + 11.7	8.6 + 11.7	11.3 +11.7	11.5 + 11.7	11.7 + 11.7	7.7 + 8.6 + 11.7	8.4 + 8.6 + 11.7	8.6 + 8.6 + 11.7	7.7 + 11.7 + 11.7	8.4 + 11.7 + 11.7	8.6 + 11.7 + 11.7	11.3 + 11.7 + 11.7	11.5 + 11.7 + 11.7	11.7 + 11.7 + 11.7

MX4 SERIES MAXIMUM COP HEAT PUMP

Combination unit models

Power			**16 HP**	**18 HP**	**20 HP**	**22 HP**
380, 415V (III) 50 Hz			**U-8MX4XPQ1 U-8MX4XPQ1**	**U-8MX4XPQ1 U-10MX4XPQ**	**U-10MX4XPQ U-10MX4XPQ**	**U-10MX4XPQ U-12MX4XPQ**
Cooling capacity [1]		kW	44.8	50.4	56.0	61.5
		Kcal/h	38,528	43,344	48,160	52,890
Heating capacity [2]		kW	50.0	56.5	63.0	69.0
		Kcal/h	43,000	48,590	54,180	59,340
Consumption	Cooling	kW	10.44	12.6	14.8	17.0
	Heating	kW	11.11	13.23	15.4	17.1
EER		kW	4.29	4.00	3.78	3.62
COP		kW	4.50	4.27	4.09	4.04
Airflow rate		m^3/min	171 + 171	171 + 185	185 + 185	185 + 185
Sound pressure level [3]	dB(A)		-	-	-	-
Dimensions	H x W x D		2 x (1,680 x 930 x 765)	2 x (1,680 x 930 x 765)	2 x (1,680 x 930 x 765)	2 x (1,680 x 930 x 765)
Weight		Kg	374	427	480	480
Piping connection	Gas	Inches	1-1/8	1-1/8	1-1/8	1-1/8
Refrigerant	Liquid	Inches	1/2	5/8	5/8	5/8
Compressor	Number/type		2 x inv	3 (2 x inv. 1 x on off)	4 (2 x inv. 2 x on off)	4 (2 x inv. 2 x on off)
	Capacity control	%	-	-	-	-
	Motor Rated output	kW	3.8 + 3.8	3.8 + 1.2 + 4.5	1.2 + 1.2 (4.5 x 2)	1.2 + 2.8 (4.5 x 2)
Fan	Number/type	Unit	2 x helicoidal fan	2 x helicoidal fan	2 x helicoidal fan	2 x helicoidal fan
	Motor Rated output	kW	0.75 + 0.75	0.75 + 0.75	0.75 + 0.75	0.75 + 0.75
Oil (type and load) Daphne FVC68D	Synthetic oil	L	2.1 + 2.1	2.1 + 3.9	3.9 + 3.9	3.9 + 3.9
Refrigerant (load)		Kg	7.7 + 7.7	7.7 + 8.4	8.4 + 8.4	8.4 + 8.6

Technical data for minimum space combination.
1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal). Safety devices: high pressure switch, impulse fan overload protection, Inverter overload protection, plug fuse.
Finishes: Ivory white (5Y7,5/1)
3) The sound level for a combination of modules is determined by the sound level of the individual modules.

5 HP

8,10,12 HP

14, 16, 18 HP

HIGH COP MX4 COMBINATION

	U-5MX4XPQ	U-8MX4XPQ1	U-10MX4XPQ	U-12MX4XPQ	U-14MX4XPQ-1	U-16MX4XPQ-1	U-18MX4XPQ-1
16 HP		2					
18 HP		1	1				
20 HP			2				
22 HP			1	1			
24 HP		3					
26 HP		2	1				
28 HP		1	2				
30 HP			3				
32 HP		1		2			
34 HP			1	2			
36 HP				3			

24 HP	26 HP	28 HP	30 HP	32 HP	34 HP	36 HP
U-8MX4XPQ1 U-8MX4XPQ1 U-8MX4XPQ1	U-8MX4XPQ1 U-8MX4XPQ1 U-10MX4XPQ	U-8MX4XPQ1 U-10MX4XPQ U-10MX4XPQ	U-10MX4XPQ U-10MX4XPQ U-10MX4XPQ	U-8MX4XPQ1 U-12MX4XPQ U-12MX4XPQ	U-10MX4XPQ U-12MX4XPQ U-12MX4XPQ	U-12MX4XPQ U-12MX4XPQ U-12MX4XPQ
67.2	72.8	78.4	84.0	89.4	95.0	101.0
57,792	62,608	67,424	72,240	76,884	81,700	86,860
75.0	81.5	88.0	94.5	100.0	107.0	113.0
64,500	70,090	75,680	81,270	86,000	92,020	97,180
15.66	17.80	19.03	22.3	24.46	26.7	28.9
16.67	18.78	19.82	23.1	24.44	26.6	28.3
4.29	4.09	4.12	3.77	3.65	3.56	3.49
4.50	4.34	4.44	4.09	4.09	4.02	3.99
171 + 171 +171	171 + 171 +185	171 + 185 +185	185 + 185 + 185	171 + 196 + 196	185 + 196 + 196	196 + 196 + 196
-	-	-	-	-	-	-
3 x (1,680 x 930 x 765)	3 x (1,680 x 930 x 765)	3 x (1,680 x 930 x 765)	3 x (1,680 x 930 x 765)	3 x (1,680 x 930 x 765)	3 x (1,680 x 930 x 765)	3 x (1,680 x 930 x 765)
561	614	667	720	667	720	720
1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8	1-5/8
5/8	3/4	3/4	3/4	3/4	3/4	3/4
3 x inv.	4 (3 x inv. 1 x on off)	5 (3 x inv. 2 x on off)	6 (3 x inv. 3 x on off)	5 (3 x inv. 2 x on off)	6 (3 x inv. 3 x on off)	6 (3 x inv. 3 x on off)
-	-	-	-	-	-	-
3.8 + 3.8 + 3.8	3.8 + 3.8 + 1.2 + 4.5	1.2 + 1.2 + 1.2 + (4.5 x 2)	1.2 + 1.2 + 1.2 + (4.5 x 3)	3.8 + 2.8 + 2.8 + (4.5 x 2)	1.2 + 2.8 + 2.8 + (4.5 x 3)	2.8 + 2.8 + 2.8 + (4.5 x 3)
2 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan
0.75 + 0.75 + 0.75	0.75 + 0.75 + 0.75	0.75 + 0.75 + 0.75	0.75 + 0.75 + 0.75	0.75 + 0.75 + 0.75	0.75 + 0.75 + 0.75	0.75 + 0.75 + 0.75
2.1 + 2.1 + 2.1	2.1 + 2.1 + 3.9	2.1 + 3.9 + 3.9	3.9 + 3.9 + 3.9	2.1 + 3.9 + 3.9	3.9 + 3.9 + 3.9	3.9 + 3.9 + 3.9
7.7 + 7.7 + 7.7	7.7 + 7.7 + 8.4	7.7 + 8.4 + 8.4	8.6 + 8.6 + 8.6	7.7 + 8.6 + 8.6	8.4 + 8.6 + 8.6	8.4 + 8.6 + 8.6

ME4XPQ SERIES HEAT RECOVERY

Independent Unit models								Combination unit models			
Power			**8 HP**	**10 HP**	**12 HP**	**14 HP**	**16 HP**	**18 HP**	**20 HP**	**22 HP**	**24 HP**
380, 415V (III) 50Hz			**U-8ME4XPQ1**	**U-10ME4XPQ**	**U-12ME4XPQ1**	**U-14ME4XPQ**	**U-16ME4XPQ**	**U-8ME4XPQM1 U-10ME4XPQM**	**U-8ME4XPQM1 U-12ME4XPQM**	**U-10ME4XPQM U-12ME4XPQM**	**U-12ME4XPQM U-12ME4XPQM**
Cooling capacity [1]		kW	22.4	28	33.5	40	45	50.5	56	61.5	67
		Kcal/h	19264	24,080	28,810	34,400	38,700	43,344	48,074	52,890	57,620
Heating capacity [2]		kW	25	31.5	37.5	45	50	56.5	62.5	69	75
		Kcal/h	21,500	27,090	32,250	38,700	43,000	48,590	53,750	59,340	64,500
Consumption	Cooling	kW	5.20	7.09	8.72	11.40	14.1	12.70	14.90	17.0	19.20
	Heating	kW	5.71	7.38	8.84	11.00	12.8	13.40	15.20	17.1	18.90
EER		kW	4.31	3.95	3.84	3.51	3.19	3.99	3.77	3.62	3.49
COP		kW	4.38	4.27	4.24	4.09	3.91	4.20	4.12	4.04	3.97
Airflow rate (Rated at 230V)	m^3/min	190	190	210	235	240	365	380	385	400	415
Sound pressure level	dB(A)	57	58	60	62	63	61	62	62	63	62
Dimensions	H x W x D	mm	1,680x1,300x765	1,680x1,300x765	1,680x1,300x765	1,680x1,300x765	1,680x1,300x765	(1,680x930x765)+ (1,680x930x765)	(1,680x930x765)+ (1,680x930x765)	(1,680x930x765)+ (1,680x930x765)	(1,680x930x765)+ (1,680x930x765)
Weight		kg	331	331	331	339	339	204+254	204+254	254+254	254+254
Piping connection	Gas	Inches	Ø 3/4 [4]	Ø 7/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-3/8 [4]
Refrigerant	Discharge gas	Inches	Ø 5/8 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 7/8 [4]	Ø 7/8 [4]	Ø 7/8 [4]	Ø 7/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]
	Liquid	Inches	Ø 3/8 [3]	Ø 3/8 [3]	Ø 1/2 [3]	Ø 1/2 [3]	Ø 1/2 [3]	Ø 5/8 [3]	Ø 5/8 [3]	Ø 5/8 [3]	Ø 5/8 [3]
	Oil balancing	Inches	-	-	-	-	-	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4
Compressor	Number/type		2 x comp. hermetic coil	2 x comp. hermetic coil	2 x comp. hermetic coil	2 x comp. hermetic coil	2 x comp. hermetic coil	3 x comp. hermetic coil	3 x comp. hermetic coil	4 x comp. hermetic coil	4 x comp. hermetic coil
	Capacity control	%	20-100	14-100	14-100	10-100	10-100	9-100	7-100	7-100	6-100
	Motor Rated output	kW	(1.0+4.5) x1	(2.2+4.5) x1	(3.3+4.5) x1	(3.8+3.8) x1	(4.4+4.4) x1	(2.2+4.5) x1+ 4.7x1	(3.5+4.5) x1+ 4.7x1	(3.5+4.5) x1+ (2.2+4.5) x1	(3.5+4.5) x2
Fan	Number/type	Unit	2 x helicoidal fan	2 x helicoidal fan	2 x helicoidal fan	2 x helicoidal fan	2 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan	3 x helicoidal fan
	Motor Rated output	kW	0.35 x 2	0.35 x 2	0.35 x 2	0.75 x 2	0.75 x 2	(0.75x1)+(0.75x1)	(0.75x1)+(0.75x1)	(0.75x1)+(0.75x1)	0.75 x 2
Oil (type and load)	DAPHNE FVC68D	L	1.9+1.6	1.9+1.6	1.9+1.6	1.9+1.6+1.6	1.9+1.6+1.6	(1.9+1.6)+ (1.9+1.6)	(1.9+1.6)+ (1.9+1.6)	(1.9+1.6)+ (1.9+1.6)	(1.9+1.6)+ (1.9+1.6+1.6)
Refrigerant (load)		Kg	10.3	10.6	10.8	11.1	11.1	8.2+9.0	8.2+9.1	9.0+9.1	9.1+9.1

1. Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 20 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2. Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
3. Flared connection.
4. Welded joint.

Safety devices: high pressure switch, impulse fan overload protection, Inverter overload protection, plug fuse. Finishes: Ivory white (5Y7,5/1)

R410A environmentally friendly refrigerant

A energy saving air INVERTER+

POSSIBLE COMBINATIONS

INDEPENDENT UNITS (8-16 HP).

HP	U-8ME4XPQ1	U-10ME4XPQ	U-12ME4XPQ1	U-14ME4XPQ	U-16ME4XPQ
8	1				
10		1			
12			1		
14				1	
16					1
18					
20					
22					
24					
26					
28					
30					
32					
34					
36					
38					
40					
42					
44					
46					
48					

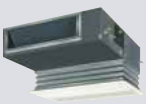
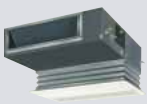
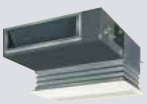
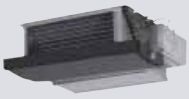
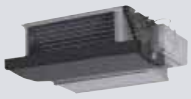
COMBINATION

UNITS (18-48 HP)

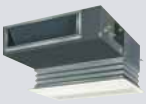
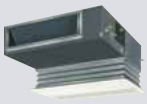
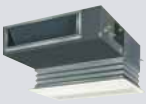
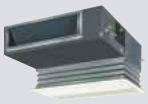
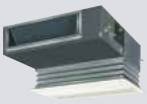
U-8ME4XPQM1	U-10ME4XPQM	U-12ME4XPQM	U-14ME4XPQM	U-16ME4XPQM
1	1			
1	1	1		
	1	1		
		2		
	1			1
		1		1
			1	1
				2
1	1			1
1		1		1
	1	1		1
		2		1
	1			2
		1		2
			1	2
				3

26 HP	28 HP	30 HP	32 HP	34 HP	36 HP	38 HP	40 HP	42 HP	44 HP	46 HP	48 HP
U-10ME4XPQM U-16ME4XPQM	U-12ME4XPQM U-16ME4XPQM	U-14ME4XPQM U-16ME4XPQM	U-16ME4XPQM U-16ME4XPQM	U-8ME4XPQM1 U-10ME4XPQM U-16ME4XPQM	U-8ME4XPQM1 U-12ME4XPQM U-16ME4XPQM	U-10ME4XPQM U-12ME4XPQM U-16ME4XPQM	U-12ME4XPQM U-12ME4XPQM U-16ME4XPQM	U-10ME4XPQM U-16ME4XPQM U-16ME4XPQM	U-12ME4XPQM U-16ME4XPQM U-16ME4XPQM	U-14ME4XPQM U-16ME4XPQM U-16ME4XPQM	U-16ME4XPQM U-16ME4XPQM U-16ME4XPQM
73	78.5	85	90	95.5	101	107	112	118	124	130	135
62,780	67,510	73,100	77,400	82,044	86,860	92,020	96,320	101,480	106,640	111,800	116,100
81.5	87.5	95	100	107	113	119	125	132	138	145	150
70,090	75,250	81,700	86,000	92,020	97,180	102,340	107,500	113,520	118,680	124,700	129,000
21.60	23.80	26.60	28.40	26.90	29.10	31.20	33.4	35.80	38.00	40.80	42.60
20.60	22.30	24.20	25.80	26.30	28.10	30.00	31.80	33.50	35.20	37.10	38.70
3.38	3.30	3.20	3.17	3.56	3.48	3.43	3.35	3.30	3.26	3.19	3.17
3.96	3.92	3.93	3.88	4.06	4.02	3.97	3.93	3.94	3.92	3.91	3.88
430	460	460	595	610	615	630	645	660	690	690	
63	63	63	63	64	64	65	64	65	65	65	
(1,680x930x765)+ (1,680x1,240x765)	(1,680x930x765)+ (1,680x1,240x765)	(1,680x1,240x765)+ (1,680x1,240x765)	(1,680x1,240x765) + (1,680x1,240x765)	(1,680x930x765) x2+ (1,680x1,240x765)	(1,680x930x765) x2+ (1,680x1,240x765)	(1,680x930x765) x2+ (1,680x1,240x765)	(1,680x930x765) x2 + (1,680x1,240x765)	(1600x930x765) + (1600x1,240x765) x2	(1600x930x765) + (1600x1,240x765) x2	(1600x1,240x765) x3	(1600x1,240x765) x3
254+334	254+334	334+334	334+334	204+254+334	204+254+334	254+254+334	254+254+334	254+334+334	254+334+334	334+334+334	34+334+334
Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-5/8 [4]	Ø 1-5/8 [4]	Ø 1-5/8 [4]	Ø 1-5/8 [4]	Ø 1-5/8 [4]	Ø 1-5/8 [4]	Ø 1-5/8 [4]
Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-1/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]	Ø 1-3/8 [4]
Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]	Ø 3/4 [4]
Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4
5 x comp. hermetic coil	5 x comp. hermetic coil	6 x comp. hermetic coil	6 x comp. hermetic coil	6 x comp. hermetic coil	6 x comp. hermetic coil	7 x comp. hermetic coil	7 x comp. hermetic coil	8 x comp. hermetic coil	8 x comp. hermetic coil	9 x comp. hermetic coil	9 x comp. hermetic coil
6-100	6-100	5-100	5-100	5-100	5-100	5-100	4-100	4-100	4-100	4-100	4-100
(3.2+4.5+4.5) x1+ (2.2+4) x1	(3.2+4.5+4.5) x1+ (3.5+4.5) x1	(3.2+4.5+4.5)+ (1.9+4.5+4.5) x1	(3.2+4.5+4.5)+x2	(3.2+4.5+4.5) x1+ (3.5+4.5) x1+ 4.5) x1	(3.2+4.5+4.5) x1+ (3.5+4.5) x1+ 4.5) x1	(3.2+4.5+4.5) x1+ (3.5+4.5) x1+ (2.2+4.5) x1	(3.2+4.5+4.5) x1+ (3.5+4.5) x2	(3.2+4.5+4.5) x2+ (2.2+4.5) x1	(3.2+4.5+4.5) x2+ (3.5+4.5) x1	(3.2+4.5+4.5) x2+ (1.9+4.5+4.5) x1	(3.2+4.5+4.5) x3
3 x helicoidal fan	3 x helicoidal fan	4 x helicoidal fan	4 x helicoidal fan	4 x helicoidal fan	4 x helicoidal fan	4 x helicoidal fan	4 x helicoidal fan	5 x helicoidal fan	5 x helicoidal fan	6 x helicoidal fan	6 x helicoidal fan
(0.75x1)+(0.35x2)	(0.75x1)+(0.35x2)	(0.75x1)+(0.35x2)	(0.35x2) x 2	(0.75x1)+ (0.75x1) +(0.35x2)	(0.75x1)+ (0.75x1) +(0.35x2)	(0.75x1)+ (0.75x1) +(0.35x2)	(0.75x2)+ (0.35x2) x 2	(0.75x1)+ (0.35x2) x 2	(0.75x1)+ (0.35x2) x 2	(0.35x2)+ (0.35x2) x 2	(0.35x2) x 3
(1.9+1.6)+ (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6+1.6)	(1.9+1.6+1.6) (1.9+1.6+1.6)	(1.9+1.6+1.6) (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6)+ (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6)+ (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6)+ (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6+1.6)+ (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6+1.6)+ (1.9+1.6+1.6)	(1.9+1.6)+ (1.9+1.6+1.6)+ (1.9+1.6+1.6)	(1.9+1.6+1.6)+ (1.9+1.6+1.6)+ (1.9+1.6+1.6)	(1.9+1.6+1.6)+ (1.9+1.6+1.6)+ (1.9+1.6+1.6)
9.0+11.7	9.1+11.7	11.7+11.7	11.7+11.7	8.2+9.0+11.7	8.2+9.1+11.7	9.0+9.1+11.7	9.1+9.1+11.7	9.0+11.7+11.7	9.1+11.7+11.7	11.7+11.7+11.7	11.7+11.7+11.7

RANGE OF INDOOR UNITS

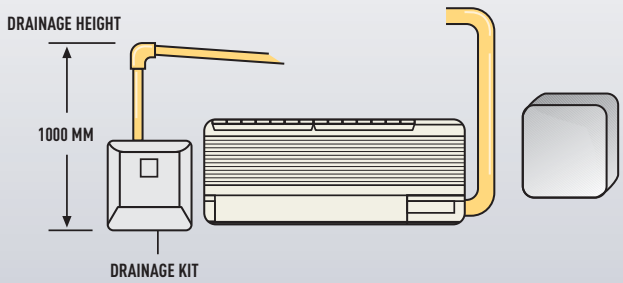
Indoor units	Series	Refrigerant	0.8 HP	1.0 HP	1.3 HP	1.5 HP
Wall Inverter // Page 26	KM3	R410A environmentally friendly refrigerant	 S-20KM3HPR	 S-25KM3HPR	 S-32KM3HPR	 S-40KM3HPR
Ceiling Inverter // Page 27	TM3	R410A environmentally friendly refrigerant			 S-32TM3JPR	
Console // Page 28	PM3	R410A environmentally friendly refrigerant	 S-20PM3HPS	 S-25PM3HPS	 S-32PM3HPS	 S-40PM3HPS
Console Without Casing // Page 29	RM3	R410A environmentally friendly refrigerant	 S-20RM3HPS	 S-25RM3HPS	 S-32RM3HPS	 S-40RM3HPS
1-Way Cassette // Page 30	DM3	R410A environmentally friendly refrigerant		 S-25DM3HPS	 S-32DM3HPS	 S-40DM3HPS
2-Way Cassette // Page 31	LM3	R410A environmentally friendly refrigerant	 S-20LM3HPQ	 S-25LM3HPQ	 S-32LM3HPQ	 S-40LM3HPQ
4-Way Cassette 60x60 // Page 32	YM3	R410A environmentally friendly refrigerant	 S-20YM3HPQ	 S-25YM3HPQ	 S-32YM3HPQ	 S-40YM3HPQ
4-Way Cassette // Page 33	UM4	R410A environmentally friendly refrigerant	 S-20UM4JPQ	 S-25UM4JPQ	 S-32UM4JPQ	 S-40UM4JPQ
Low Silhouette Duct // Page 34	FM3	R410A environmentally friendly refrigerant	 S-20FM3HPQ/FM4 [1]	 S-25FM3HPQ/FM4 [1]	 S-32FM3HPQ/FM4 [1]	 S-40FM3HPQ/FM4 [1]
Hotel Type Duct // Page 36	NM3	R410A environmentally friendly refrigerant	 S-20NM3HPQ	 S-25NM3HPQ		
High Pressure Duct // Page 37	EM3	R410A environmentally friendly refrigerant				 S-40EM3HPS
Power rating			20	25	32	40

1) Confirm availability.

2.0 HP	2.5 HP	3.2 HP	4.0 HP	5.0 HP	8.0 HP	10.0 HP
 S-50KM3HPR	 S-63KM3HPR					
	 S-63TM3JPR		 S-100TM3JPR			
 S-50PM3HPS	 S-63PM3HPS					
 S-50RM3HPS	 S-63RM3HPS					
	 S-63DM3HPS					
 S-50LM3HPQ	 S-63LM3HPQ	 S-80LM3HPQ		 S-125LM3HPQ		
 S-50YM3HPQ						
 S-50UM4JPQ	 S-63UM4JPQ	 S-80UM4JPQ	 S-100UM4JPQ	 S-125UM4JPQ		
 S-50FM3HPQ/FM4 [1]	 S-63FM3HPQ/FM4 [1]	 S-80FM3HPQ/FM4 [1]	 S-100FM3HPQ/FM4 [1]	 S-125FM3HPQ/FM4 [1]		
 S-50EM3HPS	 S-63EM3HPS	 S-80EM3HPS	 S-100EM3HPS	 S-125EM3HPS	 S-200EM3HPS	 S-250EM3HPS
50	63	80	100	125	200	250

KM3 SERIES URBAN MULTI WALL INVERTER R410A TYPE

DRAIN PUMP AVAILABLE AS ADDITIONAL ACCESSORY, MAKES IT POSSIBLE TO RAISE THE WATER UP TO 1,000 MM ABOVE THE BOTTOM PART OF THE UNIT.



ELEGANT DESIGN AND COMPACT CASING TO MATCH ANY INDOOR DESIGN

- **Space saving of up to 47%.**
- **Dramatic weight reduction, 10 kg lighter.**
- **Low noise levels.**
- **Easy removal of horizontal fins and front panel for maintenance.**
- **Automatic deflectors.**
- **Five degrees of deflector discharge can be configured from the control panel.**
- **Flexible installation; the drainage piping can be fitted on the left or on the right.**

R410A environmentally friendly refrigerant

CZ-01RWK22P

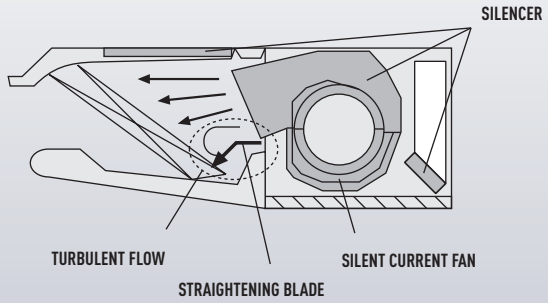
CZ-02RT11P

HP			0.8 HP	1 HP	1.3 HP	1.5 HP	2 HP	2.5 HP
Indoor unit			**S-20KM3HPR**	**S-25KM3HPR**	**S-32KM3HPR**	**S-40KM3HPR**	**S-50KM3HPR**	**S-63KM3HPR**
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	2.2	2.8	3.6	4.5	5.6	7.1
		Kcal/h	1,900	2,400	3,100	3,900	4,800	6,100
Heating capacity [2]		kW	2.5	3.2	4.0	5.0	6.3	8.0
		Kcal/h	2,200	2,800	3,500	4,300	5,400	6,900
Rated input power	Cooling	W	16	22	27	20	27	50
	Heating	W	24	27	32	20	32	60
Noise level	Sound pressure	High dB(A)	35	36	37	39	42	46
		Low /dB(A)	29	29	29	34	36	39
Fan	Airflow rate	High m^3/h	450	480	540	720	900	1140
		Low m^3/h	270	300	330	540	720	840
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)					
Dimensions	HxWxD	mm	290 x 795 x 230	290 x 795 x 230	290 x 795 x 230	290 x 1,050 x 230	290 x 1,050 x 230	290 x 1,050 x 230
Weight		Kg	11	11	11	14	14	14
Heat and sound insulation			Polystyrene foam / polyethylene foam					
Temperature control			Thermostat with microprocessor for cooling and heating					
Air filter			Washable resin mesh					
Safety devices			PCB fuse					

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

CEILING INVERTER TYPE TM3 SERIES
URBAN MULTI R410A

USES A W-COANDA FIN TO IMPROVE AIR CIRCULATION CHARACTERISTICS IN HORIZONTAL AND VERTICAL DIRECTIONS.



SLIM BODY WITH SUBSTANTIAL AND SILENT AIRFLOW

- **Uses the new fan in addition to the new quieter technologies**
- **Simple installation**
- **Easy-to-add optional drainage kit (elevation of up to 600 mm)**
- **Long-life filter (up to 1 year) available in standard models**
- **All maintenance can be carried out from the bottom part of the unit**

R410A environmentally friendly refrigerant

CZ-01RWT12P

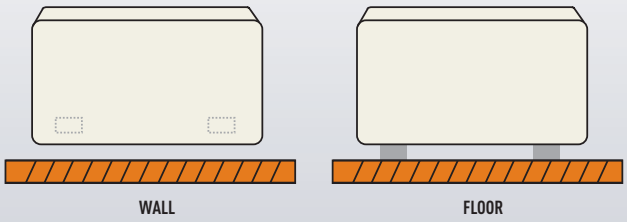
CZ-02RT11P

HP			1.3 HP	2.5 HP	4.0 HP
Indoor unit			**S-32TM3JPR**	**S-63TM3JPR**	**S-100TM3JPR**
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	3.6	7.1	11.2
		Kcal/h	3,100	6,100	9,600
Heating capacity [2]		kW	4.0	8.0	12.5
		Kcal/h	3,500	6,900	10,800
Rated input power	Cooling	W	111	115	135
	Heating	W	111	115	135
Noise level	Sound pressure	High dB(A)	36	39	45
		Low /dB(A)	31	34	37
Fan	Airflow rate	High m^3/h	720	1,050	1,500
		Low m^3/h	600	840	1,170
Piping connection	Liquid	Inches	Ø (1/4)	Ø (3/8)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (5/8)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)		
Dimensions	HxWxD	mm	195 x 960 x 680	195 x 1,160 x 680	195 x 1,400 x 680
Weight		Kg	24	28	33
Heat and sound insulation			Polystyrene foam / polyethylene foam		
Temperature control			Thermostat with microprocessor for cooling and heating		
Air filter			Washable resin mesh		
Safety devices			PCB fuse		

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

CONSOLE TYPE PM3 SERIES URBAN MULTI R410A

THE UNIT CAN BE FLOOR- OR WALL-MOUNTED



THE PERFECT UNIT FOR AIR CONDITIONING A PERIMETER AREA

- **The consoles can be wall-mounted since pipes are connected from the rear**
- **Long-life filter (up to 1 year) available in standard models**
- **The 600 mm height allows the unit to be installed below a window**
- **Wide range of control options**

R410A environmentally friendly refrigerant


CZ-02RWF12P


CZ-02RE12P

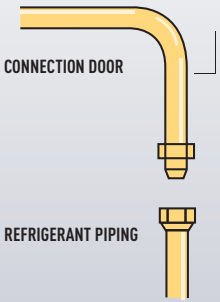

CZ-02RT11P

HP			0.8 HP	1 HP	1.3 HP	1.5 HP	2 HP	2.5 HP
Indoor unit			**S-20PM3HPS**	**S-25PM3HPS**	**S-32PM3HPS**	**S-40PM3HPS**	**S-50PM3HPS**	**S-63PM3HPS**
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	2.2	2.8	3.6	4.5	5.6	7.1
		Kcal/h	1,900	2,400	3,100	3,900	4,800	6,100
Heating capacity [2]		kW	2.5	3.2	4.0	5.0	6.3	8.0
		Kcal/h	2,200	2,800	3,500	4,300	5,400	6,900
Rated input power	Cooling	W	49	49	90	90	110	110
	Heating	W	49	49	90	90	110	110
Noise level	Sound pressure	High dB(A)	35	35	35	38	39	40
		Low /dB(A)	32	32	32	33	34	35
Fan	Airflow rate	High m^3/h	420	420	480	660	840	960
		Low m^3/h	360	360	360	510	660	720
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)					
Dimensions	H x W x D	mm	600 x 1,000 x 222	600 x 1,000 x 222	600 x 1,140 x 222	600 x 1,140 x 222	600 x 1,420 x 222	600 x 1,420 x 222
Weight		Kg	25	25	30	30	36	36
Heat and sound insulation			Polystyrene foam / polyethylene foam					
Temperature control			Thermostat with microprocessor for cooling and heating					
Air filter			Washable resin mesh					
Safety devices			PCB fuse					

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

CONSOLE WITHOUT CASING RM3 SERIES URBAN MULTI R410A

THE CONNECTION DOOR NOW FACES DOWNWARDS, THUS ELIMINATING THE NEED TO SECURE THE AUXILIARY PIPING



THE PERFECT UNIT FOR COVERING

- **Ideal for installation retrofitted to existing architecture, permitting a more personalised interior design**
- **Long-life filter (up to 1 year) available in standard models**
- **Wide range of control options**

R410A environmentally friendly refrigerant

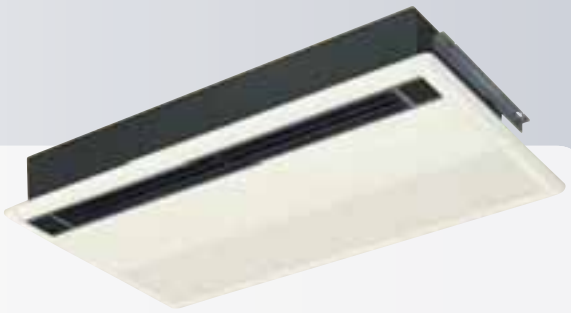

CZ-02RWF12P


CZ-02RE12P


CZ-02RT11P

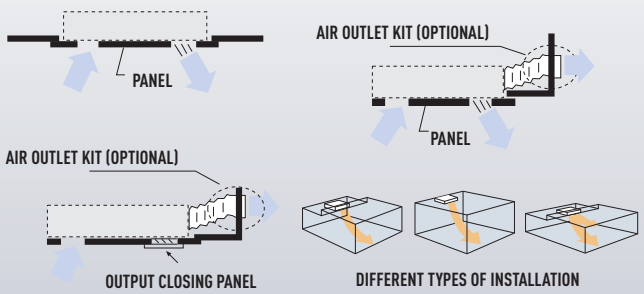
HP			0.8 HP	1 HP	1.3 HP	1.5 HP	2 HP	2.5 HP
Indoor unit			**S-20RM3HPS**	**S-25RM3HPS**	**S-32RM3HPS**	**S-40RM3HPS**	**S-50RM3HPS**	**S-63RM3HPS**
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	2.2	2.8	3.6	4.5	5.6	7.1
		Kcal/h	1,900	2,400	3,100	3,900	4,800	6,100
Heating capacity [2]		kW	2.5	3.2	4.0	5.0	6.3	8.0
		Kcal/h	2,200	2,800	3,500	4,300	5,400	6,900
Rated input power	Cooling	W	49	49	90	90	110	110
	Heating	W	49	49	90	90	110	110
Noise level	Sound pressure	High dB(A)	35	35	35	38	39	40
		Low /dB(A)	32	32	32	33	34	35
Fan	Airflow rate	High m^3/h	420	420	480	660	840	960
		Low m^3/h	360	360	360	510	660	720
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)					
Dimensions	H x W x D	mm	610 x 930 x 220	610 x 930 x 220	610 x 1,070 x 220	610 x 1,070 x 220	610 x 1,350 x 220	610 x 1,350 x 220
Weight		Kg	19	19	23	23	25	25
Heat and sound insulation			Polystyrene foam / polyethylene foam					
Temperature control			Thermostat with microprocessor for cooling and heating					
Air filter			Washable resin mesh					
Safety devices			PCB fuse					

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).



1-WAY CASSETTE TYPE DM3 SERIES URBAN MULTI R410A

OPTIMAL AIRFLOW CONDITIONS ARE CREATED, BE IT WITH A DOWNWARD OR FRONTAL AIR DISCHARGE OR A COMBINATION OF BOTH



SLIM DESIGN MAKES INSTALLATION EASIER

- The 1-way cassette achieves an effective discharge of air in corners and uneven ceilings
- Easy to install in low ceilings (215 mm high)
- The automatic mechanism of the deflectors has 3 different configurations
- Fitted with drainage pump (500 mm)
- Front discharge kit (optional)
- Outside air inlet

R410A environmentally friendly refrigerant

CZ-02RWD12P

CZ-02RT11P

HP			1 HP	1.3 HP	1.5 HP	2.5 HP
Indoor unit			**S-25DM3HPS**	**S-32DM3HPS**	**S-40DM3HPS**	**S-63DM3HPS**
Panel			**CZ-02KPD11P**	**CZ-02KPD11P**	**CZ-02KPD11P**	**CZ-03KPD11P**
Power supply			220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮
Cooling capacity [1]		kW	2.8	3.6	4.5	7.1
		Kcal/h	2,400	3,100	3,900	6,100
Heating capacity [2]		kW	3.2	4.0	5.0	8.0
		Kcal/h	2,800	3,500	4,300	6,900
Rated input power	Cooling	W	66	66	76	105
	Heating	W	46	46	56	85
Noise level	Sound pressure	High dB(A)	38	38	40	42
		Low /dB(A)	33	33	34	37
Fan	Airflow rate	High m^3/h	540	540	720	990
		Low m^3/h	390	390	540	780
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)			
Dimensions (H x W x D)	Unit	mm	215 x 1,110 x 710	215 x 1,110 x 710	215 x 1,110 x 710	215 x 1,310 x 710
	Decorative panel	mm	70 x 1,240 x 800	70 x 1,240 x 800	70 x 1,240 x 800	70 x 1,440 x 800
Weight	Unit	Kg	31	31	31	34
	Decorative panel	Kg	8.5	8.5	8.5	9.5
Housing			Galvanised steel plate			
Decorative panel colour			White (10Y9/0.5)			
Heat and sound insulation			Polystyrene foam / polyethylene foam			
Temperature control			Thermostat with microprocessor for cooling and heating			
Air filter			Washable resin mesh			
Safety devices			PCB fuse			

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

2-WAY CASSETTE TYPE LM3 SERIES URBAN MULTI R410A

THE HEIGHT OF THE INDOOR UNIT (ONLY 305 MM) MAKES INSTALLATION IN LOW FALSE CEILINGS EASY

SLIM, LIGHTWEIGHT AND EASY TO INSTALL IN NARROW FALSE CEILINGS

- **All models have a compact design which is only 600 mm deep**
- **Designed for high airflow (up to 3 metres)**
- **Automatic deflector mechanism**
- **Low noise levels (28 dB(A))**
- **Drainage pump (600 mm) included in standard model**
- **Long-life filter (1 year)**
- **2 types of optional high-efficiency filters (65% and 95%)**
- **The main maintenance work can be carried out by removing the decorative panel**

R410A environmentally friendly refrigerant


CZ-02RWL12P


CZ-02RT11P

HP			0.8 HP	1.0 HP	1.3 HP	1.5 HP	2 HP	2.5 HP	3.2 HP	5.0 HP
Indoor unit			S-20LM3HPQ	S-25LM3HPQ	S-32LM3HPQ	S-40LM3HPQ	S-50LM3HPQ	S-63LM3HPQ	S-80LM3HPQ	S-125LM3HPQ
Panel			CZ-01KPL11P	CZ-01KPL11P	CZ-01KPL11P	CZ-02KPL11P	CZ-02KPL11P	CZ-03KPL11P	CZ-06KPL11P	CZ-06KPL11P
Power supply			220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮	220. 230V 50 Hz 1∮
Cooling capacity [1]		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0
		Kcal/h	1,900	2,400	3,100	3,900	4,800	6,100	7,800	12,050
Heating capacity [2]		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0
		Kcal/h	2,200	2,800	3,500	4,300	5,400	6,900	8,600	13,800
Rated input power	Cooling	W	77	92	92	130	130	161	209	256
	Heating	W	44	59	59	97	97	126	176	223
Noise level	Sound pressure	High dB(A)	33	35	35	35.5	35.5	38	40	45
		Low /dB(A)	28	29	29	30.5	30.5	33	35	39
Sound pressure level		dB(A)	45	50	50	50	50	52	54	60
Fan	Airflow rate	High m^3/h	420	540	540	720	720	990	1560	1980
		Low m^3/h	300	390	390	540	540	780	1260	1500
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)							
Dimensions (HxWxD)	Unit	mm	305 x 780 x 600	305 x 780 x 600	305 x 780 x 600	305 x 995 x 600	305 x 995 x 600	305 x 1,180 x 600	305 x 1,670 x 600	305 x 1,670 x 600
	Decorative panel	mm	53 x 1,030 x 680	53 x 1,030 x 680	53 x 1,030 x 680	53 x 1,245 x 680	53 x 1,245 x 680	53 x 1,430 x 680	53 x 1,920 x 680	53 x 1,920 x 680
Weight	Unit	Kg	26	26	26	31	32	35	47	48
	Decorative panel	Kg	8	8	8	8.5	8.5	9.5	12	12
Housing			Galvanised steel plate							
Decorative panel colour			White (10Y9/0.5)							
Heat and sound insulation			Polystyrene foam / polyethylene foam							
Temperature control			Thermostat with microprocessor for cooling and heating							
Air filter			Washable resin mesh							
Safety devices			PCB fuse							

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

4-WAY CASSETTE 60X60 TYPE YM3 SERIES URBAN MULTI R410A

The automatic vertical swing moves the discharge fins upwards and downwards for efficient air distribution throughout the room. Since the fins can be placed parallel to the ceiling (0º position), it is practically impossible for air draughts to form

SILENT AND ELEGANT UNIT WITH HORIZONTAL FLOW CAPACITY

- **Matches the detachable European 60x60 ceiling grid perfectly**
- **Silent operation (25 dB(A))**
- **Automatic deflectors allowing up to 5 positions**
- **Air can be discharged from 2 to 4 directions**
- **The connection box is located inside the unit, maintenance from below**
- **Drainage pump is standard (500 mm)**
- **Outside air inlet**

R410A environmentally friendly refrigerant

CZ-01RWY12P

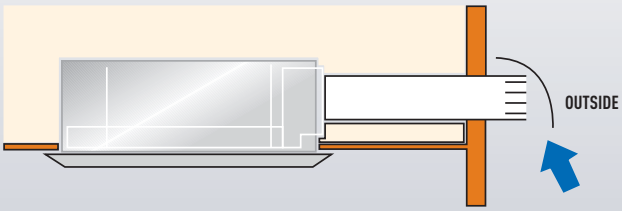
CZ-02RT11P

HP			0.8 HP	1 HP	1.3 HP	1.5 HP	2 HP
INDOOR UNIT			S-20YM3HPQ	S-25YM3HPQ	S-32YM3HPQ	S-40YM3HPQ	S-50YM3HPQ
Panel			CZ-02KPY12P	CZ-02KPY12P	CZ-02KPY12P	CZ-02KPY12P	CZ-02KPY12P
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	2.2	2.8	3.6	4.5	5.6
		Kcal/h	1,900	2,400	3,100	3,900	4,800
Heating capacity [2]		kW	2.5	3.2	4	5	6.3
		Kcal/h	2,200	2,800	3,500	4,300	5,400
Rated input power	Cooling	W	73	73	76	89	115
	Heating	W	64	64	68	80	107
Noise level	Sound pressure	High dB(A)	30	30	32	36	41
		Low /dB(A)	25	25	26	28	33
Sound pressure level		dB(A)	47	47	49	53	58
Fan	Airflow rate	High m^3/h	540	540	570	660	840
		Low m^3/h	420	420	420	480	600
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)
	Drainage		VP13 (external diameter 18, internal diameter 14)				
Dimensions (H x W x D)	Unit	mm	286 x 575 x 575	286 x 575 x 575	286 x 575 x 575	286 x 575 x 575	286 x 575 x 575
	Decorative panel	mm	55 x 700 x 700	55 x 700 x 700	55 x 700 x 700	55 x 700 x 700	55 x 700 x 700
Weight	Unit	Kg	18	18	18	18	18
	Decorative panel	Kg	2.7	2.7	2.7	2.7	2.7
Housing			Galvanised steel plate				
Decorative panel colour			White (10Y9/0.5)				
Heat and sound insulation			Polystyrene foam / polyethylene foam				
Temperature control			Thermostat with microprocessor for cooling and heating				
Air filter			Washable resin mesh				
Safety devices			PCB fuse				

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

4-WAY CASSETTE TYPE UM4
SERIES URBAN MULTI R410A

Installation of outside air inlet is now easier with the new kit that does not require special chambers



THE NEW CASSETTE IS COMPACT, SILENT AND EASY TO INSTALL

- **The 20 to 63 units are 16 mm slimmer than the UM3 series. The 80 to 100 units are 32 mm slimmer than the UM3 series**
- **Being so light, the indoor unit is very easy to hang**
- **Low noise levels (28 dB(A))**
- **Fitted with drainage pump (750 mm)**
- **Automatic deflectors**
- **Optimal comfort thanks to the 360º air distribution**
- **The airflow suits heights of up to 4.2 m**
- **Discharge from 2 to 4 directions and duct branching can be used**
- **Greater air renewal capacity (up to 20%)**

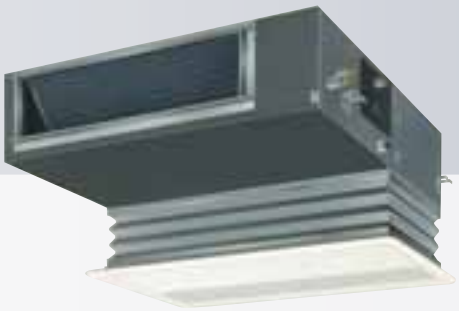
R410A environmentally friendly refrigerant


CZ-02RWU12P


CZ-02RT11P

HP			0.8 HP	1 HP	1.3 HP	1.5 HP	2.0 HP	2.5 HP	3.2 HP	4.0 HP	5.0 HP
INDOOR UNIT			S-20UM4JPQ	S-25UM4JPQ	S-32UM4JPQ	S-40UM4JPQ	S-50UM4JPQ	S-63UM4JPQ	S-80UM4JPQ	S-100UM4JPQ	S-125UM4JPQ
Panel			CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P	CZ-06KPU12P
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
		Kcal/h	1,900	2,400	3,100	3,900	4,800	6,100	7,800	9,600	12,050
Heating capacity [2]		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
		Kcal/h	2,200	2,800	3,500	4,300	5,400	6,900	8,600	10,800	13,800
Rated input power	Cooling	W	53	53	53	63	83	95	120	173	258
	Heating	W	45	45	45	55	67	114	108	176	246
Noise level	Sound pressure	High dB(A)	31	31	31	32	33	34	38	40	44
		Low /dB(A)	28	28	28	28	28	29	32	33	34
Sound pressure level		dB(A)	49	49	49	50	51	52	55	58	61
Fan	Airflow rate	High m^3/h	750	750	750	810	930	990	1410	1590	1980
		Low m^3/h	540	540	540	540	600	660	870	1020	1200
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)	Ø (3/8)	Ø (3/8)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)	Ø (5/8)	Ø (5/8)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)								
Dimensions (H x W x D)	Unit	mm	204 x 840 x 840	204 x 840 x 840	204 x 840 x 840	204 x 840 x 840	204 x 840 x 840	204 x 840 x 840	246 x 840 x 840	246 x 840 x 840	288 x 840 x 840
	Decorative panel	mm	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950	50 x 950 x 950
Weight	Unit	Kg	24	24	24	24	26	26	28	28	31
	Decorative panel	Kg	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Housing			Galvanised steel plate								
Decorative panel colour			White (10Y9/0.5)								
Heat and sound insulation			Polystyrene foam / polyethylene foam								
Temperature control			Thermostat with microprocessor for cooling and heating								
Air filter			Washable resin mesh								
Safety devices			PCB fuse								

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).



LOW SILHOUETTE DUCT TYPE FM3/FM4 SERIES URBAN MULTI R410A

EASILY FITS MULTIPLE APPLICATIONS

- **High flexibility of installation with a wide range of optional kits**
- **The unit may be installed with a false ceiling space of 350 mm (height of all units 300 mm)**
- **Drainage pump is standard (625 mm)**
- **High external static pressure**
- **Low noise levels (28 dB(A))**
- **2 types of optional high-efficiency filters available (65% and 95%)**
- **Filter comes standard**

R410A environmentally friendly refrigerant

CZ-02RWF12P

CZ-02RE12P

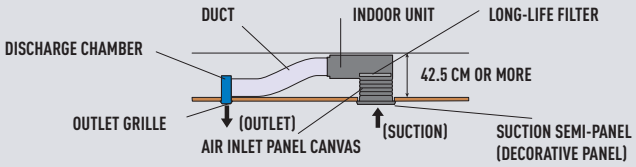
CZ-02RT11P

HP			0.8 HP	1 HP	1.3 HP	1.5 HP	2.0 HP	2.5 HP	3.2 HP	4.0 HP	5.0 HP
INDOOR UNIT			S-20FM3HPQ/FM4 [1]	S-25FM3HPQ/FM4 [1]	S-32FM3HPQ/FM4 [1]	S-40FM3HPQ/FM4 [1]	S-50FM3HPQ/FM4 [1]	S-63FM3HPQ/FM4 [1]	S-80FM3HPQ/FM4 [1]	S-100FM3HPQ/FM4 [1]	S-125FM3HPQ/FM4 [1]
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [2]		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
		Kcal/h	1,900	2,400	3,100	3,900	4,800	6,100	7,800	9,600	12,050
Heating capacity [3]		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
		Kcal/h	2,200	2,800	3,500	4,300	5,400	6,900	8,600	10,800	13,800
Rated input power	Cooling FM3 / FM4	W	110 / 95	110 / 95	114 / 100	127 / 120	143 / 120	189 / 150	234 / 180	242 / 190	321 / 250
	Heating FM3 / FM4	W	90 / 85	90 / 85	94 / 90	107 / 110	123 / 110	169 / 140	214 / 170	222 / 180	301 / 240
Noise level	Sound pressure	High dB(A)	32	32	33	33	35	35	37	38	40
		Low /dB(A)	28	28	28	29	31	30	31	33	35
Sound pressure level		dB(A)	50	50	51	56	58	56	55	56	65
Fan	Airflow rate	High m^3/h	540	540	570	690	900	1260	1620	1680	2280
		Low m^3/h	390	390	420	540	660	930	1200	1230	1680
		Sound power level[4]	4/9	4/9	4/9	5/9	5/9	5/9	5/9	5/9	5/9
Static pressure	FM3	High (Pa)	125	125	104	116	136	123	141	141	109
	FM4	High (Pa)	70	70	70	100	100	100	100	120	120
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (1/4)	Ø (3/8)	Ø (3/8)	Ø (3/8)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (1/2)	Ø (5/8)	Ø (5/8)	Ø (5/8)	Ø (5/8)
	Drainage		VP13 (external diameter 18, internal diameter 14)								
Dimensions (H x W x D)	FM3 Unit	mm	300 x 550 x 800	300 x 550 x 800	300 x 550 x 800	300 x 700 x 800	300 x 700 x 800	300x1,000x800	300 x 1,400 x 800	300 x 1,400 x 800	300 x 1,400 x 800
	FM4 Unit	mm	300 x 550 x 700	300 x 550 x 700	300 x 550 x 700	300 x 700 x 700	300 x 700 x 700	300x1,000x700	300 x 1,400 x 700	300 x 1,400 x 700	300 x 1,400 x 700
	Decorative panel	mm	55 x 650 x 500	55 x 650 x 500	55 x 650 x 500	55 x 800 x 500	55 x 800 x 500	55x1,100x500	55 x 1,500 x 500	55 x 1,500 x 500	55 x 1,500 x 500
Weight	Unit	Kg	30	30	30	30	31	41	51	51	52
	Decorative panel	Kg	3	3	3	3.5	3.5	4.5	6.5	6.5	6.5
Housing			Galvanised steel plate								
Decorative panel colour			White (10Y9/0.5)								
Heat and sound insulation			Polystyrene foam / polyethylene foam								
Temperature control			Thermostat with microprocessor for cooling and heating								
Air filter			Washable resin mesh								
Safety devices			PCB fuse								

1) Confirm availability.
2) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
3) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
4) The pressure available can be modified at the electrical box connectors.
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

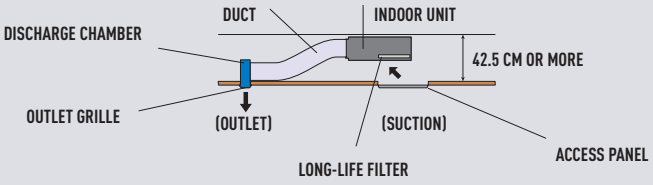
POSSIBLE CONFIGURATION SCHEMES FOR DUCT UNITS

CONFIGURATION WITH SUCTION CHANNELLED FROM THE BOTTOM PART

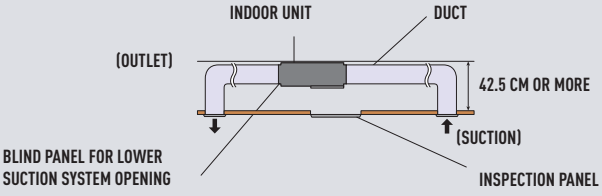


An air suction canvas is used. Depth can be adjusted according to ceiling dimensions.

CONFIGURATION WITH LOWER SUCTION THROUGH THE FALSE CEILING

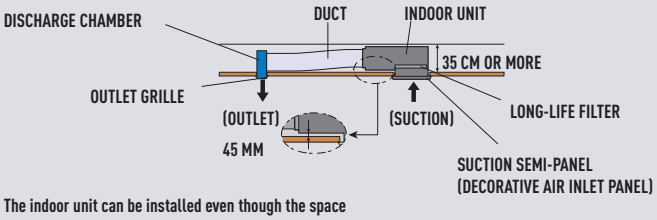


CONFIGURATION WITH SUCTION CHANNELLED FROM THE FRONT



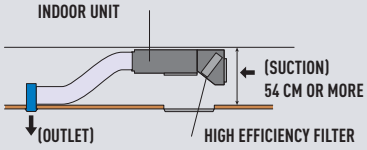
Maintenance of the electronic parts can be carried out from below or rear.

CONFIGURATION WITH DIRECT SUCTION FROM BELOW



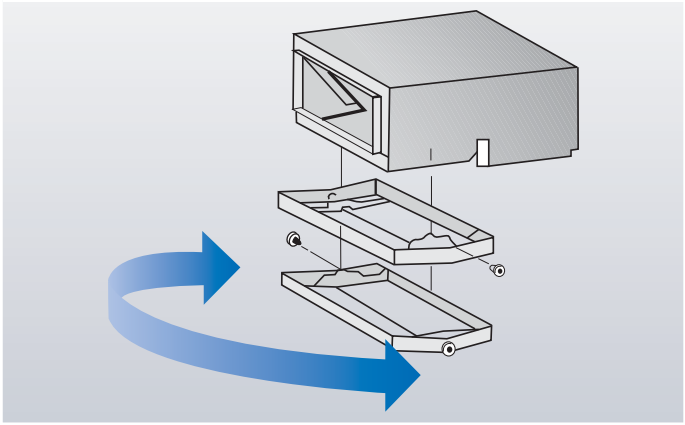
The indoor unit can be installed even though the space between the ceiling and the false ceiling is 350 or more.

CONFIGURATION WITH FRONT SUCTION THROUGH THE FALSE CEILING



HOTEL TYPE DUCT NM3 SERIES URBAN MULTI R410A

DRAINAGE TRAY.
THE TRAY CAN BE INSTALLED TO THE LEFT OR RIGHT OF THE UNIT MAKING ASSEMBLY EASIER



COMPACT DESIGN IDEAL FOR HOTELS

- **Specific design for hotel air-conditioning (only 230 mm high)**
- **Easy to mount in false ceiling**
- **Possibility of lower and rear suction connection to satisfy interior decoration needs**
- **Suction air filter in standard models**

R410A environmentally friendly refrigerant

CZ-02RWF12P

CZ-02RE12P

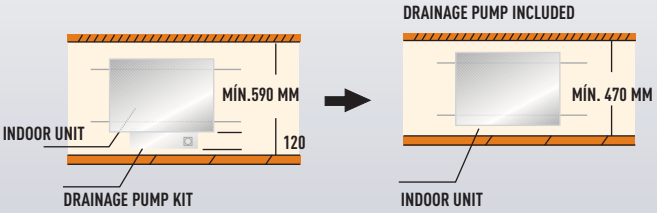
CZ-02RT11P

HP			0.8 HP	1 HP
Indoor unit			S-20NM3HPQ	S-25NM3HPQ
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	2.2	2.8
		Kcal/h	1,900	2,400
Heating capacity [2]		kW	2.5	3.2
		Kcal/h	2,200	2,800
Rated input power	Cooling	W	50	50
	Heating	W	50	50
Noise level	Sound pressure	High dB(A)	37	37
		Low /dB(A)	32	32
Sound pressure level		dB(A)	50	50
Fan	Airflow rate	High m^3/h	402	444
		Low m^3/h	312	348
	Static Pressure	mmH_2O	2	2
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)
	Drainage		VP13 (external diameter 18, internal diameter 14)	
Dimensions	H x W x D	mm	230 x 505 x 652	230 x 505 x 652
Weight		Kg	17	17
Housing			Galvanised steel plate	
Temperature control			Thermostat with microprocessor for cooling and heating	
Air filter			Washable resin mesh	
Safety devices			PCB fuse	

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).

HIGH PRESSURE DUCT TYPE EM3
SERIES URBAN MULTI R410A

DRAINAGE PUMP INCLUDED (ACCESSORY).
THE DRAINAGE PUMP IS HOUSED INSIDE THE UNIT, THUS REDUCING INSTALLATION SPACE



HIGH STATIC PRESSURE PERMITTING FLEXIBLE DUCTWORK DESIGN

- **Over 150 Pa of external static pressure. The high static pressure permits the installation of a long duct network**
- **Various pressures can be selected from the electrical panel**
- **Broad range of powers in the 8 models, from 1.5 HP to 10 HP**
- **Optional accessories include a drainage kit, high-efficiency filters (65% and 95%) and a long-life filter (up to 1 year)**

R410A environmentally friendly refrigerant


CZ-02RWF12P


CZ-02RE12P

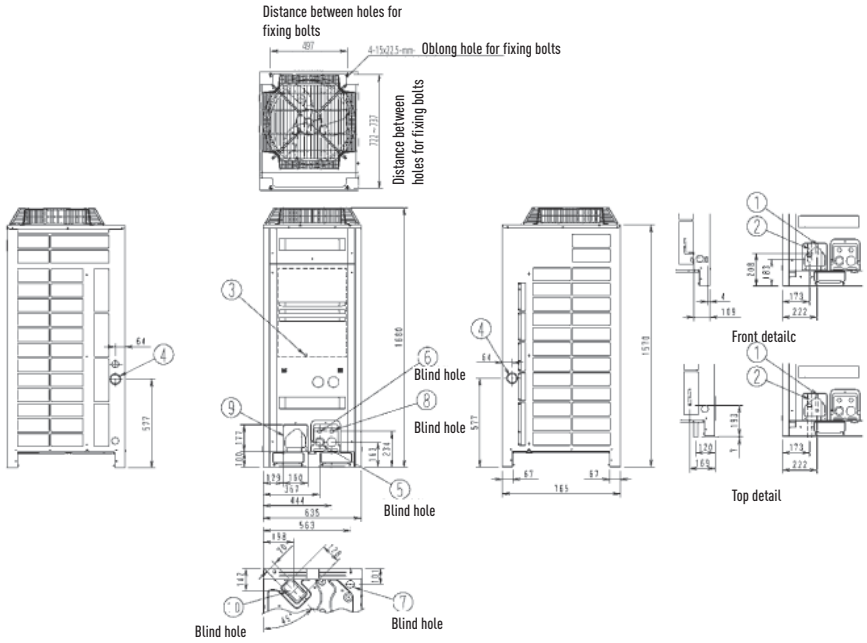

CZ-02RT11P

HP			1.5 HP	2.0 HP	2.5 HP	3.2 HP	4.0 HP	5.0 HP	8.0 HP	10.0 HP
Indoor unit			S-40EM3HPS	S-50EM3HPS	S-63EM3HPS	S-80EM3HPS	S-100EM3HPS	S-125EM3HPS	S-200EM3HPS	S-250EM3HPS
Power supply			220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ	220. 230V 50 Hz 1ϕ
Cooling capacity [1]		kW	4.5	5.6	7.1	9.0	11.2	14.0	22.4	28
		Kcal/h	3,900	4,800	6,100	7,800	9,600	12,050	20,000	25,000
Heating capacity [2]		kW	5.0	6.3	8.0	10.0	12.5	16.0	25.0	31.5
		Kcal/h	4,300	5,400	6,900	8,600	10,800	14,000	21,500	27,000
Rated input power	Cooling	W	211	211	211	284	411	619	1294	1465
	Heating	W	211	211	211	284	411	619	1294	1465
Noise level	Sound pressure	High dB(A)	39	39	42	43	43	45	48	48
		Low /dB(A)	35	35	38	39	39	42	45	45
Fan	Airflow rate	High m3/h	840	840	840	1170	1740	2160	3480	4320
		Low m3/h	690	690	690	960	1380	1740	3000	3720
	Static Pressure [3]		12/16	12/16	13/17	10/16	10/16	15/19	14/19	14/21
Piping connection	Liquid	Inches	Ø (1/4)	Ø (1/4)	Ø (3/8)	Ø (3/8)	Ø (3/8)	Ø (3/8)	Ø (3/8)	Ø (3/8)
Flared connection	Gas	Inches	Ø (1/2)	Ø (1/2)	Ø (5/8)	Ø (5/8)	Ø (5/8)	Ø (5/8)	Ø (3/4)	Ø (7/8)
Dimensions	H x W x D	mm	390x720x690	390x720x690	390x720x690	390x720x690	390x1,110x690	390x1,110x690	470x1,380x1,100	470x1,380x1,100
Weight		Kg	44	44	44	45	63	65	137	137
Housing			Galvanised steel plate							
Heat and sound insulation			Polystyrene foam / polyethylene foam							
Temperature control			Thermostat with microprocessor for cooling and heating							
Air filter			Washable resin mesh							
Safety devices			PCB fuse							

1) Cooling capacity calculated based on an indoor temperature of 27 ºC DB (dry bulb), 19 ºC WB (wet bulb) and an outdoor temperature of 35 ºC DB / 7.5 m refrigerant gas pipe (horizontal).
2) Heating capacity calculated based on an indoor temperature of 20 ºC and an outdoor temperature of 7 ºC DB, 6 ºC WB / 7.5 m refrigerant gas pipe (horizontal).
3) The pressure available can be modified at the electrical box connectors. Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).
Capacities are net once the heat generated by the internal fan has been taken into account (subtracted or added in the case of heating).

MX4 OUTDOOR UNIT DIMENSIONS

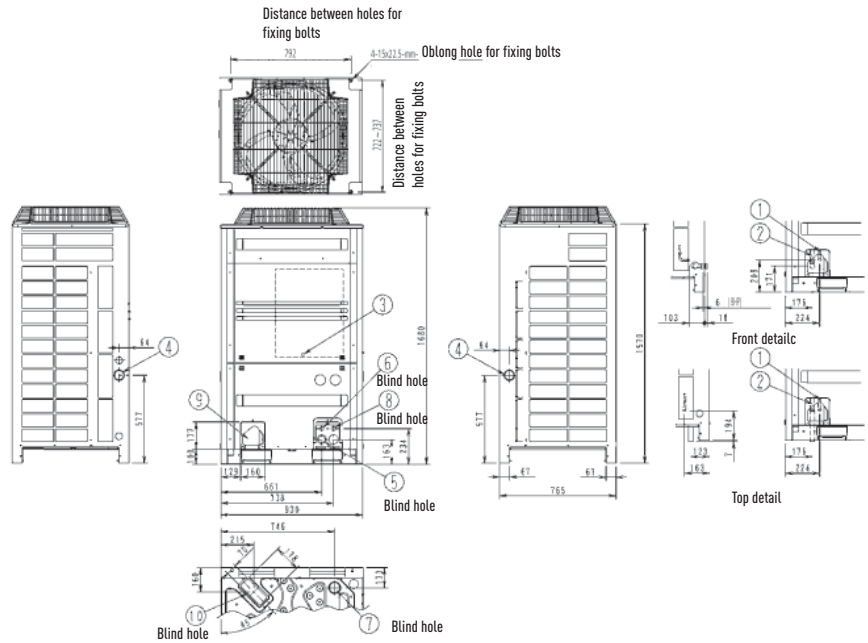
U-5MX4XPQ



Nº	Parts name	Remarks
1	Liquid pipe connection port	Flared connection of ø9,5
2	Gas pipe connection port	Flared connection of ø15,9
3	Grounding terminal	Within the switch box (M8)
4	Hole for routing the power supply cable (side)	ø62
5	Hole for routing the power supply cable (front)	ø45
6	Hole for routing the power supply cable (rear)	ø27
7	Hole for routing the power supply cable (bottom)	ø50
8	Hole for routing the wiring (rear)	ø27
9	Hole for routing the piping (rear)	
10	Hole for routing the piping (bottom)	See note 1

Note
1. The details for the front and the bottom indicate the dimensions once the included piping has been attached.

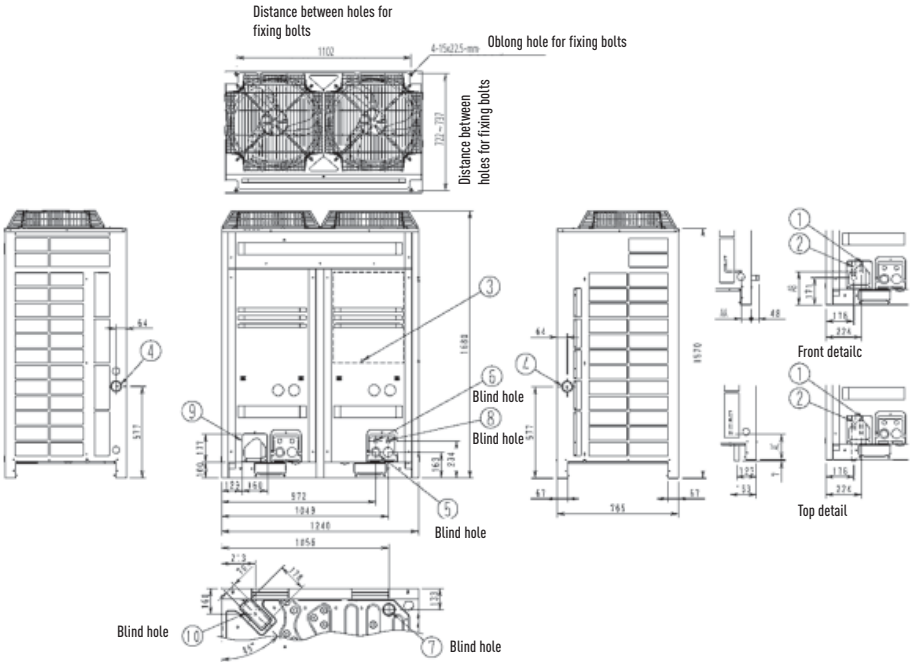
U-8MX4XPQ1 // U-8MX4XPQ1 // U-10,12MX4XPQ



Nº	Parts name	Remarks
1	Liquid pipe connection port	See note 2
2	Gas pipe connection port	See note 2
3	Grounding terminal	Within the switch box (M8)
4	Hole for routing the power supply cable (side)	ø62
5	Hole for routing the power supply cable (front)	ø45
6	Hole for routing the power supply cable (rear)	ø27
7	Hole for routing the power supply cable (bottom)	ø65.5
8	Hole for routing the wiring (rear)	ø27
9	Hole for routing the piping (rear)	
10	Hole for routing the piping (bottom)	

NOTES
1. The details for the front and the bottom indicate the dimensions once the included piping has been attached.
2. Gas piping [heat pump type]: ø19.1, 8 P type welded connection // ø28.6, 12 HP type welded connection // ø22.2, 10 P type welded connection
   Liquid piping [heat pump type]: ø9.5, 8-10 P type welded connection // ø12.7, 12 HP type welded connection

U-14,16,18MX4XPQ1



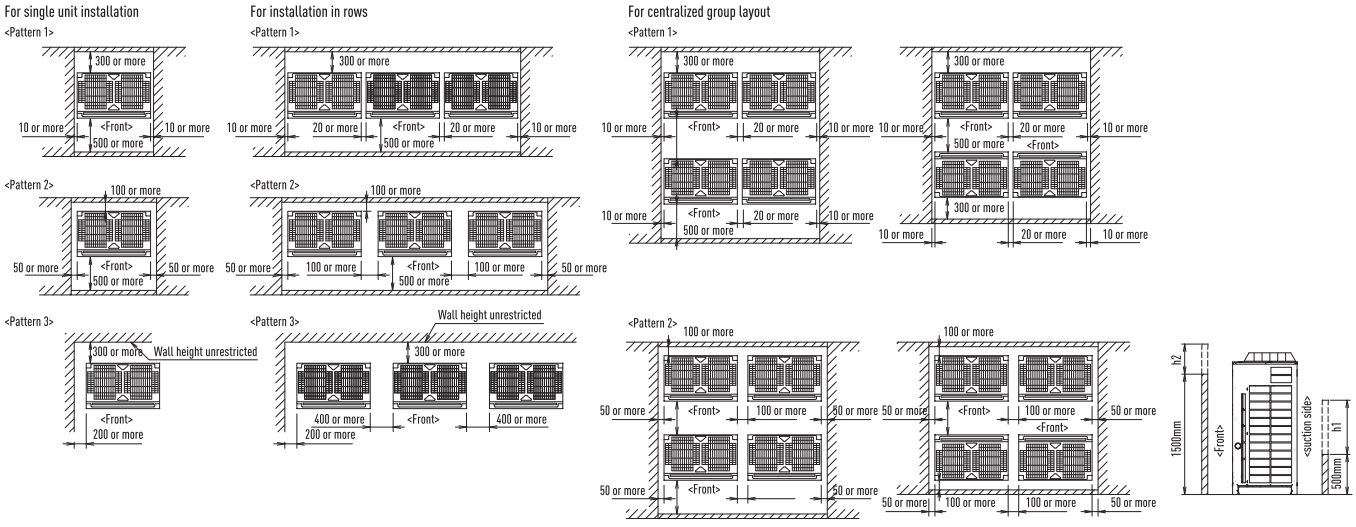
Nº	Parts name	Remarks
1	Liquid pipe connection port	See note 2
2	Gas pipe connection port	See note 2
3	Grounding terminal	Within the switch box (M8)
4	Hole for routing the power supply cable (side)	ø62
5	Hole for routing the power supply cable (front)	ø45
6	Hole for routing the power supply cable (rear)	ø27
7	Hole for routing the power supply cable (bottom)	ø65.5
8	Hole for routing the wiring (rear)	ø27
9	Hole for routing the piping (rear)	
10	Hole for routing the piping (bottom)	

NOTES
1. The details for the front and the bottom indicate the dimensions once the included piping has been attached.
2. Gas piping [heat pump type]: ø28.6, 14·16P type welded connection
   Liquid piping [heat pump type]: ø15.9, 18P type welded connection // ø12.7, 14·16P type welded connection

AA	Model name	AB	Model name	AC	Model name
83	U-14,16MX4XPQ	211	U-14,16,18MX4XPQ	179	U-14,16MX4XPQ
63	U-18MX4XPQ			160	U-18MX4XPQ

MX4 INSTALLATION. SERVICE SPACE

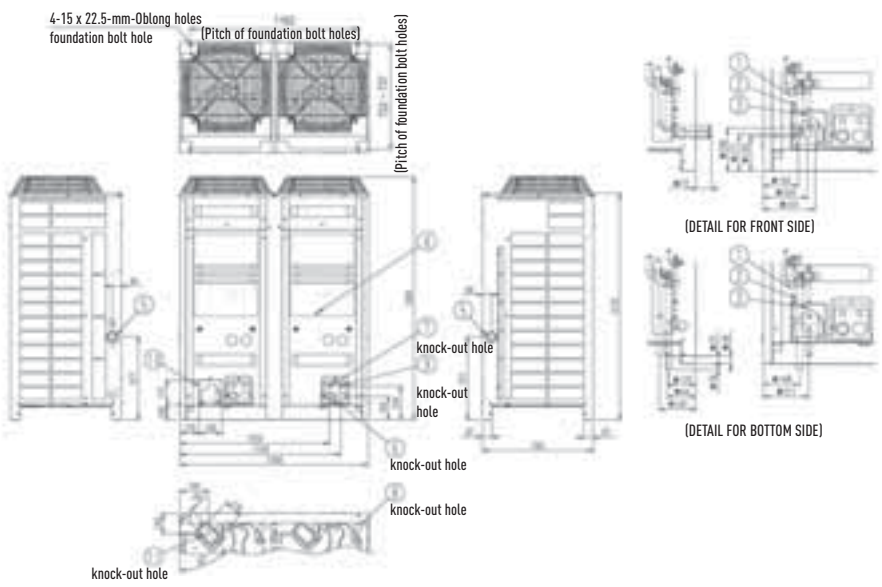
U-MX4XPQ



NOTES:
1. Heights of walls in case of Patterns 1 and 2:
   Front: 1500 mm
   Suction side: 500 mm
   Side: Height unrestricted.
   Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature.
   When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing.
2. If the above wall heights are exceeded then h1/2 and h2/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
3. When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

ME4 OUTDOOR UNIT DIMENSIONS

U-8,10,12,16ME4XPQ

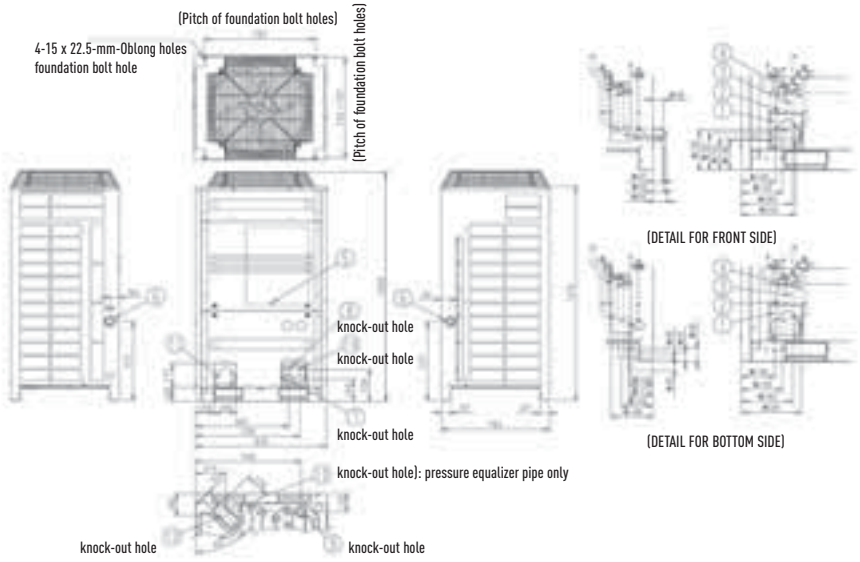


Nº	Parts name	Remarks
1	Pipe routing hole (bottom)	See note 1
2	Pipe routing hole (front)	See note 1
3	Wire routing hole (front)	Ø 27
4	Power cord routing hole (bottom)	Ø 50
5	Power cord routing hole (front)	Ø 27
6	Power cord routing hole (front)	Ø 45
7	Power cord routing hole (side)	Ø 62
8	Grounding terminal	Inside of switch box (M8)
9	Hight and low pressure gas pipe connection port	See note 2, 3
10	Suction gas pipe connection port	See note 2, 3
11	Liquid pipe connection port	See note 2, 3

Note
1. For piping connection method (front and bottom sides) see the installation manual.
2. High and low pressure gas pipe:
   Ø 15.9 Brazing connection ... U-8ME4XPQ1
   Ø 19.1 Brazing connection ... U-10,12ME4XPQ
   Ø 22.2 Brazing connection ... U-14,16ME4XPQ
   Suction gas pipe:
   Ø 19.1 Brazing connection ... U-8ME4XPQ1
   Ø 22.2 Brazing connection ... U-10ME4XPQ
   Ø 28.6 Brazing connection ... U-12ME4XPQ
   Liquid pipe:
   Ø 9.5 Brazing connection ... U-8,10ME4XPQ
   Ø 12.7 Brazing connection ... U-12,14,16ME4XPQ
3. Piping connection diameter for field connection.
4. Shows the dimensions after fixing the accesory pipes.

	AA	AB
U-8,10,12ME4XPQ	129	32
U-14,16MA4XPQ	131	38

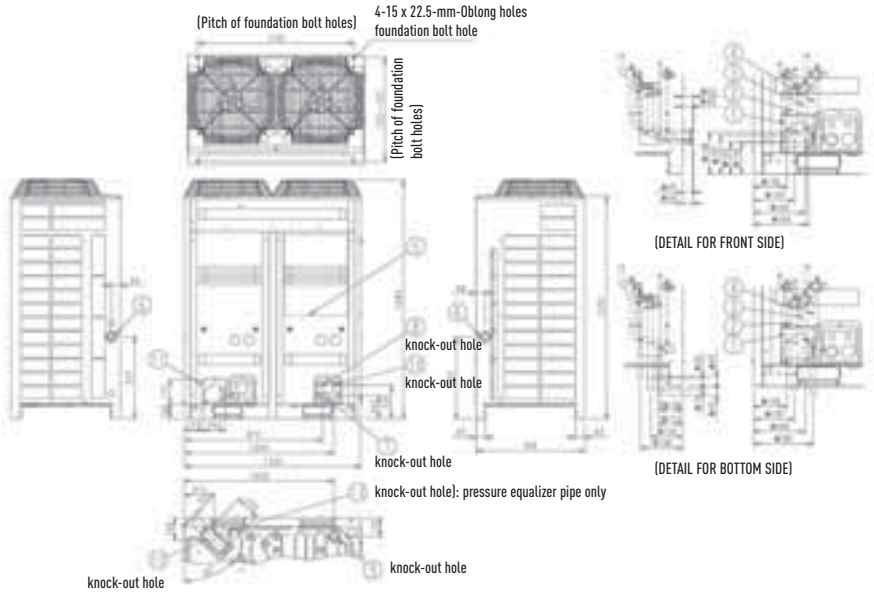
U-8,10,12ME4XPQM



Nº	Parts name	Remarks
1	Liquid pipe connection port	See note 2.3
2	Suction gas pipe connection port	See note 2.3
3	High and low pressure gas pipe connection port	Ø 19.1 Brazing connection See note 3
4	Pressure equalizer pipe connection port	Ø 19.1 Brazing connection See note 3
5	Grounding terminal	Inside of switch box (M8)
6	Power cord routing hole (side)	Ø 62
7	Power cord routing hole (front)	Ø 45
8	Power cord routing hole (front)	Ø 27
9	Power cord routing hole (bottom)	Ø 65.5
10	Wire routing hole (front)	Ø 27
11	Pipe routing hole (front)	See note 1
12	Pipe routing hole (bottom)	See note 1
13	Pipe routing hole (bottom)	Ø 50 See note 1

Note
1. For piping connection method (front and bottom sides) see the installation manual.
2. Suction gas pipe:
   Ø 22.2 Brazing connection ... U-8ME4XPQM1, U-10ME4XPQM
   Ø 28.6 Brazing connection ... U-12ME4XPQM
   Liquid pipe:
   Ø 9.5 Brazing connection ... U-8ME4XPQM1, U-10ME4XPQM
   Ø 12.7 Brazing connection ... U-12ME4XPQM
3. Piping connection diameter for field connection.
4. Shows the dimensions after fixing the accessory pipes.

U-14,16ME4XPQM

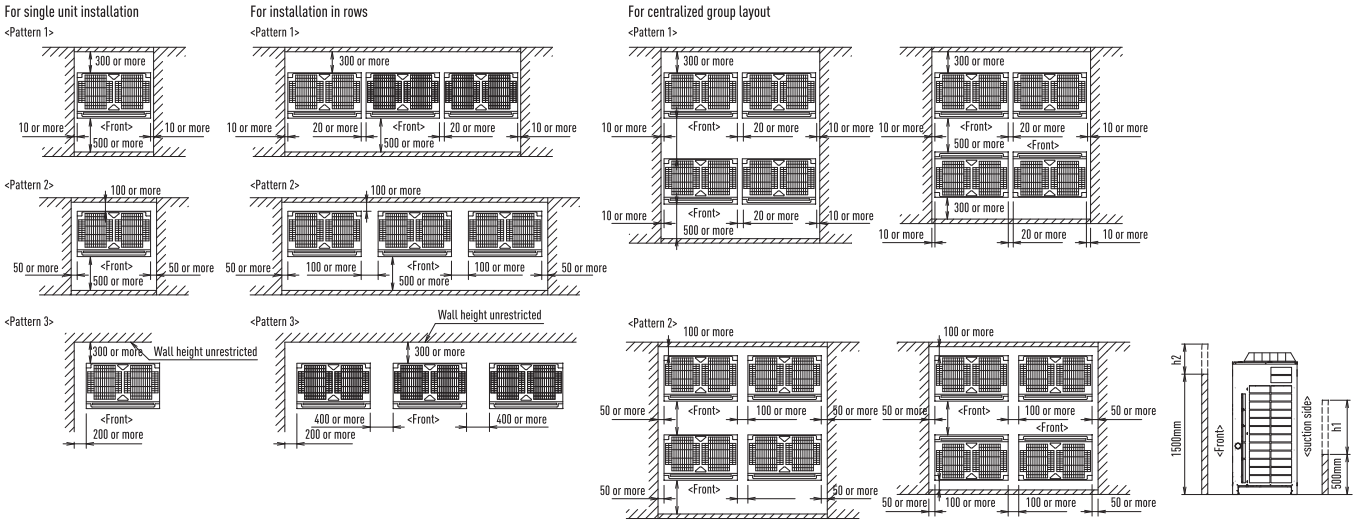


Nº	Parts name	Remarks
1	Liquid pipe connection port	Ø 12.7 Brazing connection See note 2
2	Suction gas pipe connection port	Ø 28.6 Brazing connection See note 2
3	High and low pressure gas pipe connection port	Ø 22.2 Brazing connection See note 3
4	Pressure equalizer pipe connection port	Ø 19.1 Brazing connection See note 2
5	Grounding terminal	Inside of switch box (M8)
6	Power cord routing hole (side)	Ø 62
7	Power cord routing hole (front)	Ø 45
8	Power cord routing hole (front)	Ø 27
9	Power cord routing hole (bottom)	Ø 65.5
10	Wire routing hole (front)	Ø 27
11	Pipe routing hole (front)	See note 1
12	Pipe routing hole (bottom)	See note 1
13	Pipe routing hole (bottom)	Ø 50 See note 1

NOTES
1. For piping connection method (front and bottom sides) see the installation manual.
2. Piping connection diameter for field connection.
3. Shows the dimensions after fixing the accesory pipes.

ME4 INSTALLATION. SERVICE SPACE

U-ME4XPQM



NOTES:
1. Heights of walls in case of Patterns 1 and 2:
   Front: 1500 mm
   Suction side: 500 mm
   Side: Height unrestricted.
   Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature.
   When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing.
2. If the above wall heights are exceeded then h1/2 and h2/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
3. When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

LIST OF OPTIONAL ACCESSORIES

MX4 SERIES OUTDOOR UNITS

Cooling/heating selector		CZ-02RD12P
Fixing box		K-JB111A
Headers		CZ-P29HK12Q
		CZ-P64HK12Q
		CZ-P75HK12Q
Branches		CZ-P20BK12QA
		CZ-P29BK12QA
		CZ-P64BK12Q
		CZ-P75BK12Q
Kit for connecting outdoor units	2 outdoor units	CZ-32PJ4PQ
	3 outdoor units	CZ-48PJ4PQ
Drainage Tray Kit	Module U-5MX4	K-WC26B160
	Modules U-8,10MX4	K-WC26B280
	Modules U-12,14,16MX4	K-WC26B450

ME4 SERIES OUTDOOR UNITS

Headers		CZ-P29HK32Q
		CZ-P64HK32Q
		CZ-P75HK32Q
Branches		CZ-P20BK32Q
		CZ-P29BK32QA
		CZ-P64BK32Q
		CZ-P75BK32Q
Kit for connecting outdoor units	18~32 HP	CZ-32PJ5PQ
	34~48 HP	CZ-48PJ5PQ
Drainage tray kit	U8 Modules,10ME4	K-WC26B280
	U12 Modules,14,16ME4	K-WC26B450

HR BOX

HR box		CZ-100HR2HS
		CZ-160HR2HS
		CZ-250HR2HS
Cooling/heating selector		CZ-02RD12P
Fixing box		K-JB111A

4-WAY CASSETTE TYPE UM4 SERIES

Decorative panel	All	CZ-06KPU12P
Output air insulator	All	K-DBHJ55K160
Outside air inlet kit	T-shaped and without fan	K-DD55DA160K
	Non T-shaped and without fan	K-DD55DA160
Rect. installation		K-DDJ55DA160
Filter chamber for previous models	All	K-DDF55DA160
Spare long-life filter	All	K-AFJ551K160
High efficiency filter unit		
Calorimetric method 65%	35~63	K-AFJ556DA80
	100~125	K-AFJ556DA160
Calorimetric method 90%	35~63	K-AFJ557DA80
	100~125	K-AFJ557DA160
Spare ultra long-life filter	All	K-AFJ55KA160H
Branching chamber	35~63	K-DJ55BA80
	100~125	K-DJ55BA160
Chamber connection kit	All	K-KSJ55KA160

4-WAY CASSETTE 60X60 TYPE YM3 SERIES

Decorative panel	All	CZ-02KPY12P
Panel separator	All	K-DBQ44BA60A
Output air insulator	All	K-DBHQ44B60
Outside air inlet kit direct installation	All	K-DDQ44XA60
Spare long-life filter		K-AFQ441BA60

2-WAY CASSETTE TYPE LM3 SERIES

Decorative panel	20~32	CZ-01KPL11P
	40~50	CZ-02KPL11P
	63	CZ-03KPL11P
	80~125	CZ-06KPL11P

Note: The filter chamber is essential if a high efficiency filter is installed

1-WAY CASSETTE TYPE DM3 SERIES

Decorative panel	25~40	CZ-02KPD11P
	63	CZ-03KPD11P
Panel separator	63	K-PBJ52F80W
Spare long-life filter	25~40	K-AFJ521F56
	63	K-AFJ521F80
Flexible duct (with shutter)	63	K-FDJ52F80

HIGH PRESSURE DUCT TYPE EM3 SERIES

Drainage pump	40~125	K-DU30L125VE
	200~250	K-DU30L250VE
High efficiency filter 65%	40~63	K-AFJ302L71
	80~125	K-AFJ302L140
	40~63	K-AFJ303L71
Filter chamber	80~125	K-AFJ303L140
	40~80	K-DDJ30L71
Long-life filter	100~125	K-DDJ30L140
	200/250	K-DJ3705L280
	40~80	K-AFJ301L71
	100~125	K-AFJ301L140
Long-life filter	200/250	K-AFJ371L280

LOW SILHOUETTE DUCT TYPE FM3 SERIES

Decorative panel	20~32	CZ-01HPF11P
	40~50	CZ-02HPF11P
	63	CZ-03HPF11P
	80~125	CZ-06HPF11P
Access panel	40~50	K-TB25KA56W
	63	K-TB25KA80W
	80~125	K-TB25KA160W
High efficiency filter 65%	40~50	K-AF252LA56
	63	K-AF252LA80
	80~125	K-AF252LA160
High efficiency filter 90%	40~50	K-AF253LA56
	63	K-AF253LA80
	80~125	K-AF253LA160
Filter chamber for bottom suction	40~50	K-AJ25LA56D
	63	K-AJ25LA80D
	80~125	K-AJ25LA160D
Filter chamber for rear suction	40~50	K-AJ25LA56B
	63	K-AJ25LA80B
	80~125	K-AJ25LA160B
Concealed panel /air outlet	40~50	K-BBJ25KA56
	63	K-BBJ25KA80
	80~125	K-BBJ25KA160
Output adapter panel for round pipe	20~32	K-DAJ25K36
	40~50	K-DAJ25KA56
	63	K-DAJ25KA71
	80~125	K-DAJ25KA140

* If installing a high-efficiency filter in the unit, a mounting chamber should be fitted to the lower or rear suction system.

CEILING TYPE TM3 SERIES

Long-life filter	32	K-AF501DA56
	63	K-AFJ501DA80
	100	K-AF501DA112

CONTROL DEVICES

Wired controllers		CZ-02RT11P
Simple wired controller		CZ-02RE12P
Wireless controllers	LM3	CZ-01RWL12P
(Receiver integrated in machine)	UM4	CZ-02RWU12P
	KM3	CZ-01RWK22P
	TM3	CZ-01RWT12P
	YM3	CZ-01RWY12P
Wireless controller	EM3/FM3/NM3/ PM3/RM3	CZ-02RWF12P
(Receiver on the wall)	DM3	CZ-02RWD12P
Centralised control		CZ-02ESM11P
On /Off controller (indicator)		CZ-01ANA11P
Programmer control		CZ-01ESW11P
CZ-ESM BMS interface adapter		CZ-302AP11P
Interface adapter for US series		CZ-112AP11P
Signal output adapter	others	KRP1B61
BMS interface adapter for group	UM4/TM3	KRP2A52
		or individual control
Installation box for PCB adapter	UM4	KRP1CA98
	LM3	KRP1CA98
	TM3	KRP1CA93
Electric box with grounding terminal	(3 blocks)	KJB212AA
	(2 blocks)	KEK26-1A
Anti-noise filter	LM3/NM3	CZ-104AP11P
BMS interface adapter for outdoor unit	UM4/FM3/TM3/YM3	CZ-104AP13P
	other	CZ-109AP11P
Expansion port for UM-NET		

ME4 HR BOX

HR BOX FOR HEAT RECOVERY ONLY FOR ME4 SERIES

The ME4 series must have an HR box in the cooling piping to perform heating and cooling functions simultaneously.

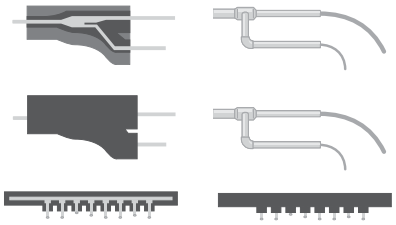
			CZ-100HR2HS x ≤ 100	CZ-160HR2HS 100 < x ≤ 160	CZ-250HR2HS 160 < x ≤ 250
Maximum number of connectable indoor units	5		8	5	
Rated input power	Cooling	W	5	5	5
	Heating	W	5	5	5
Dimensions	H x W x D	mm	207 x 388 x 326	207 x 388 x 326	207 x 388 x 326
Weight		kg	14	14	15
Box			Galvanised sheet steel	Galvanised sheet steel	Galvanised sheet steel
Piping connection	Liquid	Inches	Ø 3/8	Ø 3/8	Ø 3/8
Indoor unit	Gas	Inches	Ø 5/8	Ø 5/8	Ø 7/8
Outdoor unit	Liquid	Inches	Ø 3/8	Ø 3/8	Ø 3/8
	Outdoor unit	Inches	Ø 5/8	Ø 5/8	Ø 7/8
	Discharge gas	Inches	Ø 1/2	Ø 1/2	Ø 3/4
Acoustic insulator			Flame- and heat-resistant polyethylene foam	Flame- and heat-resistant polyethylene foam	Flame- and heat-resistant polyethylene foam

*Even when the capacity index of the CZ-250H1HRS model is between 160 and 250, indoor unit models 20, 25, 32 or 40 should not be connected to this HR box model.

MX4 R410A BRANCHES AND HEADERS

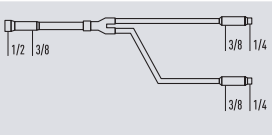
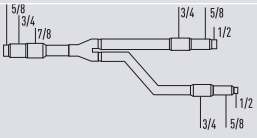
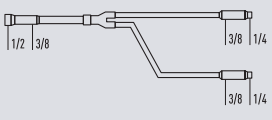
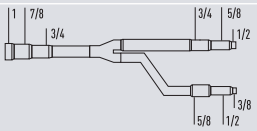
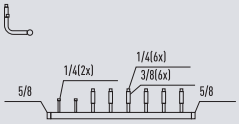
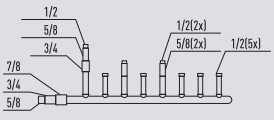
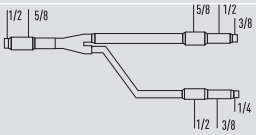
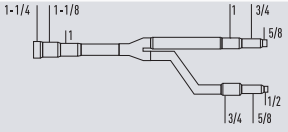
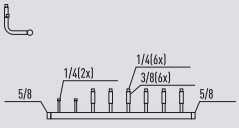
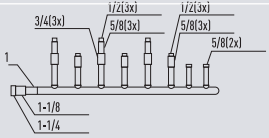
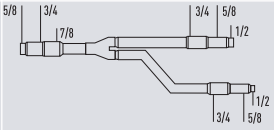
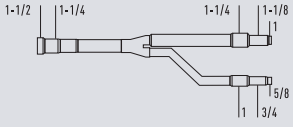
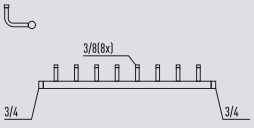
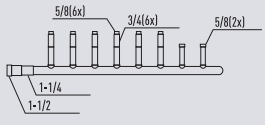
BRANCHES: UNIFIED PIPING

This new system of piping has been designed to facilitate installation so that only 2 or 3 main refrigerant pipes are needed, unlike the systems used to date. 2- and 3-way check valves, antifreeze treatment, oil separators and air valves are also not required. The use of branch piping combined with expansion valves considerably reduces the imbalance of the refrigerant liquid flow between indoor units despite the smaller piping diameter. The joints for these pipes have been designed to reduce installation time, as they are easy to fit. Finally, the branch pipes optimise refrigerant flow.

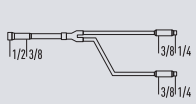
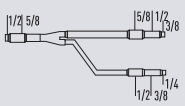
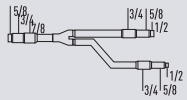
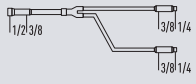
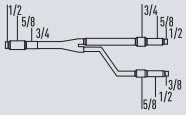
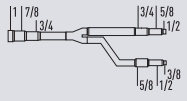
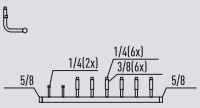
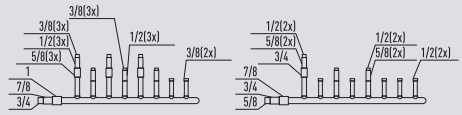
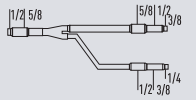
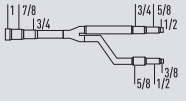
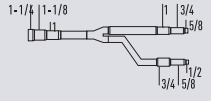
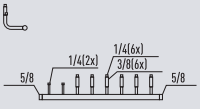
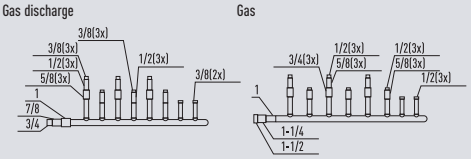
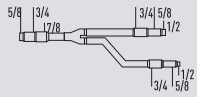
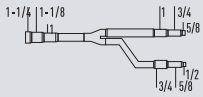
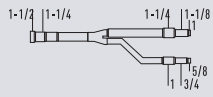
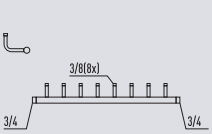
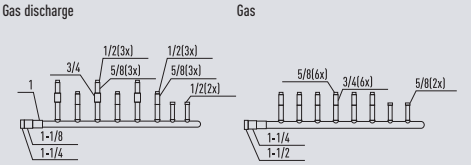


BRANCHES AND HEADERS

MX4 HEAT PUMP

	BRANCHES		HEADERS	
CZ-P20BK12QA	 Liquid	 Gas Reduction and expansion of the joint: 1,3		
CZ-P29BK12QA	 Liquid Reduction and expansion of the joint: 11	 Gas Reduction and expansion of the joint: 6, 2 x 7	 Liquid	 Gas
CZ-P64BK12Q	 Liquid Reduction and expansion of the joint: 2 x 4	 Gas Reduction and expansion of the joint: 6, 5, 7, 8	 Liquid	 Gas
CZ-P75BK12Q	 Liquid Reduction and expansion of the joint: 2	 Gas Reduction and expansion of the joint: 3,5,8,2x9,10	 Liquid	 Gas

ME4 HEAT RECOVERY

	BRANCHES			HEADERS		
	Liquid	Gas discharge	Gas Reduction and expansion of the joint: 1,3			
CZ-P20BK32Q						
CZ-P29BK32QA	Liquid Reduction and expansion of the joint: 11	Gas discharge	Gas Reduction and expansion of the joint: 6, 2x7	CZ-P29HK32Q	Liquid	Gas discharge / Gas
						
CZ-P64BK32Q	Liquid Reduction and expansion of the joint: 2x4	Gas discharge Reduction and expansion of the joint: 4, 6, 2x7	Gas Reduction and expansion of the joint: : 5, 8	CZ-P64HK32Q	Liquid	Gas discharge / Gas
						
CZ-P75BK32Q	Liquid Reduction and expansion of the joint: 2	Gas discharge Reduction and expansion of the joint: 1, 5, 6, 7, 8, 9	Gas Reduction and expansion of the joint: 3, 5, 8, 2x9, 10	CZ-P75HK32Q	Liquid	Gas discharge / Gas
						

SELECTION OF R410A BRANCHES

To select the suitable branches for the cooling circuit, the first branch is selected according to the outdoor unit. The remaining branches are selected according to the sum of the capacity indexes for all indoor units on a given branch (downstream).*

BRANCH

MX4 HEAT PUMP
UM INVERTER SERIES MX4XPQ (R410A)
First branch after outdoor unit

OUTDOOR UNIT	BRANCH
U-5MX4XPQ	CZ-P20BK12QA
U-8MX4XPQ	CZ-P29BK12QA
U-10MX4XPQ	CZ-P29BK12Q
for U-12MX4XPQ to PA-22MX4XPQ	CZ-P64BK12Q
for PA-24MX4XPQ to PA-48MX4XPQ	CZ-P75BK12Q

Different branches from the first, depending on the attached capacity

TOTAL CAPACITY	BRANCH
x<200	CZ-P20BK12QA
200≤x<290	CZ-P29BK12QA
290≤x<640	CZ-P64BK12Q
640≤x	CZ-P75BK12Q

ME4 HEAT RECOVERY
UM INVERTER SERIES ME4XPQ (R410A)
First branch after outdoor unit

OUTDOOR UNIT	BRANCH
U-8ME4XPQ1	CZ-P29BK32QA
U-10ME4XPQ	CZ-P29BK32QA
for U-12ME4XPQ to PA-22ME4XPQ	CZ-P64BK32Q
for PA-24ME4XPQ to PA-48ME4XPQ	CZ-P75BK32Q

Different branches from the first, depending on the attached capacity

TOTAL CAPACITY	3-PIPE BRANCH	2-PIPE BRANCH
x<200	CZ-P20BK32Q	CZ-P20BK12QA
200≤x<290	CZ-P29BK32QA	CZ-P29BK12Q
290≤x<640	CZ-P64BK32Q	CZ-P64BK12Q
640≤x	CZ-P75BK32Q	

To select the appropriate header, you need to add the capacity indexes for all the indoor units which come off the Header.*

W

Select according to the attached capacity

TOTAL CAPACITY	HEADER
x<290	CZ-P29HK12Q
290≤x<640	CZ-P64HK12Q
640≤x	CZ-P75HK12Q

Note: Model 250 indoor units cannot be connected to a header outlet.

Select according to the attached capacity

TOTAL CAPACITY	3-PIPE HEADER	2-PIPE HEADER
x<290	CZ-P29HK32Q	CZ-P29HK12QA
290≤x<640	CZ-P64HK32Q	CZ-P64HK12Q
640≤x	CZ-P75HK32Q	

KIT FOR CONNECTING OUTDOOR MODULES (UNIT > PA-18)

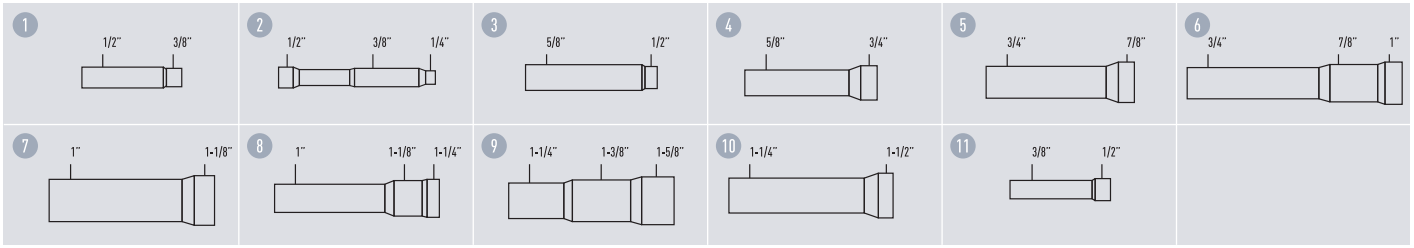
NUMBER OF OUTDOOR MODULES	CONNECTING KIT
2	CZ-32PJ4PQ
3	CZ-48PJ4PQ

KIT FOR CONNECTING OUTDOOR MODULES (UNIT > PA-18)

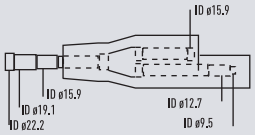
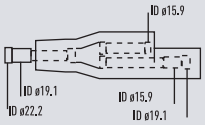
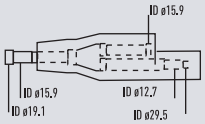
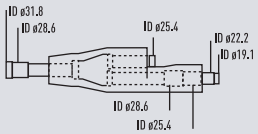
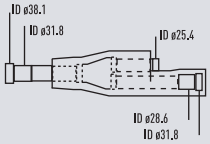
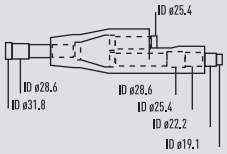
NUMBER OF OUTDOOR MODULES	CONNECTING KIT
2	CZ-32PJ5PQ
3	CZ-48PJ5PQ

* e.g.: the capacity index resulting from a branch which supports an S-80UM4HPQ indoor unit and an S-100FM3HPG indoor unit is 100 + 80 = 180.

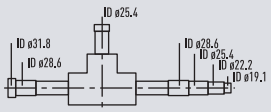
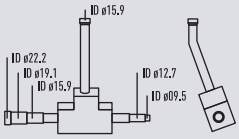
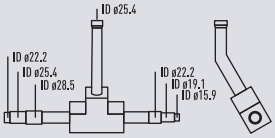
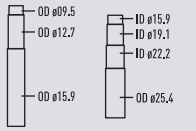
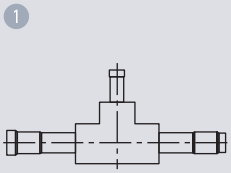
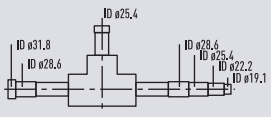
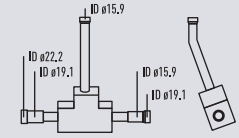
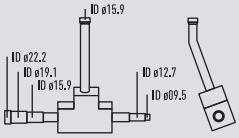
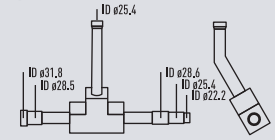
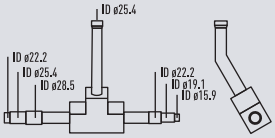
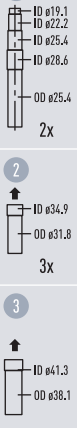
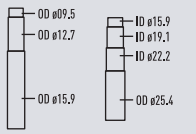
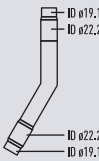
REDUCTION AND EXPANSION OF THE BRANCH JOINTS



MX4 MULTIPLE OUTDOOR CONNECTION KIT

LIQUID CONNECTION		 
GAS CONNECTION		 
CZ-32PJ4PQ	CZ-48PJ4PQ	

ME4 MULTIPLE OUTDOOR CONNECTION KIT

Kit name	Suction gas side joint	Liquid side joint	Discharge gas side joint	Reducer for Suction gas pipe	Reducer for Liquid pipe	Reducer for Discharge gas pipe	Joint for oil pipe
CZ-32PJ5PQ	 1x	 1x	 1x	 1x	 1x 1x	 1x	—
CZ-48PJ5PQ	 1x  1x	 1x  1x	 1x  1x	 1x	 2x 2x	 1x	1x

For installation of the outdoor units, refer to the installation manual of the outdoor unit.
The installation of refrigerant pipes between outdoor and indoor units need to be arranged by refnet joints and refnet headers.
For combination of outdoor units follow Engineering Data.

INDIVIDUAL CONTROL SYSTEMS

Unlike conventional air conditioning systems, the VRF cooling system is applied separately to each room.
So, this system is ideal for areas with fluctuation in traffic. Moreover, you can have precise control over each of the rooms to achieve exact conditions. Individual control makes this system more cost-effective and efficient.

INFRARED REMOTE CONTROL

CZ-02RWD12P // CZ-02RWF12P // CZ-01RWL12P // CZ-02RWU12P// CZ-01RWK22P // CZ-01RWT12P // CZ-01RWY12P

OPERATING BUTTONS

- ON/OFF
- Activate/deactivate programmer
- Time programming
- Temperature adjustment
- Air direction (only for models S-TM3JPR, S-UM4HPQ, S-LM3HPQ and S-KM3HPR)
- Operating mode
- Fan speed control
- Restart filter
- Inspection/operating test

MONITOR

- Operating mode
- Battery replacement
- Temperature selected
- Air direction (only for models S-TM3JPR, S-UM4JPQ, S-LM3HPQ and S-KM3HPR)
- Time programming
- Inspection/operating test
- Fan speed

CZ-02RWD12P
Optional control for DM3 series industrial models

CZ-01RWL12P
Optional control for LM3 series industrial models

CZ-02RWU12P
Optional control for LM3 series industrial models

CZ-01RWK22P
Optional control for KM3 series industrial models

CZ-01RWT12P
Optional control for TM3 series industrial models

CZ-01RWY12P
Optional control for YM3 series industrial models

WIRED CONTROLLER

CZ-02RT11P

- Remote controller with LCD and self-diagnosis
- Constant monitoring of the system for fault detection in a total of 80 components
- Immediate display of fault location and type
- Maintenance time and cost reduction

OPERATING BUTTONS

- ON/OFF
- Programmer: 5 actions per day (total 35). Programme temperature or temperature limits. Memory of last programming.
- Temperature adjustment
- Temperature range limitation
- Adjusting air direction
- Selection of operating mode
- Fan speed control
- Comfort temperature hold function

MONITOR

- Operating mode
- Automatic switch between cooling and heating
- Centralised control indicator
- Group control indicator
- Selected temperature
- Air direction
- Clock
- Day of the week indicator
- Inspection/operating test
- Fan speed
- Outside air filter
- Defrost/hot start indicator
- Faults

SIMPLE WIRED CONTROLLER

CZ-02RE12P

- Simple, compact and easy-to-use unit
- Suitable for hotel rooms

OPERATING BUTTONS

- ON/OFF
- Selection of operating mode
- Fan speed control
- Temperature adjustment

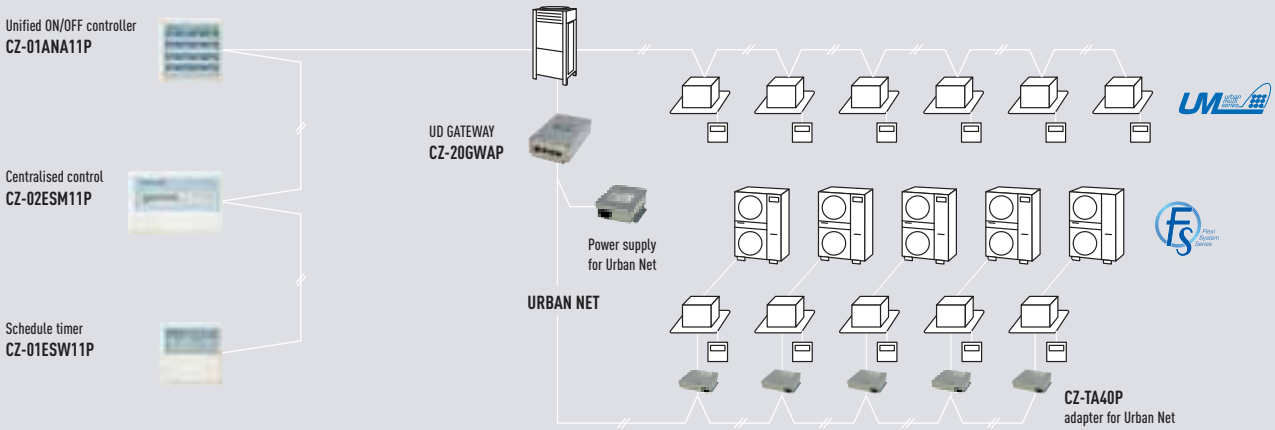
MONITOR

- Automatic switch between cooling and heating
- Selected temperature
- Operating mode
- Centralised control indicator
- Fan speed
- Defrost/hot start indicator
- Fault adjustment
- Operating mode selection
- Fan speed control
- Filter restart
- Inspection/operating test

CENTRALISED CONTROL SYSTEMS

These controls can be independent or combined. In the latter form one group is equivalent to several indoor units (up to 16) combined and one area to several groups combined.
Centralised remote control is the ideal solution in the case of leased commercial buildings which may have different occupancy rates, since the indoor units can be distributed in groups by lessee (distribution by areas).
The lessee can configure the programme and the operating conditions using the timer and easily restart the control according to differing needs.

EXAMPLE OF A SYSTEM WITH CENTRALISED CONTROL (UM NET)



PROGRAMMER CONTROLLER
CZ-01ESW11P

Enables programming of 64 groups.
- Up to 128 indoor units can be controlled
- 8 types of weekly programming
- Stand-by power supply for a maximum of 48 hours
- Maximum wiring length, 1,000 m (total: 2,000 m)

UNIFIED ON/OFF CONTROLLER
CZ-01ANA11P

Permits individual and simultaneous control of 16 groups of indoor units.
- Up to 16 groups can be controlled (128 indoor units)
- Use of 2 remote controls located in different places for operating mode (normal, alarm)
- Centralised control indicator
- Maximum wiring length, 1,000 m (total: 2,000 m)

CENTRALISED REMOTE CONTROL
CZ-02ESM11P

Permits individual control of 64 groups (areas) of indoor units.
- Up to 64 groups can be controlled (128 indoor units, max. of 10 outdoor units)
- 128 groups, maximum, can be controlled (128 indoor units, max. of 10 outdoor units) using 2 centralised remote controllers located in separate locations
- Zone control
- Fault code indicator
- Maximum wiring length, 1,000 m (total: 2,000 m)

ADAPTER FOR EXTERNAL SIGNALS
CZ-TA31P

- A fan outside the indoor unit can be controlled
- External remote controller for switching the indoor unit ON/OFF
- Indoor unit status outputs (operating mode, fault)
- Accesory designed for Commercial FS

ADAPTER FOR URBAN NET
CZ-TA40P

- Connecting board for Urban Net for centralised control of FS range indoor units

ADAPTER FOR ADDRESSING
CZ-TA50P

- Board for manual adjustment of indoor unit addresses for centralised control. Use for setting addresses before connecting the indoor unit to the power and when there is no remote control.

POWER SUPPLY
CZ-TE20P

- Power supply for Urban Net (one unit for each Urban Net network)

CONNECTION INTERFACE FOR URBAN NET AND UM NET
CZ-20GWAP

- Indoor units controllable: 64
- Control functions: ON/OFF, Operating mode, Temperature adjustment, Fan speed, Air direction, Fault information, Suction temperature, Filter status information.

SERIAL INTERFACE UNIT
CZ-01FULAP

- Indoor units controllable: 64
- External connection: RS232C

URBAN CONTROLLER

URBAN CONTROLLER, the system that links air conditioning to the environment.

Urban Controller

Panasonic's Urban Controller provides the perfect PC-based solution for building management control requirements; for Panasonic air conditioners and a host of other products. Urban Controller is Windows™-based software which provides various levels of control depending on the user's needs.
Not only does Urban Controller guarantee control over your air conditioning, using our DIO adapter permits mechanical interaction with other elements in the building, such as fire alarms, lights and anything you can think of.

The easiest way of achieving the desired temperature. The Urban Controller program stands out due to its functionality because it permits meticulous climate control in each room to achieve the temperature you want when you want it. It is an easy-to-use program which makes the task of controlling and managing temperature easier.

GENERAL FEATURES

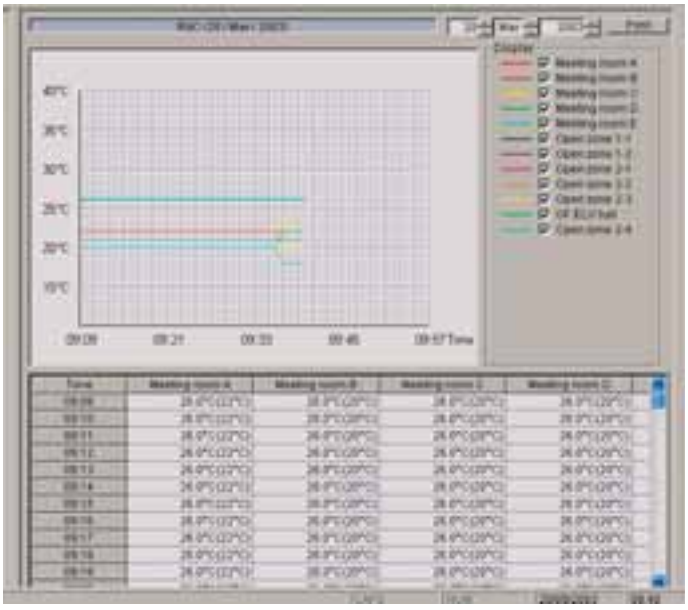
- Up to 254 indoor units
- Unlimited outdoor units
- Up to 50 groups of indoor units can be programmed
- Graphical user interface for visual control of temperature and external devices by means of a schematic function enabling the use of up to 20 interactive diagrams (diagrams need to be in jpg or bmp format to be integrated into Urban Controller)
- Up to 1,024 external signals (512 inputs and 512 outputs, 64 CZ-01APCAP cards)
- User directive with three different access levels (administration, control and monitoring)
- User connection log
- Manual programming

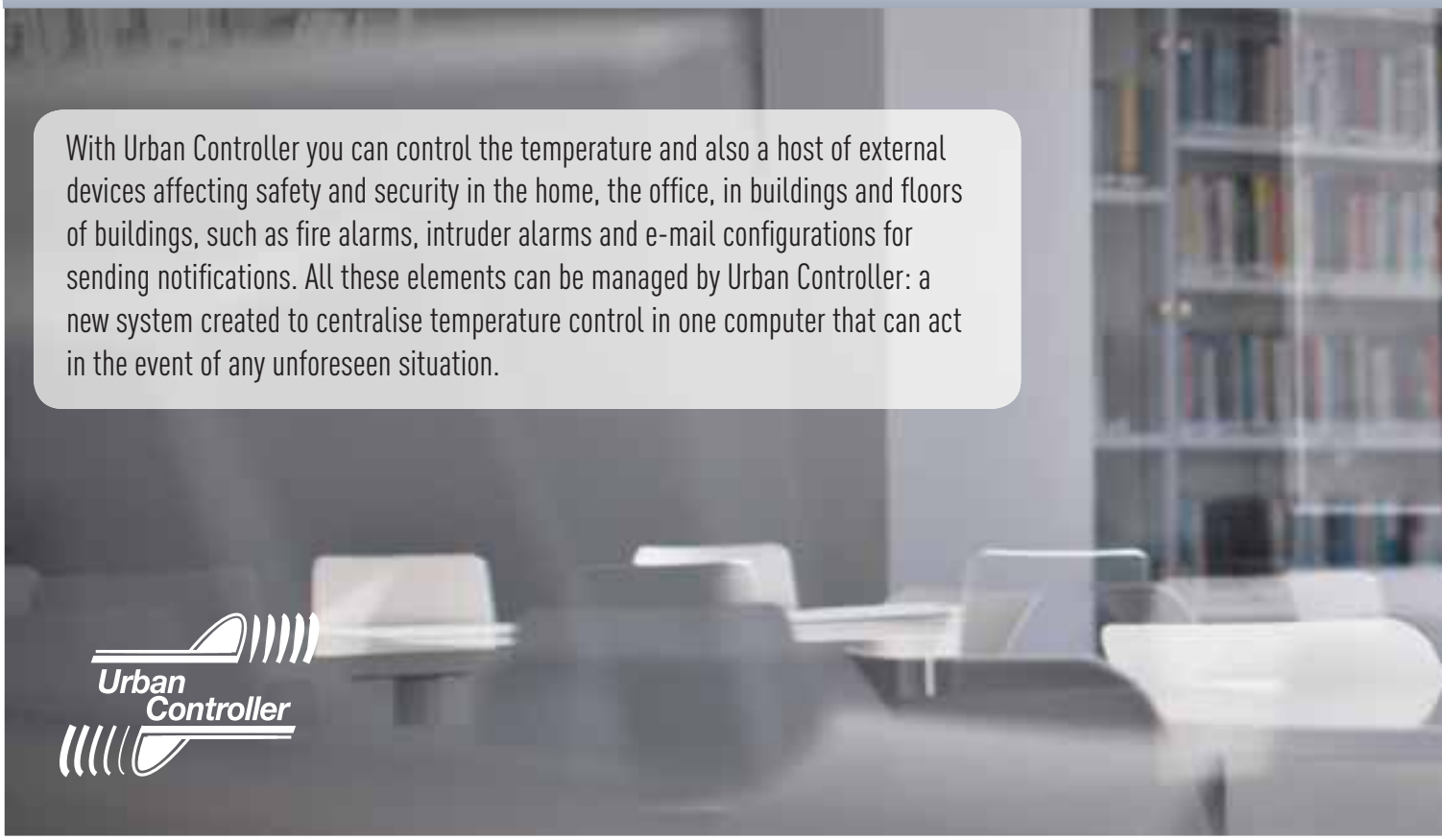
CONTROL OF THE AIR CONDITIONING SYSTEM

- Activation/deactivation of the indoor units in the same group
- Activation/deactivation of each indoor unit
- Individual and group control of indoor units:
  - Operating mode: heating, cooling, ventilation, automatic
  - Fan speed
  - Set-point temperature
  - Blade opening
  - Locking by remote control
- Setting of maximum and minimum temperature limits
- Monitoring of suction temperature evolution in indoor units
- Logging of operations (time, operating status) with one month memory
- Log of operation interruptions with one month memory
- Logging of user actions (action, time, date, user, etc.) with one month memory
- Programming for automatic e-mail notification in the event of interruption or malfunction and if a filter change is required (up to 3 e-mail addresses in case of malfunction)
- Display of operating time for each outdoor unit It can be programmed to activate a reminder alarm once the operating time limit has been exceeded.
- Logging of operating time limit alarms
- Clear, explicit interface display (colour codes, etc)
- Indication of malfunctions and/or air filter replacement
- Individual and group activation/deactivation of indoor units by means of interactive diagrams

PROGRAMMER

- Programming of the installation operating schedule
- Annual programming. Four different types of day can be defined
- Summer/winter programming. Season specification. Automatic heating/cooling change
- Programming of each indoor unit: deactivation/activation, operating mode (heating, cooling, ventilation, etc), temperature setting and locking by remote control
- Programming of each outdoor device: deactivation/activation
- Configuration of 10 daily programs
- Programming of up to 10 operating criteria (modes for night-time, morning, extreme cold, etc.)





With Urban Controller you can control the temperature and also a host of external devices affecting safety and security in the home, the office, in buildings and floors of buildings, such as fire alarms, intruder alarms and e-mail configurations for sending notifications. All these elements can be managed by Urban Controller: a new system created to centralise temperature control in one computer that can act in the event of any unforeseen situation.

Urban Controller

EXTERNAL INTERACTIONS

Urban Controller enables interaction with elements outside of temperature control by means of the external device card:
CZ-01APCAP (DIO). Two different types of elements can be differentiated: those which are controlled and programmed through Urban Controller (external devices) and those which can act on temperature control
(input signals).

EXTERNAL DEVICES

- General activation/deactivation of devices in the same group
- Separate ON/OFF for each external device
- ON/OFF programming for each external device using the programmer
- Historical log of operations (time, action) with one month memory
- Log of interruptions during operation (external input signals can be set as status indicators and errors in the external devices) with one month memory
- Log of actions carried out by the users (action, time, date, user, etc.) with one month memory
- Display of accumulated operating time for each external device. It can be programmed to activate a reminder alarm once the operating time limit has been passed. This is very useful for maintenance tasks.
- Logging of operating time limit alarms
- Individual and group activation/deactivation of indoor units by means of interactive diagrams.

EXTERNAL ALARMS

- Configuration of the temperature control reaction (general or individual) as a response to activation/cancellation of external alarms: only activation/ deactivation of the equipment
- Alarm log
- Programming of e-mail notifications in the event of malfunctions
- Display of alarm details: activation and capture

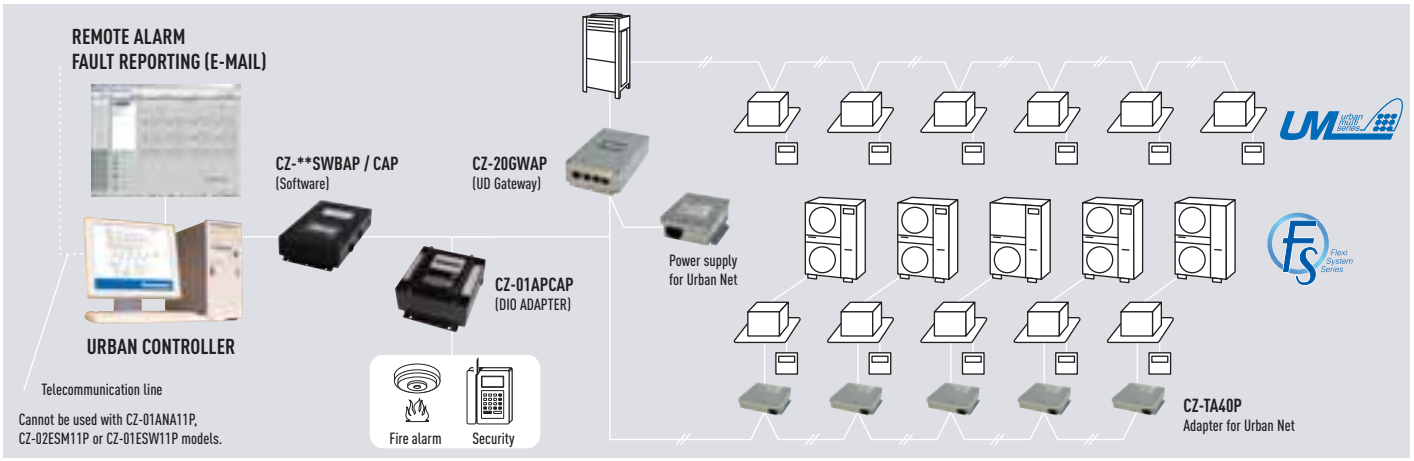
EXTERNAL SIGNALS

- Configuration of the temperature control reaction (general or individual) as a response to activation/cancellation of an external input signal: deactivation/ activation, operating mode (heating, cooling, ventilation, etc), temperature set-point and locking by remote control

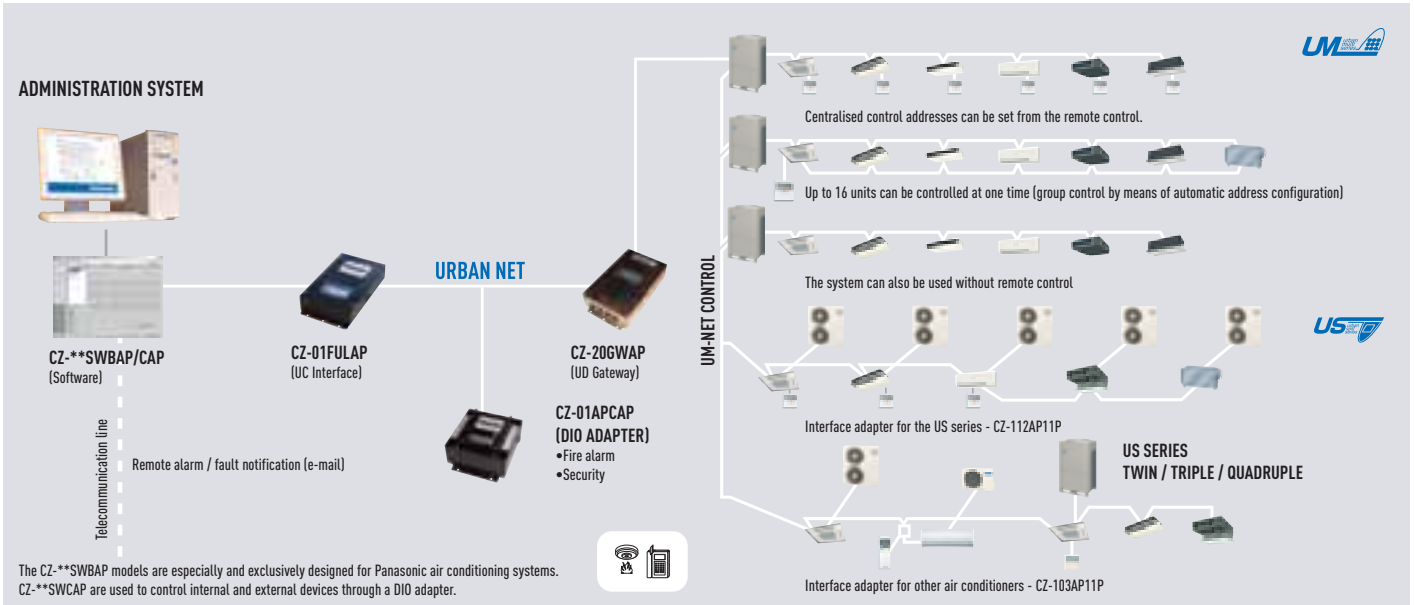
PRODUCT RANGE

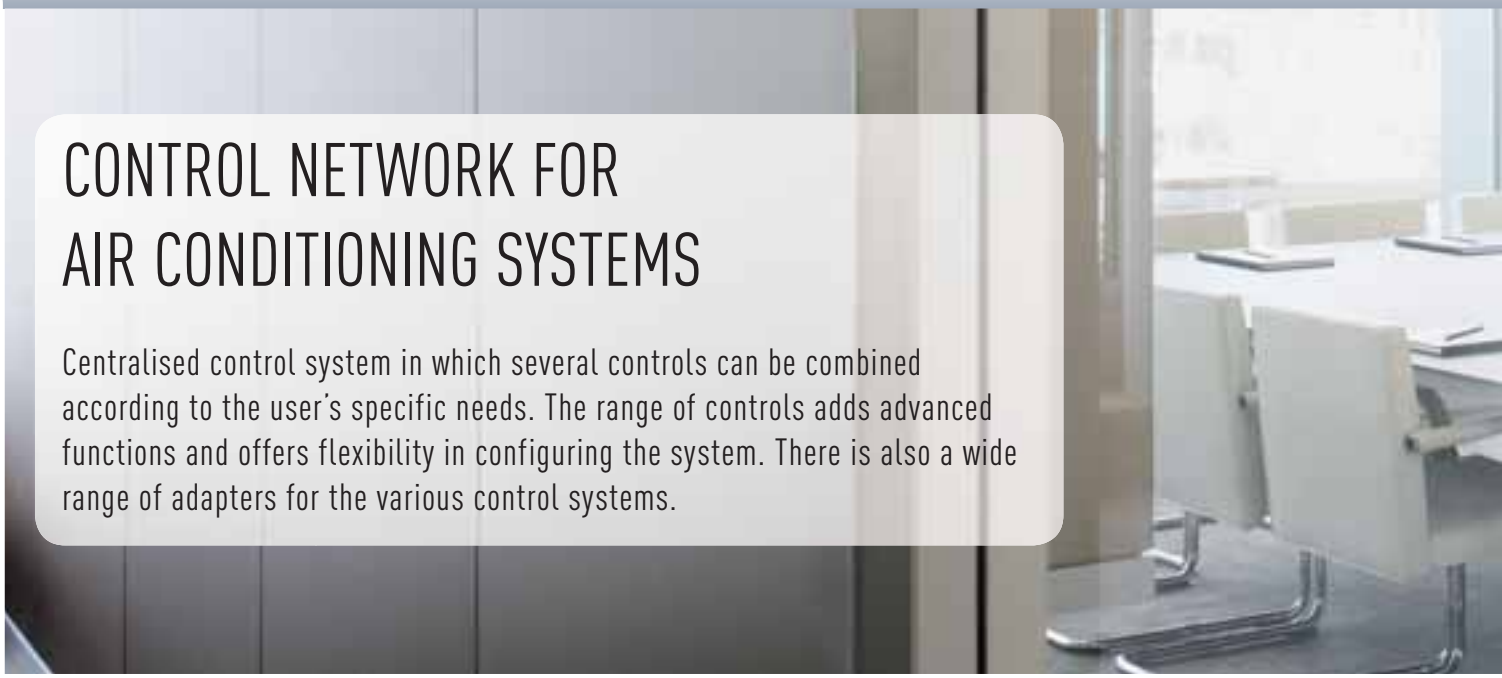
Product No.	Maximum number of connectable indoor units	Option for connecting external devices
CZ-10SWBAP	64 units	No
CZ-10SWCAP	64 units	Yes
CZ-11SWBAP	128 units	No
CZ-11SWCAP	128 units	Yes
CZ-12SWBAP	192 units	No
CZ-12SWCAP	192 units	Yes
CZ-13SWBAP	254 units	No
CZ-13SWCAP	254 units	Yes

URBAN CONTROLLER TEMPERATURE CONTROL NETWORK COMBINED WITH THE FS RANGE



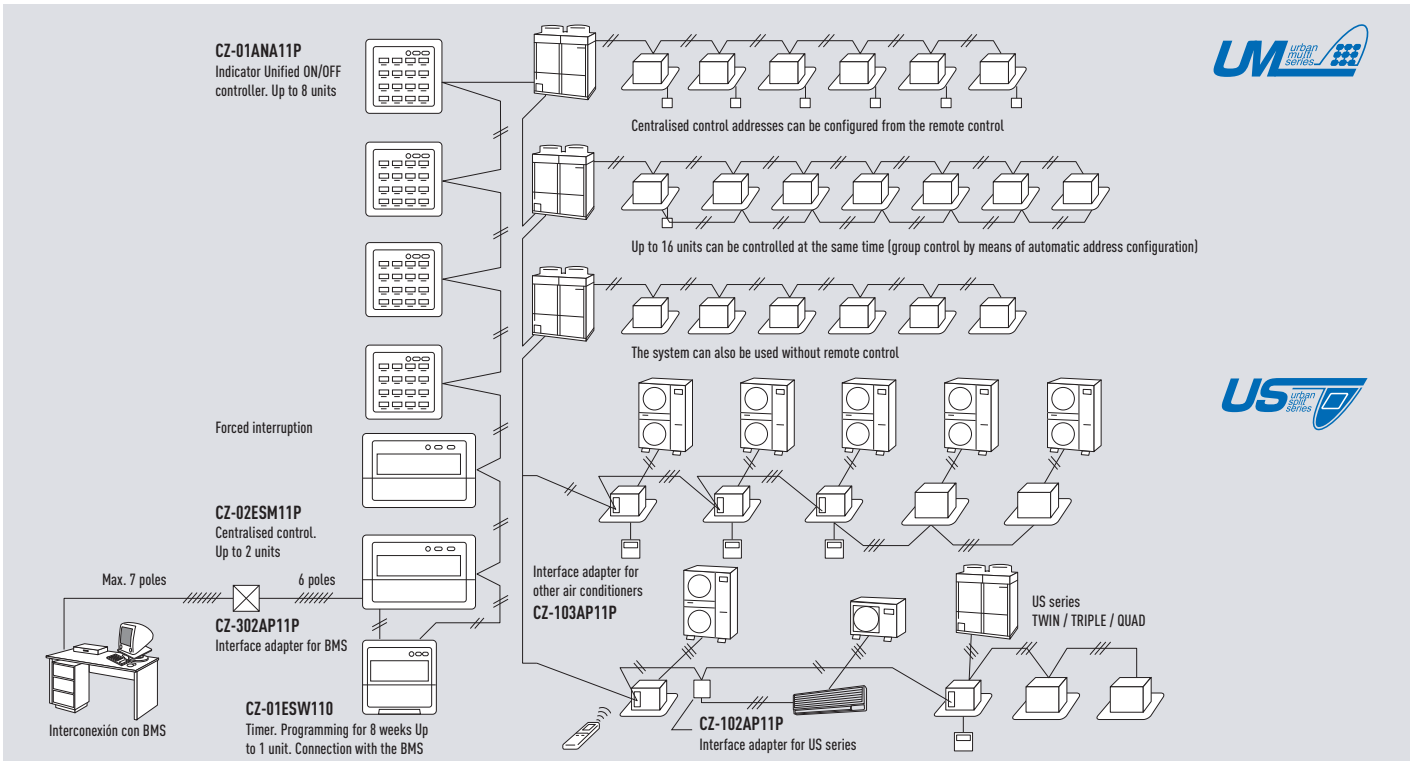
URBAN CONTROLLER TEMPERATURE CONTROL NETWORK COMBINED WITH THE US RANGE



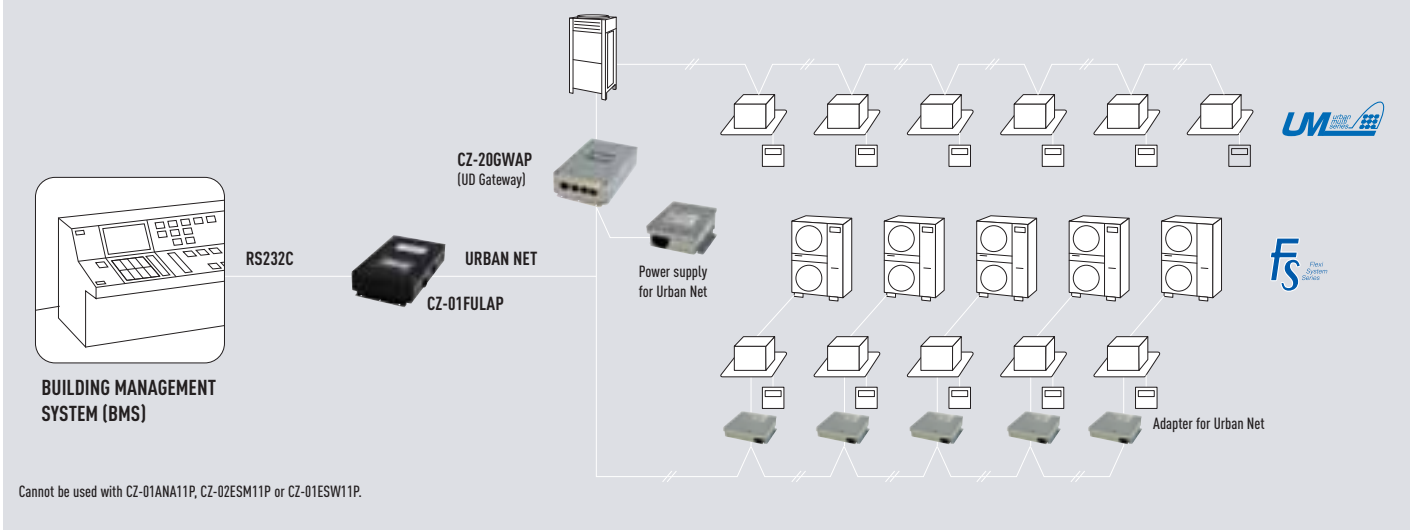


CONTROL NETWORK FOR AIR CONDITIONING SYSTEMS

Centralised control system in which several controls can be combined according to the user's specific needs. The range of controls adds advanced functions and offers flexibility in configuring the system. There is also a wide range of adapters for the various control systems.



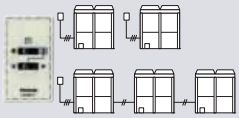
EXAMPLE OF A SYSTEM WITH BMS CONTROL (RS232C SERIAL CONNECTION)



Cannot be used with CZ-01ANA11P, CZ-02ESM11P or CZ-01ESW11P.

CONTROLLERS AND ADAPTERS

CZ-02RD11P
- Air conditioning/ventilation selection
- Cooling/heating selection

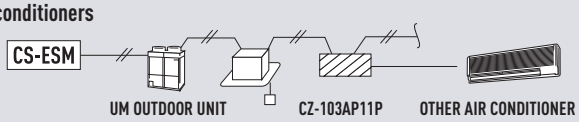


Cooling/heating controller for the outdoor unit

Enables the cooling, heating and ventilating operating mode for each outdoor unit to be changed at the push of a button. Allows the operating mode to be changed for several outdoor units at the same time by means of a single remote control (an external control adapter must be available).

CZ-103AP11P
- ON/OFF selection
- Operation information
- Failure information

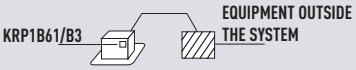
Interface adapter for other air conditioners



KRP1B61/B3 [1]
- Information on compressor operation B61
- Information on fan operation
- Interconnector OA
- Auxiliary heating output signal

Board for external element control
B61(LM3,FM3,EM3,NM,DM3,PM3,RM3)

B3 (KM3,TM3)



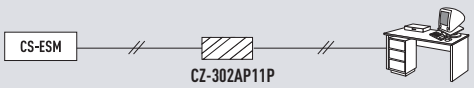
CZ-109AP11P

UM-net gateway for a maximum of 1,024 indoor units

RANGE OF BMS INTERFACE ADAPTERS

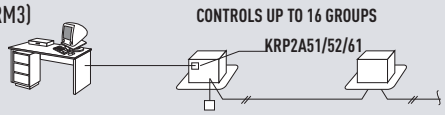
CZ-302AP11P
- ON/OFF selection
- ON/OFF status
- Failure notification

Interface adapter to BMS for the CZ-ESM controller (unified operation of the whole system)



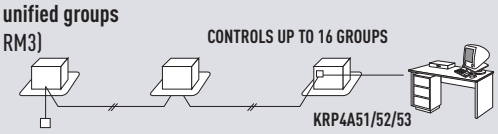
KRP2A51/52/61 [1]
- ON/OFF selection
- Selection of temperature settings
- ON/OFF status
- Failure notification

Interface adapter to BMS for groups (maximum 64 groups)
A51 (LM3, FM3, EM3, DM3, NM3, KM3, PM3, RM3)
A52 (UM4, TM3, YM3)
A61 (DM3, NM3)
* Does not work with CZ-ESM/ANA/ESW



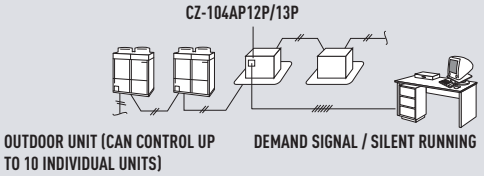
KRP4AA51/A52/A53 [1]
- ON/OFF selection
- Selection of temperature settings
- ON/OFF status
- Failure notification

Interface adapter to BMS for individual or unified groups
A51 (LM3, FM3, EM3, DM3, NM3, KM3, PM3, RM3)
A52 (TM3)
A53 (UM4, YM3)
* Does not work with CZ-ESM/ANA/ESW



CZ-104AP12P/13P [1]
- Selection of operating mode
- Selection of night-time operation A51
- Control of demand

Interface adapter to BMS for outdoor unit
12P (EM3, KM3, DM3, PM3, RM3, NM3, FM3),
13P (YM3, TM3, UM4)
* Must be installed on the indoor unit side



- Cooling/heating selector: allows selection between cooling and heating modes for a maximum of 10 outdoor units
- Quiet operation control: enables activation of the outdoor unit's quiet mode by pressing the switch
- Control of the demand signal: allows selection between three setting positions: operation at 70%, operation at 40% and automatic deactivation of the thermostat by pressing the switch.

1) Adapter installation box required for the LM3, UM4, TM3 and NM3 series. Panasonic offers a wide range of accessories. To consult these, see the final pages of this catalogue.

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