Panasonic

NEW DOMESTIC RANGE
MORE EFFICIENCY
MORE SAVINGS

2013 / 2014

heatingandcoolingsystems

ETHEREA

heatingandcoolingsystems

NEW 2013 / 2014

DOMESTIC RANGE

Summary

CE

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

QUALITY SYSTEM SIRIM

ISO 9000 Series Certification

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

ENVIRONMENTAL SYSTEM SIRIM

UKAS ENVIRONMENTAL MANAGEMENT 074

Enviroment Management Systems Approval Certificate

CERTIFIED TO MS ISO 14001:1997
Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM)
(Fomerly know as Matsushita Industrial Corp. Sdn. Bhd.)
Certification No.: M015802127

NEW

HEATCHARGE TECHNOLOGY
POWERFULL AND EFFICIENT

SEASONAL EFFICIENCY
PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS
SCOP A+++

PG 34

NEW

ETHEREA
COMFORT AND HEALTHY AIR

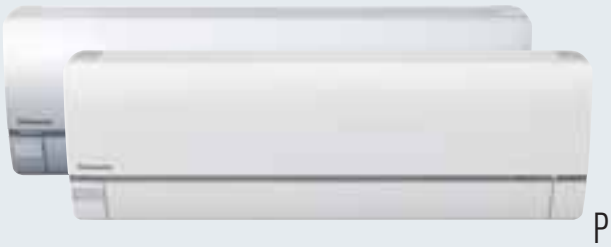
SEASONAL EFFICIENCY
PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS
SCOP A++

PG 36

NEW

ETHEREA 1.6 kW MULTI APPLICATION
FOR LOW CONSUMPTION HOUSES

SEASONAL EFFICIENCY
PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS
SCOP A++



PG 58

NEW

FREE MULTI SYSTEM. UP TO 5 INDOOR
UNITS WITH A SINGLE OUTDOOR UNIT

PG 62

NEW

CONNECTIVITY SOLUTIONS
WITH ENERGY CONSUMPTION DISPLAY

KNX enocean alliance Modbus®

PG 28

NEW

WALL MOUNTED PKEA FOR
SERVER ROOM APPLICATIONS

SEASONAL EFFICIENCY
PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS
SCOP A++

PG 44

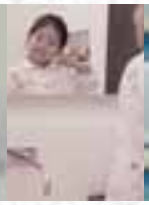
Panasonic – leading the way in Heating & Cooling

With more than 30 years of experience, selling to more than 120 countries around the world, Panasonic is unquestionably one of the leaders in the heating and cooling sector.
With a diverse network of production and R&D facilities, Panasonic delivers innovative products incorporating cutting-edge technologies that set the standard for air conditioners worldwide. Expanding globally, Panasonic provides superior international products transcending borders.

History of Air Conditioning Group
Panasonic starts with a desire to create things of value. As hard work and dedication results in one innovative product after another, the fledgling company takes its first steps towards becoming the electronics giant of today.

1936
First electric Fan with Automatic Oscillation (36 cm table top model).

1958
First room air conditioner launched for domestic installation.
Prior to this date, air conditioners were large and only for commercial use.
Panasonic developed the first compact air conditioner for windows; it was lightweight and easy to install, improving the quality of life in Japanese homes.
1,100 units were sold in Japan in the first year, and just two years later, in 1960, this figure rose to 230,000.



1973
Panasonic launches the first highly efficient air-to-water heat pump in Japan.

1975
Panasonic becomes the first Japanese air conditioner manufacturer in Europe.

2002
The Ion and Oxygen Generator – two of the most important contributions to air conditioning systems.

2008
Etherea new concept of air conditioning systems: high efficiency and high performances with a great design. Etherea also includes a very innovative air quality sensor and air purifier in order to enjoy healthy air at home at all times.

2010
New Aquarea.
Panasonic has created Aquarea, an innovative new, low-energy system, designed to help you enjoy ideal temperatures and hot water in your home, even with extreme outdoor temperatures. Aquarea cools or heats to ensure maximum comfort. Aquarea is far cleaner, safer, cheaper and environmentally friendly than alternatives using gas, oil and other electrical systems.

2011
New Eco i VRF solution.
The new Panasonic VRF solution for big buildings is the most efficient in the industry in more than 74% of combinations. ECO i satisfies the most demanding standards required by design offices, architects, owners and installers.

2012
New GHP units.
Pansonic's gas-driven VRF systems are ideal for projects where power restrictions apply. In 2012, Panasonic extends the Gas Heat Pump range with a new GHP line-up, new GHP G Power (electricity production) and the new Chiller Units.

2013
New ECOi 3-pipes.
The best efficiency for your building.
Our New 6 Series 3-pipes is achieving a COP of 4.77 at full load, and even more when recovering heat from the building.
There is no doubt, Panasonic is reducing environmental impact!

Panasonic Europe

Panasonic is committed to offering our customers innovative products in the heating and cooling market across Europe, which not only meet but exceed their requirements. Key to success is Panasonic's investment in R&D, manufacture and training to ensure innovative, cutting edge products and investment in our distribution channels and partners so that these products are accessible in Europe. Panasonic has developed a comprehensive network across Europe of training centers and training academies for installers, design offices and service teams in all major countries.

Panasonic Factories and R&D Department

There is a close relationship between R&D innovation and good manufacturing processes, and so Panasonic has placed its R&D facilities very close to its manufacturing bases. This ensures good integration between all divisions to deliver high quality and reliable solutions to our markets.

We control the process

The company is also a world leader in innovation as it has filed more than 91,539 patents to improve its customers' lives. Moreover, Panasonic is determined to remain at the forefront of its market. In all, the company has produced more than 200 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 heat pumps.
This wish to excel has made Panasonic the international leader in heating and turn-key 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.

PRODUCTION 100% PANASONIC

SERVICE PROVIDER

100%

Panasonic

RESEARCH & DEVELOPMENT AND DESIGN

TESTING AND QUALITY INSURANCE

heatingandcoolingsystems

RELIABILITY FACTS

Reliable comfort comes from reliable technologies

Today, Panasonic air conditioners have earned widespread acclaim throughout the world.
A rugged design ensures that the air conditioner will continue to keep the room comfortable, and operate trouble-free for many years. Panasonic believes this is the true value of an air conditioner. And this is why we subject them to a wide range of stringent tests.

Durability. 10,000 Hour Continuous Operation Simulation.

Long-term Durability Test
The air conditioner's main mission is to provide a level of durability that allows it to operate stably for years. In order to achieve this, we conduct an accelerated test for 10,000 hours of continuous operation. The results of this test, which is conducted under conditions that are much more severe than actual operating conditions, prove the rugged strength of Panasonic air conditioners.

Compressor Disassembly Test
After a test with 10,000 hours of continuous operation, we remove the compressor from a randomly selected outdoor unit, disassemble it, then examine the internal mechanisms and parts for possible failure. Panasonic air conditioners continue to provide their designed performance for many years even after prolonged operation under harsh conditions.

Operating Test in Harsh Conditions
In addition to normal operating conditions, an operating durability test is conducted in a high-temperature, high humidity test chamber at a temperature of 55 °C. For use in cold climates, the test is also conducted in a low temperature test chamber at -20 °C. This test assures that the oil inside the compressor will not freeze during use and interrupt operation.

Checking the oil inside the compressor under extremely cold conditions.

Waterproof Test
The outdoor unit, which is subject to rain and wind, is provided with IPX4 waterproof compliance.
Contact sections on printed circuit boards are also resin-potted to prevent adverse effects caused by an unlikely exposure to droplets of water.

A resin-potted circuit board.

Shock Resistance

Panasonic simulates impacts, vibrations and other environmental conditions that air conditioners might be subjected to during transport. We promise that the quality and performance at the time of the final product inspection are unchanged when the product reaches the user's home.

No Breaking. When Dropped onto Sides or Corners.

Drop Test
Even with the large impacts that may occur due to improper handling during transportation, the product packaging has been strengthened to prevent it from being damaged. In addition to conventional vertical dropping, more severe conditions in which the sides or corners hit the floor first are carefully tested to ensure that the product's rigidity and shock-absorbing materials work to prevent problems.

Vibration Test
Preventing damage that would hinder the product's performance due to vibration during transport is a major role of the packaging. Panasonic confirms that the product operates properly even after applying vibrations in both horizontal and vertical directions.

Warehouse Storage Test
During distribution, products may be subjected to extended warehouse storage under unfavourable conditions. To simulate these conditions, we place a weight equal to a stack of five product packages on top of the test package, and leave it in that condition in a room at a temperature of 27°C and a humidity level of 85%. Then, the product is checked for proper operation.

Comfort

Air conditioners should keep each person in the room comfortable without making their presence known.
They should work totally in the background, using their strength to create and maintain a relaxing environment. We build this hidden strength into our air conditioners, and test them repeatedly from this viewpoint.

Silence. That Does Not Disturb You.

Noise Test
The operating noise of the indoor and outdoor units is measured in an echo-free chamber. The noise test verifies that the operating noise is low enough so that the product operation will not disturb daily activities including conversations and sleep.

Sunshine simulation.

Amenity Test
An actual air conditioner is operated in a test room that simulates an ordinary living room. Conditions such as the amount of sunlight entering the room from outside are changed while measuring a variety of parameters, such as cooling speed, cooling efficiency, and temperature and humidity differences throughout the room. This makes it possible to confirm whether the air conditioner is operating at its designed performance level under ordinary conditions.

EMC (Electromagnetic Compatibility) Test
This test determines whether electromagnetic waves emitted during operation are sufficiently low to prevent adverse effects, i.e., electrical noise, on signals such as TV and radio broadcasts.

Remote Control Dropping Test
Because the remote control is the main interface between people and the air conditioner, it is naturally subjected to frequent impacts - such as drops and bumps - when it is passed from person to person during normal operation. Panasonic drops the remote control from a height of 1.5 metres at various angles to ensure that no problems in basic performance will result from accidental dropping.

World Standard Quality

Over the years, Panasonic air conditioners have continued to offer the highest possible quality with the lowest environmental impact worldwide. Naturally, the fundamental production principles that are common to all Panasonic products apply to air conditioners as well. The fact that these principles actively support every product, rather than simply serving as slogans, is the result of the endless repetition of challenges and trial-and-error efforts that are conducted at our production bases all over the world.

Quality. Is at the Core of All Our Manufacturing.

Reliable Parts with Major Standards Approval
Panasonic air conditioners comply with all of the major standards that maintain high reliability in the countries and regions where they are marketed. To ensure this, we conduct a variety of tests to examine the quality of materials used in parts.

The strength of the resin material used in the propeller fan is confirmed by the tension test.

RoHS/REACH Compliant Parts
All parts and materials comply with RoHS/REACH, Europe's world-leading environmental regulations. Stringent inspections of more than 100 materials are conducted to ensure that no hazardous substances are included during parts development.

Sophisticated Production Process
The air conditioner production line uses advanced, state-of-the-art factory automation technologies to produce products with higher reliability. Products are efficiently manufactured with high and uniform quality.

Eco Activities
Panasonic has set up eco ideas factories around the globe. While developing and manufacturing energy-saving products based on original environmental technologies, these factories reduce CO2 emissions from manufacturing processes and conduct regional-based environmental communication activities to contribute to both the global environment and the local communities that they serve.

Panasonic Professional

Panasonic has an impressive range of support services for designers, specifiers, engineers and distributors working in the heating and cooling markets.

Panasonic PRO Club

Panasonic PRO Club

Panasonic announces a new initiative for all professionals involved in the heating and cooling business - the Panasonic PRO Club (www.panasonicproclub.com). This exciting new portal provides distributors, installers, engineers and specifiers with a direct communication channel with one of the industry's major manufacturers. The website contains a wealth of information from the latest versions of Panasonic's Aquarea and Etherea Design Software, to Technical Documentation, Catalogues and Images for the company's wide range of heating and cooling systems - all in an easy to navigate and use website. Also, registered users will be able to access news regarding special promotions and take advantage of these offers, as well as access helpful business advice such as ideas and guidelines for showroom decoration or van livery featuring Panasonic logos and display material.

www.panasonicproclub.com
or connect simply with your smartphone to the proclub using this QR:

Panasonic PRO Academy

The Panasonic PRO-Academy opens its doors

Panasonic takes its responsibility to its distributors, specifiers and installers seriously and has developed a comprehensive Training Programme. The Panasonic Pro-Academy encompasses the traditional hands-on approach, as well as embracing today's technology to offer an eLearning facility available 24 hours, 7 days a week!

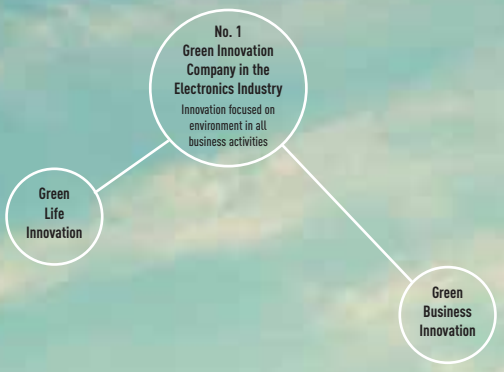
New training courses cover three levels

Design, installation, and commissioning & trouble-shooting
Training courses include:
- Domestic applications Air to Air
- Aquarea air source heat pumps
- VRF ECOi

The courses are offered on site at Panasonic's premises across Europe as well as via the Panasonic ProClub eLearning site. The Training Centres display Panasonic's latest product range and give delegates an opportunity to get hands-on experience with the latest controllers, indoor and outdoor units from the VRF ECOi, Etherea, GHP and Aquarea ranges.

Eco & smart ideas for a sustainable lifestyle

Panasonic aims to be the No. 1 Green Innovation Company in the Electronics Industry by 2018.
We will make the environment central to all our business activities and work to realize our vision with innovations for both every day life and business.



eco ideas

Exemplary sustainable projects

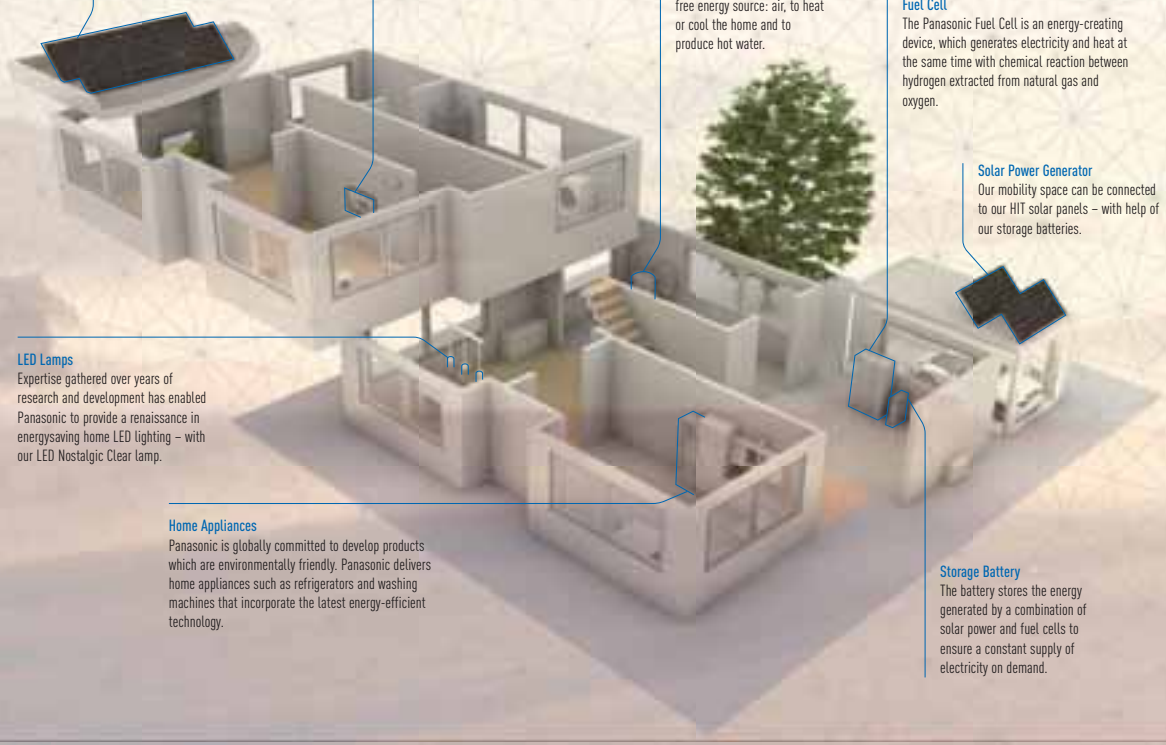
Blackfriars Bridge
London, UK
with Panasonic solar panels.

Skolkovo City
Moscow, Russia
with Panasonic energy saving concept.

Photosynthesis
Milano Salone, Milano, Italy
with Panasonic LED light bulbs and HIT solar power generators.

Siestorage
modular energy storage solution with Panasonic lithium ion batteries.

We aim to realize a lifestyle with virtually zero CO_2 emissions throughout the entire home



Solar Power Generator
HIT solar cells achieve maximum output even on smaller roofs. These solar modules are 100% emission free, have no moving parts and produce no noise.

Home AV
Panasonic offers a wide range of energy saving home equipment to fulfil a sustainable and comfortable lifestyle.

Heat Pump
The Aquarea Heat Pump is part of a new generation of heating systems that use a renewable, free energy source: air, to heat or cool the home and to produce hot water.

Fuel Cell
The Panasonic Fuel Cell is an energy-creating device, which generates electricity and heat at the same time with chemical reaction between hydrogen extracted from natural gas and oxygen.

Solar Power Generator
Our mobility space can be connected to our HIT solar panels – with help of our storage batteries.

LED Lamps
Expertise gathered over years of research and development has enabled Panasonic to provide a renaissance in energysaving home LED lighting – with our LED Nostalgic Clear lamp.

Home Appliances
Panasonic is globally committed to develop products which are environmentally friendly. Panasonic delivers home appliances such as refrigerators and washing machines that incorporate the latest energy-efficient technology.

Storage Battery
The battery stores the energy generated by a combination of solar power and fuel cells to ensure a constant supply of electricity on demand.

WELCOME TO NEW DOMESTIC RANGE

nanoe-G

INTELLIGENT ECO SENSORS
ECONAVI

Panasonic has developed a range of products designed for you, better than ever before.

With its innovative design, high efficiency and incomparable purification system, the Etherea 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.

product
design award
2013

Panasonic Air Conditioning System Wins Prestigious Design Award
Panasonic is pleased to announce that its Etherea air conditioning system has won an iF 2013 Product Design Award.

The iF Product Design Awards are among the most important awards for product design excellence. With strict criteria to judge everything from cosmetic appearance, functionality, through to the environmental impact of the product, awards are only given to those products that demonstrate their innovative design.

Winning the award thanks to its highly intelligent functionality, the Panasonic Etherea is the ideal air-conditioning system for domestic and other localised installations. The unit makes use of multiple sensors, which measure the room's temperature, humidity, as well as detecting human presence.

ETHEREA | heatcharge

Go green. Go clean. Go your way

Panasonic Air Conditioners are designed to provide more than just cooling comfort to homes. They save energy. They purify your surroundings. They adjust cooling power to suit your living spaces and styles. Living an eco-lifestyle your way is now easier than ever.

HEALTHY AIR ENERGY SAVING

Air purifier 99% removal bacteria·virus·mold nanoe-G

Nanoe-G utilises nano-technology fine particles to purify the air in the room. It works effectively on airborne and adhesive micro-organisms such as bacteria, viruses and mould thus ensuring a cleaner living environment.

Perfect humidity control MILD DRY

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

A class energy saving INVERTER+

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

6.6 A++ SEER SEASONAL ENERGY EFFICIENCY RATIO

Exceptional Seasonal Cooling Efficiency based on the new ErP regulation.
Higher SEER ratings mean greater efficiency.
Save all the year while cooling!

4.0 A+ SCOP SEASONAL COEFFICIENT OF PERFORMANCE

Exceptional Seasonal Heating Efficiency based on the new ErP regulation.
Higher SCOP ratings mean greater efficiency.
Save all the year while heating!

Up to 38% energy savings (cooling) ECONAVI

Econavi features intelligent Human Activity Sensor and new Sunlight Sensor technologies that can detect and reduce waste by optimising air conditioner operation according to room conditions. With just one touch of a button, you can save energy efficiently with uninterrupted cooling, comfort and convenience.

Improved comfort AUTOCOMFORT

The Autocomfort system detects conditions in the room and switches to energy saving operation when nobody is on the room.

Silent air 20 dB SUPER QUIET

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

Easy control by BMS CONNECTIVITY

The communication port is integrated into the indoor unit and provides easy connection to, and control of, your Panasonic heat pump to your home or building management system.

Internet Control Ready INTERNET CONTROL

Internet Control is a next generation system providing a user-friendly remote control of air conditioning or heat pump units from everywhere, using a simple Android or iOS smartphone, tablet or PC via internet.

5 year compressor warranty

5 Years Warranty. We guarantee the compressors in the entire range for five years.

New Panasonic R2 Rotary Compressor

Panasonic Rotary Compressors for Room Air Conditioners have been installed in the most demanding environments around the world. Designed to withstand extreme conditions, Panasonic Rotary delivers high performance, efficiency and reliable service, no matter where you are.
Panasonic, the world's largest manufacturer of rotary compressors.

Making the world a cooler place since 1978.

R2
ROTARY
INVERTER COMPRESSOR
Panasonic

Why is the Panasonic R2 Rotary Compressor so efficient?

1. **High Efficiency Motor** The premium silicon steel motor meets industry efficiency requirements.

2. **Improved Lubrication of High Volume Oil Pump** The extended, high volume oil pump in conjunction with a larger capacity oil reservoir provides superior lubrication.

3. **Accumulator has Larger Refrigerant Capacity** The larger accumulator accomodates generous refrigerant amounts needed in longer line length installations.

R2 Compressor Value

About R2 Compressor
Built upon 28 years of compressor design and production experience, R2 is the next generation of Rotary Compressors for residential central air conditioning. New technology improvements, enhanced materials and simple design ensure R2 compressors are reliable, efficient and quiet. The R2 Compressor delivers quality, comfort and peace of mind in homes around the world.
Panasonic's Rotary Compressors have been life tested in some of the world's most demanding environments. Proven for years many of the most demanding areas of the world, the R2 design is the compressor of choice by contractors and homeowners in these challenging climates. For the high performance that home-owners demand, R2 Rotary Compressors are the best air conditioning engines for today's residential cooling solutions.

Leading Technology
Used in over 80% of cooling solutions globally, rotary is the world's dominant residential air conditioning compression technology. Panasonic is the leading rotary and residential AC compressor manufacturer in the world, with over 200 million compressors produced.

Benefits
Central air conditioning delivered with a Panasonic R2 Rotary Compressor ensures a superior level of comfort at an economical cost.

Vane - Long Life
The special Physical Vapor Deposition (PVD) coating applied to the Vane greatly enhances the durability and life of the compressor mechanism.

Piston - Durable
The piston is made of unique high-grade steel that prevents wear and extends operation life.

R2 ROTARY INVERTER COMPRESSOR Panasonic

R2 Compressors:

- Higher efficiency
- Single and Dual Piston
- R-410A refrigerant
- Compact size

R2 rotary compressors utilize rolling piston technology.

The R2 compressor has been tested in extreme conditions.

FAQ

How does a Panasonic Rotary compressor work?
R2 compressors are rolling piston rotary compressors. The heart of the rotary compressor is the cylinder which houses the piston and the vane. The vane maintains constant contact with the piston as the piston rolls along the inside wall of the cylinder. As the piston rotates, gas is compressed into an increasingly smaller area until the discharge pressure is reached, releasing gas into the shell chamber. At the same time, more gas comes in through the suction port, enabling a continuous process of suction and discharge.
The simple design and symmetry of the cylinder components, combined with a special coating and premium materials, provide a highly durable and reliable product, rotation after rotation.

What SEER range does the Panasonic Rotary compressor support?
R2 compressors are found in air conditioning products featuring the very latest technology and offering the highest efficiency on the market today. Our R2 compressors are engineered specifically for this SEER efficiency requirement. Combined with the inherently simply design of the rotary, this results in a high desirable and impressively economical solution.

What makes Panasonic Rotary compressor so reliable?
Changes to the construction and material of internal components enables the R2 compressor to reliably operate with an above average maximum discharge pressure. A Physical Vapor Deposition (PVD) coating on the vane, along with enhanced steel materials, significantly reduces wear and increases durability.

What makes a Panasonic Rotary compressor so quiet?
The structure of the R2 compressor mechanism has been redesigned to increase stability and reduce vibration. Specifically, the compressor has an upper cylinder discharge, an enhanced fixed upper bearing, and reduced friction in the cylinder parts. The lower discharge and muffler in the dual piston compressors also enables lower noise levels. As a result, this new design optimises efficiency and minimises noise.

How do R2 rotary compressors compare to scroll and reciprocating compressors?
R2 rotary compressors are very similar to some scroll compressors in overall performance, including efficiency and reliability. The simple and symmetrical key components contribute to the R2 compressor's reliability, light weight, compact size, and economical applied cost, without sacrificing the key performance requirements of high efficiency and low noise levels.

Which refrigerants can be used with Panasonic Rotary compressor?
Panasonic has R2 Rotary Compressors available for R410A applications.

ECONAVI

Discover how to achieve energy savings

When you are relaxing while watching television, the air conditioner's operation usually runs at a constant temperature setting.

Econavi detects and reduces this waste in all the right ways

Using high-tech sensors and precise control programs, it analyses room conditions and adjusts cooling power accordingly.

Econavi is smart enough to locate and operate in all the right places to give you better energy savings.

Up to **38%** energy savings (cooling)

ECONAVI

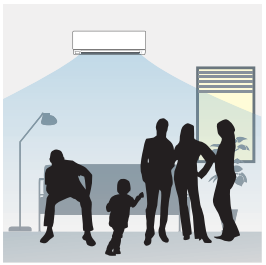
5 Features saving energy all at once

Econavi with intelligent eco sensors
Intelligent Sensors detect potential waste of energy using the Human Activity Sensor and Sunlight Sensor. It is able to monitor human location, movements, absence and sunlight intensity.
It then automatically adjusts cooling power to save energy efficiently with uninterrupted heating and cooling comfort and convenience.

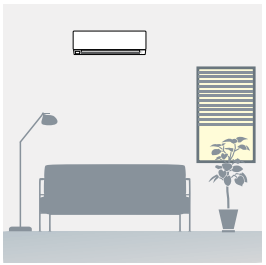
New Temperature Wave
Rhythmic temperature-controlled pattern to save energy without sacrificing comfort.

NEW

Area Search
Directs airflow to wherever you are in the room. Econavi detects changes in human movements and reduces the waste of cooling the unoccupied area of the room.



Activity Detection
Adapts cooling power to your daily activities. Econavi detects changes in activity levels and reduces the waste of cooling with unnecessary power.



Absence Detection
Reduces cooling power when you are not around. Econavi detects human absence in the room and reduces the waste of cooling an empty room.

Sunlight Detection
Adjusts cooling power to changes in sunlight intensity.

So Much Saved with So Little Effort

Up to 38% energy savings for Inverter cooling model with temperature wave

Comparison of 1.5HP Inverter model between Econavi with (Dual Human Activity Sensor, Sunlight Sensor, and Temperature Wave) ON and Econavi OFF (Cooling)
Econavi ON, Outside temperature: 35°C/24°C
Remote setting temperature: 23°C with Fan Speed (High)
Vertical Airflow direction: Auto, Horizontal Airflow direction: Econavi Mode
Setting temperature goes up 2°C in total, 1°C controlled by Econavi activity level detection and another 1°C controlled by Econavi light intensity detection.
Temperature Wave is ON, electric heater (300 W; simulating the heat of human and TV etc)
Econavi OFF, Outside temperature: 35°C/24°C.
Remote setting temperature: 23°C with Fan Speed (High)
Vertical Airflow direction: Auto, Horizontal Airflow direction: Front
Total power consumption amount are measured for 2 hours in stable condition. At Panasonic Amenity Room (size: 16.6m^2).
This is the maximum energy savings value, and the effect differs according to conditions in installation and usage.

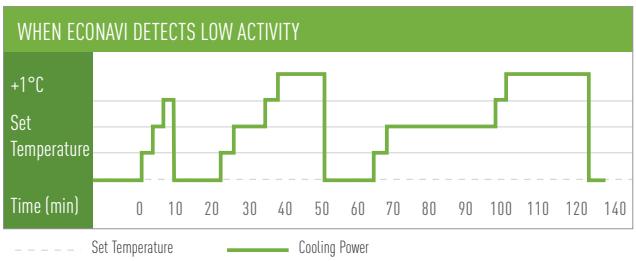
NEW

New temperature wave

Rhythmic temperature-controlled pattern to save energy without sacrificing comfort.

New Econavi with Temperature Wave was developed based on an understanding of Thermal Physiology; the human body adapts physiologically to changes in temperature. Taking advantage of this understanding, Panasonic's R&D Centre has developed the Rhythmic Temperature Control pattern, which offsets the air conditioner's performance against thermal physiological responses.
Hence, when Econavi detects human presence and low activity level, Temperature Wave adapts to this rhythmic temperature control to realise further energy savings without sacrificing comfort.

How does temperature wave works?



Offset Thermal Physiological Response	
Average Room Temperature (Degree Celcius)	
Rhythmic	Moderate temperature increase
Result : More Energy Saving	
Thermal Sensation Votes (Mean Votes)	
Rhythmic	- 0.1
Result : Maintain within the comfortable range *	

The result of the experiment showed that thermal sensation was maintained within the comfortable range* even though average set temperature was moderately increased. Hence, when ECONAVI detects human presence and low activity level, Temperature Wave adapts to this rhythmic temperature control to realise further energy saving without sacrificing comfort.

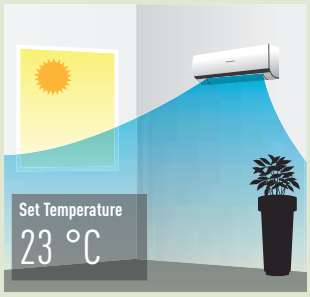
*The thermal condition of which PMV (Predicted Mean Value) is within -0.5 to +0.5 is recommended as comfortable condition (in the condition B) by International Standard EN ISO 7730.

Econavi sunlight sensor

New Sunlight Detection (on Cooling Mode)

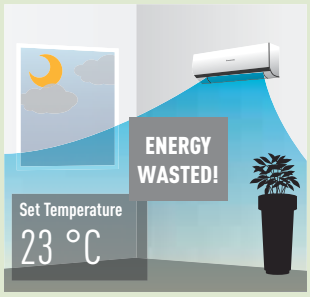
Econavi detects changes in sunlight intensity in the room and judges whether it is sunny or cloudy/night. It reduces waste energy by reducing cooling under less sunny conditions.
When weather changes from sunny to cloudy/night, Econavi detects less sunlight intensity and determines less cooling power is required. If cooling power remains the same, energy will be wasted. Econavi detects this waste and reduces cooling power by an amount equivalent to increasing the set temperature by 1 °C.

Sunny



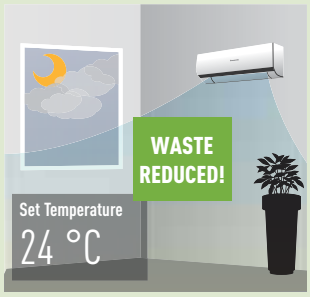
Econavi is switched on when it is sunny.

Detect



Econavi detects less cooling power is required.

Reduce waste

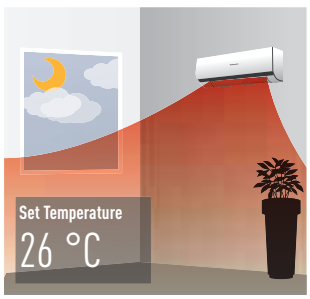


Reduces cooling power by an amount equivalent to increasing the set temperature by 1 °C.

New Sunlight Detection (on Heating Mode)

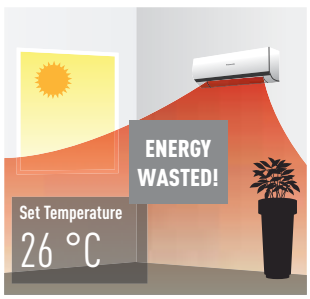
Econavi detects changes in sunlight intensity in the room and judges whether it is sunny or cloudy/night. It reduces the wasted of heating under more sunnier conditions.
When weather changes from cloudy/night to sunny, Econavi detects more sunlight intensity and determines less heating power is required. If heating power remains the same, energy will be wasted. Econavi detects this waste and reduces heating power by an amount equivalent to decreasing the set temperature by 1 °C.

Cloudy/Night.



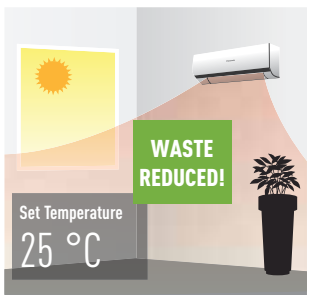
Econavi is switched on when it is cloudy/night.

Detect



Econavi detects less heating power is required.

Reduce waste



Reduces heating power by an amount equivalent to decreasing the set temperature by 1 °C.

ECONAVI

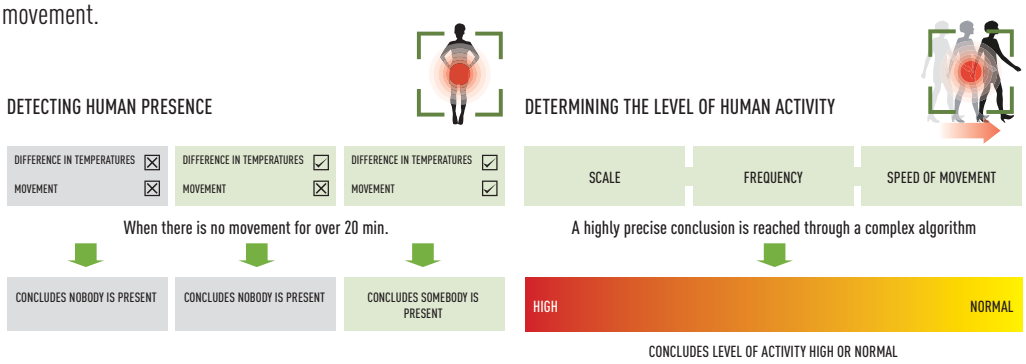
Econavi intelligent sensors

Econavi Intelligent Sensors are able to monitor sunlight intensity, human movements, activity levels and human absence to detect unconscious waste of energy and automatically adjusts cooling power to save energy efficiently with uninterrupted cooling comfort and convenience.

Sunlight Sensor
Detects changes in Sunlight Intensity

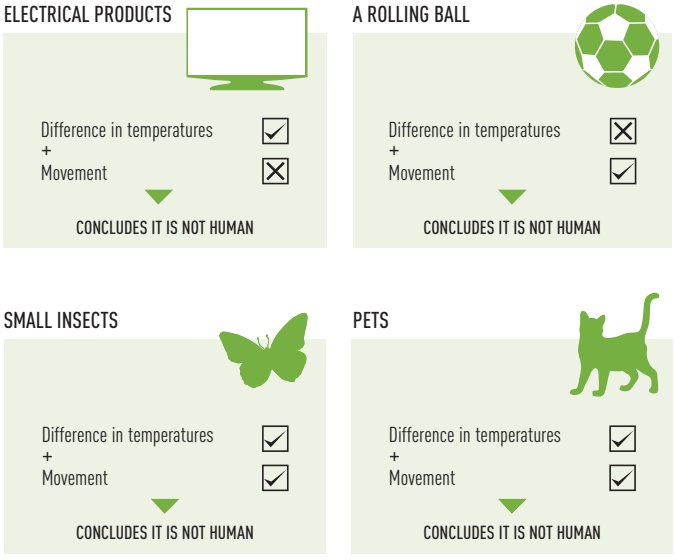
Human Activity Sensor
Detects human movements, changes in activity levels and human absence.

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



Differentiating objects

Econavi's sensor technology uses factors such as speed, frequency and temperature of every object to determine if it is human.



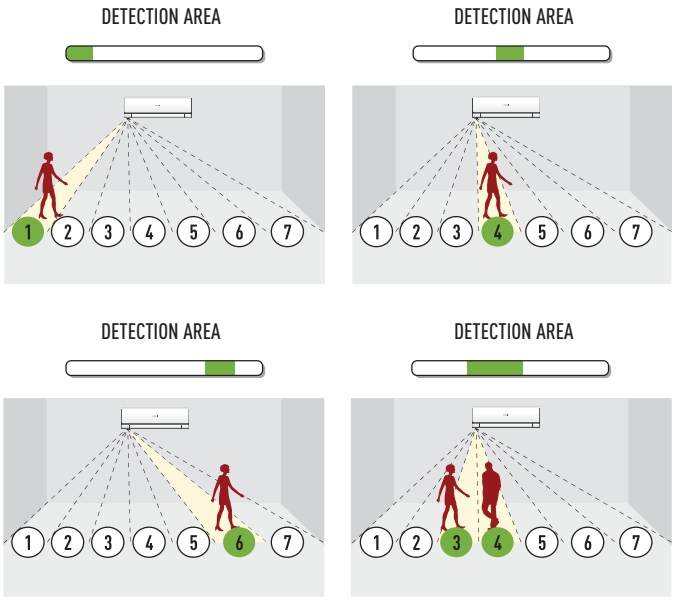
Both changes may be detected, but they are too small to have any effect on the sensor.

From the difference in temperatures and the nature of the object's movement, Econavi can determine if it's human*.

*The sensor may deem pets as humans, unless it moves within the detection zone at speeds that are not humanly possible.

Sensor detection principle

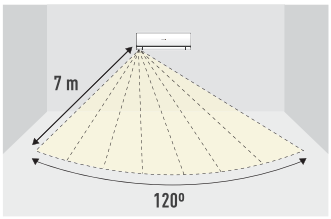
Human Activity Sensor detects human activity level and directs airflow to occupied or high activity zone. LED indicators show Econavi is detecting and functioning.



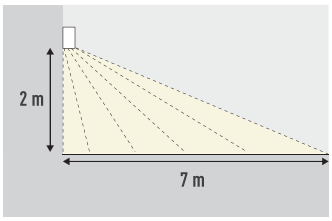
Coverage capabilities

Human Activity Sensor covers a wider area due to its improved area detection function. The entire room is divided into 7 detection areas. Applicable for dual sensor.

HORIZONTAL SENSING AREA



VERTICAL SENSING AREA



Autocomfort dual sensor provides comfort

Autocomfort dual sensor is used to provide comfort. High Activity Detection detects when the level of activity increases, and automatically increases cooling power by an amount equivalent to decreasing the set temperature by 1 °C to improve comfort.

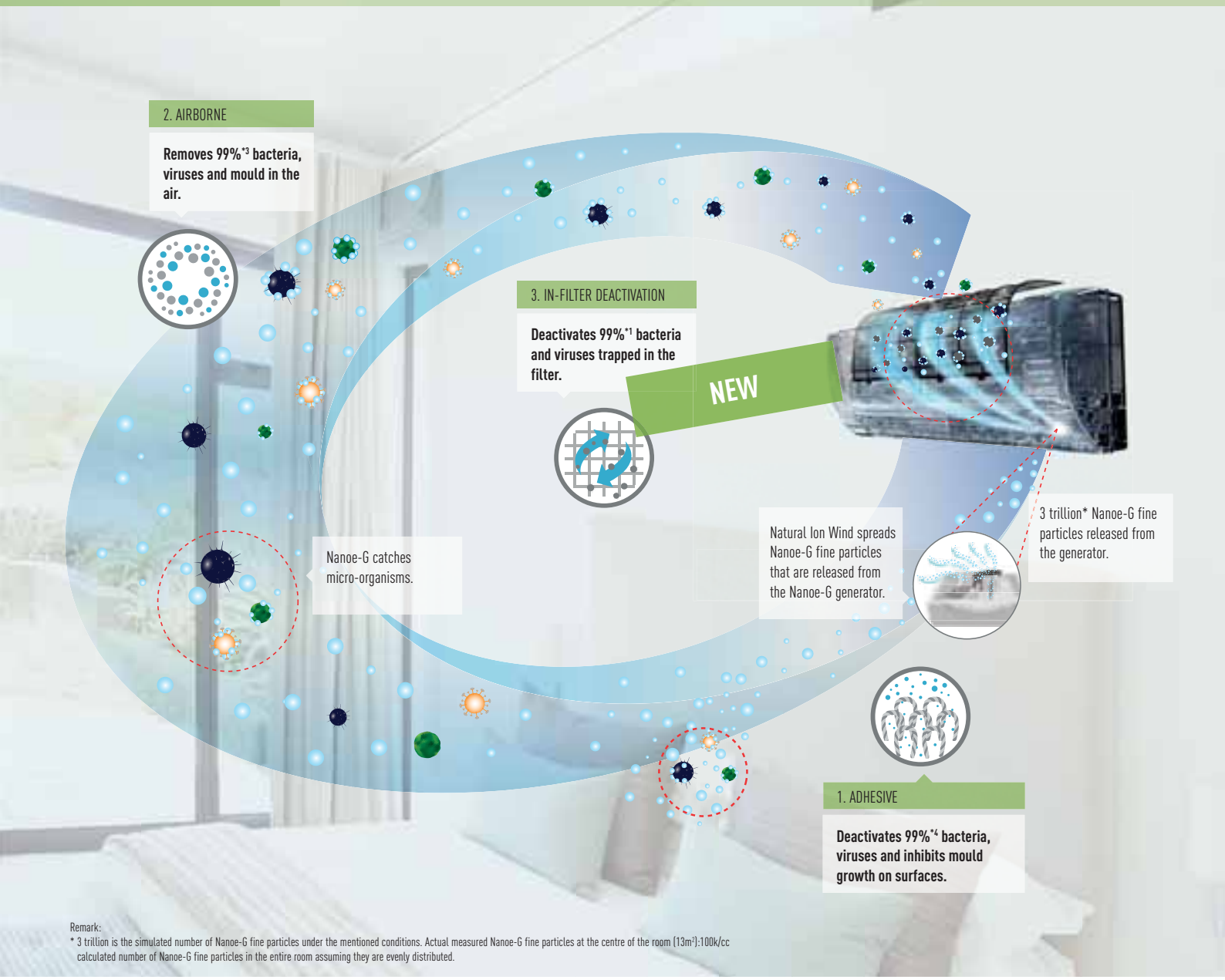
This is explained in the following scenario: High Activity Detection: Econavi High Activity Detection can detect changes in activity levels to adjust cooling power to improve comfort.

DETECT

Level of activity increased. Detects high activity.

IMPROVE COMFORT

Increases cooling power by an amount equivalent to decreasing the set temperature by 1 °C.



Remark:
* 3 trillion is the simulated number of Nanoe-G fine particles under the mentioned conditions. Actual measured Nanoe-G fine particles at the centre of the room (13m²):100k/cc calculated number of Nanoe-G fine particles in the entire room assuming they are evenly distributed.

Air purifier
99% removal
bacteria · virus · mold
nanoe-G

Purifies the air, surfaces and even inside itself

Now you can purify living spaces more effectively with Nanoe-G. Using nano-technology fine particles, harmful micro-organisms are removed from the air you breathe. But what about the ones found on furniture and other surfaces? Amazingly, they can also be deactivated by these particles. And now, when you switch off your air conditioner, Nanoe-G will even deactivate the micro-organisms in the filter. So you can enjoy complete peace-of-mind with a living environment that is fresher and cleaner.

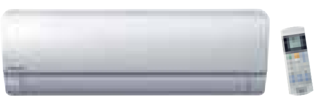
New Nanoe-G with In-filter Deactivation. Advanced air purification system for your home

Panasonic introduces an air purification system that captures harmful micro-organisms from the air, deactivates those trapped on surfaces and in the filter as well. It utilises nano-technology fine particles to purify the air and clean harmful micro-organisms attached onto fabrics in the room. And this year, it comes with a brand new feature that deactivates bacteria and viruses trapped in the filter. Thus, giving you the complete air purification system so you come home to a cleaner living environment.

	1. ADHESIVE	2. AIRBORNE	3. NEW IN-FILTER DEACTIVATION (NEW)
Bacteria	99% Deactivation	99% Removal	99% Deactivation
Viruses	99% Deactivation	99% Removal	99% Deactivation
Mould	Growth Inhibition	99% Removal	–

NEW How does our new in-filter deactivation work?

1. Power "Off"



The air-conditioner first has to be turned off.
Remark: Main power must be switched on for the entire duration.

2. Fan Operation

The fan operation will run automatically for 30 minutes with the louver slightly open to ensure the internal components are dry and free from condensation.
Remark: The 30-minute fan operation is only applicable when the unit has been operated in COOL /DRY mode.

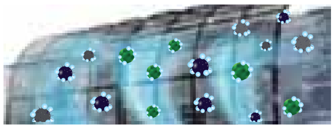
Fan Operation: On
Louver: Low Louver Angle
Nanoe-G LED: On

3. Nanoe-G Operation

Natural Ion Wind spreads Nanoe-G particles that are released from the Nanoe-G generator.

Fan Operation: Off
Louver: Closed
Nanoe-G LED: On

4. Deactivation Effect



Nanoe-G deactivates bacteria and viruses that are trapped in the filter within 2 hours.

Fan Operation: Off
Louver: Closed
Nanoe-G LED: On

Remark: Depending on the Air Conditioner's accumulated operation time, Nanoe-G In-Filter Deactivation may be activated only once a day.

The effectiveness of Nanoe-G NEW

Deactives 99%*1 Bacteria and viruses

Deactivates Average 90%*2 INFLUENZA (H1N1) 2009 VIRUS

IN-FILTER DEACTIVATION

Target Substance	Substance Name	Effectiveness	Testing Institute	Test Report no	Method	Result
Bacteria	Bacteria Staphylococcus aureus (NBRC 12732)	99%	Japan Food Research Laboratories	Test Report No. 12037932001	The test piece impregnated with Staphylococcus aureus was placed on the filter of the Air Conditioner indoor unit, and then nanoe-G was operated. After the test piece was collected, viable cells were counted.	99% deactivated after 2-hour nanoe-G operation.
Virus	Escherichia coli phage (øX-174 ATCC 13706-B1)	99%	Japan Food Research Laboratories	Test Report No. 12014705001	The test piece impregnated with Escherichia coli phage was placed on the filter of the Air Conditioner indoor unit, and then nanoe-G was operated. After the test piece was collected, phage infectivity titer was determined.	99% deactivated after 2-hour nanoe-G operation.
	Influenza (H1N1) 2009 virus	Average 90% on filter (The percentage varies from 78.9% to 96.1% depending on its location)	Kitasato Research Center for Environmental Science	KRCES-Virus Test Report No. 24_0013	The test piece impregnated with Influenza (H1N1) 2009 virus was placed on the filter of the Air Conditioner indoor unit, and then nanoe-G was operated. After the test piece was collected, virus infectivity titer was determined.	Average 90% deactivation after 2-hour nanoe-G operation. (The percentage varies from 78.9% to 96.1%, depending on its location on filter)

Remark: All results are based on specific testing conditions. All tests are not demonstrated under actual usage situation. * test substance was placed on the 4 locations of the filter; upper/lower right and upper/lower left.
*1 In-Filter Deactivation was certified by Japan Food Research Laboratories • Test Report number : 12037932001 Bacteria : Staphylococcus aureus (NBRC 12732) • Test Report number : 12014705001 Virus : Escherichia coli phage (-174 ATCC 13706-B1)
*2 In-Filter Deactivation was certified by Kitasato Research Center for Environmental Science • Test Report number : KRCES-Virus Test Report No. 24_0013 Virus : Influenza (H1N1) 2009 Virus

Testing institute: Kitasato research center for environmental science

Removes 99%*3 Bacteria, viruses and mould

AIRBORNE

Target Substance	Substance Name	Effectiveness	Test Report no	Method	Result
Bacteria	Staphylococcus aureus (NBRC 12732)	99%	KRCES-Bio. Test Report No. 23_0182	The AC with nanoe-G was operated in a test room (25m³) and aerosol was collected and bacterial count was calculated.	99% removal from the air after 150 minutes of operation.
Virus	Escherichia coli phage (øX-174 ATCC 13706-B1)	99%	KRCES-Env. Test Report No. 22_0008	The AC with nanoe-G was operated in a test room (25m3) and airborne phages were collected and phage count of the collected air was calculated.	99% removal from the air after 120 minutes of operation.
		99%	KRCES-Env. Test Report No. 22_0008	Nanoe-G was operated in a test chamber (200 Litre) and the phages were collected and phage count of the collected air was calculated.	99% removal from the air after 5 minutes of operation.
	Influenza (H1N1) 2009 virus	99%	KRCES-Env. Test Report No. 22_0008	nanoe-G was operated in a test chamber (200 Litre) and the influenza viruses were collected and the virus titers were calculated by the Reed and Muench method.	99% removal from the air after 5 minutes of operation.
	Penicillium pinophilum (NBRC 6345)	99%	KRCES-Bio. Test Report No. 23_0140	In view of health hazard associated with spatial distribution of Influenza (H1N1) 2009 virus, nanoe-G removal effectiveness cannot be tested in large test room (25m³). When tested in 200 Litre chamber, nanoe-G was able to decrease Influenza (H1N1) 2009 virus (99%) when it was operated for 5 minutes. Additionally when tested in larger test room (25m3), nanoe-G can remove 99.5% of Coli phage virus when operated for 120 minutes. It was validated that evaluation on the influenza virus could be speculated from the results on the phage according to the test results in a 200 Litre test chamber. It appeared that the air-conditioners in a larger test room (25m3) would be able to remove the influenza virus as effectively as the phage.	
Mould	Penicillium pinophilum (NBRC 6345)	99%	KRCES-Bio. Test Report No. 23_0140	The AC with nanoe-G was operated in a test room (25m³) and aerosol was collected and fungal spores count was calculated.	99% removal from the air after 90 minutes of operation.

Remark: All results are based on specific testing conditions. All tests are not demonstrated under actual usage situation.
*3 Airborne Removal was certified by Kitasato Research Center for Environmental Science • KRCES-Bio. Test Report no.: 23_0182 Bacteria: Staphylococcus aureus (NBRC 12732) • KRCES-Env. Test Report no.: 22_0008 Virus: Escherichia coli phage (øX-174 ATCC 13706-B1): Influenza (H1N1) 2009 virus • KRCES-Env. Test Report no.: 23_0140 Mould: Penicillium pinophilum (NBRC 6345)

Testing institute: Japan food research laboratories

Deactivates 99%*4 Bacteria and viruses

Inhibits mould growth

ADHESIVE

Target Substance	Substance Name	Effectiveness	Test Report no	Method	Result
Bacteria	Staphylococcus aureus (NBRC12732)	99%	Test Report No. 11047933001-02	The AC with nanoe-G was operated in a test space (10m3) and viable cells were counted by pour plate method	99% deactivation after 24 hour operation of nanoe-G . (compared to the original condition/ ventilation mode)
Virus	Bacteriophage (Phi X 174 NBRC103405)	99%	Test Report No. 11073649001-02	Nanoe-G was operated in a test box (90 Litre) and phage infectivity titer was determined by plaque technique.	99% deactivation after 120 minutes operation of nanoe-G . (compared to non-operation)
Mould	Cladosporium cladosporioides (NBRC 6348)	Inhibit Mould Growth	Test Report No. 11047937001-02	Nanoe-G was operated in a test box (1m³) and colonies on the plate were counted.	The growth of the subject was inhibited. (>85% after 7 days)

All results are based on specific testing conditions. All tests are not demonstrated under actual usage situation.
*4 Adhesive Deactivation was certified by Japan Food Research Laboratories • Test Report number: 11047933001-02 Bacteria: Staphylococcus aureus (NBRC 12732) • Test Report number: 11073649001-02 Virus: Bacteriophage (Phi X 174 NBRC 103405) • Test Report number: 11047937001-02 Mould : Cladosporium cladosporioides (NBRC 6348)

SEASONAL EFFICIENCY

PRODUCT FOLLOWS THE NEW ECODESIGN REQUIREMENTS

SCOP A+++

heatcharge

INTELLIGENT MICROPROCESSOR

DC INVERTER

Panasonic's new full line-up of A+++ heat pumps

In response to the Kyoto Protocol, the European Union set some challenging targets for the reduction in greenhouse-gas emissions. By the year 2020, across the member states, the EU wants to have achieved the following objectives:

- a 20% cut in greenhouse gas emissions (from 1990 base levels)
- the share of renewables in the energy mix to increase by 20%
- an overall reduction of 20% in energy consumption.

The new Heatcharge heating power and efficiency

- Energy Charge System. Heat storage unit which features Non-Stop heating and fast heating function
- Maximum efficiency and comfort with Econavi sunlight detection
- Nanoe-G air purifying system
- More powerful airflow to quickly reach the desired temperature

Powerful, reliable heating even at low ambient winter temperatures

When the air conditioner is operating, the compressor, which is the power source of the unit, generates heat. Until now, this heat was released into the atmosphere. Panasonic focused on this waste heat!
Heatcharge is a unique, innovative Panasonic technology that stores this waste heat in the compressor and effectively uses it as heating energy. This lets you enjoy a new level of air conditioner heating power and efficiency.

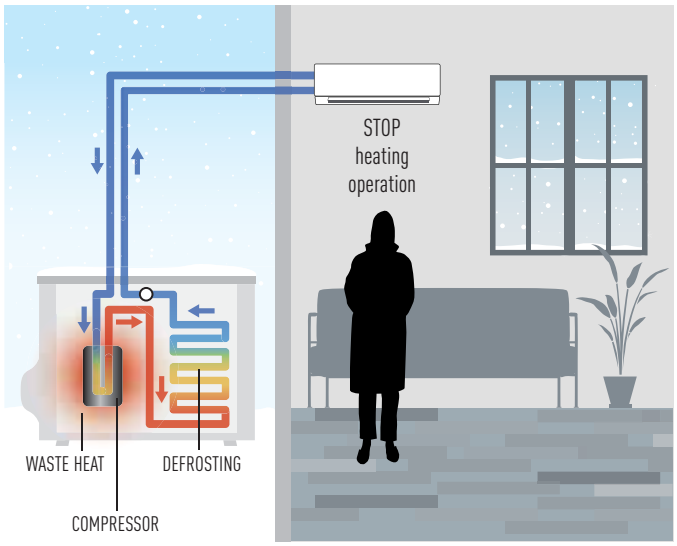
Constant heating

HEATCHARGE

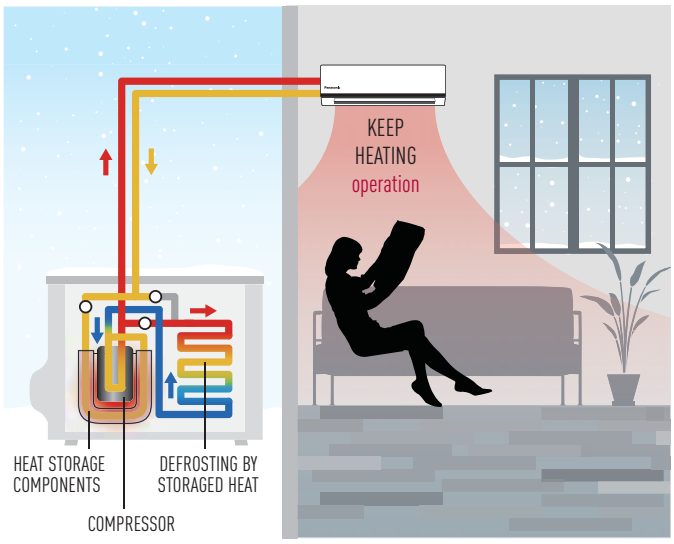
Constant heating

Using stored heat provides stable heating with less drop in temperature Even when heating operation stops during defrost operation, stored heat continues to constantly warm the room. This eliminates the previous discomfort due to the temperature dropping when heating temporarily stops to ensure stable air conditioner heating.

You can check the charge level with the remote control Press the Information button and the level is displayed in five stages (from 0 to 4)



CONVENTIONAL THE ROOM GRADUALLY BECOMES COLD
DEFROST OPERATION: About **11** to **15** min.
FALL IN ROOM TEMPERATURE: About **5** to **6** °C

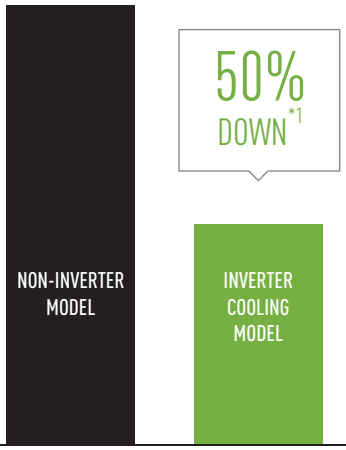


HEATCHARGE THE ROOM IS THOROUGHLY WARMED
DEFROST OPERATION: About **5** to **6** min.
FALL IN ROOM TEMPERATURE: About **1** to **2** °C

* Defrost operation time and how low room temperature falls differ depending on the environment in which the unit is being used (how insulated and airtight and room is), operation conditions, and temperature conditions.
* Output air temperature falls during defrost operation. How low room temperature falls differs depending on the environment in which the unit is being used (how insulated and airtight and room is), operation conditions, and temperature conditions.
* In environments where a lot of frost accumulates, heating may stop during defrost operation.

INVERTER

ELECTRICITY CONSUMPTION COMPARISON



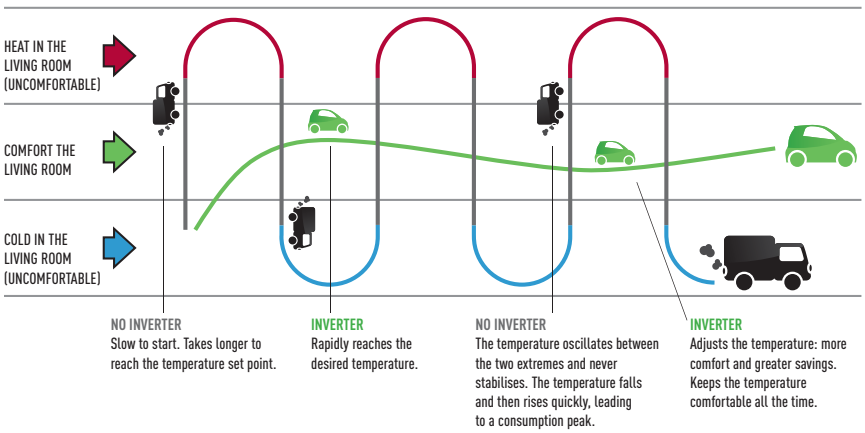
DURING COOLING UP TO 50 %*1 ENERGY SAVINGS
*1 Comparison of 1.5HP Inverter model and 1.5HP Non-Inverter model (Cooling) Outside temperature: 35°C/24°C, Remote setting temperature: 25°C with Fan speed (High) Vertical Airflow direction: Auto, Horizontal Airflow direction: Front. Total power consumption amount are measured for 8 hours from starting. At Panasonic Amenity Room (size: 16.6m²) This is the maximum energy savings value, and the effect differs according to conditions in installation and usage.

Inverter technology. The secret is flexibility

Panasonic Inverter air conditioners have the flexibility to vary the rotation speed of the compressor. This allows it to use less energy to maintain the set temperature while also being able to cool the room quicker at start up.
So you can enjoy better savings on your electricity bills while maintaining cooling comfort

Exceptional energy-saving performance. Reduces Electricity Consumption
Panasonic Inverter air conditioners are designed to give you exceptional energy savings and performance, whilst also ensuring you stay comfortable at all times. At the start up of an air conditioner's operation, powerful operation is required to reach the set temperature. After the set temperature is reached, less power is required to maintain it. A conventional non-Inverter air conditioner can only operate at a constant speed which is too powerful to maintain the set temperature. Thus, in attempting to achieve this, it switches the compressor ON and OFF repeatedly. This results in wider temperature fluctuations leading to wasteful consumption of energy. The Panasonic Inverter air conditioner varies the rotation speed of the compressor. This provides a highly precise method of maintaining the set temperature. Unlike a conventional non-Inverter air conditioner which consumes a lot of energy, Panasonic Inverter air conditioner reduces wasteful operation - giving you energy savings of up to 50%*1 on cooling mode.

The advantages of inverter air conditioners. Comparing Inverter and non-Inverter air conditioners.

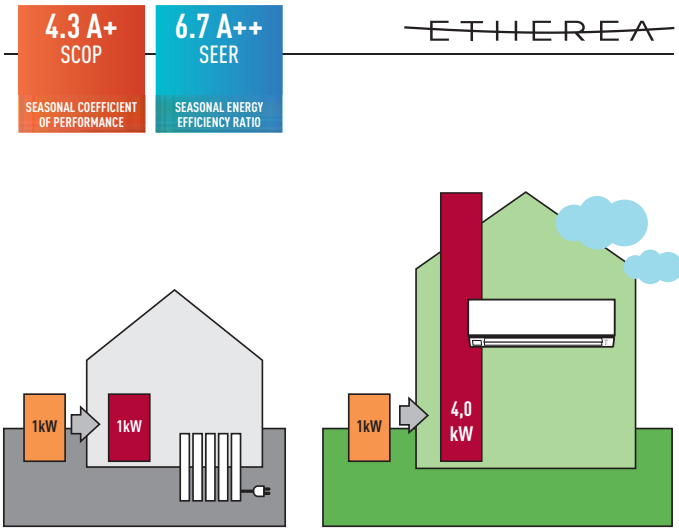


SEASONAL EFFICIENCY

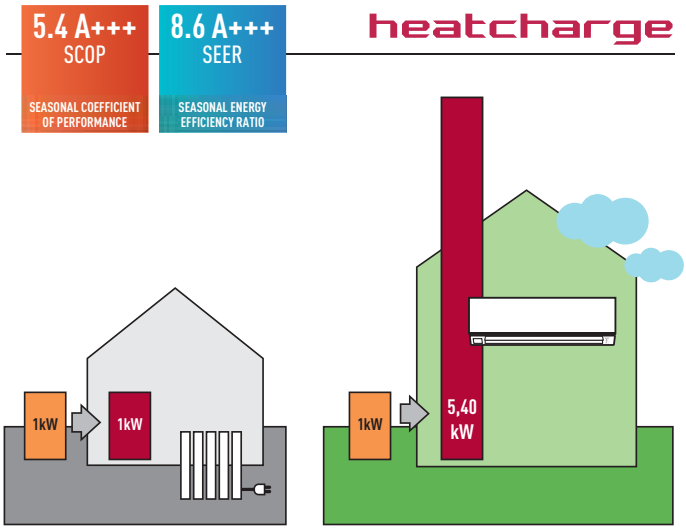
PRODUCT FOLLOWS THE NEW ECODESIGN REQUIREMENTS

Economical, environment-friendly operation high SCOP (Seasonal Coefficiency of Performance)

Original Panasonic Inverter technology and a high performance compressor provide top-class operating efficiency. This lets you enjoy lower electricity bills while contributing to environmental protection.



* SCOP On heating mode, XE/E9-PKE compared with electrical heaters at +7°C



* SCOP On heating mode for VE9-NKE compared with electrical heaters at +7°C

Seasonal Efficiency: New Energy Efficiency Label

From January 2013, the energy performance calculation for air conditioning systems will change from an overall EU based standard of EER and COP to a new standard based on seasonal efficiencies of SEER and SCOP. These changes to the Energy Related Products Directive or ErP are designed to give consumers a better understanding of the real efficiency of air conditioning and heat pump systems whose nominal power rating does not exceed 12 Kw. Undergoing gradual implementation from 1 January 2013 until 1 January 2019, the schedule for each product category is as follows:

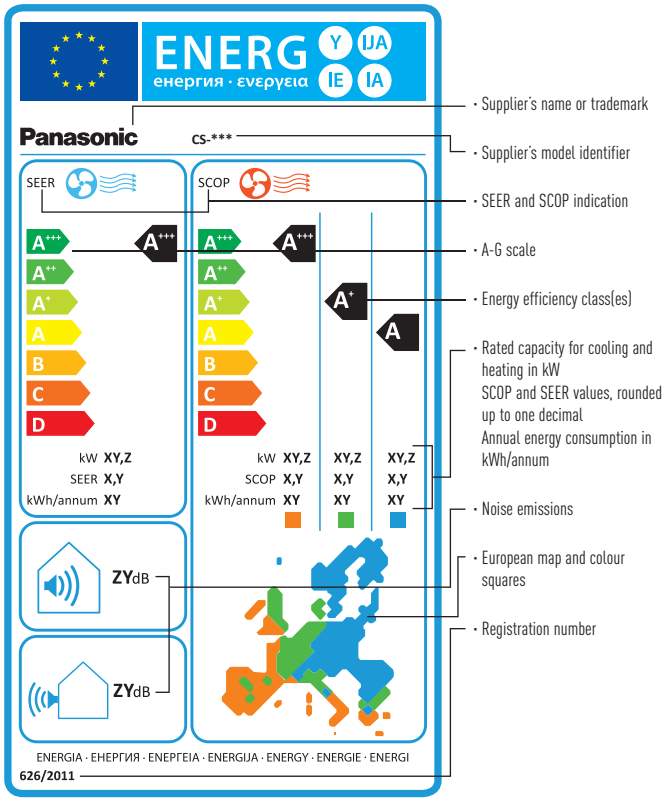
01 January 2013: A+++, A++, A+, A, B, C, D, E, F and G.
01 January 2015: A+++, A++, A+, A, B, C, D, E and F.
01 January 2017: A+++, A++, A+, A, B, C, D and E.
01 January 2019: A+++, A++, A+, A, B, C and D.

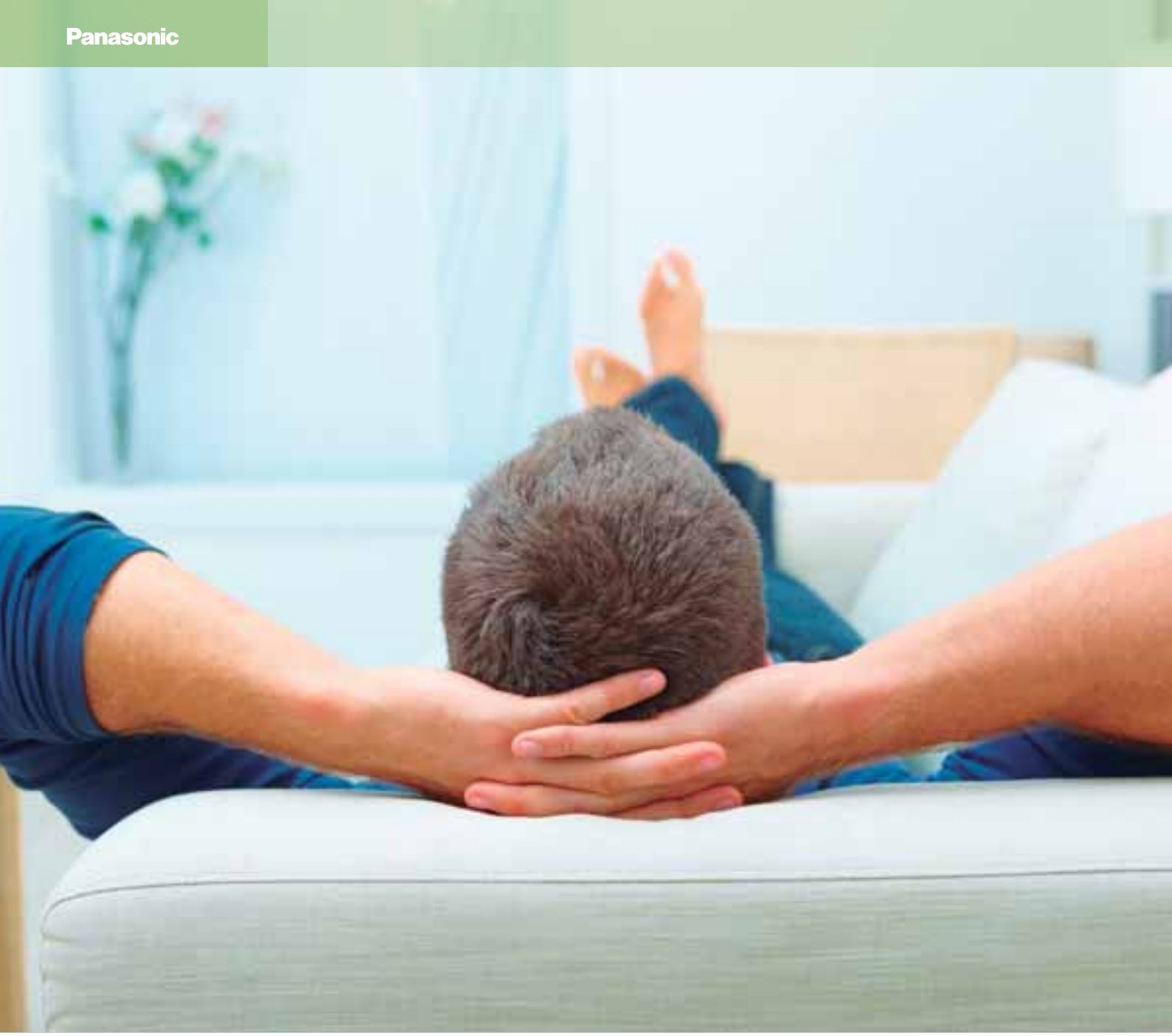
Seasonal Energy Efficiency Ratio (SEER) – This is the overall energy efficiency ratio of the unit, representative of the entire cooling season. It is calculated as the annual cooling demand divided by the annual consumption of electricity for cooling.

Seasonal Coefficient of Performance (SCOP) - This is the overall coefficient of performance of the unit, representative of the entire heating season designated (the value of SCOP corresponds to a determined heating season). It is calculated by dividing the reference annual heating demand by the annual consumption of electricity for heating.

SEER	
A+++	SEER ≥ 8.50
A++	6.10 ≤ SEER < 8.50
A+	5.60 ≤ SEER < 6.10
A	5.10 ≤ SEER < 5.60
B	4.60 ≤ SEER < 5.10
C	4.10 ≤ SEER < 4.60
D	3.60 ≤ SEER < 4.10
E	3.10 ≤ SEER < 3.60
F	2.60 ≤ SEER < 3.10
G	SEER < 2.60

SCOP	
A+++	SCOP ≥ 5.10
A++	4.60 ≤ SCOP < 5.10
A+	4.00 ≤ SCOP < 4.60
A	3.40 ≤ SCOP < 4.00
B	3.10 ≤ SCOP < 3.40
C	2.80 ≤ SCOP < 3.10
D	2.50 ≤ SCOP < 2.80
E	2.20 ≤ SCOP < 2.50
F	1.90 ≤ SCOP < 2.20
G	SCOP < 1.90





Silent air
20 dB
SUPER QUIET

Panasonic technology for comfort

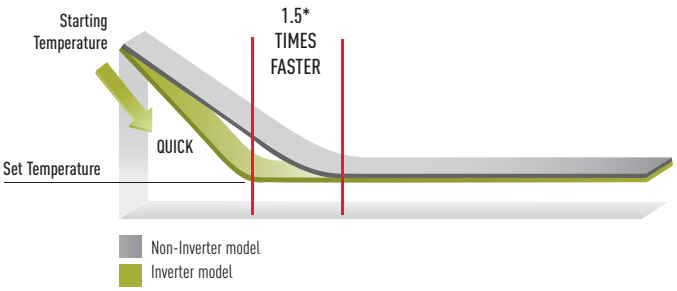
Extremely quiet. We have succeeded in making one of the most silent air conditioners on the market.
Panasonic Inverter air conditioner's indoor operating noise has been reduced by 3dB as the Inverter constantly varies its output power to enable more precise temperature control. In comparison, a non-Inverter air conditioner controls the temperature by switching on and off. Each time the air conditioner is switched on, it draws more energy to cool the room subsequently leading to more vibration and higher noise levels.

Other advantages of inverter air conditioners

Quick Comfort

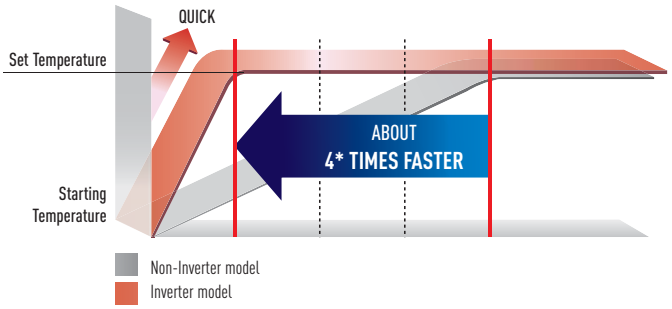
Panasonic Inverter air conditioners can operate with higher power during the start up period to cool the room 1.5 times faster and heat the room 4 times faster than non-Inverter models.

COMPARISON OF COOLING SPEED



* 1.5HP Inverter vs. non-Inverter. Outside room temperature: 35˚C; setting temperature: 25˚C

COMPARISON OF HEATING SPEED



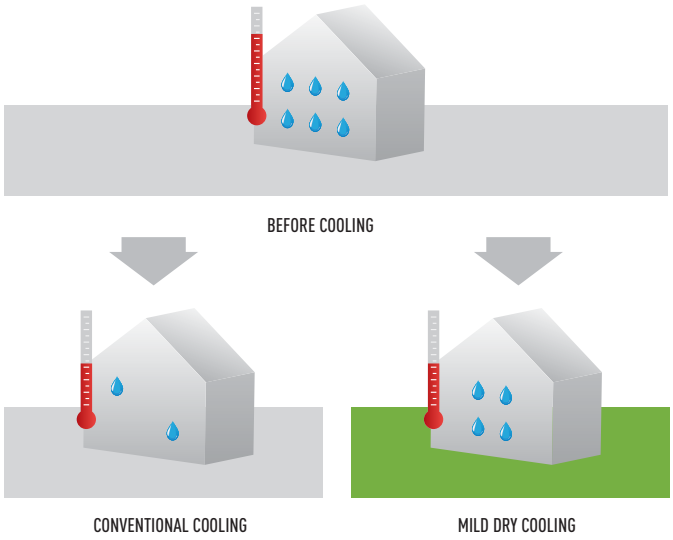
* Comparison of 1.0HP Inverter and Non-Inverter. Outside room temperature: 2˚C ; Setting temperature: 25˚C

Perfect humidity control

MILD DRY

Mild Dry Cooling

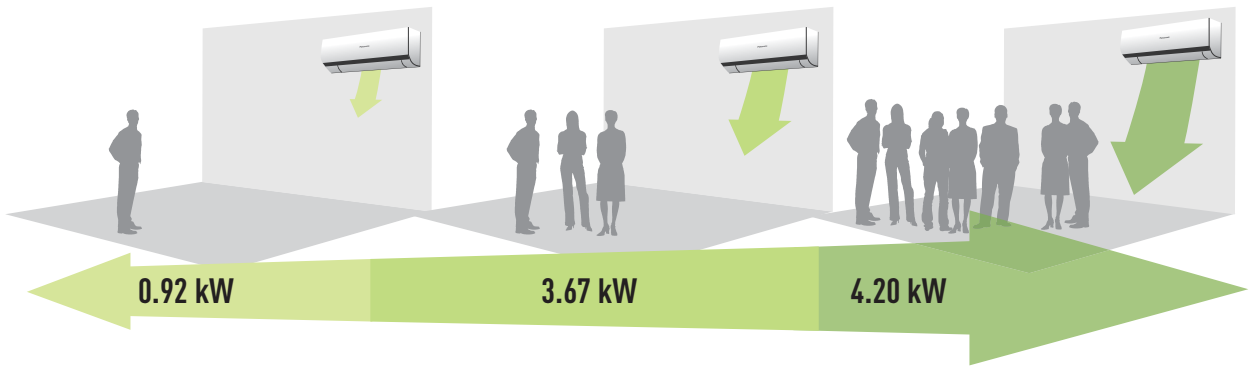
Mild dry cooling maintains a higher level of relative humidity of up to 10% compared to regular cooling operation. This helps to reduce skin dryness - and a dry throat.



Lowers room temperature while maintaining high humidity

Constant Comfort

Precise temperature control with a wide power output range enables an inverter air conditioner to meet different room occupancy levels – thus ensuring constant comfort.



Graph shows the 1.5HP Inverter model's wide power output range during cooling./ Graph shows the 1.5Hp Inverter model's wide power output range during cooling.

Minimum Power
Compressor rotation speed: SLOW
When not required, the unit operates at low power to save energy.

Medium Power
Normal Condition

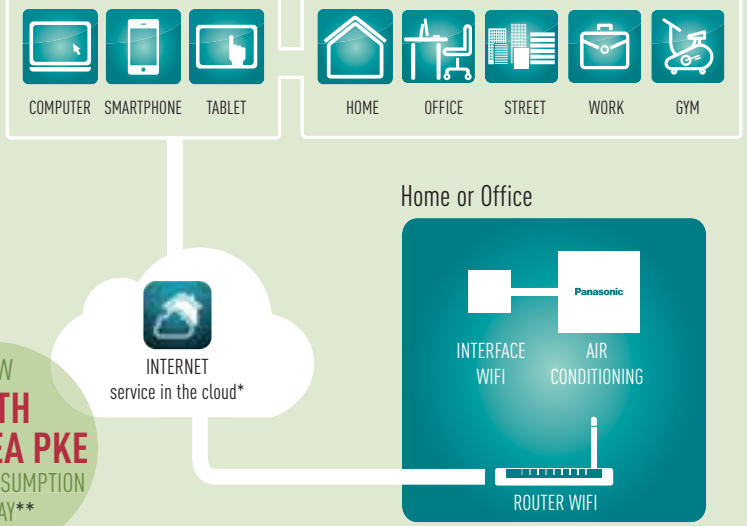
Maximum Power
Compressor rotation speed: HIGH
When required, the unit operates at full power.

Control your air conditioning from wherever you are at home. Control your comfort and efficiency with the lowest energy consumption

Reference: PA-AC-wifi-1

NEW

Take control from wherever you are!



NEW
WITH ETHEREA PKE
ENERGY CONSUMPTION DISPLAY**

* Functionalities depend on the license. The information indicated above is subject to changes and updates.
**Available from April 2013

What's Internet Control?

Internet Control is a next generation system providing a user-friendly remote control of air conditioning or heat pump units from everywhere, using a simple Android or iOS smartphone, tablet or PC via internet.

Simple Installation

Just connect the Internet Control device to the air conditioner or heat pump with the supplied wire and then link it to your WIFI Access point.

Internet Control. Easy to install. Maximum benefit

Internet Control is underlined with the slogan "Your home in the cloud", meaning a simple and easy to handle solution has been considered for every user to manage the device, not requiring any communication or computer skills.

No servers. No adaptors. No wires. Just a small box is needed to be connected and placed close to the air conditioning indoor unit... and your smartphone, tablet or PC.

Your existing WiFi connection does the rest when you are at home. Start the App from your smartphone device, your tablet or your computer, and enjoy a new experience in comfort. And if you are out of home, just launch the App, and manage the air conditioning of your home from the cloud. An intuitive and user-friendly application on the screen of your smartphone or PC that lets you manage the air conditioning unit in the same way you do with the remote controller at home.

Internet Control can be downloaded in Apple's AppStore and Android's PlayStore.

Control your air conditioning with the smart internet control device via smartphones, tablet, PC and smart desktop phone via internet

Offering the same functions as if you were at home or office: start/stop, Mode Operation, Set Temperature, Room Temperature etc as well as the new, advanced functionality provided by Internet Control to achieve the best comfort and efficiency with the lowest energy consumption.

Study Case. James, architect

"As an architect, I'm proud of my home. Unfortunately, the pace of my life revolves around airports on all five continents.

Because of this, whenever I get the chance to enjoy even just a few days at home, I programme my Panasonic Multi Split System to my tablet and from wherever I happen to be, I can enjoy the comforts that the system gives me from the minute I arrive home."

Connectivity: Great flexibility for integration into your KNX / EnOcean / Modbus projects allows fully bi-directional monitoring and control of all the functioning parameters

Easy control by BMS
CONNECTIVITY

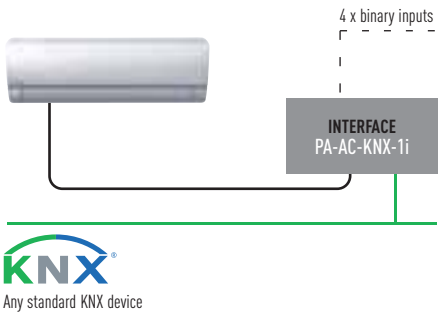
The interface has been designed specifically for Panasonic and provides complete monitoring, control and full functionality of the entire Aquarea line-up from KNX, EnOcean and Modbus installations.
This connectivity solution is made by a third party company, please contact Panasonic for more information.

KNX enocean alliance No Wires. No Batteries. No Limits. Modbus®

KNX

Interface to connect Etherea to KNX
References: PA-AC-KNX-1i
This new Etherea-KNX interface allows full bi-directional monitoring and control of all the functioning parameters of Etherea control from KNX installations. Small dimensions.

- Quick installation and possibility of hidden installation.
- External power not required.
- Direct connection to the AC indoor unit (split unit or Multi split unit)
- Fully KNX compatible. Control and monitoring, from sensors or gateways, of the internal variables of the indoor unit and error codes and indication.
- Use the air conditioner ambient temperature or the one measured by a KNX temperature sensor or Thermostat.
- AC unit can be controlled simultaneously by the remote control of the AC unit and by KNX devices.
- Advanced control functions: use it as a room controller.
- 4 binary inputs. They work as standard KNX binary inputs as well as being used to control the AC directly.

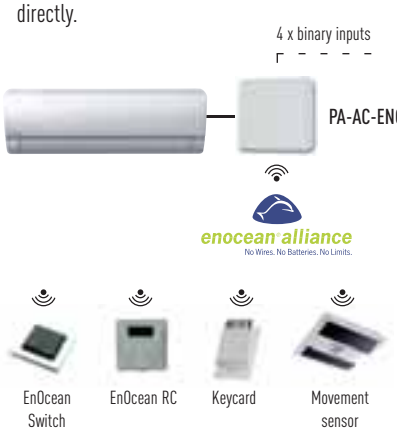


enocean alliance

No Wires. No Batteries. No Limits.

Interface to connect Etherea to En-ocean
References: PA-AC-ENO-1i
This new Etherea-EnOcean interface allows monitoring and control, fully bi-directionally, all the functioning parameters of the Etherea control from EnOcean installations. Small dimensions.

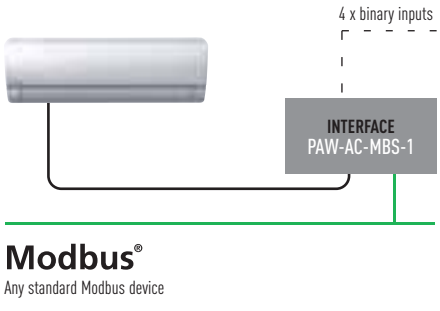
- Quick installation and possibility of hidden installation.
- External power not required.
- Direct connection to the AC indoor unit (split unit).
- Fully EnOcean compatible. Control and monitoring, from sensors or gateways, of the internal variables of the indoor unit and error codes and indication.
- Use the air conditioner ambient temperature or the one measured by an EnOcean temperature sensor or Thermostat.
- AC unit can be controlled simultaneously by the remote control of the AC unit and by EnOcean devices.
- Advanced control functions: use it as a room controller.
- 4 binary inputs. They work as standard EnOcean binary inputs as well as being used to control the AC directly.



Modbus®

Interface to connect Etherea to Modbus
References: PAW-AC-MBS-1
This new Etherea-Modbus interface allows full bi-directional monitoring and control of all the functioning parameters of Etherea control from Modbus installations. Small dimensions.

- Quick installation and possibility of hidden installation.
- External power not required.
- Direct connection to the AC indoor unit (split unit or Multi split unit)
- Fully Modbus compatible. Control and monitoring, from sensors or gateways, of the internal variables of the indoor unit and error codes and indication.
- Use the air conditioner ambient temperature or the one measured by a Modbus temperature sensor or Thermostat.
- AC unit can be controlled simultaneously by the remote control of the AC unit and by Modbus devices.
- Advanced control functions: use it as a room controller.
- 4 binary inputs. They work as standard Modbus binary inputs as well as being used to control the AC directly.



Domestic Air Conditioner Range

Indoor Units 1 X 1 and Multi split	2.2 kW	2.8 kW	3.2 kW
Wall Mounted VE Inverter+ Energy Charge System NEW		 KIT-VE9-NKE	 KIT-VE12-NKE
Wall Mounted Etherea Inverter+ Silver NEW	 KIT-XE7-PKE	 KIT-XE9-PKE	 KIT-XE12-PKE
Wall Mounted Etherea Inverter+ White NEW	 KIT-E7-PKE	 KIT-E9-PKE	 KIT-E12-PKE
Wall Mounted RE Type Standard Inverter NEW		 KIT-RE9-PKE	 KIT-RE12-PKE
Wall Mounted RE-3 Type Standard Inverter NEW		 KIT-RE9-PKE-3	 KIT-RE12-PKE-3
Wall Mounted Professional Inverter -15 °C NEW		 KIT-E9-PKEA	 KIT-E12-PKEA
Floor Console Type Inverter+ NEW		 KIT-E9-PFE	 KIT-E12-PFE
4-Way 60x60 Cassette Standard Inverter NEW		 KIT-E9-PB4EA KIT-E10-KB4EA	 KIT-E12-PB4EA
Low Static Pressure Hide Away Standard Inverter NEW		 KIT-E9-PD3EA / KIT-E10-KD3EA	 KIT-E12-PD3EA
2x1 Wall Mounted MRE Standard Inverter NEW			
Etherea Multi Split 2x1 Inverter+ NEW			
Etherea Multi Split 3x1 Inverter+ NEW			
Etherea Multi Split 4x1 Inverter+ NEW			

Free Multi	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	1.6 to 14.5 kW
						
Outdoor Unit //Inverter+	CU-2E15PBE (2 rooms)	CU-2E18PBE (2 rooms)	CU-3E18PBE (3 rooms)	CU-4E23PBE (4 rooms)	CU-4E27PBE (4 rooms)	CU-5E34PBE (5 rooms)

4.5 kW	5.0 kW	6.0 kW	6.5 kW	8.0 kW
 KIT-XE15-PKE	 KIT-XE18-PKE	 KIT-XE21-PKE		
 KIT-E15-PKE	 KIT-E18-PKE	 KIT-E21-PKE	 KIT-E24-PKE	 KIT-E28-PKE
 KIT-RE15-PKE				
 KIT-RE15-PKE-3	 KIT-RE18-PKE-3		 KIT-RE24-PKE-3	
 KIT-E15-PKEA	 KIT-E18-PKEA			
	 KIT-E18-PFE			
 KIT-E15-HB4EA	 KIT-E18-HB4EA	 KIT-E21-JB4EA		
 KIT-E15-JD3EA	 KIT-E18-JD3EA			
 KIT-2MRE77-MBE/MKE // KIT-2MRE79-MBE/MKE // KIT-2MRE712-MBE/MKE	 KIT-2MRE912-MBE // KIT-2MRE99-MKE // KIT-2MRE912-MKE // KIT-2MRE1212-MKE			
 KIT-2XE/E77-PBE // KIT-2XE/E79-PBE // KIT-2XE/E712-PBE // KIT-2XE/E99-PBE	 KIT-2XE/E99-PKE // KIT-2XE/E912-PKE // KIT-2XE/E1212-PKE			
		 KIT-3XE/E7712-PBE // KIT-3XE/E7715-PBE		
				 KIT-4XE/E77712 / 4XE/E77715-PBE // KIT-4XE/E77712 / 4XE/E77715-PKE

Feature Explanations

Healthy Air Quality

Nanoe-G
Nanoe-G utilises nano-technology fine particles to purify the air in the room. It works effectively on airborne and adhesive micro-organisms such as bacteria, viruses and mould thus ensuring a cleaner living environment.

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.

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.

Anti Bacterial Filter
The Anti Bacterial 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.

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.

Econavi
The sensor determines the human activity level and the position in the room and adjust the air flow orientation for maximum comfort and maximum savings.

Econavi Sunlight Detection
Detects changes in sunlight intensity and judges whether it is sunny or cloudy/night. It reduces the waste of heating under more sunlight conditions.

Autocomfort
Detects conditions in the room and switches to energy saving operation when nobody is on the room. However, priority is given to comfort, so cooling power is increased when there's a lot of human activity.

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 -10°C in cooling only mode
The air conditioner works in cooling only mode with an outdoor temperature of -10°C.

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

Down to -25°C in heating mode
The air conditioner works in heat pump mode with an outdoor temperature as low as -25°C.

Heatcharge
This innovative, newly developed technology charges heat and uses it for heating. Thanks to this system, you can enjoy incredibly powerful, comfortable air conditioner heating.

Summer House
This innovative technology charges heat and uses it for heating. You can enjoy incredibly powerful, comfortable air conditioner heating.

Easy control by BMS
The communication port is integrated into the indoor unit and provides easy connection to, and control of, your Panasonic heat pump to your home or building management system.

Powerful Mode
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.The flow can also be set a fixed angle with the remote control.

Manual Horizontal Airflow Control

Auto Mode (Inverter)
Automatically changes from cooling to heating depending on the set temperature for 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
Indicates the maximum length of pipe between the outdoor unit and the indoor unit(s). The distances permitted, demonstrate the 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.
Panasonic guarantees the compressors in the entire range for five years.

Feature Comparison

	MODELS	WALL MOUNTED VE INVERTER+ ENERGY CHARGE SYSTEM	WALL MOUNTED ETHEREA INVERTER+ SILVER	WALL MOUNTED ETHEREA INVERTER+ WHITE	WALL MOUNTED RE TYPE STANDARD INVERTER	WALL MOUNTED RE-3 TYPE STANDARD INVERTER	WALL MOUNTED PROFESSIONAL INVERTER -15 °C	FLOOR CONSOLE TYPE INVERTER+	4-WAY 60x60 CASSETTE INVERTER	LOW STATIC PRESSURE HIDE AWAY INVERTER	2x1 WALL MOUNTED MRE TYPE STANDARD INVERTER	ETHEREA MULTI SPLIT 2X1 INVERTER+	ETHEREA MULTI SPLIT 3X1 INVERTER+	ETHEREA MULTI SPLIT 4X1 INVERTER+
Healthy Air Quality	Nanoe-G air purifying system	✔	✔	✔								✔	✔	✔
	Mild Dry Cooling		✔	✔										
	Ion Benefit													
	Anti Bacterial Filter				✔ 10 years				✔ Optional		✔			
	One-Touch anti-mould air filter				✔	✔		✔	✔					
	Odour-removing function	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Removable, washable panel	✔	✔	✔	✔	✔	✔	✔			✔	✔	✔	✔
Comfort	Inverter+ system	✔	✔	✔				✔				✔	✔	✔
	Inverter system				✔	✔	✔		✔	✔	✔			
	Econavi		✔	✔								✔	✔	✔
	Econavi Sunlight Detection	✔												
	Autocomfort		✔	✔								✔	✔	✔
	Super Quiet mode	✔	✔ For XE7, XE9 and XE12	✔ For E7, E9 and E12	✔ For RE9, RE12 and RE15	✔ For RE9, RE12 and RE15								
	Down to -10°C in cooling only	✔ -10 °C	✔ -10 °C	✔ -10 °C		✔ -10 °C	✔ -10 °C		✔ -10 °C	✔ -10 °C		✔ -10 °C	✔ -10 °C	✔ -10 °C
	Down to -15°C in heating mode		✔ -15 °C	✔ -15 °C	✔ -10 °C	✔ -15 °C	✔ -15 °C	✔ -15 °C	✔ -10 °C	✔ -10 °C	✔ -10 °C	✔ -15 °C	✔ -15 °C	✔ -15 °C
	Down to -25°C in heating mode	✔												
	Heatcharge	✔												
	Summer House	✔												
	Easy control by BMS	✔	✔	✔			✔		✔	✔	✔	✔	✔	✔
	Powerful mode	✔	✔	✔	✔ For RE9, RE12 and RE15	✔ For RE9, RE12 and RE15	✔	✔	✔	✔		✔	✔	✔
	Soft dry operation mode	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Wide & long airflow vane	✔									✔			
	Personal airflow creation	✔	✔	✔		✔ For RE18 and RE24								
	Automatic vertical airflow control	✔	✔	✔	✔ For RE9, RE12 and RE15	✔ For RE9, RE12 and RE15		✔	✔		✔	✔	✔	✔
	Manual horizontal airflow control	✔	✔ For XE7, XE9, XE12 and XE15	✔ For E7, E9, E12 and E15	✔ For RE9, RE12 and RE15	✔ For RE9, RE12 and RE15		✔			✔	✔	✔	✔
	AUTO mode (Inverter)	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Simple Auto Changeover	✔	✔	✔	✔	✔								
	Hot start mode	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Use	12-hour ON&OFF timer				✔ For RE9, RE12 and RE15	✔ For RE9, RE12 and RE15								
	Real time clock with dual ON&OFF timer	✔	✔	✔			✔					✔	✔	✔
	Real time clock with single ON&OFF timer					✔ For RE18 and RE24		✔	✔	✔	✔			
	LCD Wireless remote controller	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔
Reliability	Automatic restart	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Long piping	✔ 15 m	✔ 15 m (XE7-15) 20 m (XE18-21)	✔ 15 m (E7-15) 20 m (E18-21) 30 m (E24-28)	✔ 15 m (RE9-15)	✔ 15 m (RE9-15) 20 m (RE18) 30 m (RE24)	✔ 15 m (E9-15) 20 m (E18)	✔ 15 m (E9-12) 20 m (E18)	✔ 20 m	✔ 20 m	✔ Max. 30 m	✔ Max. 30 m	✔ Max. 50 m	✔ Max. 70 m
	Top-Panel maintenance access	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Self-diagnosis function	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
	Warranty on the compressor	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

WALL MOUNTED VE
INVERTER+
ENERGY CHARGE SYSTEM

The new Heatcharge from Panasonic has the capacity to store heat on the outdoor unit which allows to start heating to start quickly just after turning on the heat pump. It also ensures a maximum comfort and heat in the house even during defrost operation as Heat charge also stores heat to prevent cool air during defrost.

ECONAVI builds-in a new Sunlight Detection technology to adjust output ideally thereby giving you the best comfort at anytime whilst saving energy.
Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould.

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-VE9-NKE.

Max Capacity			**7.70 kW**	**8.40 kW**
Kit			**KIT-VE9-NKE**	**KIT-VE12-NKE**
Indoor			**CS-VE9NKE**	**CS-VE12NKE**
Outdoor			**CU-VE9NKE**	**CU-VE12NKE**
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.60 - 3.00)	3.50 (0.60 - 4.00)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**5.15 A**	**3.98 A**
SEER	**Nominal**	**Energy Saving**	**8.60 A+++**	**8.50 A+++**
Pdesign (cooling)			2.5	3.5
Power input Cooling	Nominal (Min - Max)	kW	0.48 (0.14 - 0.79)	0.88 (0.14 - 1.10)
Annual Energy Consumption (Cooling) [2]		kWh	102	145
Heating capacity	Nominal (Min - Max)	kW	3.20 (0.60 - 7.70)	4.20 (0.60 - 8.40)
Heating capacity at -7 °C	Nominal	kW	3.2	5.60
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**5.47 A**	**4.91 A**
SCOP	**Nominal**	**Energy Saving**	**5.40 A+++**	**5.10 A+++**
Pdesign at -10 °C		kW	3.2	4.2
Power input Heating	Nominal (Min - Max)	kW	0.58 (0.14 - 2.72)	0.85 (0.14 - 3.16)
Annual Energy Consumption (Heating) [2]		kWh	830	1153
Indoor Unit				
Air Volume	Cooling / Heating	m^3/h	600 / 600	654 / 618
Moisture removal volume		l/h	1.5	2.0
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	44 / 26 / 23	45 / 29 / 26
	Heating (Hi / Lo / S-Lo)	dB(A)	44 / 27 / 24	45 / 33 / 30
Sound power Level	Cooling / Heating (Hi)	dB	59 / 59	60 / 60
Dimensions	H x W x D	mm	295 x 890 x 275	295 x 890 x 275
Net weight		kg	14.5	14.5
Air purifier filter			Nanoe-G	Nanoe-G
Outdoor Unit				
Power source		V	230	230
Recommended Fuse		A		
Recommended power cable section		mm^2		
Connection		mm^2	4 x 1.5	4 x 1.5
Nominal Current	Cooling / Heating	A	2.2 / 2.7	3.9 / 3.8
Max. current		A	14.0	15.0
Air Volume	Cooling / Heating	m^3/h	1.980 / 1.890	2.052 / 1.890
Sound pressure Level [3]	Cooling (Hi)	dB(A)	49	50
	Heating (Hi)	dB(A)	49	50
Sound power Level	Cooling / Heating (Hi)	dB	64 / 64	65 / 65
Dimensions [4]	H x W x D	mm	623 x 799 x 299	623 x 799 x 299
Net weight		kg	43	43
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)
Refrigerant Loading	R410A (GWP value)	kg	1.50	1.50
Elevation difference (in/out) [5]	Max	m	5	5
Piping length	Min / Max	m	3 / 15	3 / 15
Precharge length	Max	m	7.5	7.5
Additional charge		g/m	20	20
Operating range	Cooling Min / Max	°C	-10 / +43	-10 / +43
	Heating Min / Max	°C	-25 [6] / +24	-25 [6] / +24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C 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 m 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. 6) Operation possible on heating mode up to -25 °C tested by SP. Performance guaranty on heating mode up to -20 °C.
Specifications subject to change without notice.
* Preliminary data.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

INCLUDED WITH
THE INDOOR UNIT

SEASONAL EFFICIENCY
PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS
SCOP A+++

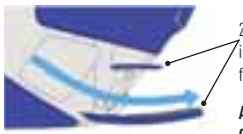
KIT-VE9-NKE // KIT-VE12-NKE

Technical focus

- NEW! ENERGY CHARGE SYSTEM. HEAT STORAGE UNIT WHICH REALIZES NON-STOP HEATING AND FAST HEATING FUNCTION
- NEW! MAXIMUM EFFICIENCY AND COMFORT WITH ECONAVI SUNLIGHT DETECTION
- NEW! NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
- SUPER QUIET! ONLY 23 dB, EQUIVALENT TO NIGHT-TIME IN THE COUNTRY
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

NEW AIR FLOW DISCHARGE IDEAL AIR FLOW FOR HEATING AND FOR COOLING

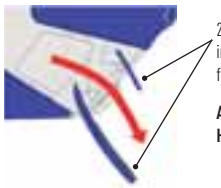
IDEAL AIR FLOW DISCHARGE ON COOLING MODE



2 air guides to improve the air flow direction

Airflow in Cooling Mode

IDEAL AIR FLOW DISCHARGE ON HEATING MODE



2 air guides to improve the air flow direction

Airflow in Heating Mode

CU-VE9NKE
CU-VE12NKE

Features

HEALTHY AIR
- NEW! Nanoe-G air purifying system

ENERGY EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- NEW! ECONAVI SUNLIGHT DETECTION
- R410A refrigerant gas

COMFORT
- Super Quiet mode
- Super Powerful heating 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
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)

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

WALL MOUNTED ETHEREA
INVERTER+
SILVER PLATED / WHITE

Etherea with enhanced Econavi sensor and new Nanoe-G air-purifying system: outstanding efficiency, comfort and healthy air combined with state-of-the-art design.

Econavi features an in-built human activity sensor and a new sunlight detection technology to adjust output thereby giving you the best comfort at anytime whilst saving energy. Econavi not only optimizes air flow orientation and volume according to human presence, it also reduces cooling power automatically by no/less sunshine.With Econavi, energy savings of up to 38% are possible, whilst increasing your comfort. Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould.

product design award 2013

Awarded with the prestigious IF Design Award 2013

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-XE7-PKE and KIT-XE7-PKE. MILD DRY: Maintains a Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on. SUPER QUIET: For XE7, XE9, XE12, E7, E9 and XE12.

Kit Silver Plated			**KIT-XE7-PKE**	**KIT-XE9-PKE**	**KIT-XE12-PKE**	**KIT-XE15-PKE**
Kit Silver Plated / with Smartphone Control			**KIT-XE7-PKE-WIFI**	**KIT-XE9-PKE-WIFI**	**KIT-XE12-PKE-WIFI**	**KIT-XE15-PKE-WIFI**
Kit White			**KIT-E7-PKE**	**KIT-E9-PKE**	**KIT-E12-PKE**	**KIT-E15-PKE**
Kit White / with Smartphone Control			**KIT-E7-PKE-WIFI**	**KIT-E9-PKE-WIFI**	**KIT-E12-PKE-WIFI**	**KIT-E15-PKE-WIFI**
Indoor Silver plated			**CS-XE7PKEW**	**CS-XE9PKEW**	**CS-XE12PKEW**	**CS-XE15PKEW**
Indoor White			**CS-E7PKEW**	**CS-E9PKEW**	**CS-E12PKEW**	**CS-E15PKEW**
Outdoor			**CU-E7PKE**	**CU-E9PKE**	**CU-E12PKE**	**CU-E15PKE**
Cooling capacity	Nominal (Min - Max)	kW	2.05 (0.75-2.40)	2.50 (0.85-3.00)	3.50 (0.85-4.00)	4.20 (0.85-5.00)
	Nominal (Min - Max)	kCal/h	1,760 (650-2,060)	2,150 (730-2,580)	3,010 (730-3,440)	3,610 (730-4,300)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.41 (3.13-4.21) A**	**4.72 (3.47-4.17) A**	**4.12 (3,40-3.57) A**	**3.36 (3.27-3.23) A**
SEER	**Nominal**	**Energy Saving**	**6.7 A++**	**6.6 A++**	**6.6 A++**	**5.9 A+**
Pdesign (cooling)			2.1	2.5	3.5	4.2
Power input Cooling	Nominal (Min - Max)	kW	0.465 (0.240-0.570)	0.530 (0.245-0.720)	0.850 (0.250-1.120)	1.25 (0.260-1.550)
Annual Energy Consumption (Cooling) [2]		kWh	110	133	186	249
Heating capacity	Nominal (Min - Max)	kW	2.80 (0.75-4.00)	3.40 (0.85-5.00)	4.00 (0.85-6.00)	5.30 (0.85-6.80)
Heating capacity at -7 °C	Nominal	kW	2.35	2.88	3.37	4.11
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.44 (3.26-3.96) A**	**4.66 (3.54-3.88)**	**4.32 (3.47-3.55) A**	**3.71 (3.33-3.52) A**
SCOP	**Nominal**	**Energy Saving**	**4.3 A+**	**4.1 A+**	**4.0 A+**	**3.6 A**
Pdesign at -10 °C		kW	2.1	2.7	3.2	3.6
Power input Heating	Nominal (Min - Max)	kW	0.630 (0.230-1.01)	0.730 (0.240-1.29)	0.925 (0.245-1.690)	1.430 (0.255-1.930)
Annual Energy Consumption (Heating) [2]		kWh	684	922	1120	1400
Indoor Unit						
Power source		V	230	230	230	230
Recommended Fuse		A				
Recommended power cable section		mm^2				
Connection indoor / outdoor		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current (Nominal)	Cooling / Heating	A	2.15 / 2.85	2,4 / 3.35	3.80 / 4.10	5.50 / 6.40
Max. current		A	4.5	5,7	7.6	8.8
Air Volume	Cooling / Heating	m^3/h	732 / 768	762 / 786	834 / 858	846 / 900
Moisture removal volume		l/h	1.3	1.5	2	2.4
Sound pressure Level [2]	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	Liquid pipe / Gas pipe	dB	53 / 54	55 / 56	58 / 58	59 / 59
Dimensions [3]	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255
Net weight		kg	10	10	10	10
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit						
Air Volume	Cooling / Heating	m^3/h	2,034 / 2,034	1,788 / 1,788	1,998 / 1,998	1,998 / 1,998
Sound pressure Level[2]	Cooling / Heating (Hi)	dB(A)	45 / 46	46 / 47	48 / 50	49 / 51
Sound power Level	Cooling / Heating (Hi)	dB	60 / 61	61 / 62	63 / 65	64 / 66
Dimensions [3]	H x W x D	mm	542 x 780 x 289	542 x 780 x 289	619 x 824 x 299	619 x 824 x 299
Net weight		kg	31	33	34	33
Piping connections	Liquid pipe / 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) / 1/2 (12.70)
Refrigerant Loading	R410A (GWP value)	kg	0.830	1.00	1.05	1.02
Elevation difference (in/out) [4]	Max	m	15	15	15	15
Piping length	Min / Max	m	3 / 15	3 / 15	3 / 15	3 / 15
Precharge length	Max	m	7.5	7.5	7.5	7.5
Additional charge		g/m	20	20	20	20
Operating range	Cooling Min / Max	°C	-10 / +43	-10 / +43	-10 / +43	-10 / +43
	Heating Min / Max	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: JKE units are not compatible with PKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC. 2) 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 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 3) Add 70 mm for piping port. 4) When installing the outdoor unit at a higher position than the indoor unit.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

CS-E7PKEW // CS-E9PKEW //
CS-E12PKEW // CS-E15PKEW

CS-XE7PKEW // CS-XE9PKEW // CS-XE12PKEW // CS-XE15PKEW

INCLUDED WITH
THE INDOOR UNIT

OPTIONAL
WIRED REMOTE CONTROL
CZ-RD514C

SEASONAL EFFICIENCY

PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS

SCOP A++

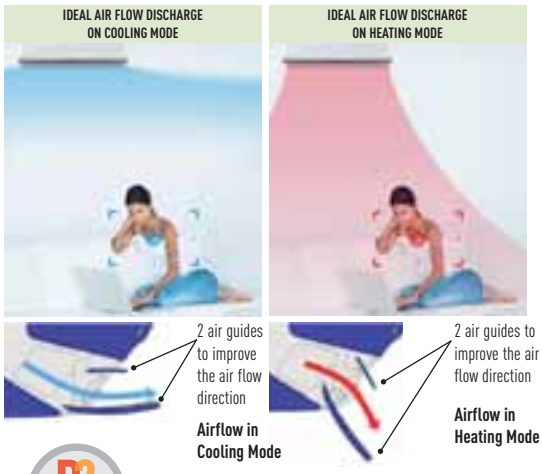
KIT SILVER PLATED: KIT-XE7-PKE // KIT-XE9-PKE // KIT-XE12-PKE // KIT-XE15-PKE

KIT WHITE: KIT-E7-PKE // KIT-E9-PKE // KIT-E12-PKE // KIT-E15-PKE

Technical focus

- MAXIMUM EFFICIENCY AND COMFORT WITH ECONAVI, NOW WITH SUNLIGHT DETECTION
- NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
- OPTIONAL SMARTPHONE CONTROL
- MILD DRY COOLING: PREVENT A RAPID DECREASE IN ROOM HUMIDITY
- SUPER QUIET! ONLY 20 dB, EQUIVALENT TO NIGHT-TIME IN THE COUNTRY (XE7, XE9 XE12, E7, E9 AND E12)
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

NEW AIR FLOW DISCHARGE IDEAL AIR FLOW FOR HEATING AND FOR COOLING



CU-E7PKE
CU-E9PKE

CU-E12PKE
CU-E15PKE

Features

HEALTHY AIR
- Nanoe-G air purifying system
- 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
- -45% consumption with Econavi on heat pump, and -38% 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
- Optional wired weekly timer with 6 settings per day and 42 settings per week
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)
- Optional Smartphone 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

WALL MOUNTED ETHEREA
INVERTER+
SILVER PLATED / WHITE

Etherea with enhanced Econavi sensor and new Nanoe-G air-purifying system: outstanding efficiency, comfort and healthy air combined with state-of-the-art design.

Econavi features an in-built human activity sensor and a new sunlight detection technology to adjust output thereby giving you the best comfort at anytime whilst saving energy. Econavi not only optimizes air flow orientation and volume according to human presence, it also reduces cooling power automatically by no/less sunshine. With Econavi, energy savings of up to 38% are possible, whilst increasing your comfort. Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould.

product design award 2013

Awarded with the prestigious IF Design Award 2013

Internet Control Ready – INTERNET CONTROL
A class energy saving – INVERTER+
6.9 A++ SEER – SEASONAL ENERGY EFFICIENCY RATIO
4.2 A+ SCOP – SEASONAL COEFFICIENT OF PERFORMANCE
Air purifier 99% removal bacteria · virus · mold – nanoe-G
Up to 38% energy savings (cooling) – ECONAVI
Improved comfort – AUTOCOMFORT
Perfect humidity control – MILD DRY
Easy control by BMS – CONNECTIVITY
5 year compressor warranty

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-XE18-PKE and KIT-XE18-PKE. MILD DRY: Maintains a Relative Humidity up to 10% higher than cooling operation. Ideal when sleeping with the air conditioner on.

Kit Silver Plated			**KIT-XE18-PKE**	**KIT-XE21-PKE**	**–**	**–**
Kit Silver Plated / with Smartphone Control			**KIT-XE18-PKE-WIFI**	**KIT-XE21-PKE-WIFI**	**–**	**–**
Kit White			**KIT-E18-PKE**	**KIT-E21-PKE**	**KIT-E24-PKE**	**KIT-E28-PKE**
Kit White / with Smartphone Control			**KIT-E18-PKE-WIFI**	**KIT-E21-PKE-WIFI**	**KIT-E24-PKE-WIFI**	**KIT-E28-PKE-WIFI**
Indoor Silver plated			**CS-XE18PKEW**	**CS-XE21PKEW**	**–**	**–**
Indoor White			**CS-E18PKEW**	**CS-E21PKEW**	**CS-E24PKEW**	**CS-E28PKES**
Outdoor			**CU-E18PKE**	**CU-E21PKE**	**CU-E24PKE**	**CU-E28PKE**
Cooling capacity	Nominal (Min - Max)	kW	5.00 (0.98-6.00)	6.30 (0.98-7.10)	6.80 (0.98-8.10)	7.65 (0.98-8.60)
	Nominal (Min - Max)	kCal/h	4,300 (840-5,160)	5,420 (840-6,110)	5,850 (840-6,970)	6,580 (840-7,400)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**3,47 (3.50-3,02) A**	**2.89 (3.50-2.84) C**	**3.27 (2.58-3.06) A**	**3.04 (2.58-2.95) B**
SEER	**Nominal**	**Energy Saving**	**6.9 A++**	**6.5 A++**	**6.1 A++**	**6.0 A+**
Pdesign (cooling)			5.0	6.3	6.8	7.7
Power input Cooling	Nominal (Min - Max)	kW	1.44 (0.28-1.99)	2.18 (0.28-2.50)	2.08 (0.38-2.65)	2.52 (0.38-2.92)
Annual Energy Consumption (Cooling) [2]		kWh	254	339	390	449
Heating capacity	Nominal (Min - Max)	kW	5.80 (0.98-8.00)	7.20 (0.98-8.50)	8.60 (0.98-9.90)	9.60 (0.98-11.00)
Heating capacity at -7 °C	Nominal	kW	4,990 (840-6,880)	6,190 (840-7,310)	7,400 (840-8,510)	8,260 (840-9,460)
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**3.82 (2.88-3.11) A**	**3.44 (2.88-3.11) B**	**3.31 (2.18-3.16) C**	**2.94 (2.18-2.97) D**
SCOP	**Nominal**	**Energy Saving**	**4.2 A+**	**4.0 A+**	**3.8 A**	**3.6 A**
Pdesign at -10 °C		kW	4.4	4.6	5.5	6.0
Power input Heating	Nominal (Min - Max)	kW	1.520 (0.340-2.570)	2.09 (0.34-2.73)	2.60 (0.45-3.13)	3.26 (0.45-3.70)
Annual Energy Consumption (Heating) [2]		kWh	1467	1610	2026	2333
Indoor Unit						
Power source		V	230	230	230	230
Recommended Fuse		A				
Recommended power cable section		mm^2				
Connection indoor / outdoor		mm^2	4 x 2.5	4 x 2.5	4 x 2.5	4 x 2.5
Current (Nominal)	Cooling / Heating	A	6.4 / 6.8	9.7 / 9.4	9.5 / 11.8	11.5 / 14.6
Max. current		A	11.3	11.9	13.8	15.5
Air Volume	Cooling / Heating	m^3/h	1074 / 1158	1,034 / 1,200	1,188 / 1,272	1,266 / 1,314
Moisture removal volume		l/h	2.8	3.5	3.9	4.5
Sound pressure Level [2]	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 / Heating (Hi)	dB	60 / 60	61 / 61	63 / 63	65 / 64
Dimensions [3]	H x W x D	mm	295 x 1,070 x 255	295 x 1,070 x 255	295 x 1,070 x 255	295 x 1,070 x 255
Net weight		kg	13	13	13	13
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit						
Air Volume	Cooling / Heating	m^3/h	2,352 / 2,274	2,502 / 2,424	3,012 / 3,012	3,270 / 3,270
Sound pressure Level [2]	Cooling / Heating (Hi)	dB(A)	47 / 47	48 / 49	52 / 52	53 / 53
Sound power Level	Cooling / Heating (Hi)	dB	61 / 61	62 / 63	66 / 66	67 / 67
Dimensions [3]	H x W x D	mm	695 x 875 x 320	695 x 875 x 320	795 x 875 x 320	795 x 875 x 320
Net weight		kg	46	47	67	67
Piping connections	Liquid pipe / Gas pipe	inch (mm)	1/4" (6.35) / 1/2" (12.70)	1/4" (6.35) / 1/2" (12.70)	1/4" (6.35) / 5/8" (15.88)	1/4" (6.35) / 5/8" (15.88)
Refrigerant Loading	R410A (GWP value)	kg	1.24	1.32	1.80	1.80
Elevation difference (in/out) [4]	Max	m	15	15	20	20
Piping length	Min / Max	m	3 / 20	3 / 20	3 / 30	3 / 30
Precharge length	Max	m	7.5	7.5	10	10
Additional charge		g/m	20	20	30	30
Operating range	Cooling Min / Max	°C	-10 / +43	-10 / +43	-10 / +43	-10 / +43
	Heating Min / Max	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: JKE units are not compatible with PKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC. 2) 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 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 3) Add 70 mm for piping port. 4) When installing the outdoor unit at a higher position than the indoor unit.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

CS-E18PKEW // CS-E21PKEW //
CS-E24PKES // CS-E28PKES

CS-XE18PKEW // CS-XE21PKEW // CS-XE24PKES // CS-XE28PKES

INCLUDED WITH
THE INDOOR UNIT

OPTIONAL
WIRED REMOTE CONTROL
CZ-RD514C

SEASONAL EFFICIENCY

PRODUCT FOLLOWS THE NEW ErP ECODESIGN REQUIREMENTS

SCOP A++

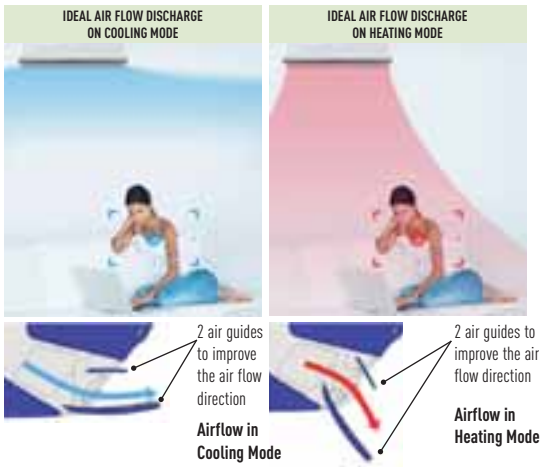
KIT SILVER PLATED: KIT-XE18-PKE // KIT-XE21-PKE

KIT WHITE: KIT-E18-PKE // KIT-E21-PKE // KIT-E24-PKE // KIT-E28-PKE

Technical focus

- MAXIMUM EFFICIENCY AND COMFORT WITH ECONAVI, NOW WITH SUNLIGHT DETECTION
- NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
- OPTIONAL SMARTPHONE CONTROL
- MILD DRY COOLING: PREVENT A RAPID DECREASE IN ROOM HUMIDITY
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

NEW AIR FLOW DISCHARGE IDEAL AIR FLOW FOR HEATING AND FOR COOLING



CU-E18PKE
CU-E21PKE

CU-E24PKE
CU-E28PKE

Features

HEALTHY AIR
- Nanoe-G air purifying system
- 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
- -45% consumption with Econavi on heat pump, and -38% 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
- Optional wired weekly timer with 6 settings per day and 42 settings per week
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)
- Optional Smartphone 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

WALL MOUNTED RE TYPE
STANDARD INVERTER

Inverter models are powerful and efficient and are always there when you need them. Furthermore, with the Anti Bacterial Filter, you can always enjoy the best quality air, without viruses, moulds and bacteria.

SUPER QUIET: For RE9 and RE12.

Kit			KIT-RE9-PKE	KIT-RE12-PKE	KIT-RE15-PKE
Indoor			**CS-RE9PKE**	**CS-RE12PKE**	**CS-RE15PKE**
Outdoor			**CU-RE9PKE**	**CU-RE12PKE**	**CU-RE15PKE**
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.90-3.00)	3.50 (0.90-3.90)	4.20 (1.00-4.60)
	Nominal (Min - Max)	kCal/h	2,150 (770-2,580)	3,010 (770-3,350)	3,610 (860-3960)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**3.57 (4.74-3.00) A**	**3.47 (5.29-3.25) A**	**3.33 (4.76-2.78) A**
SEER	**Nominal**	**Energy Saving**	**5.6 A+**	**5.6 A+**	**5.6 A+**
Pdesign (cooling)			**2.5**	**3.5**	**4.2**
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)
Annual Energy Consumption (Cooling) [2]		kWh	156	219	263
Heating capacity	Nominal (Min - Max)	kW	3.30 (0.90-4.10)	4.25 (0.90-5.10)	5.00 (0.90-6.80)
	Nominal (Min - Max)	kCal/h	2,840 (770-3,530)	3,660 (770-4,390)	4,300 (770-5850)
Heating capacity at -7°C	**Nominal**	**kW**	**3.00**	**3.70**	**4.93**
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.02 (5.29-3.57) A**	**3.79 (6.00-3.49) A**	**3.61 (4.28-2.98) A**
SCOP	**Nominal**	**Energy Saving**	**3.4 A**	**3.4 A**	**3.4 A**
Pdesign at -10 °C		kW	**2.5**	**3.2**	**3.6**
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)
Annual Energy Consumption (Heating) [2]		kWh	1029	1318	1482
Indoor Unit					
Power source		V	230	230	230
Recommended Fuse		A			
Recommended power cable section		mm^2			
Connection (indoor/outdoor)		mm^2	4 x 1.5	4 x 1.5	4 x 1.5
Current (Nominal)	Cooling / Heating	A	3.3 / 3.8	4.7 / 5.2	6.0 / 6.3
Max. current		A	6.3	8.4	10.5
Air Volume	Cooling / Heating	m^3/h	750 / 666	750 / 750	822 / 870
Moisture removal volume		l/h	1.4	2	2.4
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	42 / 27 / 22	42 / 30 / 22	44 / 31 / 29
	Heating (Hi / Lo / S-Lo)	dB(A)	42 / 27 / 25	42 / 33 / 25	46 / 34 / 28
Sound power Level	Cooling (Hi)	dB	58	58	60
	Heating (Hi)	dB	58	58	62
Dimensions	H x W x D	mm	290 x 848 x 213	290 x 848 x 213	290 x 848 x 213
Net weight		kg	8	8	8
Air purifier filter			Antiallergic filter	Antiallergic filter	Antiallergic filter
Outdoor Unit					
Air Volume	Cooling / Heating	m^3/h	1,902 / 1,842	1,956 / 1,896	1,956 / 1,956
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48	49
	Heating (Hi)	dB(A)	48	50	51
Sound power Level	Cooling (Hi)	dB	63	64	65
	Heating (Hi)	dB	64	66	67
Dimensions [4]	H x W x D	mm	540 x 780 x 289	540 x 780 x 289	540 x 780 x 289
Net weight		kg	23	26	27
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)
Refrigerant Loading	R410A	kg	0.77	0.86	0.92
Elevation difference (in/out) [5]	Max	m	10	10	10
Piping length	Min / Max	m	3 / 15	3 / 15	3 / 15
Precharge length	Max	m	7	7	7
Additional charge		g/m	20	20	20
Operating range	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-10/ +24	-10/ +24	-10/ +24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: JKE units are not compatible with PKE 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 m 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.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

CS-RE9PKE // CS-RE12PKE // CS-RE15PKE

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

FOR RE18 AND RE24. INCLUDED WITH THE INDOOR UNIT

KIT-RE9-PKE // KIT-RE12-PKE // KIT-RE15-PKE

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)

Features

HEALTHY AIR
- New generation Anti Bacterial Filter
- 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)
- User friendly infrared remote control

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

CU-RE9PKE CU-RE15PKE
CU-RE12PKE

WALL MOUNTED RE-3 TYPE
STANDARD INVERTER

Inverter models are powerful and efficient and are always there when you need them.

SEER and SCOP: For KIT-RE18-PKE-3. SUPER QUIET: For RE9 and RE12.

Kit			KIT-RE9-PKE-3	KIT-RE12-PKE-3	KIT-RE15-PKE-3	KIT-RE18-PKE-3	KIT-RE24-PKE-3
Indoor			**CS-RE9PKE-3**	**CS-RE12PKE-3**	**CS-RE15PKE-3**	**CS-RE18PKE-3**	**CS-RE24PKE-3**
Outdoor			**CU-RE9PKE-3**	**CU-RE12PKE-3**	**CU-RE15PKE-3**	**CU-RE18PKE-3**	**CU-RE24PKE-3**
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 (0.98-6.00)	6.80 (0.98-8.10)
	Nominal (Min - Max)	kCal/h	2,150 (770-2,580)	3,010 (770-3,350)	3,610 (860-3960)	4,300 (840-5,160)	5,850 (840-6,970)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**3.57 (4.74-3.00) A**	**3.47 (5.29-3.25) A**	**3.33 (4.76-2.78) A**	**3.40 (3.50-2.96) A**	**3.24 (2.58-3.03) A**
SEER	**Nominal**	**Energy Saving**	**5.6 A+**	**5.6 A+**	**5.6 A+**	**6.7 A++**	**5.9 A+**
Pdesign (cooling)			**2.5**	**3.5**	**4.2**	**5.0**	**6.8**
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 (0.28-2.03)	2.10 (0.38-2.67)
Annual Energy Consumption (Cooling) [2]		kWh	156	219	263	261	403
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 (0.98-8.00)	8.60 (0.98-9.90)
	Nominal (Min - Max)	kCal/h	2,840 (770-3,530)	3,660 (770-4,390)	4,300 (770-5850)	4,990 (840-6,880)	7,400 (840-8,510)
Heating capacity at -7°C	**Nominal**	**kW**	**3.00**	**3.70**	**4.93**	**4.98**	**6.13**
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.02 (5.29-3.57) A**	**3.79 (6.00-3.49) A**	**3.61 (4.28-2.98) A**	**3.77 (2.88-3.08) A**	**3.28 (2.18-3.14) C**
SCOP	**Nominal**	**Energy Saving**	**3.4 A**	**3.4 A**	**3.4 A**	**4.1 A+**	**3.4 A**
Pdesign at -10 °C		kW	**2.5**	**3.2**	**3.6**	**4.4**	**5.5**
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 (0.34-2.60)	2.62 (0.45-3.15)
Annual Energy Consumption (Heating) [2]		kWh	1029	1318	1482	1502	2265
Indoor Unit							
Power source		V	230	230	230	230	230
Recommended Fuse		A					
Recommended power cable section		mm^2					
Connection (indoor/outdoor)		mm^2	4 x 1.5	4 x 1.5	4 x 1.5	4 x 2.5	4 x 2.5
Current (Nominal)	Cooling / Heating	A	3.3 / 3.8	4.7 / 5.2	6.0 / 6.3	6.6 / 6.9	9.6 / 11.8
Max. current		A	6.3	8.4	10.5	11.4	13.9
Air Volume	Cooling / Heating	m^3/h	750 / 666	750 / 750	822 / 870	978 / 1,074	1,104 / 1,164
Moisture removal volume		l/h	1.4	2	2.4	2.8	3.9
Sound pressure Level [3]	Cooling (Hi / Lo / S-Lo)	dB(A)	42 / 27 / 22	42 / 30 / 22	44 / 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	60	60	63
	Heating (Hi)	dB	58	58	62	60	63
Dimensions	H x W x D	mm	290 x 848 x 213	290 x 848 x 213	290 x 848 x 213	290 x 1,070 x 240	290 x 1,070 x 240
Net weight		kg	8	8	8	12	12
Air purifier filter							
Outdoor Unit							
Air Volume	Cooling / Heating	m^3/h	1,902 / 1,842	1,956 / 1,896	1,956 / 1,956	2,352 / 2,274	3,012 / 3,012
Sound pressure Level [3]	Cooling (Hi)	dB(A)	47	48	49	47	52
	Heating (Hi)	dB(A)	48	50	51	47	52
Sound power Level	Cooling (Hi)	dB	63	64	65	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	695 x 875 x 320	795 x 875 x 320
Net weight		kg	23	26	27	46	67
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)	1/4 (6.35) / 1/2 (12.70)	1/4 (6.35) / 5/8 (15.88)
Refrigerant Loading	R410A	kg	0.77	0.86	0.92	1.22	1.8
Elevation difference (in/out) [5]	Max	m	10	10	10	15	20
Piping length	Min / Max	m	3 / 15	3 / 15	3 / 15	3 / 20	3 / 30
Precharge length	Max	m	7	7	7	7.5	10
Additional charge		g/m	20	20	20	20	30
Operating range	Cooling Min / Max	°C	-10 / +43	-10 / +43	-10 / +43	-10 / +43	-10 / +43
	Heating Min / Max	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C 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 m 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.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

CS-RE9PKE-3 // CS-RE12PKE-3 // CS-RE15PKE-3

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

FOR RE18 AND RE24. INCLUDED WITH THE INDOOR UNIT

KIT-RE9-PKE-3 // KIT-RE12-PKE-3 // KIT-RE15-PKE-3 // KIT-RE18-PKE-3 // KIT-RE24-PKE-3

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)

Features

HEALTHY AIR
- New generation Anti Bacterial Filter
- 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

CS-RE18PKE-3 // CS-RE24PKE-3

CU-RE9PKE-3
CU-RE12PKE-3

CU-RE15PKE-3

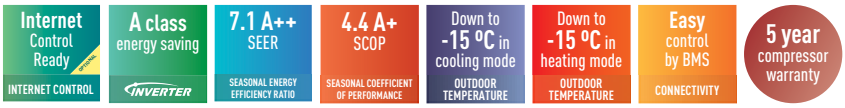
CU-RE18PKE-3

CU-RE24PKE-3

WALL MOUNTED PROFESSIONAL
INVERTER -15 °C
ON COOLING MODE

Complete line-up with high efficiency even at -15 °C

This wall-mounted air conditioner 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.



SEER and SCOP: For KIT-E9-PKEA.

KIT			KIT-E9-PKEA	KIT-E12-PKEA	KIT-E15-PKEA	KIT-E18-PKEA
Indoor			**CS-E9PKEA**	**CS-E12PKEA**	**CS-E15PKEA**	**CS-E18PKEA**
Outdoor			**CU-E9PKEA**	**CU-E12PKEA**	**CU-E15PKEA**	**CU-E18PKEA**
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.85-3.00)	3.50 (0.85-4.00)	4.20 (0.98-5.00)	5.00 (0.98-6.00)
	Nominal (Min - Max)	kCal/h	2,150 (730-2,580)	3,010 (730-3,440)	3,610 (840-4,300)	4,300 (840-5,160)
EER [1]	Nominal (Min - Max)	Energy Saving	4.85 (4.23-5.00) A	4.02 (3.57-5.00) A	3.50 (3.50-3.16) A	3.47 (3.50-3.02) A
SEER	Nominal	Energy Saving	7.1 A++	6.7 A++	6.3 A++	6.9 A++
P Design at -10 °C		kW	2.5	3.5	4.2	5.0
Power input Cooling	Nominal (Min - Max)	kW	0.515 (0.17-0.71)	0.87 (0.17-1.12)	1.20 (0.28-1.58)	1.44 (0.28-1.99)
Annual Energy Consumption (cooling)		kWh	123	183	233	254
Heating capacity	Nominal (Min - Max)	kW	3.40 (0.85-5.40)	4.00 (0.85-6.60)	5.40 (0.98-7.10)	5.80 (0.98-8.00)
	Nominal (Min - Max)	kCal/h	2,920 (730-4,640)	3,440 (730-5,680)	4,640 (840-6,110)	4,990 (840-6,880)
Heating capacity at -7°C	Nominal	kW	3.91	4.78	5.14	5.80
COP [1]	Nominal (Min - Max)	Energy Saving	4.86 (4.12-5.15) A	4.35 (3.63-5.15) A	3.75 (2.88-3.24) A	3.82 (2.88-3.11) A
SCOP	Nominal	Energy Saving	4.4 A+	4.1 A+	3.9 A	4.2 A+
P Design at -10 °C		kW	2.8	3.6	3.6	4.4
Power input Heating	Nominal (Min - Max)	kW	0.7 (0.165-1.31)	0.92 (0.165-1.82)	1.44 (0.34-2.19)	1.52 (0.340-2.57)
Annual Energy Consumption (heating)		kWh	891	1229	1292	1467
Indoor Unit						
Power source		V	230	230	230	230
Recommended Fuse		A				
Recommended power cable section		mm				
Connection indoor / outdoor		mm	4 x 1.5	4 x 1.5	4 x 1.5	4 x 2.5
Current (Nominal)	Cooling / Heating	A	2.5 / 3.3	4.0 / 4.2	5.4 / 6.5	6.4 / 6.8
Max. Current		A	7.8	8.4	9.6	11.3
Air Volume	Cooling / Heating	m^3/h	798 / 876	816 / 882	846 / 900	1074 / 1158
Moisture removal volume		l/h	1.5	2,0	2.4	2.8
Sound pressure Level [2]	Cooling (Hi / Lo / S-Lo)	dB(A)	39 / 26 / 23	42 / 29 / 26	43 / 32 / 29	44 / 37 / 34
	Heating (Hi / Lo / S-Lo)	dB(A)	40 / 27 / 24	42 / 33 / 30	43 / 35 / 32	44 / 37 / 34
Sound power Level	Cooling (Hi)	dB	55	58	59	60
	Heating (Hi)	dB	56	58	59	60
Dimensions [3]	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 1070 x 255
Net weight		kg	10	10	10	13
Air purifier filter						
Outdoor Unit						
Air Volume	Cooling / Heating	m^3/h	1878 / 1782	1974 / 1926	2052 / 1980	2352 / 2274
Sound pressure Level [2]	Cooling / Heating (Hi)	dB(A)	46 / 47	48 / 50	46 / 46	47 / 47
Sound power Level	Cooling / Heating (Hi)	dB	61 / 62	63 / 65	61 / 61	61 / 61
Dimensions 3)	H x W x D	mm	622 x 824 x 299	622 x 824 x 299	695 x 875 x 320	695 x 875 x 320
Net weight		kg	36	36	45	46
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)	1/2" (12.70)
Refrigerant Loading	R410A	kg	1,100	1,100	1.060	1.240
Elevation difference (in/out) 4)	Max	m	5	5	15	15
Piping length	Min / Max	m	3 / 15	3 / 15	3 / 15	3 / 20
Precharge length	Max	m	7.5	7.5	7.5	7.5
Additional charge		g/m	20	20	20	20
Operating range	Cooling Min / Max	°C	-15 / +43	-15 / +43	-15 / +43	-15 / +43
	Heating Min / Max	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C 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 m 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.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

INCLUDED WITH
THE INDOOR UNIT

KIT-E9-PKEA // KIT-E12-PKEA // KIT-E15-PKEA // KIT-E18-PKEA

Technical focus

- DESIGN FOR 24h/7d A WEEK OPERATION
- HIGHLY EFFICIENT EVEN AT -15 °C

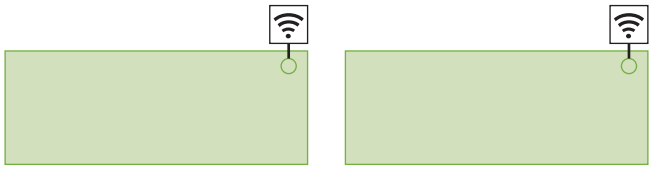
Features

OUTDOOR

- Cooling from as low as ambient -15 °C
- Electronic expansion valve (accurate sub-cooling and adjustable refrigerant flow)
- Outdoor DC fan motor to provide flexible air-flow to ensure optimum condensation pressure (work on outdoor pipe temperature sensor)

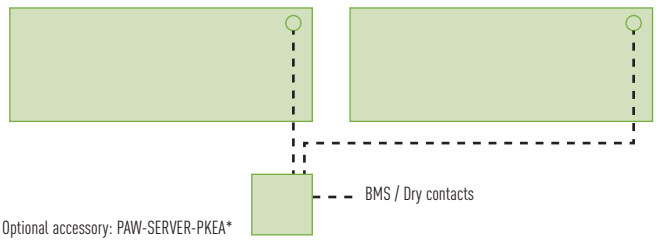
2 INTERFACE OPTIONS TO MANAGE SERVER ROOM OPERATION

- **IntesisHome**, Advance package: PA-AC-WIFI-1 + Advance function. 1 interface PA-AC-WIFI-1 for indoor unit is needed. This interface must be connected to the local Wi-Fi network. Server room functionalities of the PA-AC-WIFI-1 + Advance function:
  - On/Off, temperature setting management
  - Backup management
  - Alternative running
  - Email in case of failure
  - Room temperature display on the online Intesishome application
  - Energy consumption display
  - Online access of all functionalities
  - Ipad/Iphone/Android/Web application



2 Interface options to manage server room operation: PA-AC-WIFI-1*

- **PAW-SERVER-PKEA** server room interface with dry contacts for easy interconnection with BMS systems. 1 interface PAW-SERVER-PKEA can be connected to 2 PKEA indoor units. Server room functionalities with the PAW-SERVER-PKEA:
  - On/Off management by dry contact
  - Temperature set-up (easy setup on the interface without computer)
  - Backup management (easy setup on the interface without computer)
  - Alternative running (easy setup on the interface without computer)
  - Dry contact in case of failure (easy setup on the interface without computer)



Optional accessory: PAW-SERVER-PKEA*

*Available from May 2013

CU-E9PKEA
CU-E12PKEA

CU-E15PKEA
CU-E18PKEA

FLOOR CONSOLE TYPE
INVERTER+

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

SEER and SCOP: For KIT-E18-PFE.

KIT			KIT-E9-PFE	KIT-E12-PFE	KIT-E18-PFE
Indoor			**CS-E9GFEW**	**CS-E12GFEW**	**CS-E18GFEW**
Outdoor			**CU-E9PFE**	**CU-E12PFE**	**CU-E18PFE**
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.85 - 3.00)	3.50 (0.85 - 3.80)	5.00 (0.98 - 5.60)
	Nominal (Min - Max)	kCal/h	2,150 (730 - 2,580)	3,010 (730 - 3,270)	4,300 (840 - 4,820)
EER [1]	**Nominal**	**Energy Saving**	**4.50** A	**3.72** A	**3.25** A
SEER	**Nominal**	**Energy Saving**	**6.1** A++	**5.8** A+	**6.2** A++
Pdesign (cooling)			**2.50**	**3.50**	**5.00**
Power input Cooling	Nominal	kW	0.56	0.94	1.54
Annual Energy Consumption (cooling)		kWh	143	211	282
Heating capacity	Nominal (Min - Max)	kW	3.40 (0.85 - 5.00)	4.00 (0.85 - 6.00)	5.80 (0.98 - 7.10)
	Nominal (Min - Max)	kCal/h	2920 (730 - 4,300)	3,440 (730 - 5,160)	4,990 (840 - 6,110)
COP [1]	**Nominal**	**Energy Saving**	**4.20** A	**4.0** A	**3.63** A
SCOP	**Nominal**	**Energy Saving**	**3.8** A	**3.8** A	**3.9** A
Pdesign at -10 °C		kW	**2.7**	**3.2**	**4.4**
Power input Heating	Nominal	kW	0.81	1.00	1.60
Annual Energy Consumption (heating)		kWh	995	1,179	1,579
Indoor Unit					
Power source		V	230	230	230
Recommended Fuse		A			
Recommended power cable section		mm			
Connection		mm	4 x 1.5	4 x 1.5	4 x 1.5
Current (Nominal)	Cooling	A	2.6	4.4	7.2
	Heating	A	3.75	4.6	7.5
Air Volume	Cooling / Heating	m^3/h	558 / 576	570 / 600	660 / 780
Moisture removal volume		l/h	1.4	2.0	2.8
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 (Hi)	dB	54	55	60
	Heating (Hi)	dB	54	55	62
Dimensions [3]	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					
Air Volume	Cooling / Heating	m^3/h	1,788 / 1,788	1,998 / 1,998	2,352 / 2,274
Sound pressure Level [2]	Cooling (Hi)	dB(A)	46	48	47
	Heating (Hi)	dB(A)	47	50	48
Sound power level	Cooling (Hi)	dB	61	63	61
	Heating (Hi)	dB	62	65	62
Dimensions [3]	H x W x D	mm	542 x 780 x 289	619 x 824 x 299	695 x 875 x 320
Net weight		kg	33	34	46
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	0.970	1.000	1.120
Elevation difference (in/out) [4]	Max	m	5	5	15
Piping length	Min / Max	m	3 / 15	3 / 15	3 / 20
Precharge length	Max	m	7.5	7.5	7.5
Additional charge		g/m	20	20	20
Operating range	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: JKE units are not compatible with PKE units.

1) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC. 2) 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 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 3) Add 70 mm for piping port. 4) When installing the outdoor unit at a higher position than the indoor unit.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

INCLUDED WITH
THE INDOOR UNIT

KIT-E9-PFE // KIT-E12-PFE // KIT-E18-PFE

Technical focus

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

Features

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

CU-E9PFE
CU-E12PFE

CU-E18PFE

4 WAY 60x60 CASSETTE
INVERTER

Small and powerful, ideal for offices and restaurants.

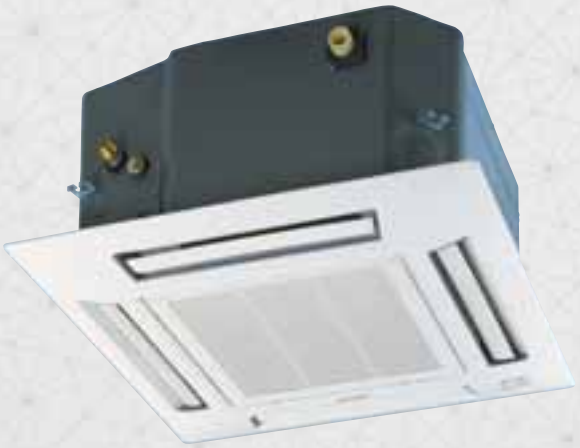
SEER and SCOP: For KIT-E9-PB4EA.

KIT			KIT-E9-PB4EA	KIT-E12-PB4EA	KIT-E10-KB4EA**	KIT-E15-HB4EA**	KIT-E18-HB4EA**	KIT-E21-JB4EA**
Indoor			CS-E9PB4EA	CS-E12PB4EA	CS-E10KB4EA	CS-E15HB4EA	CS-E18HB4EA	CS-E21JB4EA
Outdoor			CU-E9PB4EA	CU-E12PB4EA	CU-E10HBEA	CU-E15HBEA	CU-E18HBEA	CU-E21HBEA
Panel			CZ-BT20E	CZ-BT20E	CZ-BT20E	CZ-BT20E	CZ-BT20E	CZ-BT20E
Wireless control	**Included with kit**		Included with indoor unit	Included with indoor unit	Included with indoor unit	Included with indoor unit	Included with indoor unit	Included with indoor unit
Cooling capacity	Nominal (Min - Max)	kW	2.50 (0.85-3.20)	3.4 (0.9 - 4.8)	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	2150 (731-2752)	2924 (770 - 4130)	2.150 (516 - 2.752)	3.530 (770 - 4.130)	4.130 (770 - 4.900)	5.070 (770 - 5.420)
EER [1]	**Nominal**	**kW**	**4.1 A**	**3.42 A**	**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**
SEER		**W/W**	**5.1 A**	**4.8 B**				
Pdesign		kW	2.50	3.40				
Power input Cooling	Nominal	kW	0.61	0.99	0.620 (0.145 - 0.870)	1.300 (0.255 - 1.170)	1.539 (0.255 - 1.930)	2.050 (0.255 - 2.200)
Annual Energy Consumption [2]		kWh						
Heating capacity	Nominal (Min - Max)	kW	3.20 (0.85-5.10)	4.2 (0.9 - 6.20)	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	2752 (731-4386)	3612 (770 - 5330)	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)**	**kW**	**3.95 A**	**3.41 A**	**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**
SCOP	**Nominal**	**Energy Saving**	**3.8 A**	**3.5 A**				
Pdesign at -10 °C		kW	2.50	3.00				
Power input Heating	Nominal	kW	0.81	1.23	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	1025
Indoor Unit								
Recommended Fuse		A						
Recommended power cable section		mm						
Air Volume	**Cooling / Heating**	m^3/h	630 / 648	630 / 648	630 / 648	630 / 648	660 / 690	768 / 840
Moisture removal volume		l/h	1.5	2.3	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	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	35 / 28 / 25	35 / 28 / 25	37 / 29 / 26	42 / 34 / 31
Sound power Level	Cooling (Hi)	dB	47	47	47	47	49	54
	Heating (Hi)	dB	48	48	48	48	50	55
Dimensions (H x W x D)	Indoor	mm	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575	260 x 575 x 575
	Panel	mm	51 x 700 x 700	51 x 700 x 700	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	18 / 2.5	18 / 2.5
Dust filter			Yes	Yes	Yes	Yes	Yes	Yes
Antiallergic filter	Optional		CZ-SA13P	CZ-SA13P	CZ-SA13P	CZ-SA13P	CZ-SA13P	CZ-SA13P
Outdoor Unit								
Power source		V	220-240	220-240	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	4 x 1.5 to 2.5	4 x 1.5 to 2.5
Current Nominal	Cooling / Heating	A	2.9 / 3.8	6.0 / 8.0	2.9 / 3.8	6.0 / 8.0	7.0 / 8.5	9.2 / 10.9
Air Volume	Cooling / Heating	m^3/h	1728	2808	1728	2808	2380 - 415	2568
Sound pressure level [3]	Cooling / Heating (Hi)	dB(A)	45 / 46	45 / 47	45 / 46	45 / 47	47 / 48	49 / 49
Sound power Level	Cooling / Heating (Hi)	dB	58 / 59	58 / 60	58 / 59	58 / 60	60 / 61	62 / 62
Dimensions	H x W x D	mm	619 x 824 x 299	695 x 875 x 320	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	35	48	48	50
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) / 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)
Refrigerant Loading	R410A	kg	1.15	1.23	1.15	1.23	1.06	1.15
Elevation dif. (in/out) [5]	Max	m	15	15	15	15	20	20
Piping length	Min / Max	m	3 / 20	3 / 20	3-20	3-20	3-30	3-30
Precharge length	Max	m	10	10	10	10	10	10
Additional charge		g/m	20	20	20	20	20	20
Operating range	Cooling (Min / Max)	°C	- 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

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)

1) EER and COP, Energy Saving Classification, is at 220-240 V (380-415 V) only in accordance with EU directive 2002/31/EC. 2) The annual consumption is calculated by multiplying the input power at 220-240 V (380-415 V) 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) 70 mm for piping port. 5) When installing the outdoor unit at a higher position than the indoor unit.
* Available from June 2013. ** Available until current stock ends.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de



INCLUDED WITH
THE INDOOR UNIT

OPTIONAL
WIRED REMOTE CONTROL
CZ-RD52CP

KIT-E9-PB4EA // KIT-E12-PB4EA // KIT-E10-KD3EA // KIT-E15-JD3EA // KIT-E18-JD3EA

Technical focus

- EASY INSTALLATION ON THE DETACHABLE EUROPEAN 60x60 CEILING GRID
- OPERATION DOWN TO -10 °C IN COOLING AND HEATING MODES
- PIPING LENGTH UP TO 30 m
- MAXIMUM ELEVATION DIFFERENCE UP TO 20 m
- ULTRA COMPACT OUTDOOR UNITS FOR EASY INSTALLATION
- 24 HOUR ON/OFF TIMER

Features

HEALTHY AIR
- CZ-SA13P Anti Bacterial 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

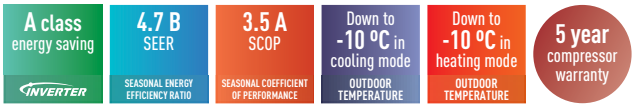
EASY INSTALLATION AND MAINTENANCE
- Removable, washable panel of the indoor unit
- Top panel maintenance access for the outdoor unit

CU-E9PB4EA

CU-E12PB4EA

LOW STATIC PRESSURE HIDE AWAY
INVERTER

Compact line up of Inverter Hide Away Units, from 1.0 HP to 5.0 HP, Single Phase.



SEER and SCOP: For KIT-E9-PD3EA.

KIT			KIT-E9-PD3EA*	KIT-E12-PD3EA*	KIT-E10-KD3EA**	KIT-E15-JD3EA**	KIT-E18-JD3EA**
Indoor			**CS-E9PD3EA**	**CS-E12PD3EA**	**CS-E10KD3EA**	**CS-E15JD3EA**	**CS-E18JD3EA**
Outdoor			**CU-E9PD3EA**	**CU-E12PD3EA**	**CU-E10HBEA**	**CU-E15HBEA**	**CU-E18HBEA**
Wired remote control	**Included in the kit**		**CZ-RD52CP**	**CZ-RD52CP**	**CZ-RD52CP**	**CZ-RD52CP**	**CZ-RD52CP**
Cooling capacity	Nominal (Min-Max)	kW	2.50 (0.85-3.00)	3.4 (0.90-4.70)	2.50 (0.80-3.00)	4.10 (0.90-4.70)	5.10 (0.90-5.70)
	Nominal (Min-Max)	kCal/h	2150 (731-2580)	2924 (770-4040)	2150 (690-2580)	3530 (770-4040)	4390 (770-4900)
EER [1]	**Nominal**	**kW**	**3.73 A**	**3.40 A**	**3.68 (3.87 - 3.53) A**	**3.31 (3.53 - 3.13) A**	**3.15 (3.53 - 3.10) B**
SEER		**W/W**	**4.7 B**	**4.6 B**			
Pdesign		kW	2.50	3.40			
Power input Cooling	Nominal	kW	0.67	1.00	0.680 (0.155 - 0.850)	1.240 (0.255 - 1.500)	1.620 (0.250 - 1.840)
Annual Energy Consumption on Cooling mode		kWh					
Heating capacity	Nominal (Min-Max)	kW	3.20 (0.85-5.00)	4.00 (0.90-5.5)	3.20 (0.60-5.00)	4.80 (0.90-55.0)	6.10 (0.90-7.10)
	Nominal (Min-Max)	kCal/h	2752 (731-4300)	3440 (770-4730)	2752 (516-4300)	4130 (770-4730)	5250 (770-6110)
COP [1]	**Nominal**	**kW**	**3.68 A**	**2.90 D**	**3.64 (4.44 - 3.27) A**	**2.64 (3.46 - 2.63) E**	**3.30 (3.46 - 3.23) C**
SCOP	**Nominal**	**Energy Saving**	**3.5 A**	**3.4 A**			
Pdesign at -10 °C		kW	2.50	2.90			
Power input Heating	Nominal	kW	0.87	1.37	0.880 (0.135 - 1.530)	1.82 (0.260 - 2.090)	1.85 (0.260 - 2.200)
Annual Energy Consumption on Heating mode		kWh			340	620	810
Indoor Unit							
External static pressure [3]	S-Hi / Hi / Me / Lo	Pa	54 / 24 / 15 / 10	54 / 24 / 15 / 10	54 / 24 / 15 / 10	54 / 24 / 15 / 10	54 / 24 / 15 / 10
Recommended Fuse		A					
Recommended power cable section		mm					
Air Volume	Cooling / Heating	m³/h	660 / 660	660 / 660	660 / 660	660 / 660	750 / 750
Moisture removal volume		l/h	1.50	2.30	1.50	2.30	2.80
Sound pressure level [4]	Cooling (Hi / Lo)	dB(A)	33 / 24	33 / 24	33 / 24	33 / 24	41 / 27
	Heating (Hi / Lo)	dB(A)	35 / 25	35 / 25	35 / 25	35 / 25	41 / 29
Sound power Level	Cooling (Hi)	dB	49	49	49	49	57
	Heating (Hi)	dB	51	51	51	51	57
Dimensions	H x W x D	mm	235 x 750 x 370	235 x 750 x 370	235 x 750+65[4] x 370	235 x 750+65[4] x 370	285 x 750+65[4] x 370
Net weight		kg	17	17	17	18	18
Dust filter			No	No	No	No	No
Outdoor Unit							
Power source		V	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
Current Nominal	Cooling / Heating	A	3.10 / 4.10	5.7 / 8.2	3.1 / 4.1	5.7 / 8.2	7.3 / 8.3
Air Volume	Cooling/Heating	m³/h	1728	2808	1728	2808	2380 - 415
Sound pressure level [4]	Cooling / Heating (Hi)	dB(A)	45 / 46	46 / 47	45 / 46	46 / 47	47 / 48
Sound power Level	Cooling / Heating (Hi)	dB	58 / 59	59 / 60	58 / 59	59 / 60	60 / 61
Dimensions	H x W x D	mm	619 x 824 x 299	695 x 875 x 320	540 x 780+70[4] x 289	750 x 875+70[4] x 345	750 x 875+70[4] x 345
Net weight		kg	35	48	35	48	48
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) / 3/8 (9.52)	1/4 (6.35) / 1/2 (12.70)	1/4 (6.35) / 1/2 (12.70)
Refrigerant Loading	R410A	kg	1.15	1.23	1.15	1.23	1.06
Elevation dif. (in/out) 5)	Max	m	15	15	15	15	20
Piping length	Min / Max	m	3 / 20	3 / 20	3-20	3-20	3-30
Precharge length	Max	m	10	10	10	10	10
Additional charge		g/m	20	20	20	20	20
Operating range	Cooling Min/Max	°C	-10 / 43	-10 / 43	-10/43	-10/43	-10/43
	Heating Min/Max	°C	-10 / 24	-10 / 24	-10/24	-10/24	-10/24

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)

1) EER and COP, Energy Saving Classification, is at 220-240 V (380-415 V) only in accordance with EU directive 2002/31/EC. 2) The annual consumption is calculated by multiplying the input power at 220-240 V (380-415 V) 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) 70 mm for piping port. 5) When installing the outdoor unit at a higher position than the indoor unit.
* Available from June 2013. ** Available until current stock ends.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

INCLUDED WITH THE
INDOOR UNIT
CZ-RD52CP

KIT-E9-PD3EA // KIT-E12-PD3EA // KIT-E10-KD3EA // KIT-E15-JD3EA // KIT-E18-JD3EA

Technical focus

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

Features

ENERGY, EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system
- 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 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

CU-E9PD3EA

CU-E12PD3EA

MRE WALL MOUNTED 2x1
STANDARD INVERTER

MRE Multi Inverter models are powerful and efficient and are always there when you need them.

Furthermore, with the Anti Bacterial Filter, you can always enjoy the best quality air, without viruses, moulds and bacteria.

SEER and SCOP: For KIT-2MRE79-MBE

Kit			KIT-2MRE77-MBE	KIT-2MRE79-MBE	KIT-2MRE712-MBE	KIT-2MRE912-MBE	KIT-2MRE77-MKE	KIT-2MRE79-MKE
Indoor			CS-MRE7PKE	CS-MRE7PKE	CS-MRE7PKE	CS-MRE9PKE	CS-MRE7PKE	CS-MRE7PKE
			CS-MRE7PKE	CS-MRE9PKE	CS-MRE12PKE	CS-MRE12PKE	CS-MRE7PKE	CS-MRE9PKE
Outdoor			CU-2RE15PBE	CU-2RE15PBE	CU-2RE15PBE	CU-2RE15PBE	CU-2RE18PBE	CU-2RE18PBE
Cooling capacity	Nominal (Min - Max)	kW	4.00 (1.50 - 4.60)	4.40 (1.50 - 4.80)	4.40 (1.50 - 4.80)	4.40 (1.50 - 4.80)	4.40 (1.50 - 4.60)	4.50 (1.50 - 4.80)
	Nominal (Min - Max)	kCal/h	3,560 (1,290 - 4,094)	3,916 (1,290 - 4,272)	3,916 (1,290 - 4,272)	3,916 (1,290 - 4,272)	3,916 (1,290 - 4,094)	3,870 (1,290 - 4,272)
Cooling capacity room A	Nominal	kW	2.00	1.95	1.70	2.20	2.00	2.00
Cooling capacity room B	Nominal	kW	2.00	2.45	2.70	2.20	2.00	2.50
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**3.42 (5.55 - 3.43) A**	**3.38 (5.55- 3.15) A**	**3.38 (5.55- 3.15) A**	**3.38 (5.55- 3.15) A**	**3.45 (5.55 - 3.43) A**	**3.44 (5.55- 3.18) A**
SEER	**Nominal**	**Energy Saving**		**6.50 A++**				
Pdesign (cooling)				**4.40**				
Power input Cooling	Nominal (Min - Max)	kW	1.17 (0.27 - 1.34)	1.30 (0.27 - 1.52)	1.30 (0.27 - 1.52)	1.30 (0.27 - 1.52)	1.16 (0.27 - 1.34)	1.40 (0.27 - 1.51)
Annual Energy Consumption (Cooling) [2]		kWh						
Heating capacity	Nominal (Min - Max)	kW	5.80 (1.10 - 6.30)	5.80 (1.10 - 6.30)	5.80 (1.10 - 6.30)	5.80 (1.10 - 6.30)	5.20 (1.10 - 6.30)	5.20 (1.10 - 6.30)
	Nominal (Min - Max)	kCal/h	5,162 (950 - 5,607)	5,162 (950 - 5,607)	5,162 (950 - 5,607)	5,162 (950 - 5,607)	4,628 (979 - 5,607)	4,628 (979 - 5,607)
Heating capacity room A	Nominal	kW	2.40	2.15	1.85	2.40	2.60	2.60
Heating capacity room B	Nominal	kW	2.40	2.65	2.95	2.40	2.60	2.90
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.00 (4.58 - 3.91) A**	**4.00 (4.58 - 3.91) A**	**4.00 (4.58 - 3.91) A**	**4.00 (4.58 - 3.91) A**	**4.00 (4.58 - 3.91) A**	**4.00 (4.58 - 3.91) A**
SCOP	**Nominal**	**Energy Saving**		**4.00 A+**				
Pdesign at -10 °C		kW		**3.60**				
Power input Heating	Nominal (Min - Max)	kW	1.20 (0.24 - 1.61)	1.20 (0.24 - 1.61)	1.20 (0.24 - 1.61)	1.20 (0.24 - 1.61)	1.30 (0.24 - 1.61)	1.30 (0.24 - 1.61)
Annual Energy Consumption (Heating) [2]		kWh		1,260				
Indoor unit								
Power source		V	230	230	230	230	230	230
Recommended Fuse		A						
Recommended power cable section		mm²						
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
Current Nominal	Cooling / Heating	A	5.45 / 5.35	6.10 / 5.35	6.10 / 5.35	6.10 / 5.35	6.10 / 5.80	6.10 / 5.80
Air Volume	Cooling	m³/h	606	606	606 (E7) / 654 (E12)	606 (E9) / 654 (E12)	606	606
Moisture removal volume	Cooling	l/h	1.3 (E7)	1.3 (E7) / 1.5 (E9)	1.1 (E7) / 1.6 (E12)	1.4 (E9) / 1.4 (E12)	1.3 (E7)	1.3 (E7) / 1.5 (E9)
Sound pressure Level [3]	Cooling & Heating (Lo)	dB(A)	29	29	29 (E7) / 32 (E12)	29 (E9) / 32 (E12)	29	29
Sound power Level	Cooling & Heating (Hi)	dB	56	56	56 (E7) / 60 (E12)	56 (E9) / 60 (E12)	56	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	290 x 870 x 204	290 x 870 x 204
Net weight		kg	9	9	9	9	9	9
Air purifier filter			Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter
Outdoor unit								
Air Volume		m³/h	1,998	1,998	1,998	1,998	1,998	1,998
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	47 / 49	47 / 49	47 / 49	47 / 49	47 / 49	47 / 49
Sound power Level	Cooling / Heating (Hi)	dB	62 / 64	62 / 64	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	540 x 780 (+70) x 289	540 x 780 (+70) x 289
Net weight		kg	38	38	38	38	38	38
Piping connections	Liquid pipe / 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)	1/4 (6.35) / 3/8 (9.52)	1/4 (6.35) / 3/8 (9.52)
Refrigerent Loading	R410A	kg	1.45	1.45	1.45	1.45	1.45	1.45
Elevation difference (in/out) [5]	Max	m	10	10	10	10	10	10
Piping length (total)	Min / Max	m	30	30	30	30	30	30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20	3 / 20	3 / 20	3 / 20	3 / 20
Precharge length	Max	m	20	20	20	20	20	20
Additional charge		g/m	20	20	20	20	20	20
Operating range	Cooling Min / Max	°C	16 / 43	16 / 43	16 / 43	16 / 43	16 / 43	16 / 43
	Heating Min / Max	°C	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24	-10 / 24

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C 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 m 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.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

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

KIT-2MRE712-MKE	KIT-2MRE99-MKE	KIT-2MRE912-MKE	KIT-2MRE1212-MKE
CS-MRE7PKE	CS-MRE9PKE	CS-MRE9PKE	CS-MRE12PKE
CS-MRE12PKE	CS-MRE9PKE	CS-MRE12PKE	CS-MRE12PKE
CU-2RE18PBE	CU-2RE18PBE	CU-2RE18PBE	CU-2RE18PBE
4.80 (1.50 - 4.90)	4.70 (1.50 - 4.80)	4.80 (1.50 - 5.00)	4.80 (1.50 - 5.00)
3,916 (1,290 - 4,272)	4,183 (1,290 - 4,272)	3,916 (1,290 - 4,450)	3,916 (1,290 - 4,450)
1,85	2.35	2.10	2.40
2,95	2.35	2.70	2.40
3.43 (5.55- 3.20) A	3.43 (5.55 - 3.18) A	3.22 (5.55 - 3.20) A	3.22 (5.55 - 3.16) A
	6.50 A++		
	4.80		
1.40 (0.27 - 1.53)	1.37 (0.27 - 1.51)	1.49 (0.27 - 1.56)	1.49 (0.27 - 1.58)
5.80 (1.10 - 6.70)	5.80 (1.10 - 6.70)	5.80 (1.10 - 6.70)	5.80 (1.10 - 6.70)
5,162 (950 - 5,963)	5,162 (950 - 5,963)	5,162 (950 - 5,963)	5,162 (950 - 5,963)
2.00	2.60	2.30	2.30
3.20	2.60	2.95	2.95
3.94 (4.58 - 3.90) A	3.88 (4.58 - 3.85) A	3.94 (4.58 - 3.80) A	4.00 (4.58 - 3.90) A
	4.00 A+		
	3.80		
1.32 (0.24 - 1.72)	1.34 (0.24 - 1.74)	1.32 (0.24 - 1.72)	1.30 (0.24 - 1.70)
	1,330		
230	230	230	230
4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
6.50 / 5.85	6.40 / 5.95	6.95 / 5.85	6.95 / 5.75
606 (E7) / 654 (E12)	606	606 (E9) / 654 (E12)	654
1.2 (E7) / 1.5 (E12)	1.5	1.4 / 1.6	1.5
29 (E7) / 32 (E12)	29	26 (E9) / 29 (E12)	29
56 (E7) / 60 (E12)	56	56 (E9) / 60 (E12)	60
290 x 870 x 204	290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
9	9	9	9
Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter
1,998	1,998	1,998	1,998
47 / 49	47 / 49	47 / 49	47 / 49
62 / 64	62 / 64	62 / 64	62 / 64
540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289
38	38	38	38
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)
1.45	1.45	1.45	1.45
10	10	10	10
30	30	30	30
3 / 20	3 / 20	3 / 20	3 / 20
20	20	20	20
20	20	20	20
16 / 43	16 / 43	16 / 43	16 / 43
-10 / 24	-10 / 24	-10 / 24	-10 / 24

PRELIMINARY DATA

KIT-2MRE77-MBE // KIT-2MRE79-MBE // KIT-2MRE712-MBE // KIT-2MRE912-MBE // KIT-2MRE77-MKE // KIT-2MRE79-MKE // KIT-2MRE712-MKE // KIT-2MRE99-MKE // KIT-2MRE912-MKE // KIT-2MRE1212-MKE

Technical focus

- HIGH ENERGY SAVINGS
- LARGE ELEVATION DISTANCE (10 m)
- LARGE PIPING LENGTH (30 m)

Features

HEALTHY AIR
- New generation Anti Bacterial Filter with 10-year warranty
- Odour-removing function
- Anti-mould filter

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

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

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

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

CU-2RE15PBE
CU-2RE18PBE

ETHEREA MULTI SPLIT 2x1
INVERTER+

Etherea with enhanced Econavi sensor and new Nanoe-G air-purifying system: outstanding efficiency, comfort and healthy air combined with state-of-the-art design

Econavi features a Human Activity sensor and a new Sunlight Detection technology to adjust output ideally thereby giving you the best comfort at anytime whilst saving energy. Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould. 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 Econavi.

Using a Multi Split 2x1 Inverter+ system with the outdoor unit CU-2E15PBE instead of 2 individual mono split Inverter+ systems, you reduce consumption and thus save more! Up to 16%! Furthermore, using a Multi Split system, you save space on the outdoor unit, making it easier to install in small spaces.

product design award 2013

Awarded with the prestigious IF Design Award 2013

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-2XE79-PBE and KIT-2E79-PBE.

Silver Kit			**KIT-2XE77-PBE**	**KIT-2XE79-PBE**	**KIT-2XE712-PBE**	**KIT-2XE99-PBE**
Silver Kit with Smartphone Control			**KIT-2XE77-PBE-WIFI**	**KIT-2XE79-PBE-WIFI**	**KIT-2XE712-PBE-WIFI**	**KIT-2XE99-PBE-WIFI**
Indoor			**CS-XE7PKEW (x2)**	**CS-XE7PKEW + CS-XE9PKEW**	**CS-XE7PKEW + CS-XE12PKEW**	**CS-XE9PKEW (x2)**
White Kit			**KIT-2E77-PBE**	**KIT-2E79-PBE**	**KIT-2E712-PBE**	**KIT-2E99-PBE**
White Kit with Smartphone Control			**KIT-2E77-PBE-WIFI**	**KIT-2E79-PBE-WIFI**	**KIT-2E712-PBE-WIFI**	**KIT-2E99-PBE-WIFI**
Indoor			**CS-E7PKEW (x2)**	**CS-E7PKEW + CS-E9PKEW**	**CS-E7PKEW + CS-E12PKEW**	**CS-E9PKEW (x2)**
Outdoor			**CU-2E15PBE**	**CU-2E15PBE**	**CU-2E15PBE**	**CU-2E15PBE**
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 - 4,470)	3,870 (1,290 - 4,470)	3,870 (1,290 - 4,470)
EER 1)	**Nominal (Min - Max)**	**Energy Saving**	**3.66 (6.00 - 3.70) A**	**3.66 (6.00 - 3.42) A**	**3.66 (6.00 - 3.42) A**	**3.66 (6.00 - 3.42) A**
SEER	**Nominal**	**Energy Saving**		**6.50 A++**		
Pdesign (cooling)				**4.50**		
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)
Annual Energy Consumption (Cooling) 2)		kWh		242		
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**	**4.62 (5.24 - 4.19) A**	**4.62 (5.24 - 4.19) A**	**4.62 (5.24 - 4.19) A**	**4.62 (4.61 - 4.19) A**
SCOP	**Nominal**	**Energy Saving**		**4.00 A+**		
Pdesign at -10 °C		kW		**4.00**		
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 (Heating) 2)		kWh		1,400		
Indoor Unit						
Power source		V	230	230	230	230
Recommended Fuse		A				
Recommended power cable section		mm²				
Connection		mm²	4 x 1.5	4 x 1.5	4 x 1.5	4 x 1.5
Current Nominal	Cooling / Heating	A	5.10 / 5.20	5.75 / 5.20	5.75 / 5.20	5.75 / 5.20
Air Volume	Cooling	m³/h	600	690 (E7) / 714 (E9)	690 (E7) / 762 (E12)	714
Moisture removal volume		l/h	1.3 / 1.3	1.3 (E7) / 1.8 (E12)	1.3 (E7) / 1.8 (E12)	1.5 / 1.5
Sound pressure Level 3)	Cooling & Heating (S-Lo)	dB(A)	23	23	23	23
Sound power Level	Cooling & Heating (S-Lo)	dB	56	56	56	56
Dimensions	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255
Net weight		kg	9	9	9	9
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit						
Air Volume	Cooling / Heating	m³/h	1962 / 2214	1962 / 2214	1962 / 2214	1962 / 2214
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	619 x 824 +70 x 299	619 x 824 +70 x 299	619 x 824 +70 x 299	619 x 824 +70 x 299
Net weight		kg	39	39	39	39
Piping connections	Liquid pipe / 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)
Refrigerent Loading	R410A	kg	1.40	1.40	1.40	1.40
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
Precharge length	Max	m	20	20	20	20
Additional charge		g/m	15	15	15	15
Operating range	Cooling Min / Max	°C	-10 / 46	-10 / 46	-10 / 46	-10 / 46
	Heating Min / Max	°C	-10 / 24	-15 / 24	-15 / 24	-15 / 24

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: CS-E/XE_PKE units are only compatible with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE, CU-4E27PBE and CU-4E27PBE 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 m 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.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

INCLUDED WITH
THE INDOOR UNIT

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

Technical focus

- MAXIMUM EFFICIENCY AND COMFORT WITH ECONAVI, NOW WITH SUNLIGHT DETECTION
- EXCLUSIVE SILVER AND WHITE DESIGN
- NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
- OPTIONAL SMARTPHONE CONTROL
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

Features

HEALTHY AIR
- Nanoe-G air purifying system

ENERGY, EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -45% consumption with Econavi on heat pump, and -35% 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
- Optional wired weekly timer with 6 settings per day and 42 settings per week
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)
- Optional Smartphone 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

CS-E7PKEW // CS-E9PKEW // CS-E912PKEW

CU-2E15PBE

ETHEREA MULTI SPLIT 2x1
INVERTER+

Etherea with enhanced Econavi sensor and new Nanoe-G air-purifying system: outstanding efficiency, comfort and healthy air combined with state-of-the-art design

Econavi features a Human Activity sensor and a new Sunlight Detection technology to adjust output ideally thereby giving you the best comfort at anytime whilst saving energy. Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould. 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 Econavi.

Using a Multi Split 2x1 Inverter+ system with the outdoor unit CU-2E18PBE instead of 2 individual mono split Inverter+ systems, you reduce consumption and thus save more! Up to 16%! Furthermore, using a Multi Split system, you save space on the outdoor unit, making it easier to install in small spaces.

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INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-2XE712-PKE and KIT-2E712-PKE.

Silver Kit			KIT-2XE99-PKE	KIT-2XE712-PKE	KIT-2XE912-PKE	KIT-2XE1212-PKE
Silver Kit with Smartphone Control			KIT-2XE99-PKE-WIFI	KIT-2XE712-PKE-WIFI	KIT-2XE912-PKE-WIFI	KIT-2XE1212-PKE-WIFI
Indoor			CS-XE9PKEW (x2)	CS-XE7PKEW + CS-XE12PKEW	CS-XE9PKEW + CS-XE12PKEW	CS-XE12PKEW (x2)
White Kit			KIT-2E99-PKE	KIT-2E712-PKE	KIT-2E912-PKE	KIT-2E1212-PKE
White Kit with Smartphone Control			KIT-2E99-PKE-WIFI	KIT-2E712-PKE-WIFI	KIT-2E912-PKE-WIFI	KIT-2E1212-PKE-WIFI
Indoor			CS-E9PKEW (x2)	CS-E7PKEW + CS-E12PKEW	CS-E9PKEW + CS-E12PKEW	CS-E12PKEW (x2)
Outdoor			CU-2E18PBE	CU-2E18PBE	CU-2E18PBE	CU-2E18PBE
Cooling capacity	Nominal (Min - Max)	kW	4.80 (1.50 - 5.20)	5.20 (1.50 - 5.40)	5.00 (1.50 - 5.30)	5.20 (1.50 - 5.40)
	Nominal (Min - Max)	kCal/h	4,130 (1,290 - 4,470)	4,472 (1,290 - 4,644)	4,300 (1,290 - 4,560)	4,470 (1,290 - 4,640)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**3.66 (6.00 - 3.42) A**	**3.42 (6.00 - 3.42) A**	**3.36 (6.00 - 3.44) A**	**3.42 (6.00 - 3.42) A**
SEER	**Nominal**	**Energy Saving**		**6.50 A++**		
Pdesign (cooling)				**5.20**		
Power input Cooling	Nominal (Min - Max)	kW	1.31 (0.25 - 1.52)	1.49 (0.25 - 1.54)	1.49 (0.25 - 1.54)	1.52 (0.25 - 1.58)
Annual Energy Consumption (Cooling) [2]		kWh		280		
Heating capacity	Nominal (Min - Max)	kW	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)	5.60 (1.10 - 7.20)
	Nominal (Min - Max)	kCal/h	4,820 (950 - 6,190)	4,820 (950 - 6,190)	4,820 (950 - 6,190)	4,820 (950 - 6,190)
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.48 (5.24 - 4.14) A**	**4.63 (4.24 - 5.24) A**	**4.55 (5.24 - 4.19) A**	**4.63 (5.24 - 4.24) A**
SCOP	**Nominal**	**Energy Saving**		**4.00 A+**		
Pdesign at -10 °C		kW		**3.80**		
Power input Heating	Nominal (Min - Max)	kW	1.25 (0.21 - 1.74)	1.30 (0.24 - 1.70)	1.23 (0.21 - 1.72)	1.21 (0.21 - 1.70)
Annual Energy Consumption (Heating) [2]		kWh		1400		
Indoor unit						
Power source		V	230	230	230	230
Recommended Fuse		A				
Recommended power cable section		mm^2				
Connection		mm^2	4 x 1.5	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	6.95 / 5.45	7.10 / 5.35
Air Volume	Cooling	m^3/h	714	714 (E9) / 762 (E12)	606 (E9) / 654 (E12)	654
Moisture removal volume		l/h	1.5 / 1.5	1.5 (E9) / 1.8 (E12)	1.4 (E9) / 1.6 (E12)	1.6 / 1.6
Sound pressure Level [3]	Cooling & Heating (S-Lo)	dB(A)	23	23	23	23
Sound power Level	Cooling & Heating (S-Lo)	dB	56	56	56	56
Dimensions	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255
Net weight		kg	9	9	9	9
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Outdoor unit						
Air Volume	Cooling / Heating	m^3/h	2214 / 2466	2214 / 2466	2214 / 2466	2214 / 2466
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	49 / 51	49 / 51	49 / 51	49 / 51
Sound power Level	Cooling / Heating (Hi)	dB	64 / 66	64 / 66	64 / 66	64 / 66
Dimensions [4]	H x W x D	mm	619 x 824 x 229	619 x 824 x 229	619 x 824 x 229	619 x 824 x 229
Net weight		kg	39	39	39	39
Piping connections	Liquid pipe / 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)
Refrigerent Loading	R410A	kg	1.40	1.40	1.40	1.40
Elevation difference (in/out) [5]	Max	m	10	10	10	10
Piping length (total)	Max	m	30	30	30	30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20	3 / 20	3 / 20
Precharge length	Max	m	20	20	20	20
Additional charge		g/m	15	15	15	15
Operating range	Cooling Min / Max	°C	-10 / 46	-10 / 46	-10 / 46	-10 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: CS-E/XE_PKE units are only compatible with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE, CU-4E27PBE and CU-4E27PBE 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 m 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.
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de

INCLUDED WITH
THE INDOOR UNIT

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

Technical focus

- MAXIMUM EFFICIENCY AND COMFORT WITH ECONAVI, NOW WITH SUNLIGHT DETECTION
- EXCLUSIVE SILVER AND WHITE DESIGN
- NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
- OPTIONAL SMARTPHONE CONTROL
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

CS-E9PKEW // CS-E12PKEW

Features

HEALTHY AIR
- Nanoe-G air purifying system

ENERGY, EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -45% consumption with Econavi on heat pump, and -35% 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
- Optional wired weekly timer with 6 settings per day and 42 settings per week
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)
- Optional Smartphone 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

CU-2E18PBE

ETHEREA MULTI SPLIT 3x1
INVERTER+

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Econavi features a Human Activity sensor and a new Sunlight Detection technology to adjust output ideally thereby giving you the best comfort at anytime whilst saving energy. Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould. 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 Econavi.

Etherea has an advanced air purifying system with the new Patrol Sensor to detect and eliminate contaminants. Using a Multi Split 3x1 Inverter+ system with the outdoor unit CU-3E18PBE instead of 3 individual mono split Inverter+ systems, you reduce consumption and thus save more! Up to 34%! Furthermore, using a Multi Split system, you save space on the outdoor unit, making it easier to install in small spaces.

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INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-3E557-PBE.

Silver Kit			—	**KIT-3XE7712-PBE**	**KIT-3XE7715-PBE***
Silver Kit with Smartphone Control			—	**KIT-3XE7712-PBE-WIFI**	**KIT-3XE7715-PBE-WIFI**
Indoor			—	**CS-XE7PKEW (x2) + CS-XE12PKEW (x1)**	**CS-XE7PKEW (x2) + CS-XE15PKEW (x1)**
White Kit			**KIT-3E557-PBE**	**KIT-3E7712-PBE**	**KIT-3E7715-PBE***
White Kit with Smartphone Control			**KIT-3E557-PBE-WIFI**	**KIT-3E7712-PBE-WIFI**	**KIT-3E7715-PBE-WIFI**
Indoor			**CS-ME5PKEW (x2) + CS-E7PKEW (x1)**	**CS-E7PKEW (x2) + CS-E12PKEW (x1)**	**CS-E7PKEW (x2) + CS-E15PKEW (x1)**
Outdoor			**CU-3E18PBE**	**CU-3E18PBE**	**CU-3E18PBE**
Cooling capacity	Nominal (Min - Max)	kW	5.20 (1.80-7.30)	5.20 (1.90-7.20)	5.20 (1.80-7.30)
	Nominal (Min - Max)	kCal/h	4,470 (1,548-6,278)	4,470 (1,630-6,190)	4,470 (1,550-6,280)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.33 (5.00 - 3.35) A**	**4.30 (5.28 - 3.30) A**	**4.30 (5.00 - 3.35) A**
SEER	**Nominal**	**Energy Saving**	**7.00 A++**		
Pdesign (cooling)			**5.20**		
Power input Cooling	Nominal (Min - Max)	kW	1,21 (0,36-2,18)	1,21 (0,36-2,18)	1,21 (0,36-2,18)
Annual Energy Consumption (Cooling) [2]		kWh	260		
Heating capacity	Nominal (Min - Max)	kW	6.80 (1.60-8.30)	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 (1,200-7,140)	5,850 (1,380-7,140)
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.69 (3.93 - 5.00) A**	**4.63 (4.38 - 3.94) A**	**4.72 (5.00 - 3.93) A**
SCOP	**Nominal**	**Energy Saving**	**4.00 A+**		
Pdesign at -10 °C		kW	**4.80**		
Power input Heating	Nominal (Min - Max)	kW	1.45 (0.32 - 2.11)	1.47 (0.32-2.11)	1.44 (0.32-2.11)
Annual Energy Consumption (Heating) [2]		kWh	1,680		
Indoor unit					
Power source		V		230	230
Recommended Fuse		A			
Recommended power cable section		mm²			
Connection		mm²		4 x 1.5	4 x 1.5
Current	Cooling / Heating Nominal	A		5.3 / 8.2	5.3 / 7.9
Air Volume	Cooling	m³/h	690 (E7) / 690 (E7)	690 (E7) / 712 (E12)	606 (E7) / 786 (E15)
Moisture removal volume		l/h	1.3 (E7) / 1.3 (E7)	1.3 (E7) / 1.8 (E12)	0.8 (E7) / 2.3 (E15)
Sound pressure Level [3]	Cooling — Heating (S-Lo)	dB(A)	23	23	23 (E7) / 28 (E15)
Sound power Level	Cooling & Heating (Hi)	dB	56	56	56
Dimensions	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255
Net weight		kg	9	9	9
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G
Outdoor unit					
Air Volume	Cooling / Heating	m³/h	2,502	2,502	2,502
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	46 / 47	46 / 47	46 / 47
Sound power Level	Cooling / Heating (Hi)	dB	60 / 61	60 / 61	60 / 61
Dimensions [4]	H x W x D	mm	795 x 875 (+95) x 320	795 x 875 (+95) x 320	795 x 875 (+95) x 320
Net weight		kg	71	71	71
Piping connections	Liquid pipe / 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)
Refrigerent Loading	R410A	kg	2.64	2.64	2.64
Elevation difference (in/out) [5]	Max	m	15	15	15
Piping length (total)	Min / Max	m	3 / 50	3 / 50	3 / 50
Piping length (one unit)	Min / Max	m	3 / 25	3 / 25	3 / 25
Precharge length	Max	m	30	30	30
Additional charge		g/m	20	20	20
Operating range	Cooling Min / Max	°C	-10 / 46	-10 / 46	-10 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: CS-E/XE_PKE units are only compatible with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE, CU-4E27PBE and CU-4E27PBE 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 m 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.
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For detailed information about ErP, please visit our page http://www.doc.panasonic.de
*CZ-MA1P reduced needed and Not included on the Kit.

INCLUDED WITH
THE INDOOR UNIT

KIT SILVER PLATED: KIT-3XE7712-PBE // KIT-3XE7715-PBE

KIT WHITE: KIT-3E557-PBE // KIT-3E7712-PBE // KIT-3E7715-PBE

Technical focus

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- EXCLUSIVE SILVER AND WHITE DESIGN
- NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
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Features

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- Nanoe-G air purifying system

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- Maximum efficiency Inverter system, for bigger savings
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- 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
- Optional wired weekly timer with 6 settings per day and 42 settings per week
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)
- Optional Smartphone control

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

CS-ME5PKEW // CS-E7PKEW // CS-E12PKEW // CS-E15PKEW

CU-3E18PBE

ETHEREA MULTI SPLIT 4x1
INVERTER+

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Using a Multi Split 4x1 Inverter+ system with the outdoor unit CU-4E27PBE instead of 4 individual mono split Inverter+ systems, you reduce consumption and thus save more! Up to 36%! Furthermore, using a Multi Split system, you save space on the outdoor unit, making it easier to install in small spaces.

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INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-4E5557-PBE, KIT-4XE7777-PKE and KIT-4E7777-PKE.

Silver Kit			–	KIT-4XE77712-PBE	KIT-4XE77715-PBE*	KIT-4XE7777-PKE	KIT-4XE77712-PKE*	KIT-4XE77715-PKE*
Silver Kit with Smartphone Control			–	KIT-4XE77712-PBE-WIFI	KIT-4XE77715-PBE-WIFI	KIT-4XE7777-PKE-WIFI	KIT-4XE77712-PKE-WIFI	KIT-4XE77715-PKE-WIFI
Indoor			–	CS-XE7PKEW (x3) + CS-XE12PKEW (x1)	CS-XE7PKEW (x3) + CS-XE15PKEW (x1)	CS-XE7PKEW(x4)	CS-XE7PKEW (x3) + CS-XE12PKEW (x1)	CS-XE7PKEW (x3) + CS-XE15PKEW (x1)
White Kit			KIT-4E5557-PBE	KIT-4E77712-PBE	KIT-4E77715-PBE*	KIT-4E7777-PKE	KIT-4E77712-PKE*	KIT-4E77715-PKE*
White Kit with Smartphone Control			KIT-4E5557-PBE-WIFI	KIT-4E77712-PBE-WIFI	KIT-4E77715-PBE-WIFI	KIT-4E7777-PKE-WIFI	KIT-4E77712-PKE-WIFI	KIT-4E77715-PKE-WIFI
Indoor			CS-ME5PKEW (x3) + CS-E7PKEW (x1)	CS-E7PKEW (x3) + CS-E12PKEW (x1)	CS-E7PKEW (x3) + CS-E15PKEW (x1)	CS-E7PKEW(x4)	CS-E7PKEW (x3) + CS-E12PKEW (x1)	CS-E7PKEW (x3) + CS-E15PKEW (x1)
Outdoor			CU-4E23PBE	CU-4E23PBE	CU-4E23PBE	CU-4E27PBE	CU-4E27PBE	CU-4E27PBE
Cooling capacity	Nominal (Min - Max)	kW	6.80 (1.90 - 8.80)	6.80 (1.90 - 8.80)	6.80 (1.90 - 8.80)	8.00 (3.00 - 9.20)	8.00 (2.80 - 8.90)	8.00 (2.80 - 8.90)
	Nominal (Min - Max)	kCal/h	5,850 (1,630 - 7,570)	5,850 (1,630 - 7,570)	5,850 (1,630 - 7,650)	6,880 (2,580 - 7,912)	6,880 (2,410 - 7,650)	6,880 (2,410 - 7,650)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.05 (5.59 - 3.56) A**	**4.12 (5.59 - 3.56) A**	**4.12 (5.59 - 3.56) A**	**4.04 (5.66 - 3.21) A**	**3.76 (5.71 - 3.09) A**	**3.76 (5.71 - 3.20) A**
SEER	**Nominal**	**Energy Saving**	**7.00 A++**			**7.00 A++**		
Pdesign (cooling)			**6.80**			**8.00**		
Power input Cooling	Nominal (Min - Max)	kW	1,68 (0,34 - 2,47)	1,65 (0,34 - 2,47)	1,65 (0,34 - 2,47)	1.98 (0.53 - 2.87)	2.13 (0.49 - 2.88)	2.10 (0.49 - 2.87)
Annual Energy Consumption (cooling) [2]		kWh	340			400		
Heating capacity	Nominal (Min - Max)	kW	8.50 (3.00 - 10.60)	8.60 (3.00 - 10.60)	8.60 (3.00 - 10.60)	9.40 (4.20 - 10.60)	9.40 (3.40 - 10.50)	9.40 (3.80 - 10.50)
	Nominal (Min - Max)	kCal/h	7,130 (2,580 - 9,120)	7,400 (2,580 - 9,120)	7,400 (2,580 - 9,120)	8,084 (3,612 - 9,116)	8,080 (2,920 - 9,030)	8,080 (3,270 - 9,030)
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.47 (4.08 - 5.17) A**	**4.65 (5.17 - 4.08) A**	**4.67 (5.09 - 4.09) A**	**4.52 (6.00 - 3.46) A**	**4.43 (5.76 - 3.30) A**	**4.50 (5.31 - 3.34) A**
SCOP	**Nominal**	**Energy Saving**	**4.00 A+**			**4.00 A+**		
Pdesign at -10 °C		kW	**5.50**			**8.00**		
Power input Heating	Nominal (Min - Max)	kW	1.85 (0.58 - 2.60)	1.85 (0.58 - 2.60)	1.84 (0.59 - 2.59)	2.08 (0.70 - 3.06)	2.12 (0.59 - 3.18)	2.09 (0.64 - 3.14)
Annual Energy Consumption (Heating) [2]		kWh	1925			2800		
Indoor unit								
Power source		V						
Recommended Fuse		A						
Recommended power cable section		mm^2						
Connection		mm^2						
Current	Cooling / Heating Nominal	A						
Air Volume	Cooling	m^3/h	600 (E5) / 690 (E7)	690 (E7) / 712 (E12)	606 (E7) / 786 (E15)	714 (E7)	654 (E7) / 762 (E12)	606 (E7) / 786 (E15)
Moisture removal volume		l/h	1 (E5) / 1.3 (E17)	1.3 (E7) / 1.8 (E12)	0.8 (E7) / 2.3 (E15)	1.3 (E7)	1.3 (E7) / 1.8 (E12)	1.3 (E7) / 2.3 (E15)
Sound pressure level [3]	Cooling & Heating (S-Lo)	dB(A)	23	23	23 (E7) / 28 (E15)	23	23	23 (E7) / 28 (E15)
Sound power level	Cooling & Heating (Hi)	dB	56	56	56	56	56	56
Dimensions / Net weight	H x W x D	mm	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Outdoor unit								
Air Volume	Cooling / Heating	m^3/h	2,550	2,550	2,550	3,024	3,024	3,024
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	48 / 49	48 / 49	48 / 49	51 / 52	51 / 52	51 / 52
Sound power Level	Cooling / Heating (Hi)	dB	62 / 63	62 / 63	62 / 63	67 / 68	67 / 68	67 / 68
Dimensions [4]	H x W x D	mm	795 x 875 (+95) x 320	795 x 875 (+95) x 320	795 x 875 (+95) x 320	999 x 940 x 340	999 x 940 x 340	999 x 940 x 340
Net weight		kg	72	72	72	80	80	80
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)	2x 3/8 (9.52), 2x 1/2 (12.7)	2x 3/8 (9.52), 2x 1/2 (12.7)	2x 3/8 (9.52), 2x 1/2 (12.7)
Refrigerent Loading	R410A	kg	2.64	2.64	2.64	3.4	3.4	3.4
Elevation difference (in/out) [5]	Max	m	15	15	15	15	15	15
Piping length total (one unit)	Max (Min / Max)	m	60 (3 / 25)	60 (3 / 25)	60 (3 / 25)	70 (3 / 25)	70 (3 / 25)	70 (3 / 25)
Precharge length	Max	m	30	30	30	45	45	45
Additional charge		g/m	20	20	20	20	20	20
Operation Range	Cooling Min / Max	°C	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24

DELETE "THIS MODEL IS NOT SUITABLE FOR ..."

21.01.13

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB / Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
Connectivity restriction: CS-E/XE_PKE units are only compatible with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE, CU-4E27PBE and CU-4E27PKE outdoor units. No other outdoor unit can be connected.

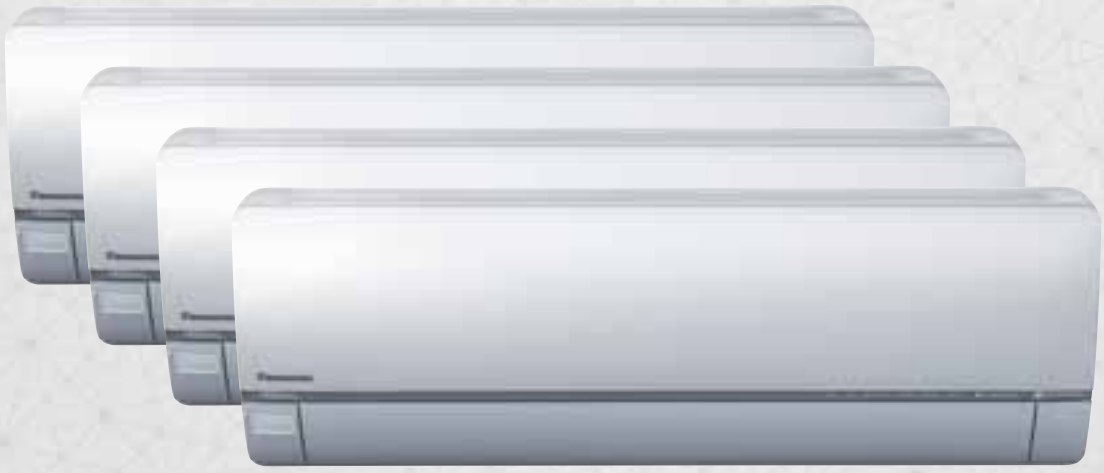
01.02.13

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 m 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.

Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de
CZ-MA1P reducer needed and not included on the kit.

18.12.12

PRELIMINARY DATA
PRELIMINARY DATA



INCLUDED WITH
THE INDOOR UNIT

KIT SILVER PLATED: KIT-4XE77715-PBE // KIT-4XE77712-PKE // KIT-4XE77715-PKE

KIT WHITE: KIT-4E5557-PBE // KIT-4E77712-PBE // KIT-4E77715-PBE // KIT-4E77712-PKE // KIT-4E77715-PKE

Technical focus

- MAXIMUM EFFICIENCY AND COMFORT WITH ECONAVI, NOW WITH SUNLIGHT DETECTION
- EXCLUSIVE SILVER AND WHITE DESIGN
- NANOE-G AIR PURIFYING SYSTEM, 99% EFFECTIVE ON BOTH AIRBORNE AND ADHESIVE MOULD, VIRUSES AND BACTERIA
- OPTIONAL SMARTPHONE CONTROL
- MORE POWERFUL AIRFLOW TO QUICKLY REACH THE DESIRED TEMPERATURE

Features

HEALTHY AIR
- Nanoe-G air purifying system

ENERGY, EFFICIENCY AND ECOLOGY
- Maximum efficiency Inverter system, for bigger savings
- -45% consumption with Econavi on heat pump, and -35% 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
- Optional wired weekly timer with 6 settings per day and 42 settings per week
- Connectivity function (indoor unit equipped with PCB port which can be connected to outside network)
- Optional Smartphone control

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

CS-E7PKEW // CS-E12PKEW // CS-E15PKEW

CU-4E23PBE

CU-4E27PBE

ETHEREA MULTI SPLIT 4x1
INVERTER+

Etherea with enhanced Econavi sensor and new Nanoe-G air-purifying system: outstanding efficiency, comfort and healthy air combined with state-of-the-art design

Econavi features a Human Activity sensor and a new Sunlight Detection technology to adjust output ideally thereby giving you the best comfort at anytime whilst saving energy. Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould. 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 Econavi.

Using a Multi Split 4x1 Inverter+ system with the outdoor unit CU-4E27PBE instead of 4 individual mono split Inverter+ systems, you reduce consumption and thus save more! Up to 36%! Furthermore, using a Multi Split system, you save space on the outdoor unit, making it easier to install in small spaces.

product design award 2013

Awarded with the prestigious IF Design Award 2013

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-4E5557-PBE, KIT-4XE7777-PKE and KIT-4E7777-PKE.

Silver Kit			–	KIT-4XE77712-PBE	KIT-4XE77715-PBE*	KIT-4XE7777-PKE	KIT-4XE77712-PKE*	KIT-4XE77715-PKE*
Silver Kit with Smartphone Control			–	KIT-4XE77712-PBE-WIFI	KIT-4XE77715-PBE-WIFI	KIT-4XE7777-PKE-WIFI	KIT-4XE77712-PKE-WIFI	KIT-4XE77715-PKE-WIFI
Indoor			–	CS-XE7PKEW (x3) + CS-XE12PKEW (x1)	CS-XE7PKEW (x3) + CS-XE15PKEW (x1)	CS-XE7PKEW(x4)	CS-XE7PKEW (x3) + CS-XE12PKEW (x1)	CS-XE7PKEW (x3) + CS-XE15PKEW (x1)
White Kit			KIT-4E5557-PBE	KIT-4E77712-PBE	KIT-4E77715-PBE*	KIT-4E7777-PKE	KIT-4E77712-PKE*	KIT-4E77715-PKE*
White Kit with Smartphone Control			KIT-4E5557-PBE-WIFI	KIT-4E77712-PBE-WIFI	KIT-4E77715-PBE-WIFI	KIT-4E7777-PKE-WIFI	KIT-4E77712-PKE-WIFI	KIT-4E77715-PKE-WIFI
Indoor			CS-ME5PKEW (x3) + CS-E7PKEW (x1)	CS-E7PKEW (x3) + CS-E12PKEW (x1)	CS-E7PKEW (x3) + CS-E15PKEW (x1)	CS-E7PKEW(x4)	CS-E7PKEW (x3) + CS-E12PKEW (x1)	CS-E7PKEW (x3) + CS-E15PKEW (x1)
Outdoor			CU-4E23PBE	CU-4E23PBE	CU-4E23PBE	CU-4E27PBE	CU-4E27PBE	CU-4E27PBE
Cooling capacity	Nominal (Min - Max)	kW	6.80 (1.90 - 8.80)	6.80 (1.90 - 8.80)	6.80 (1.90 - 8.80)	8.00 (3.00 - 9.20)	8.00 (2.80 - 8.90)	8.00 (2.80 - 8.90)
	Nominal (Min - Max)	kCal/h	5,850 (1,630 - 7,570)	5,850 (1,630 - 7,570)	5,850 (1,630 - 7,650)	6,880 (2,580 - 7,912)	6,880 (2,410 - 7,650)	6,880 (2,410 - 7,650)
EER [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.05 (5.59 - 3.56) A**	**4.12 (5.59 - 3.56) A**	**4.12 (5.59 - 3.56) A**	**4.04 (5.66 - 3.21) A**	**3.76 (5.71 - 3.09) A**	**3.76 (5.71 - 3.20) A**
SEER	**Nominal**	**Energy Saving**	**7.00 A++**			**7.00 A++**		
Pdesign (cooling)			**6.80**			**8.00**		
Power input Cooling	Nominal (Min - Max)	kW	1,68 (0,34 - 2,47)	1,65 (0,34 - 2,47)	1,65 (0,34 - 2,47)	1.98 (0.53 - 2.87)	2.13 (0.49 - 2.88)	2.10 (0.49 - 2.87)
Annual Energy Consumption (cooling) [2]		kWh	340			400		
Heating capacity	Nominal (Min - Max)	kW	8.50 (3.00 - 10.60)	8.60 (3.00 - 10.60)	8.60 (3.00 - 10.60)	9.40 (4.20 - 10.60)	9.40 (3.40 - 10.50)	9.40 (3.80 - 10.50)
	Nominal (Min - Max)	kCal/h	7,130 (2,580 - 9,120)	7,400 (2,580 - 9,120)	7,400 (2,580 - 9,120)	8,084 (3,612 - 9,116)	8,080 (2,920 - 9,030)	8,080 (3,270 - 9,030)
COP [1]	**Nominal (Min - Max)**	**Energy Saving**	**4.47 (4.08 - 5.17) A**	**4.65 (5.17 - 4.08) A**	**4.67 (5.09 - 4.09) A**	**4.52 (6.00 - 3.46) A**	**4.43 (5.76 - 3.30) A**	**4.50 (5.31 - 3.34) A**
SCOP	**Nominal**	**Energy Saving**	**4.00 A+**			**4.00 A+**		
Pdesign at -10 °C		kW	**5.50**			**8.00**		
Power input Heating	Nominal (Min - Max)	kW	1.85 (0.58 - 2.60)	1.85 (0.58 - 2.60)	1.84 (0.59 - 2.59)	2.08 (0.70 - 3.06)	2.12 (0.59 - 3.18)	2.09 (0.64 - 3.14)
Annual Energy Consumption (Heating) [2]		kWh	1925			2800		
Indoor unit								
Power source		V						
Recommended Fuse		A						
Recommended power cable section		mm^2						
Connection		mm^2						
Current	Cooling / Heating Nominal	A						
Air Volume	Cooling	m^3/h	600 (E5) / 690 (E7)	690 (E7) / 712 (E12)	606 (E7) / 786 (E15)	714 (E7)	654 (E7) / 762 (E12)	606 (E7) / 786 (E15)
Moisture removal volume		l/h	1 (E5) / 1.3 (E17)	1.3 (E7) / 1.8 (E12)	0.8 (E7) / 2.3 (E15)	1.3 (E7)	1.3 (E7) / 1.8 (E12)	1.3 (E7) / 2.3 (E15)
Sound pressure level [3]	Cooling & Heating (S-Lo)	dB(A)	23	23	23 (E7) / 28 (E15)	23	23	23 (E7) / 28 (E15)
Sound power level	Cooling & Heating (Hi)	dB	56	56	56	56	56	56
Dimensions / Net weight	H x W x D	mm	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9	295 x 870 x 255 / 9
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Outdoor unit								
Air Volume	Cooling / Heating	m^3/h	2,550	2,550	2,550	3,024	3,024	3,024
Sound pressure Level [3]	Cooling / Heating (Hi)	dB(A)	48 / 49	48 / 49	48 / 49	51 / 52	51 / 52	51 / 52
Sound power Level	Cooling / Heating (Hi)	dB	62 / 63	62 / 63	62 / 63	67 / 68	67 / 68	67 / 68
Dimensions [4]	H x W x D	mm	795 x 875 (+95) x 320	795 x 875 (+95) x 320	795 x 875 (+95) x 320	999 x 940 x 340	999 x 940 x 340	999 x 940 x 340
Net weight		kg	72	72	72	80	80	80
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)	2x 3/8 (9.52), 2x 1/2 (12.7)	2x 3/8 (9.52), 2x 1/2 (12.7)	2x 3/8 (9.52), 2x 1/2 (12.7)
Refrigerent Loading	R410A	kg	2.64	2.64	2.64	3.4	3.4	3.4
Elevation difference (in/out) [5]	Max	m	15	15	15	15	15	15
Piping length total (one unit)	Max (Min / Max)	m	60 (3 / 25)	60 (3 / 25)	60 (3 / 25)	70 (3 / 25)	70 (3 / 25)	70 (3 / 25)
Precharge length	Max	m	30	30	30	45	45	45
Additional charge		g/m	20	20	20	20	20	20
Operating range	Cooling Min / Max	°C	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46
	Heating Min / Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24

PRELIMINARY DATA

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)
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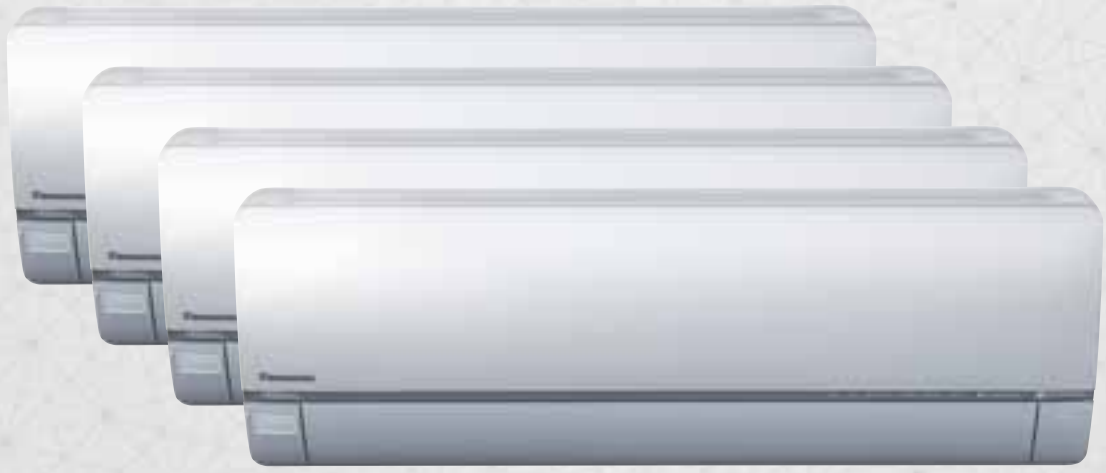
Specifications subject to change without notice.
For detailed information about ErP, please visit our page http://www.doc.panasonic.de
*CZ-MA1P reduced needed and Not included on the Kit.



INCLUDED WITH
THE INDOOR UNIT

KIT SILVER PLATED: KIT-4XE77715-PBE // KIT-4XE77712-PKE // KIT-4XE77715-PKE

KIT WHITE: KIT-4E5557-PBE // KIT-4E77712-PBE // KIT-4E77715-PBE // KIT-4E77712-PKE // KIT-4E77715-PKE

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

CS-E7PKEW // CS-E12PKEW // CS-E15PKEW

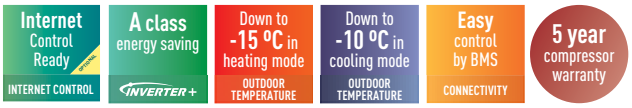
CU-4E23PBE

CU-4E27PBE

FREE MULTI SYSTEM

Up to 5 indoor units with a single outdoor unit

Connect up to five different rooms with a single outdoor unit using the Free Multi system.
With Free Multi you can take care of 2, 3, 4 or 5 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 indoor units according to the individual requirements of each of your client's rooms, and calculate which outdoor unit best adapts itself to the combinations of indoor units.
The combination table will help you to select the best option.



INTERNET CONTROL READY and EASY CONTROL by BMS: Optional only for Etherea.

NEW

Possible outdoor/indoor units combinations

Models			Capacity	Piping connections		Pipe length					Capacity combinations	Indoor Unit Capacities								
				Liquid pipe (Inch)	Gas pipe (Inch)	Max. pipe length (1 room)	Max. pipe length (total)	Precharge length	Additional charge	Elevation difference (in/out)		5 1.6 kW	7 2.0 kW	9/10 2.5 kW	9/10 2.8 kW	12 3.2 kW	15 4.0 kW	18 5.0 kW	21 6.8 kW	24 7.1 kW
ROOMS	2	CU-2E15PBE	4.0-5.6 kW	1/4	3/8	20 m	30 m	20 m	20 g/m	10 m	For 2 indoor units	✔	✔	✔	✔	✔				
		CU-2E18PBE	4.0-6.4 kW	1/4	3/8	20 m	30 m	20 m	20 g/m	10 m	For 2 indoor units	✔	✔	✔	✔	✔				
	3	CU-3E18PBE	4.5-9.0 kW	1/4	3/8	25 m	50 m	30 m	20 g/m	15 m	For 3 indoor units	✔	✔	✔	✔	✔	✔	✔		
	4	CU-4E23PBE	4.5-11.0 kW	1/4	3/8	25 m	60 m	30 m	20 g/m	15 m	For 4 indoor units	✔	✔	✔	✔	✔	✔	✔	✔	
		CU-4E27PBE	4.5-13.6 kW	1/4	3/8	25 m	70 m	40 m	20 g/m	15 m	For 4 indoor units		✔	✔	✔	✔	✔	✔	✔	✔
	5	CU-5E34PBE	1.6-14.5 kW	1/4	3/8	30 m	80 m	45 m	20 g/m	15 m	For 5 indoor units		✔	✔	✔	✔	✔	✔	✔	✔

NEW

Indoor Unit Capacities

Capacity	Split Etherea	Floor Console	Low Static Pressure Hide Away	4 Way 60x60 Cassette
5 - 1.6 kW	 CS-ME5PKEW[1]			
7 - 2.0 kW	 CS-XE7PKEW / CS-E7PKEW			
9/10 - 2.5 kW	 CS-XE9PKEW / CS-E9PKEW		 CS-ME9PD3EA	 CS-ME9PB4EA
9/10 - 2.8 kW		 CS-E9GFEW		
12 - 3.2 kW	 CS-XE12PKEW / CS-E12PKEW	 CS-E12GFEW	 CS-ME12PD3EA[2]	 CS-ME12PB4EA[2]
15 - 4.0 kW	 CS-XE15PKEW[2]/ CS-E15PKEW[2]			
18 - 5.0 kW	 CS-XE18PKEW[2] / CS-E18PKEW[2]	 CS-E18GFEW[2]	 CS-ME18PD3EA[2]	 CS-ME18PB4EA[2]
21 - 6.8 kW	 CS-XE21PKEW[2] / CS-E21PKEW[2]			 CS-ME21PB4EA[2]
24 - 7.1 kW	 CS-E24PKEW[1]			

1. Only for connection with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE and CU-4E23PBE.
2. A CZ-MA1P pipe reducer is needed on the E15 and E18, a CZ-MA2P pipe expander is needed on the E21.

Indoor Units for Free Multi combinations

OPTIONAL WIRED REMOTE CONTROL CZ-RD514C

INTERNET CONTROL READY: Optional.

Internet Control Ready – INTERNET CONTROL | Air purifier 99% removal bacteria-virus-mold – nanoe G | Up to 38% energy savings (cooling) – ECONAVI | Improved comfort – AUTOCOMFORT | Perfect humidity control – MILD DRY | Silent air 20 dB – SUPER QUIET | Easy control by BMS – CONNECTIVITY

Etherea // Silver or White			1.6 kW	2.0 kW	2.5 kW	3.2 kW	4.0 kW	5.0 kW	6.8 kW	8.0 kW
Silver Indoor			—	CS-XE7PKEW	CS-XE9PKEW	CS-XE12PKEW	CS-XE15PKEW	CS-XE18PKEW	CS-XE21PKEW	—
White Indoor			CS-ME5PKEW*	CS-E7PKEW	CS-E9PKEW	CS-E12PKEW	CS-E15PKEW	CS-E18PKEW	CS-E21PKEW	CS-E24PKEW
Cooling capacity	Nominal	kW/kCal/h	1.6 / 1,376	2.00 / 1,720	2.50 / 2,150	3.20 / 2,750	4.00 / 3,440	5.00 / 4,300	6.00 / 5,160	7.65 / 6,580
Heating capacity	Nominal	kW/kCal/h	2.6 / 2,236	3.20 / 2,750	3.60 / 3,010	4.50 / 3,870	5.60 / 4,820	6.80 / 5,850	8.50 / 7,310	9.60 / 8,260
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	4 x 1.5	4 x 1.5
Sound pressure level[1]	Cooling (Hi/Lo/S-Lo)	dB(A)	39 / 29 / 23	40 / 26 / 23	40 / 26 / 23	44 / 32 / 26	44 / 32 / 26	46 / 33 / 30	46 / 33 / 30	49 / 38 / 35
	Heating (Hi/Lo/S-Lo)	dB(A)	39 / 29 / 23	40 / 26 / 23	40 / 26 / 23	44 / 32 / 26	44 / 33 / 32	46 / 35 / 32	46 / 35 / 32	48 / 38 / 35
Sound power level	Cooling (Hi)	dB	55	54	56	60	60	62	62	65
	Heating (Hi)	dB	55	56	56	60	60	62	62	64
Dimensions	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	290 x 1,070 x 255	290 x 1,070 x 255	290 x 1,070 x 255
Net weight		kg	9	9	9	9	9	12	12	12
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
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)	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)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	5/8 (15.88)

* Only for connection with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE and CU-4E23PBE.

INCLUDE ON THE INDOOR UNIT

OPTIONAL WIRED REMOTE CONTROL CZ-RD52CP

CZ-BT20E SOLD SEPARATELY

OPTIONAL: CZ-SA11P

Prevention allergen filter – ANTI BACTERIAL FILTER

4 Way 60x60 Cassette			2.5 kW	3.2 kW	5.0 kW	6.0 kW
Indoor (from June 2013)			CS-ME9PB4E	CS-ME12PB4E	CS-ME18PB4E	CS-ME21PB4E
Indoor (availbale untill end of stock)			CS-E10KB4EA	CS-E15HB4EA	CS-E18HB4EA	CS-E21JB4EA
Panel	Sold separatel		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[1]	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 (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 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)

Silent air 23 dB – SUPER QUIET

Floor Console			2.8 kW	3.2 kW	5.0 kW
Indoor			CS-E9GFEW	CS-E12GFEW	CS-E18GFEW
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[1]	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 (Hi)	dB	54	55	60
	Heating (Hi)	dB	54	55	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 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)

Outdoor Multi combination model		Accessory needed
CS-XE7***	CU-2E15***	Pipe reducer is not needed
CS-E7***	CU-2E18***	
CS-XE9***	CU-3E18***	
CS-E9***	CU-4E23***	
CS-XE12***	CU-4E27***	
CS-E12***	CU-5E34***	
CS-XE15***	CU-3E18***	CZ-MA1P
CS-E15***	CU-4E23***	
CS-XE18***	CU-4E27***	
CS-E18***	CU-5E34***	
CS-XE21***	CU-4E23***	CZ-MA2P
CS-E21***	CU-4E27***	
	CU-5E34***	
CS-E24***	CU-4E27***	CZ-MA2P and CZ-MA3P
	CU-5E34***	

CZ-MA1P is to be used to reduce the connection size on the indoor unit from 1/2" to 3/8".

CZ-MA2P is to be used to increase the connection size on the outdoor unit from 5/8" to 1/2".

CZ-MA3P is to be used to reduce the connection size on the indoor unit from 5/8" to 1/2".

Rating Conditions: Cooling Indoor 27 °C DB / 19 °C WB. Cooling Outdoor 35 °C DB / 24 °C WB. Heating Indoor 20 °C DB. Heating Outdoor 7 °C DB / 6 °C WB. (DB: Dry Bulb; WB: Wet Bulb)

1) 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. 2) EER and COP classification is at 230 V in accordance with EU directive 2002/31/EC. 3) When installing the outdoor unit at a higher position than the indoor unit.
Specifications subject to change without notice.

CZ-RD52CP INCLUDE ON THE INDOOR UNIT

Low Static Pressure Hide Away			2.5 kW	3.2 kW	5.0 kW
Indoor (available from June 2013)			CS-ME9PD3E	CS-ME12PD3E	CS-ME18PD3E
Indoor (availbale untill end of stock)			CS-E10KD3EA	CS-E15JD3EA	CS-E18JD3EA
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		mm^2	4 x 1.5	4 x 1.5	4 x 1.5
External static pressure	Hi / Lo	Pa (mm)	34 / 64 (3.47 / 6.53)	34 / 69 (3.47 / 7.04)	34 / 78 (3.47 / 7.95)
Air Volume	Hi / Med / Lo	m^3/h	414 / 402 / 330	474 / 402 / 330	624 / 528 / 444
Sound pressure level[1]	Cooling (Quiet/Lo/Hi)	dB(A)	24 / 27 / 31	24 / 27 / 33	27 / 30 / 41
	Heating (Quiet/Lo/Hi)	dB(A)	24 / 27 / 35	24 / 27 / 33	29 / 32 / 41
Sound power level	Cooling (Hi)	dB	49	49	57
	Heating (Hi)	dB	51	51	57
Dimensions	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)

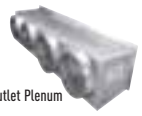
Plenums

Air Outlet Plenum (without regulation adaptor)

	Diameters	Model	Description
CS-ME9PD3E/CS-E10KD3EA	2 x ø 160	CZ-DUMPAF10ES2	Outside Insulated
CS-ME12PD3E/CS-E15JD3EA	2 x ø 160	CZ-DUMPAF15ES2	with 9 mm Armaduct
CS-ME18PD3E/CS-E18JD3EA	3 x ø 160	CZ-DUMPAF18ES3	

Air Inlet Plenum

	Diameters	Model
CS-ME9PD3E/CS-E10KD3EA	2 x ø 200	CZ-DUMPAF10ER2
CS-ME12PD3E/CS-E15JD3EA	2 x ø 200	CZ-DUMPAF15ER2
CS-ME18PD3E/CS-E18JD3EA	2 x ø 200	CZ-DUMPAF18ER2



Air Outlet Plenum

Air Intlet Plenum

Outdoor Units for Free Multi combinations

5 year compressor warranty

CU-2E15PBE

CU-2E18PBE

CU-3E18PBE

CU-4E23PBE

CU-4E27PBE

CU-5E34PBE

A class energy saving INVERTER+

Down to -15 °C in heating mode OUTDOOR TEMPERATURE

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	1.6 to 14.5 kW
Unit			CU-2E15PBE	CU-2E18PBE	CU-3E18PBE	CU-4E23PBE	CU-4E27PBE	CU-5E34PBE
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)	10.00 (2.9 - 11.5)
	Nominal (Min - Max)	kCal/h	3,870 (1,290 - 4,470)	4,472 (1,290 - 4,644)	4,470 (1,548-6,278)	5,850 (1,630 - 7,570)	6,880 (2,580 - 7,912)	8,600 (2,494 - 9,890)
EER[2]	Nominal	W/W	3.66 (6.00 - 3.42) A	3.42 (6.00 - 3.42) A	4.33 (5.00 - 3.35) A	4.05 (5.59 - 3.56) A	4.04 (5.66 - 3.21) A	3.5 (5.27 - 2.98) A
SEER	Nominal	W/W	6.50 A++	6.50 A++	7.00 A++	7.00 A++	7.00 A++	6.50 A++
Pdesign (cooling)			4.50	5.20	5.20	6.80	8.00	10.00
Power input Cooling	Nominal (Min - Max)	kW	1.23 (0.25 - 1.52)	1.49 (0.25 - 1.54)	1,21 (0,36-2,18)	1,68 (0,34 - 2,47)	1.98 (0.53 - 2.87)	2.86 (0.55 - 3.86)
Annual Energy Consumption (Cooling)		kW	242	280	260	340	400	538
Heating capacity	Nominal (Min - Max)	kW	5.40 (1.10 - 7.00)	5.60 (1.10 - 7.20)	6.80 (1.60-8.30)	8.50 (3.00 - 10.60)	9.40 (4.20 - 10.60)	12.00 (3.40 - 14.50)
	Nominal (Min - Max)	kCal/h	4,640 (950 - 6,020)	4,820 (950 - 6,190)	5,850 (1,200-7,140)	7,130 (2,580 - 9,120)	8,084 (3,612 - 9,116)	10,320 (2,924 - 12,470)
COP[2]	Nominal	W/W	4.62 (5.24 - 4.19) A	4.63 (4.24 - 5.24) A	4.69 (3.93 - 5.00) A	4.47 (4.08 - 5.17) A	4.52 (6.00 - 3.46) A	4.20 (6.42 - 3.42) A
SCOP	Nominal	W/W	4.00 A+	4.00 A+	4.00 A+	4.00 A+	4.00 A+	4.00 A+
Pdesign at -10 °C		kW	4.00	3.80	4.80	5.50	8.00	10.00
Power input Heating	Nominal (Min - Max)	kW	1.17 (0.21 - 1.67)	1.30 (0.24 - 1.70)	1.45 (0.32 - 2.11)	1.85 (0.58 - 2.60)	2.08 (0.70 - 3.06)	2.86 (0.53 - 4.24)
Annual Energy Consumption (heating)		kWh	1400	1330	1680	1925	2,800	3,500
Current	Cooling	A	1.17 (0.21 - 1.67)	1.30 (0.24 - 1.70)	1.45 (0.32 - 2.11)	1.85 (0.58 - 2.60)	2.08 (0.70-3.06)	12.6
	Heating	A	1,400	1,330	1,680	1,925		
Power source		V	230	230	230	230		220 - 240
Sound pressure level[2]	Cooling (Hi)	dB(A)	47	49	46	48	51	53
	Heating (Hi)	dB(A)	49	51	47	49	52	54
Sound power level	Cooling (Hi)	dB	62	64	60	62	67	69
	Heating (Hi)	dB	64	66	61	63	68	70
Dimensions	H x W x D	mm	619 x 824 +70 x 299	619 x 824 x 229	795 x 875 (+95) x 320	795 x 875 (+95) x 320	999 x 940 x 340	999 x 940 x 340
Net weight		kg	39	39	71	72	80	81
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)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
Refrigerant Loading	R410A	kg	1.40	1.40	2.64	2.64	3.4	3.4
Elevation diff. (in/out)[3]	Max	m	10	10	15	15	15	15
Piping length total	Min / Max	m	3 / 30	30	3 / 50	60	70	80
Piping length to one unit	Min / Max	m	3 / 20	3 / 20	3 / 25	3 / 25	3 / 25	3 / 25
Precharge length		m (Max)	20	20	30	30	45	45
Additional charge		g/m	15	15	20	20	20	20
Operating range	Cooling Min/Max	°C	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46
	Heating Min/Max	°C	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24	-15 / 24

For detailed information about ErP, please visit our page http://www.doc.panasonic.de

Free Multi combinations table

CU-2E15PBE

Rule for sum of the capacities of indoor units connected:
Minimum capacity connected : 3.2 kW
Maximum capacity connected : 5.6 kW

Table of combinations (indoor units)

Nominal Cooling Capacity per room in kW	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.5	2.5	2.8	
	1.6	2.0	2.5	2.8	3.2	2.0	2.5	2.8	3.2	2.5	2.8	2.8	
Indoor unit 1	✔	✔	✔	✔	✔								1.6 kW: CS-ME5PKE
						✔	✔	✔	✔				2.0 kW: CS-XE/E7PKEW
										✔	✔		2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
												✔	2.8 kW: CS-E9GFEW
Indoor unit 2	✔												1.6 kW: CS-ME5PKE
		✔				✔				✔			2.0 kW: CS-XE/E7PKEW
			✔				✔						2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
				✔				✔			✔	✔	2.8 kW: CS-E9GFEW
					✔				✔				3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW

CU-3E18PBE

Rule for sum of the capacities of indoor units connected:
Minimum capacity connected : 4.5 kW
Maximum capacity connected : 9.0 kW

Table of combinations (2 indoor units)

Table of combinations (3 indoor units)

Nominal Cooling Capacity per room in kW	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	3.2	3.2	3.2	4.0	4.0
	3.2	4.0	5.0	2.5	2.8	3.2	4.0	5.0	2.5	2.8	3.2	4.0	5.0	2.8	3.2	4.0	5.0	3.2	4.0	5.0	4.0	5.0
Indoor unit 1	✔	✔	✔																			
				✔	✔	✔	✔	✔														
									✔	✔	✔	✔	✔									
														✔	✔	✔	✔					
																		✔	✔	✔		
																					✔	✔
Indoor unit 2																						
				✔					✔													
					✔					✔				✔								
	✔					✔					✔				✔			✔				
		✔					✔					✔				✔			✔		✔	
			✔					✔					✔				✔			✔		✔
Indoor unit 3																						

Table of combinations (3 indoor units)													
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.5
1.6	2.0	2.5	2.8	3.2	4.0	5.0	2.0	2.5	2.8	3.2	4.0	5.0	2.5
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
✔	✔	✔	✔	✔	✔	✔							
							✔	✔	✔	✔	✔	✔	
													✔
✔													
	✔						✔						
		✔						✔					✔
			✔						✔				
				✔						✔			
					✔						✔		
						✔						✔	

CU-2E18PBE

Rule for sum of the capacities of indoor units connected:
Minimum capacity connected : 3.2 kW
Maximum capacity connected : 6,4 kW

Table of combinations (indoor units)

Nominal Cooling Capacity per room in kW	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.8	2.8	3.2	
	1.6	2.0	2.5	2.8	3.2	2.0	2.5	2.8	3.2	2.5	2.8	3.2	2.8	3.2	3.2	
Indoor unit 1	✔	✔	✔	✔	✔											1.6 kW: CS-ME5PKE
						✔	✔	✔	✔							2.0 kW: CS-XE/E7PKEW
										✔	✔	✔				2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
													✔	✔		2.8 kW: CS-E9GFEW
															✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
Indoor unit 2	✔															1.6 kW: CS-ME5PKE
		✔				✔										2.0 kW: CS-XE/E7PKEW
			✔				✔			✔						2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
				✔				✔			✔		✔			2.8 kW: CS-E9GFEW
					✔				✔			✔		✔	✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW

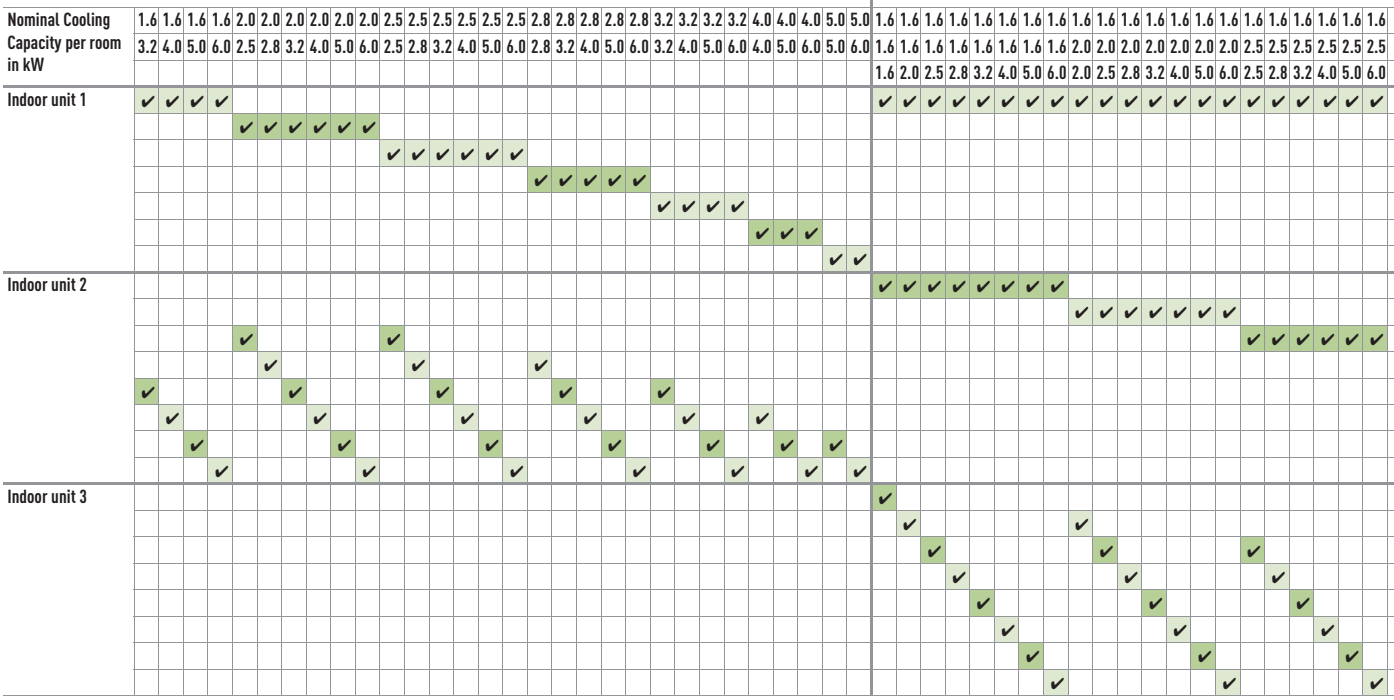
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	
2.5	2.5	2.5	2.8	2.8	2.8	3.2	3.2	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.8	2.8	2.8	3.2	2.5	2.5	2.5	2.5	2.8	2.8	3.2	2.8	2.8	
2.8	3.2	4.0	2.8	3.2	4.0	3.2	4.0	2.0	2.5	2.8	3.2	4.0	5.0	2.5	2.8	3.2	4.0	2.8	3.2	4.0	3.2	2.5	2.8	3.2	4.0	2.8	3.2	3.2	2.8	3.2	
✔	✔	✔	✔	✔	✔	✔	✔																							1.6 kW: CS-ME5PKE
								✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔									2.0 kW: CS-XE/E7PKEW
																						✔	✔	✔	✔	✔	✔	✔		2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																													✔	✔	2.8 kW: CS-E9GFEW
																															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																															40 kW: CS-XE/E15PKEW
																															1.6 kW: CS-ME5PKE
								✔	✔	✔	✔	✔	✔																		2.0 kW: CS-XE/E7PKEW
✔	✔	✔												✔	✔	✔	✔					✔	✔	✔	✔						2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
			✔	✔	✔													✔	✔	✔						✔	✔		✔	✔	2.8 kW: CS-E9GFEW
						✔	✔														✔							✔			3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																															40 kW: CS-XE/E15PKEW
																															50 kW: CS-ME18PD3EA
																															1.6 kW: CS-ME5PKE
								✔																							2.0 kW: CS-XE/E7PKEW
									✔					✔								✔									2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
✔			✔							✔					✔			✔					✔			✔			✔		2.8 kW: CS-E9GFEW
	✔			✔		✔					✔					✔			✔		✔			✔			✔	✔		✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
		✔			✔		✔					✔					✔			✔					✔						40 kW: CS-XE/E15PKEW
													✔																		50 kW: CS-ME18PD3EA

Free Multi combinations table

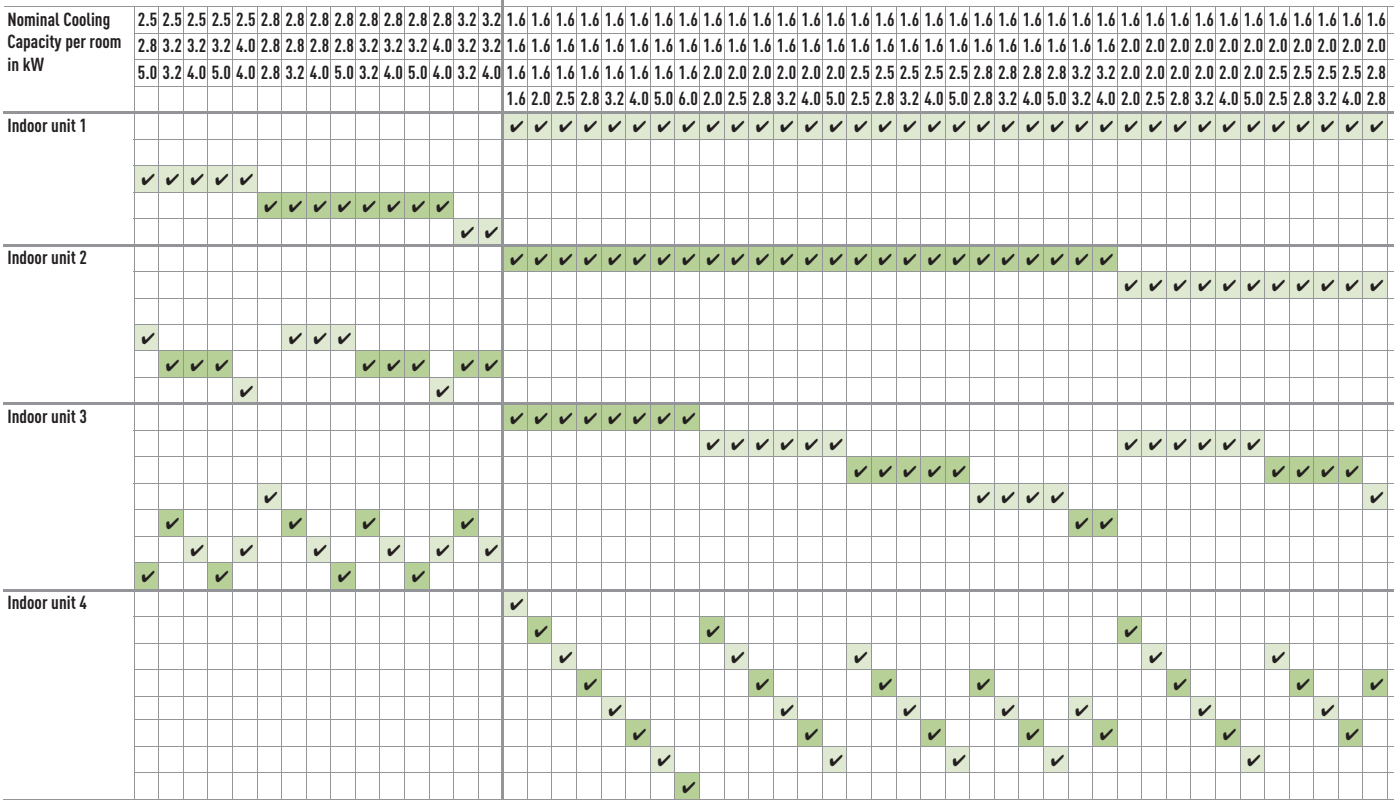
CU-4E23PBE

Rule for sum of the capacities of indoor units connected:
Minimum capacity connected : 4.5 kW
Maximum capacity connected : 11.0 kW

Table of combinations (2 indoor units connected) / 3 indoor units connected



3 indoor units connected / 4 indoor units connected



1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
2.8	2.8	2.8	2.8	2.8	3.2	3.2	3.2	3.2	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	3.2	3.2	3.2	4.0	4.0	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	
2.8	3.2	4.0	5.0	6.0	3.2	4.0	5.0	6.0	4.0	5.0	2.0	2.5	2.8	3.2	4.0	5.0	6.0	2.5	2.8	3.2	4.0	5.0	6.0	2.8	3.2	4.0	5.0	6.0	3.2	4.0	5.0	4.0	5.0	2.5	2.8	3.2	4.0	5.0	6.0	2.8	3.2	4.0
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																																1.6 kW: CS-ME5PKE
											✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔											2.0 kW: CS-XE/E7PKEW
																															✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																									2.8 kW: CS-E9GFEW
																																									3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																									4.0 kW: CS-XE/E15PKEW
																																									5.0 kW: CS-ME18PD3EA
																																									1.6 kW: CS-ME5PKE
											✔	✔	✔	✔	✔	✔	✔																								2.0 kW: CS-XE/E7PKEW
																		✔	✔	✔	✔	✔	✔								✔	✔	✔	✔	✔	✔					2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
✔	✔	✔	✔	✔																				✔	✔	✔	✔	✔							✔	✔	✔				2.8 kW: CS-E9GFEW
					✔	✔	✔	✔																					✔	✔	✔										3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
									✔	✔																							✔	✔								4.0 kW: CS-XE/E15PKEW
																																									5.0 kW: CS-ME18PD3EA
																																									6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																																									1.6 kW: CS-ME5PKE
											✔																														2.0 kW: CS-XE/E7PKEW
												✔				✔																✔									2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
✔													✔					✔				✔											✔				✔				2.8 kW: CS-E9GFEW
	✔			✔							✔					✔				✔				✔				✔				✔				✔				3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
		✔			✔			✔				✔				✔				✔				✔				✔				✔				✔				4.0 kW: CS-XE/E15PKEW
			✔			✔			✔				✔				✔				✔				✔				✔				✔							5.0 kW: CS-ME18PD3EA
				✔			✔							✔				✔				✔				✔				✔										6.0 kW: CS-E21PKEW, CS-ME21PB4EA

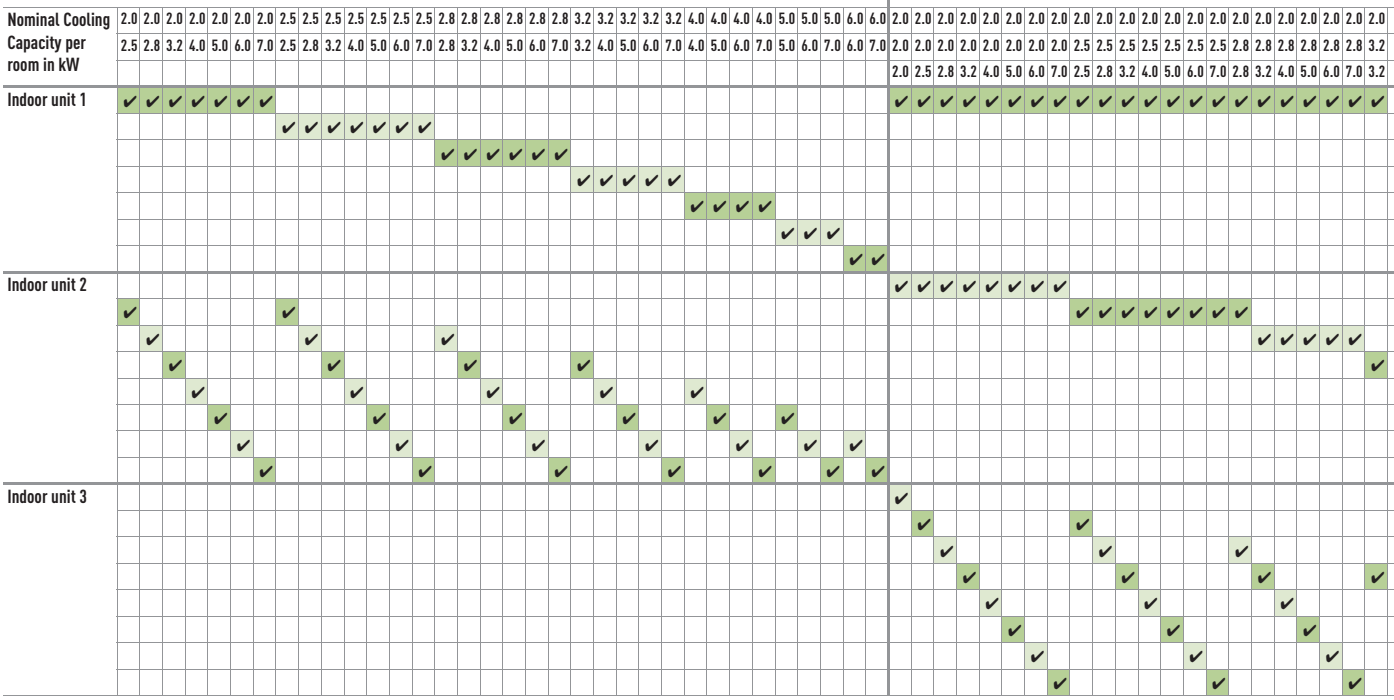
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	
2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.5	2.5	2.5	2.5	2.5	2.8	
2.8	2.8	3.2	3.2	2.5	2.5	2.5	2.5	2.8	2.8	2.8	3.2	2.8	2.8	3.2	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.8	2.8	2.8	3.2	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.5	2.5	2.5	2.8	2.8	2.8	
3.2	4.0	3.2	4.0	2.5	2.8	3.2	4.0	2.8	3.2	4.0	3.2	2.8	3.2	3.2	2.0	2.5	2.8	3.2	4.0	5.0	2.5	2.8	3.2	4.0	2.8	3.2	4.0	3.2	2.5	2.8	3.2	4.0	2.8	3.2	3.2	2.8	3.2	2.5	2.8	3.2	2.8	
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																												1.6 kW: CS-ME5PKE
															✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				2.0 kW: CS-XE/E7PKEW
																																				✔	✔	✔	✔	✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																									2.8 kW: CS-E9GFEW
																																									3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
✔	✔	✔	✔											✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔												1.6 kW: CS-ME5PKE
				✔	✔	✔	✔	✔	✔	✔	✔																		✔	✔	✔	✔	✔	✔						2.0 kW: CS-XE/E7PKEW
												✔	✔	✔																										2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
															✔	✔	✔	✔	✔	✔									✔	✔											2.8 kW: CS-E9GFEW
											✔										✔																				3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																									4.0 kW: CS-XE/E15PKEW
																																									5.0 kW: CS-ME18PD3EA
																																									1.6 kW: CS-ME5PKE
															✔																										2.0 kW: CS-XE/E7PKEW
				✔												✔																				✔					2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
					✔			✔				✔					✔				✔				✔				✔				✔				✔			2.8 kW: CS-E9GFEW
✔		✔				✔			✔		✔		✔	✔				✔			✔		✔				✔			✔	✔				✔					3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
	✔		✔				✔			✔							✔				✔				✔															4.0 kW: CS-XE/E15PKEW
																✔																								5.0 kW: CS-ME18PD3EA
																																									6.0 kW: CS-E21PKEW, CS-ME21PB4EA

Free Multi combinations table

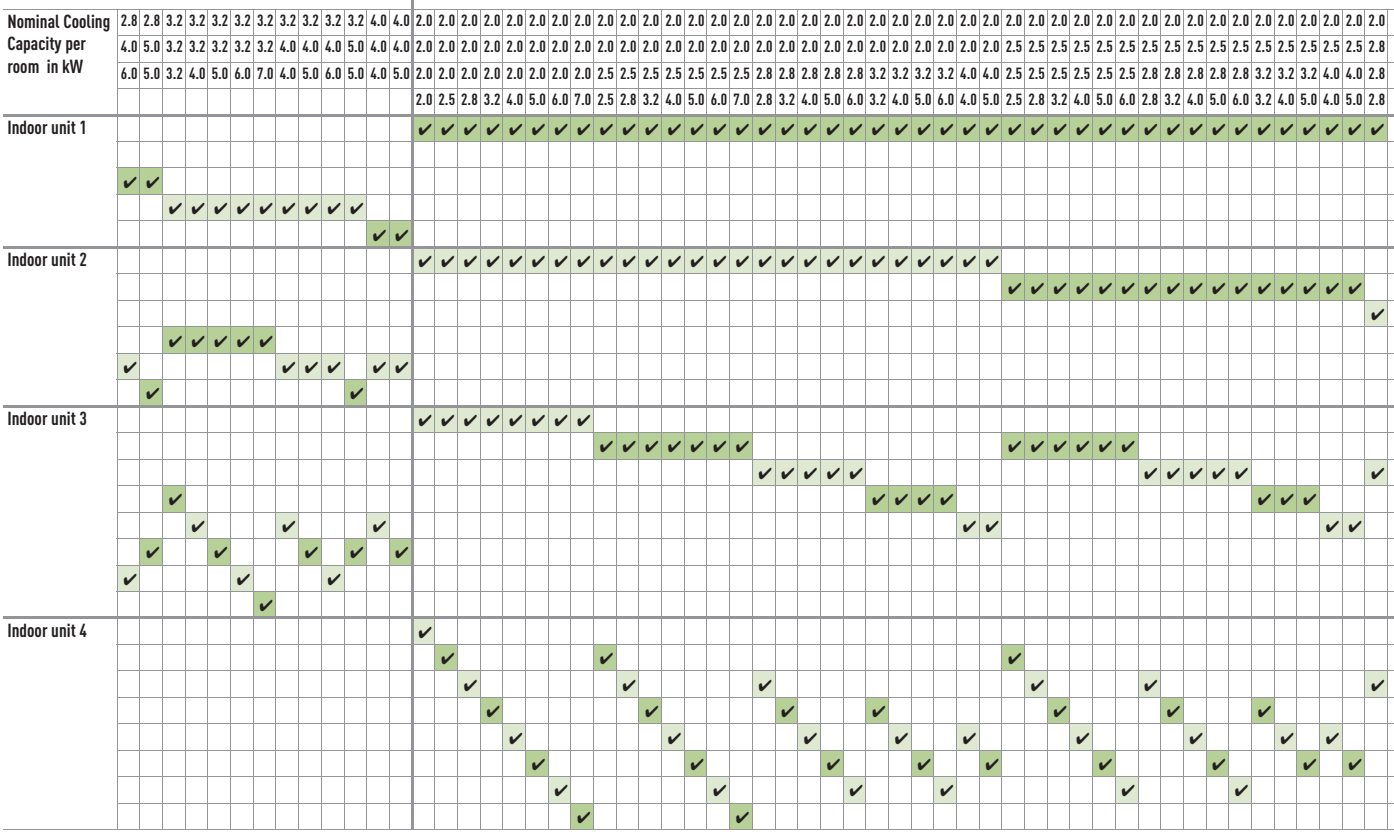
CU-4E27PBE

Rule for sum of the capacities of indoor units connected:
Minimum capacity connected : 4.5 kW
Maximum capacity connected : 13.6 kW

Table of combinations (2 indoor units connected) / 3 indoor units connected



3 indoor units connected / 4 indoor units connected



	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	3.2	3.2	3.2	3.2	4.0	4.0	4.0	4.0	5.0	5.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	2.8	2.8	3.2	3.2	3.2	3.2	3.2	4.0	4.0	4.0	4.0	5.0	5.0	2.8	2.8	2.8	2.8	2.8	2.8	3.2	3.2	3.2	3.2	3.2	4.0	4.0
	4.0	5.0	6.0	7.0	4.0	5.0	6.0	7.0	5.0	6.0	2.5	2.8	3.2	4.0	5.0	6.0	7.0	2.8	3.2	4.0	5.0	6.0	7.0	3.2	4.0	5.0	6.0	7.0	4.0	5.0	6.0	7.0	5.0	6.0	2.8	3.2	4.0	5.0	6.0	7.0	3.2	4.0	5.0	6.0	7.0	4.0	5.0
2.0 kW: CS-XE/E7PKEW	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																																					
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA											✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔													
2.8 kW: CS-E9GFEW																																			✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW																																															
4.0 kW: CS-XE/E15PKEW																																															
5.0 kW: CS-ME18PD3EA																																															
6.0 kW: CS-E21PKEW, CS-ME21PB4EA																																															
2.0 kW: CS-XE/E7PKEW																																															
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA											✔	✔	✔	✔	✔	✔	✔																														
2.8 kW: CS-E9GFEW																		✔	✔	✔	✔	✔	✔												✔	✔	✔	✔	✔	✔							
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW	✔	✔	✔	✔																				✔	✔	✔	✔	✔													✔	✔	✔	✔	✔		
4.0 kW: CS-XE/E15PKEW					✔	✔	✔	✔																					✔	✔	✔	✔														✔	✔
5.0 kW: CS-ME18PD3EA									✔	✔																							✔	✔													
6.0 kW: CS-E21PKEW, CS-ME21PB4EA																																															
7.0 kW: CS-E24PKEW																																															
2.0 kW: CS-XE/E7PKEW																																															
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA											✔																																				
2.8 kW: CS-E9GFEW												✔						✔																	✔												
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW													✔						✔					✔												✔					✔						
4.0 kW: CS-XE/E15PKEW	✔				✔									✔						✔					✔				✔								✔					✔				✔	
5.0 kW: CS-ME18PD3EA		✔				✔			✔						✔						✔					✔				✔			✔					✔					✔				✔
6.0 kW: CS-E21PKEW, CS-ME21PB4EA			✔				✔			✔						✔						✔					✔				✔			✔					✔					✔			
7.0 kW: CS-E24PKEW				✔				✔									✔						✔					✔				✔								✔					✔		

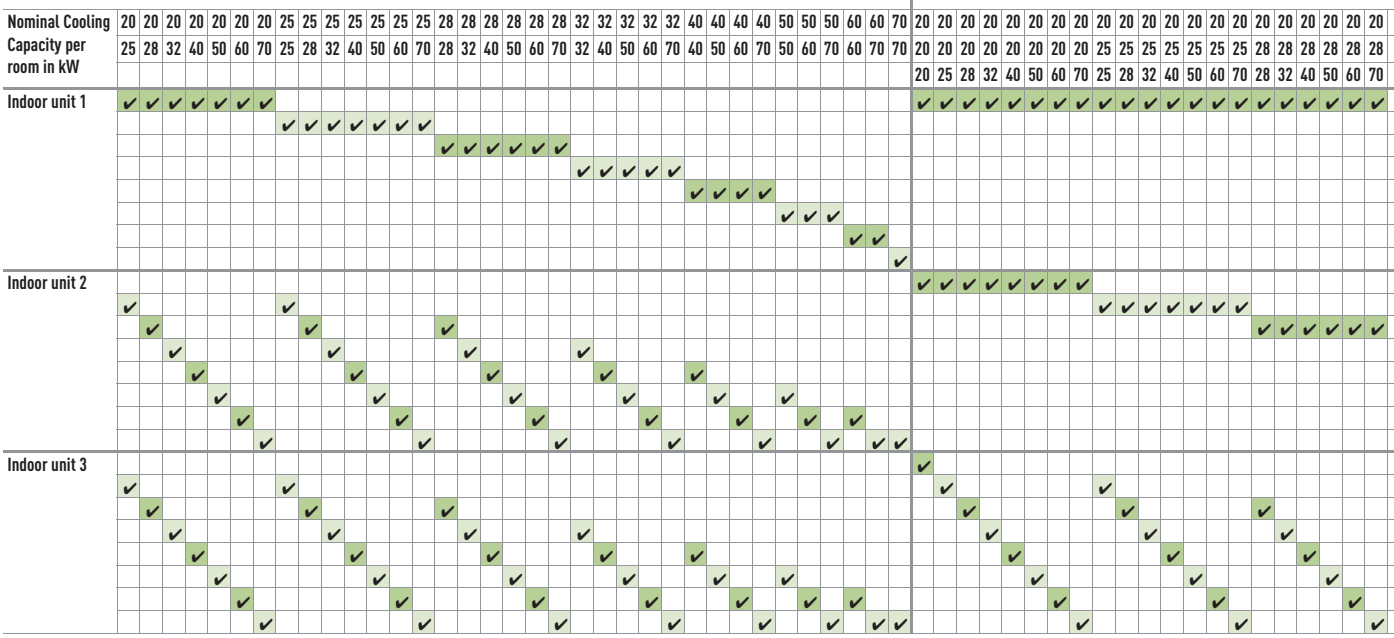
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	3.2
	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	3.2	3.2	3.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	3.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.2	3.2	3.2	3.2
	2.8	2.8	2.8	2.8	3.2	3.2	3.2	4.0	3.2	3.2	3.2	4.0	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	2.8	2.8	3.2	3.2	3.2	4.0	2.8	2.8	2.8	2.8	3.2	3.2	3.2	4.0	3.2	3.2	2.8	2.8	2.8	2.8	3.2	3.2	4.0	3.2	3.2	3.2	3.2
	3.2	4.0	5.0	6.0	3.2	4.0	5.0	4.0	3.2	4.0	5.0	4.0	2.5	2.8	3.2	4.0	5.0	6.0	2.8	3.2	4.0	5.0	3.2	4.0	5.0	4.0	2.8	3.2	4.0	5.0	3.2	4.0	5.0	4.0	3.2	4.0	2.8	3.2	4.0	5.0	3.2	4.0	4.0	3.2	4.0	3.2	4.0
2.0 kW: CS-XE/E7PKEW	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																																			
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA													✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔											
2.8 kW: CS-E9GFEW																																					✔	✔	✔	✔	✔	✔	✔	✔	✔		
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW																																														✔	✔
4.0 kW: CS-XE/E15PKEW																																															
2.0 kW: CS-XE/E7PKEW																																															
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA													✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																					
2.8 kW: CS-E9GFEW	✔	✔	✔	✔	✔	✔	✔	✔																			✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW									✔	✔	✔	✔																																✔	✔	✔	✔
4.0 kW: CS-XE/E15PKEW																																															
5.0 kW: CS-ME18PD3EA																																															
2.0 kW: CS-XE/E7PKEW																																															
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA													✔	✔	✔	✔	✔	✔																													
2.8 kW: CS-E9GFEW	✔	✔	✔	✔															✔	✔	✔	✔					✔	✔	✔	✔							✔	✔	✔	✔							
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW					✔	✔	✔		✔	✔	✔												✔	✔	✔						✔	✔	✔		✔	✔					✔	✔		✔	✔	✔	✔
4.0 kW: CS-XE/E15PKEW								✔				✔														✔								✔									✔				
5.0 kW: CS-ME18PD3EA																																															
6.0 kW: CS-E21PKEW, CS-ME21PB4EA																																															
7.0 kW: CS-E24PKEW																																															
2.0 kW: CS-XE/E7PKEW																																															
2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA													✔																																		
2.8 kW: CS-E9GFEW														✔					✔								✔										✔										
3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW	✔				✔				✔						✔					✔			✔					✔			✔				✔			✔			✔			✔		✔	
4.0 kW: CS-XE/E15PKEW		✔				✔		✔		✔		✔				✔					✔			✔		✔			✔			✔		✔		✔			✔			✔	✔		✔		✔
5.0 kW: CS-ME18PD3EA			✔				✔				✔						✔					✔			✔					✔			✔							✔							
6.0 kW: CS-E21PKEW, CS-ME21PB4EA				✔														✔																													
7.0 kW: CS-E24PKEW																																															

Free Multi combinations table

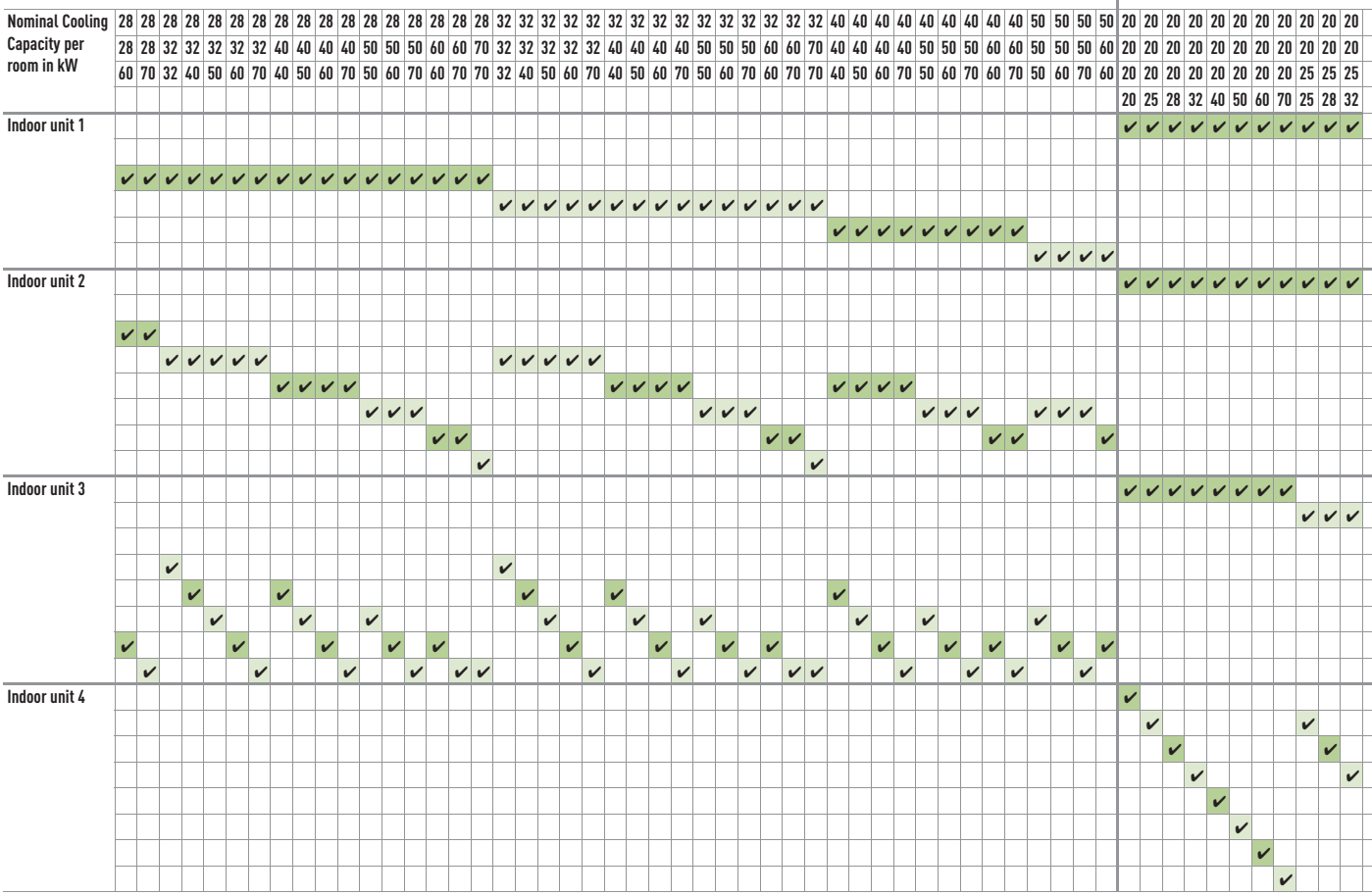
CU-5E34PBE

Rule for sum of the capacities of indoor units connected:
Minimum capacity connected : 4.5 kW
Maximum capacity connected : 17.5 kW

Table of combinations (2 indoor units connected) / 3 indoor units connected



3 indoor units connected / 4 indoor units connected



20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	28	28	28	28	
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✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																																	2.0 kW: CS-XE/E7PKEW
															✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																											✓	✓	✓	✓	2.8 kW: CS-E9GFEW
																																															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																															4.0 kW: CS-XE/E15PKEW
																																															5.0 kW: CS-ME18PD3EA
																																															6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																																															7.0 kW: CS-E24PKEW
																																															2.0 kW: CS-XE/E7PKEW
															✓	✓	✓	✓	✓	✓	✓																										2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																						✓	✓	✓	✓	✓	✓																✓	✓	✓	✓	2.8 kW: CS-E9GFEW
✓	✓	✓	✓	✓																								✓	✓	✓	✓	✓															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
					✓	✓	✓	✓																									✓	✓	✓	✓											4.0 kW: CS-XE/E15PKEW
									✓	✓	✓																										✓	✓	✓								5.0 kW: CS-ME18PD3EA
												✓	✓																											✓	✓						6.0 kW: CS-E21PKEW, CS-ME21PB4EA
														✓																												✓					7.0 kW: CS-E24PKEW
																																															2.0 kW: CS-XE/E7PKEW
															✓																																2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																✓						✓																					✓				2.8 kW: CS-E9GFEW
✓																	✓						✓					✓																✓			3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
	✓				✓													✓						✓					✓				✓												✓		4.0 kW: CS-XE/E15PKEW
		✓				✓			✓										✓						✓					✓				✓			✓									✓	5.0 kW: CS-ME18PD3EA
			✓				✓			✓		✓								✓						✓					✓				✓			✓		✓							6.0 kW: CS-E21PKEW, CS-ME21PB4EA
				✓				✓			✓		✓	✓							✓						✓					✓				✓			✓		✓	✓					7.0 kW: CS-E24PKEW

20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
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																																															2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.8 kW: CS-E9GFEW
																																															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																															4.0 kW: CS-XE/E15PKEW
																																															5.0 kW: CS-ME18PD3EA
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																									2.0 kW: CS-XE/E7PKEW
																							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.8 kW: CS-E9GFEW
																																																3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																															4.0 kW: CS-XE/E15PKEW
																																															5.0 kW: CS-ME18PD3EA
																																															6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																																															7.0 kW: CS-E24PKEW
																																															2.0 kW: CS-XE/E7PKEW
✓	✓	✓	✓																					✓	✓	✓	✓	✓	✓	✓																	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
				✓	✓	✓	✓	✓	✓																						✓	✓	✓	✓	✓	✓											2.8 kW: CS-E9GFEW
										✓	✓	✓	✓	✓																							✓	✓	✓	✓	✓						3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
															✓	✓	✓	✓																								✓	✓	✓	✓		4.0 kW: CS-XE/E15PKEW
																			✓	✓	✓																									✓	5.0 kW: CS-ME18PD3EA
																						✓	✓																								6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																																															7.0 kW: CS-E24PKEW
																																															2.0 kW: CS-XE/E7PKEW
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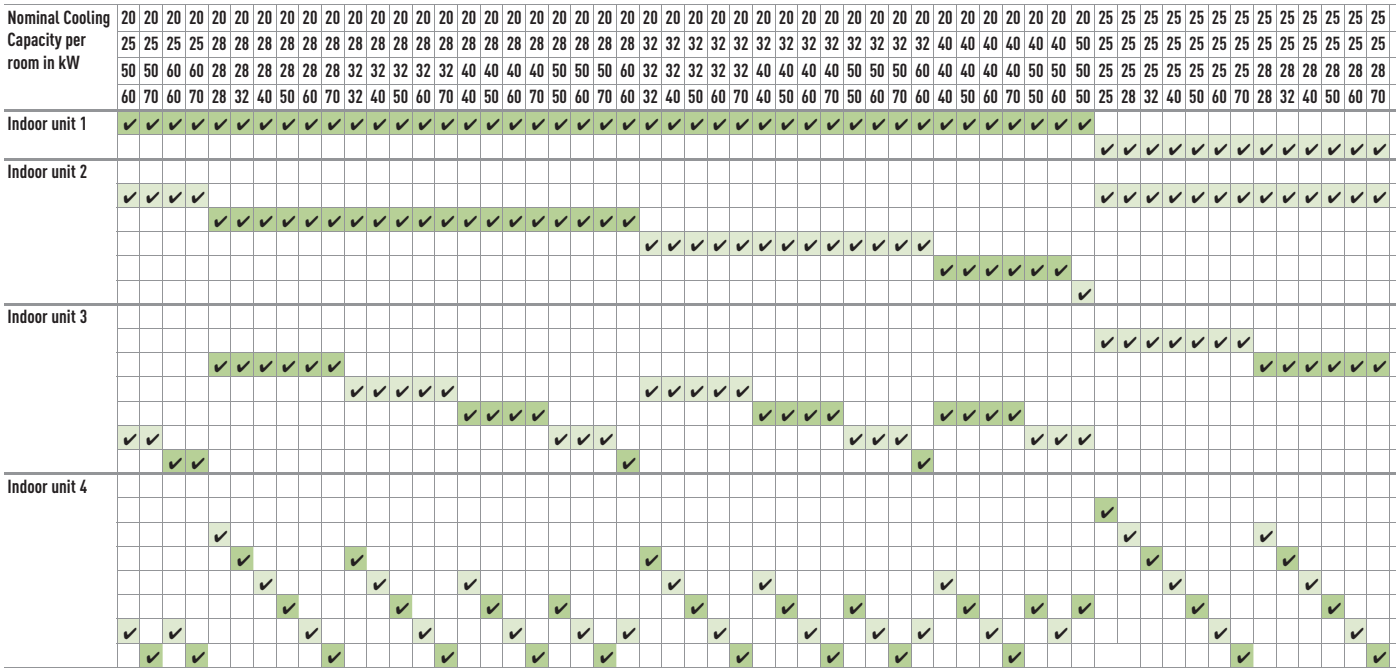
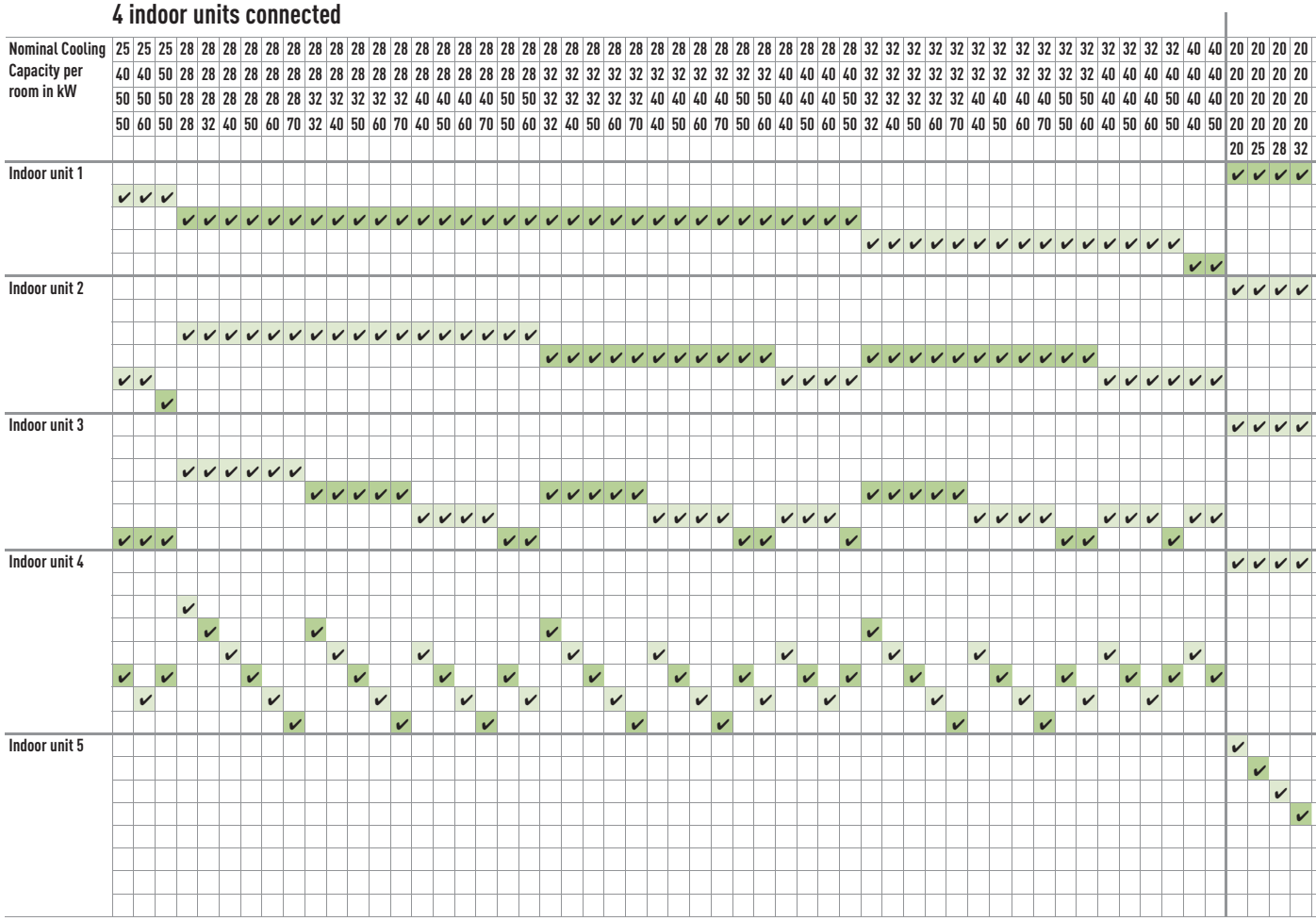
				✓																					✓						✓																2.8 kW: CS-E9GFEW
					✓					✓																✓						✓					✓										3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
✓						✓					✓				✓												✓						✓					✓				✓					4.0 kW: CS-XE/E15PKEW
	✓						✓					✓				✓			✓									✓						✓					✓				✓			✓	5.0 kW: CS-ME18PD3EA
		✓						✓					✓				✓			✓		✓							✓						✓					✓				✓			6.0 kW: CS-E21PKEW, CS-ME21PB4EA
			✓						✓					✓				✓			✓		✓							✓						✓					✓				✓		7.0 kW: CS-E24PKEW

Free Multi combinations table

Table of combinations CU-5E34PBE / 4 indoor units connected



4 indoor units connected



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																																															2.0 kW: CS-XE/E7PKEW
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.0 kW: CS-XE/E7PKEW
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																																			2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
													✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																2.8 kW: CS-E9GFEW
																															✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔					3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																										✔	✔	✔	✔	4.0 kW: CS-XE/E15PKEW
																																															5.0 kW: CS-ME18PD3EA
																																															2.0 kW: CS-XE/E7PKEW
																																															2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
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✔	✔	✔	✔	✔															✔	✔	✔	✔	✔									✔	✔	✔	✔	✔											3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
					✔	✔	✔	✔																✔	✔	✔	✔										✔	✔	✔	✔			✔	✔	✔	✔	4.0 kW: CS-XE/E15PKEW
									✔	✔	✔																	✔	✔	✔											✔	✔					5.0 kW: CS-ME18PD3EA
												✔																			✔																6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																																															2.0 kW: CS-XE/E7PKEW
																																															2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
													✔																																		2.8 kW: CS-E9GFEW
✔															✔					✔													✔															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
	✔				✔										✔					✔				✔									✔				✔						✔				4.0 kW: CS-XE/E15PKEW
		✔				✔			✔							✔					✔				✔			✔						✔				✔			✔			✔			5.0 kW: CS-ME18PD3EA
			✔				✔			✔		✔					✔					✔				✔			✔		✔				✔				✔			✔			✔		6.0 kW: CS-E21PKEW, CS-ME21PB4EA
				✔				✔			✔							✔					✔				✔			✔						✔				✔						✔	7.0 kW: CS-E24PKEW

5 indoor units connected

20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
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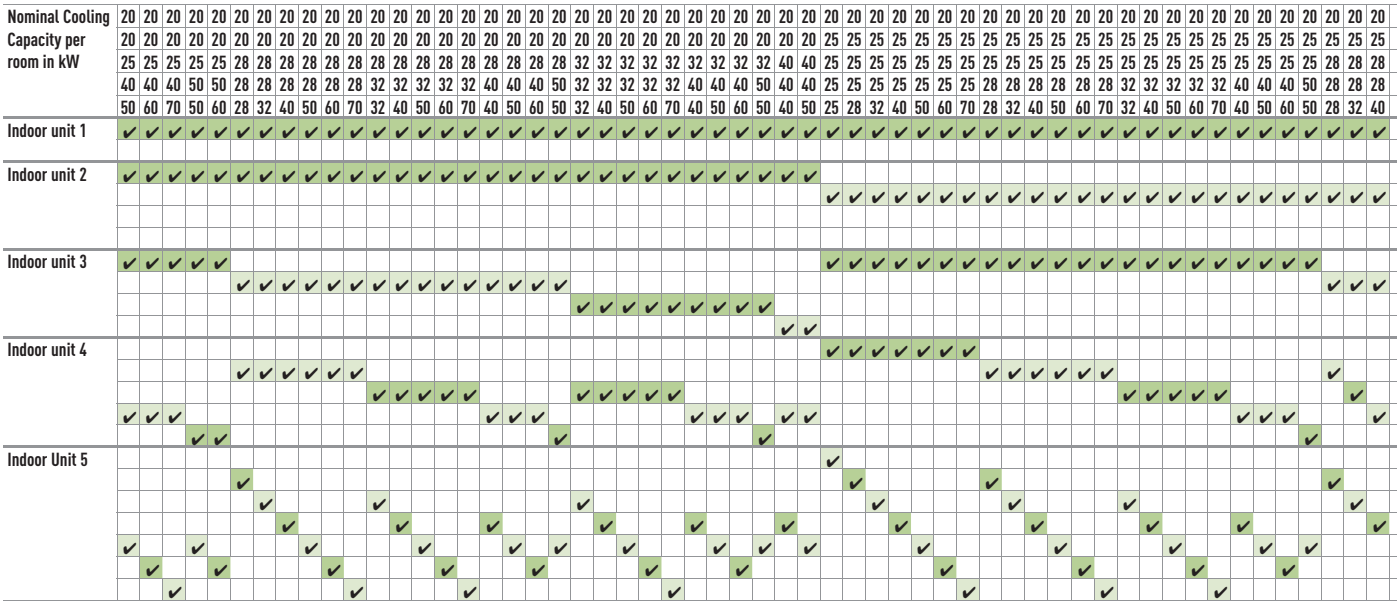
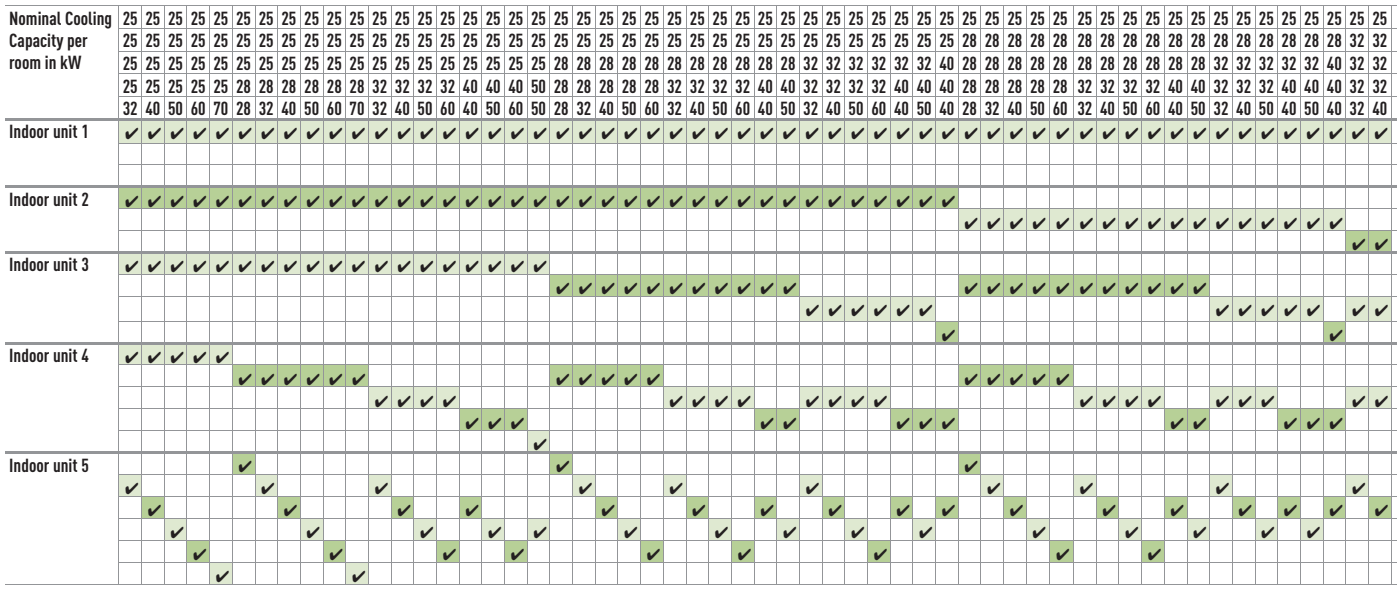
40	50	60	70	25	28	32	40	50	60	70	28	32	40	50	60	70	32	40	50	60	70	40	50	60	70	50	60	25	28	32	40	50	60	70	28	32	40	50	60	70	32	40	50	60	70	40	
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	2.0 kW: CS-XE/E7PKEW
																																															2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.8 kW: CS-E9GFEW
																																															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																															4.0 kW: CS-XE/E15PKEW
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	2.0 kW: CS-XE/E7PKEW
																																															2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.8 kW: CS-E9GFEW
																																															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																															4.0 kW: CS-XE/E15PKEW
																																															5.0 kW: CS-ME18PD3EA
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																				2.0 kW: CS-XE/E7PKEW
																												✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.8 kW: CS-E9GFEW
																																															3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																															4.0 kW: CS-XE/E15PKEW
																																															5.0 kW: CS-ME18PD3EA
✔	✔	✔	✔																																												2.0 kW: CS-XE/E7PKEW
				✔	✔	✔	✔	✔	✔	✔																		✔	✔	✔	✔	✔	✔	✔													2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
											✔	✔	✔	✔	✔	✔																			✔	✔	✔	✔	✔	✔							2.8 kW: CS-E9GFEW
																	✔	✔	✔	✔	✔																				✔	✔	✔	✔	✔		3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																					✔	✔	✔	✔																					✔	4.0 kW: CS-XE/E15PKEW
																									✔	✔																				5.0 kW: CS-ME18PD3EA
																																															6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																																															7.0 kW: CS-E24PKEW
																																															2.0 kW: CS-XE/E7PKEW
				✔																								✔																			2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
					✔						✔																		✔						✔												2.8 kW: CS-E9GFEW
						✔						✔					✔													✔						✔					✔						3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
✔							✔						✔					✔				✔									✔						✔					✔				✔	4.0 kW: CS-XE/E15PKEW
	✔							✔						✔					✔				✔			✔						✔						✔					✔				5.0 kW: CS-ME18PD3EA
		✔							✔						✔					✔				✔			✔						✔						✔					✔			6.0 kW: CS-E21PKEW, CS-ME21PB4EA
			✔							✔						✔					✔				✔									✔						✔					✔		7.0 kW: CS-E24PKEW

Free Multi combinations table

Table of combinations CU-5E34PBE / 5 indoor units connected



5 indoor units connected



Free Multi combinations Piping and Branches

							Piping Size Liquid mm (inch)
							Piping Size GAs mm (inch)
							Capacity Rank
OUTDOOR UNIT	Connected Capacity	Piping Size	R410A Gas	Maximum Pipe Length (total room) (m)	Height difference (m)	Precharged Length (m)	Add gas amount (g/m)
CU-2E15PBE	4.0-5.6	Liquid: 6.35 mm (1/4") Gas: 9.52 mm (3/8")	1.4	30	10	20	15
CU-2E18PBE	4.0-6.4	Liquid: 6.35 mm (1/4") Gas: 9.52 mm (3/8")	1.4	30	10	20	15
CU-3E18PBE	4.5-9.0	Liquid: 6.35 mm (1/4") Gas: 9.52 mm (3/8")	2.64	50	15	30	20
CU-4E23PBE	4.5-11.0	Liquid: 6.35 mm (1/4") Gas: 9.52 mm (3/8")	2.64	60	15	30	20
CU-4E27PBE	4.5-13.6	Liquid: 6.35 mm (1/4") Gas: 9.52 mm (3/8")	3.4	80	15	45	20
CU-5E34PBE	4.5-17.5	Liquid: 6.35 mm (1/4") Gas: 9.52 mm (3/8")	3.4	80	15	45	20

20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	25	25	
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	32	32	32	32	32	32	25	25	
28	28	28	28	28	28	28	28	28	28	28	28	32	32	32	32	32	32	40	40	28	28	28	28	28	28	28	28	28	28	28	28	32	32	32	32	32	32	40	32	32	32	32	32	40	25	25	
28	28	28	32	32	32	32	32	40	40	40	50	32	32	32	32	40	40	40	40	28	28	28	28	28	28	32	32	32	32	40	40	32	32	32	32	40	40	40	32	32	32	40	40	40	25	25	
50	60	70	32	40	50	60	70	40	50	60	50	32	40	50	60	40	50	40	50	28	32	40	50	60	70	32	40	50	60	40	50	32	40	50	60	40	50	40	32	40	50	40	50	40	25	28	
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			2.0 kW: CS-XE/E7PKEW
																																													✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																																															2.0 kW: CS-XE/E7PKEW
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																										✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
																				✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔									2.8 kW: CS-E9GFEW
																																							✔	✔	✔	✔	✔	✔			3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																																													✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔									✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔																2.8 kW: CS-E9GFEW
												✔	✔	✔	✔	✔	✔															✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔				3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																		✔	✔																			✔						✔			4.0 kW: CS-XE/E15PKEW
																																												✔	✔	2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
✔	✔	✔																		✔	✔	✔	✔	✔	✔																						2.8 kW: CS-E9GFEW
			✔	✔	✔	✔	✔					✔	✔	✔	✔											✔	✔	✔	✔			✔	✔	✔	✔				✔	✔	✔						3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
							✔	✔	✔							✔	✔	✔	✔											✔	✔					✔	✔	✔				✔	✔	✔			4.0 kW: CS-XE/E15PKEW
										✔																																				5.0 kW: CS-ME18PD3EA
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			✔									✔									✔					✔						✔							✔								3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
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✔					✔				✔		✔			✔			✔		✔				✔					✔			✔			✔			✔				✔		✔				5.0 kW: CS-ME18PD3EA
	✔					✔				✔					✔									✔					✔						✔											6.0 kW: CS-E21PKEW, CS-ME21PB4EA
		✔					✔																		✔																					7.0 kW: CS-E24PKEW

25	25	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	32	32	
32	32	28	28	28	28	28	28	28	28	28	28	28	28	28	28	32	32	32	32	32	32	
32	32	28	28	28	28	28	28	28	28	28	28	32	32	32	32	32	32	32	32	32	32	
32	40	28	28	28	28	28	32	32	32	40	40	32	32	32	40	32	32	32	40	32	32	
50	40	28	32	40	50	60	32	40	50	40	50	32	40	50	40	32	40	50	40	32	40	
✔	✔																					2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔			2.8 kW: CS-E9GFEW
																				✔	✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																						2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔							2.8 kW: CS-E9GFEW
✔	✔															✔	✔	✔	✔	✔	✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																						2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔											2.8 kW: CS-E9GFEW
✔	✔											✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
																						4.0 kW: CS-XE/E15PKEW
																						2.5 kW: CS-XE/E9PKEW, CS-ME9PD3EA
		✔	✔	✔	✔	✔																2.8 kW: CS-E9GFEW
✔							✔	✔	✔			✔	✔	✔		✔	✔	✔		✔	✔	3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
	✔									✔	✔				✔				✔			4.0 kW: CS-XE/E15PKEW
																						5.0 kW: CS-ME18PD3EA
		✔																				2.8 kW: CS-E9GFEW
			✔				✔					✔				✔				✔		3.2 kW: CS-XE/E12PKEW, CS-ME12PD3EA, CS-E12GFEW
	✔			✔				✔		✔			✔		✔		✔		✔		✔	4.0 kW: CS-XE/E15PKEW
✔					✔				✔		✔			✔				✔				5.0 kW: CS-ME18PD3EA
						✔																6.0 kW: CS-E21PKEW, CS-ME21PB4EA
																						7.0 kW: CS-E24PKEW

INDOOR UNIT

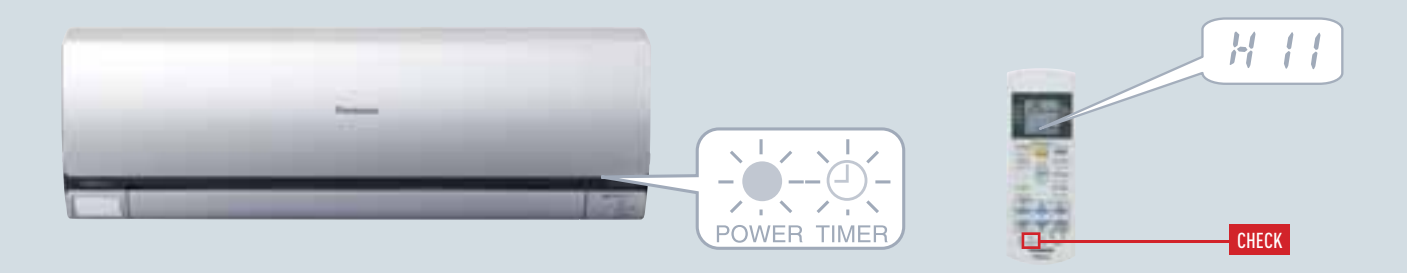
CS-ME5PKE	CS-XE/E7PKEW	CS-XE/E9PKEW	CS-XE/E12PKEW	CS-XE/E15PKEW	CS-XE/E18PKEW	CS-XE/E21PKEW	CS-E24PKEW	
6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	
9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.8 (5/8")	
1.6	2.2	2.8	3.2	4.0	5.0	6.0	7.0	
0	0	0	0					
0	0	0	0					
0	0	0	0	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA1P CONNECT AT INDOOR SIDE			
0	0	0	0	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA2P CONNECT AT OUTDOOR SIDE		
	0	0	0	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA2P CONNECT AT OUTDOOR SIDE	CZ-MA2P AT OUTDOOR CZ-MA3P AT INDOOR	
	0	0	0	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA1P CONNECT AT INDOOR SIDE	CZ-MA2P CONNECT AT OUTDOOR SIDE	CZ-MA2P AT OUTDOOR CZ-MA3P AT INDOOR	For E24 connected to multiytem, The gas piping size is 1/2'' (12.7 mm)

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.

* Not for CU-5E34NBE



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 46°C continuously for 2 minutes or dropped below -54°C 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 -40°C or above approximately 80°C 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 -40°C or above approximately 150°C 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 -60°C or above approximately 110°C 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 -16°C or above approximately 200°C 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) 6°C, 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 -60°C or over approximately 110°C 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 -43°C or above 80°C 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 -45°C or above approximately 149°C 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 -45°C or above 149°C 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 5°C has dropped by more than 20°C to 5°C 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 5°C to 5°C 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 50°C and 52°C, the compressor stops at a temperature from 62°C to 65°C, it is restarted 3 minutes later at below 62°C to 65°C, and the restriction on the compressor frequency is released at a temperature between 48°C and 50°C. (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 8°C and 12°C. Operation stops if a temperature below 0°C continues for 6 minutes. Three minutes later, operation is started up at a temperature from 3°C to 8°C. The restriction on the compressor frequency is released at a temperature between 13°C and 14°C.	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 -5°C during a warming operation or above 45°C 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 0°C to 5°C 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 -5°C continuously for 1 minute or under 0°C 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 10°C or an indoor unit heat exchanger temperature of below -1°C 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 20°C during cooling or dry operation or if it is under 25°C 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 63°C, the F95 diagnostic symbol is stored in the memory, and operation stops. 3 minutes later, operation is restarted at a temperature below 56°C. 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 120°C, the F97 diagnostic symbol is stored in the memory, and operation steps. Two minutes later, operation is restarted at a temperature below 107 to 110°C. 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 for old models

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-E15DTEW, CS-E18DTEW, CS-E21DTES

CS-RE9/12/18/24NKE

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