

Panasonic



NEW DOMESTIC
RANGE
MORE EFFICIENCY
MORE SAVINGS

2014 - 2015



NEW DOMESTIC AIR TO AIR HEAT PUMP 2014 - 2015

heating and cooling systems

ETHEREA

NEW 2014 / 2015

DOMESTIC RANGE

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**Quality Management System Certificate**

Certified to ISO 9001: 2008
Panasonic Appliances Air-Conditioning
Malaysia Sdn.Bhd.
Cert. No.: MY-AR 1010

Certified to ISO 9001: 2008
Panasonic Appliances Air-Conditioning
(GuangZhou) Co., Ltd
Registration Number: 01209Q200645R5L

**Environmental Management System Certificate**

Certified to ISO 14001: 2004
Panasonic Appliances Air-Conditioning
Malaysia Sdn.Bhd.
Cert. No.: MY-ER0112

Certified to ISO 14001: 2004
Panasonic Appliances Air-Conditioning
(GuangZhou) Co., Ltd
Registration Number: 02110E10562R4L



NEW

New Etherea, A++/A++, the best efficiency, the best design, the best air quality!

PG 42

SEASONAL EFFICIENCY



NEW

Anti-allergy Nanoe-G tested by the UK Allergy Association! Get the best for your health with Etherea and Nanoe-G.

PG 26



• nanoe-G



NEW

New RE wall mounted, excellent seasonal efficiency A++/A+, new design.

PG 46

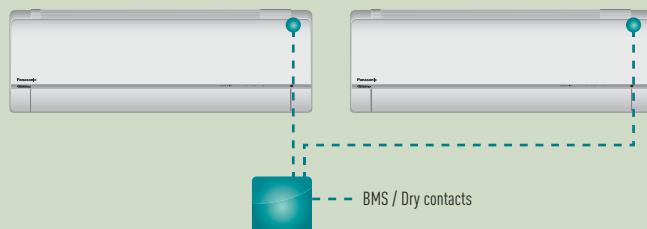
SEASONAL EFFICIENCY



NEW

New Solutions for server rooms: get innovative redundancy and backup system for your server room at minor cost!

PG 52



NEW

R22 Renewal. All Panasonic standard NKE, PKE and QKE units can be installed on existing R22 pipings

PG 34

Possible to use on
R22 pipings
R22 RENEWAL



A Better Life, A Better World

As we move towards our Centenary in 2018, our new brand slogan encapsulates Panasonic's vision of expanding and pursuing a better life for each of our customers. Working with our many partners, we operate in a wide range of fields such as the home, community, business, travel, realising a better world globally through its contribution to the environment and other activities, in both its B2C and B2B businesses.



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.

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.

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 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 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.

2012
New GHP units. Panasonic'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!

2014
New Aquarea 16kW T-CAP. Improvements deliver impressive, high efficiencies at low ambient temperatures. T-CAP stands for Total Capacity and is capable of maintaining the same nominal capacity even at -15°C without the help of an electric booster heater. Ideal for retrofit and commercial applications.



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.

100% Panasonic: 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.



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 reliably 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.



Waterproof Test

The outdoor unit, which is subjected 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.



Checking the oil inside the compressor under extremely cold conditions.



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.



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 comfortable environment. We build this hidden strength into our air conditioners, and test them repeatedly from this viewpoint.



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.

Silence. That Does Not Disturb You.



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.



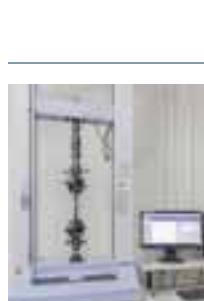
Remote Control Drop Test

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.



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 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 Europe announces Sustainability Declaration

Panasonic establishes new targets for the business' environmental performance and CSR initiatives

Best Global Green Brand 2013

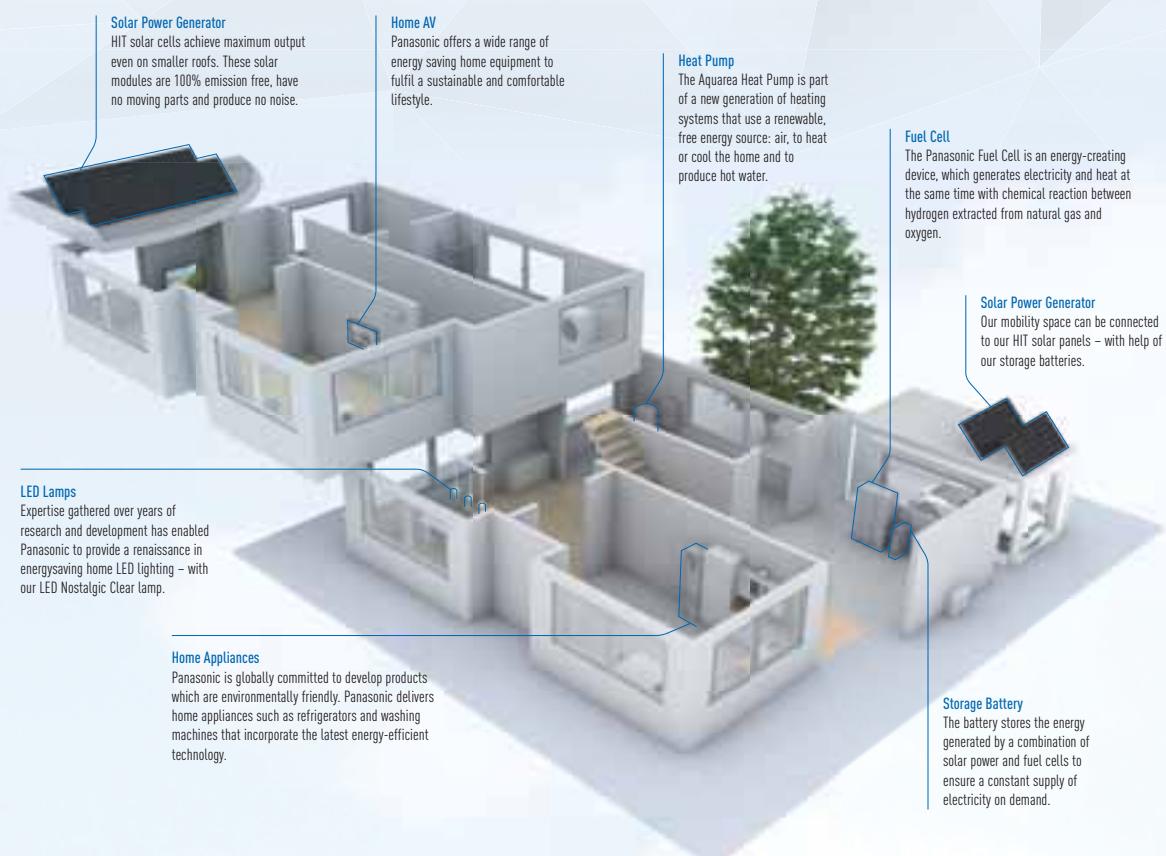
We were recently awarded Interbrand's 4th Best Global Green Brand 2013 – the highest of any consumer electronics brands. This is the result of our commitment to energy efficient products, reduction in CO₂ emissions, our kids school 'eco learning' programme and much more.

Sustainability Declaration, Berlin, Germany, 4th September 2013

Panasonic Europe announces today its new Sustainability Declaration for Europe and CIS, extending its current initiatives to ensure all business activities lead to a more sustainable society.

The Sustainability Declaration unites Panasonic's new brand direction towards 'A Better Life, A Better World' with a series of environmental and CSR initiatives contributing to the progress and development of society. Recognising the impact on the environment and society through its products and practices, Panasonic aims to deliver on specified targets by March 2016. The European Sustainability Declaration is in accordance with Panasonic's Global Sustainability Policy, which has been rolled out globally in recent weeks.

We aim to realise a lifestyle with virtually zero CO₂ emissions throughout the entire home



Exemplary sustainable projects



Fujisawa Sustainable Smart Town

Homes will employ the full range of Panasonic's most advanced systems for energy production, storage and management.

In this project, a new concept and process will be adopted to build the town by designing spaces with a primary focus on services based on people's lifestyles and creating an optimal smart infrastructure. In Fujisawa SST, Panasonic will offer its unique solutions from an Eco & Smart perspective. With bringing energy to life for residents as the town concept, we will provide services that enhance people's lives with photovoltaic power, security, mobility, community, and healthcare.

The unparalleled town building, where as many as 1,000 families will live, will serve as a new business model both within Japan and overseas.



Panasonic joins Smart Electric Lyon consortium

What is Smart Electric Lyon?

Smart Electric Lyon is a project that looks at electricity consumption as a key part of the building energy solutions of tomorrow. The project aims to develop a wide range of innovative facilities and services through real-life experiments to test energy saving technologies and to measure how consumers can control energy consumption.

This experiment, unprecedented in scale in Europe, will be conducted for four years in more than 25,000 homes, businesses and communities of Grand Lyon. It is intended to test innovative solutions that will consume less and better.

Panasonic will provide the project with a variety of its energy efficient heating and cooling products, including the Aquarea Air Source Heat Pump – a super-efficient system for providing heating and / or cooling facilities, as well as the production of domestic hot water. These heat pumps are especially equipped with connectivity solutions from Panasonic to ensure the systems are easy to use, and collect the vital, accurate data. The company will also integrate other home equipment solutions such as LED white lighting products to optimize the overall energy management of the project's properties.

This project is particularly apt for Panasonic, as heating and hot water occupy a prominent place in household energy consumption. Panasonic plans to make its European and French resources available for Smart Electric Lyon. The company has involved for the project a dedicated and experienced R&D team from Panasonic's European technical centre in Frankfurt.



The connected home of the future





PRO Club: the professional website of Panasonic

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

Panasonic announces a new initiative for all professionals involved in the heating and cooling business - the Panasonic PRO Club (www.panasonicproclub.com). Panasonic PRO Club is the online tool which makes your life easier! You just have to register and a lot of functionalities are freely available to you, where ever you are, from your computer or smart phone!

- Print energy labels for any combination
- Print catalogues with your logo and your address
- Get Documents of Conformity and other documents you may need
- Learn how to handle error codes
- Download all the service manuals, end user manuals and installation manuals
- Be the first to learn Panasonic latest news
- Register to on-site and online trainings

Highlighted Features

- Extensive library of resources
- Tools & Apps for end users. Check availability in your country:
 - My Home: sizing wizard for domestic and A2W range
 - My Project: Contact form to Panasonic team
 - iFinder: Lists of installers displayed by postcode
- Special offers & promotions
- Training PRO Academy
- Catalogues (Commercial documentation)
- Marketing (Images in high resolution, advertisements, deco guidelines)
- Tools (Professional software, sizing tools...)

NEW Highlighted Features

- NEW! Installers customize leaflets in PDF format with their logo & contact details
- NEW! Energy label generator. Download energy labels of any device in PDF format
- NEW! Heating calculator demand
- NEW! Noise calculator for outdoor unit
- NEW! Aquarea Radiator calculator
- NEW! Error Code Search by error code or unit ref. Compatible with smartphone and tablet computer
- NEW! Revit / CAD Images / Spec texts
- NEW! Access to Pananet, online library of technical documentation
- NEW! Download Documents of Conformity and other Certifications
- NEW! Commissioning online



www.panasonicproclub.com

or connect simply with your smartphone to the proclub using this QR:



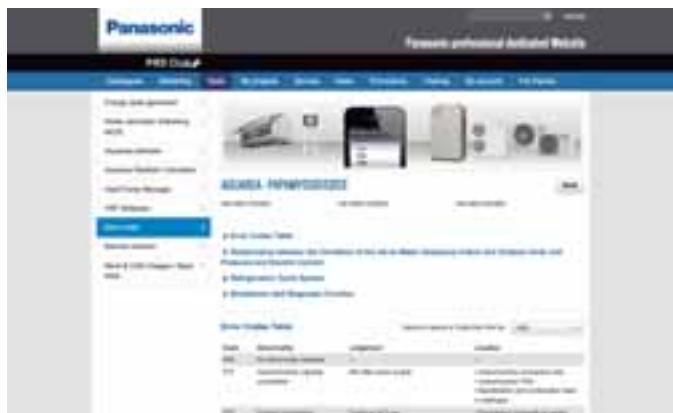
NEW! Easy download Panasonic service documentation and brochures



NEW! Customize leaflets with your logo & contact details. Save and print the PDF



NEW! Energy label generator. Download Energy labels of any device in PDF format



NEW! Error Code on your smartphone and your PC: Search by error code or model reference. Online version + downloadable version for offline use



Panasonic PRO Club is fully compatible with tablet computer and smartphone



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.

HEALTHY AIR

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. Seal of Approval of the British Allergy Foundation

Perfect humidity control
MILD DRY

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

ENERGY SAVING

Energy saving
INVERTER+

The A Inverter system provides energy savings of up to 50%. Both you and nature wins!

6,60 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!

4,00 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.

• nanoe-G

INTELLIGENT ECO SENSORS
ECONAVI



Go green. Go clean. Go your way

Panasonic Air Conditioners are designed to provide more than just comfort cooling 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.



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.

**SEASONAL
EFFICIENCY**~~ETHEREA~~**heatcharge**

WELCOME TO NEW DOMESTIC RANGE

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.



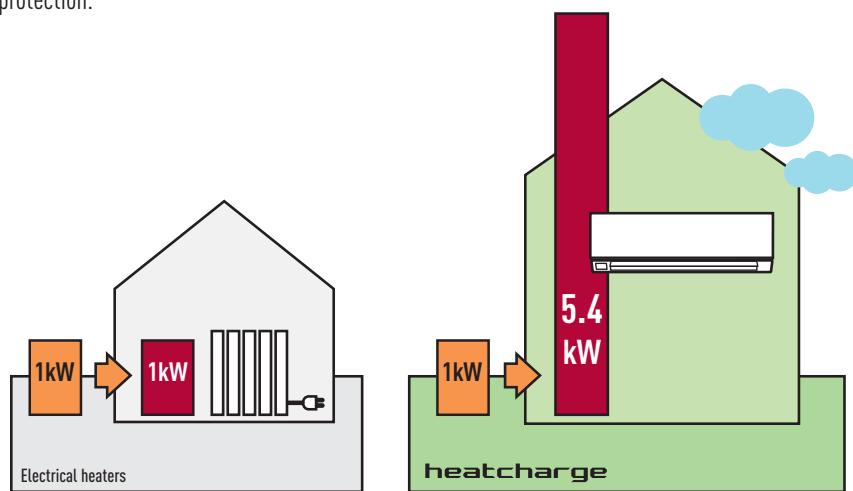
heatcharge

SEASONAL EFFICIENCY



Heatcharge and Etherea. Economical, environment-friendly operation high SCOP (Seasonal Coefficient 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.



In the picture: TV screen with the Panasonic Internet Control system. Control your comfort and efficiency with the lowest energy consumption
Internet Control is a next generation system providing a user-friendly remote control of air conditioning or heat pump units from everywhere via internet.

SCOP On heating mode, Heatcharge VE9 compared with electrical heaters at +7°C.

New Etherea performance: the very best SEER and SCOP available

Seasonal Efficiency: New Energy Efficiency Label

From January 2013, the energy performance calculation for air conditioning systems changed 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 12kW.

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.

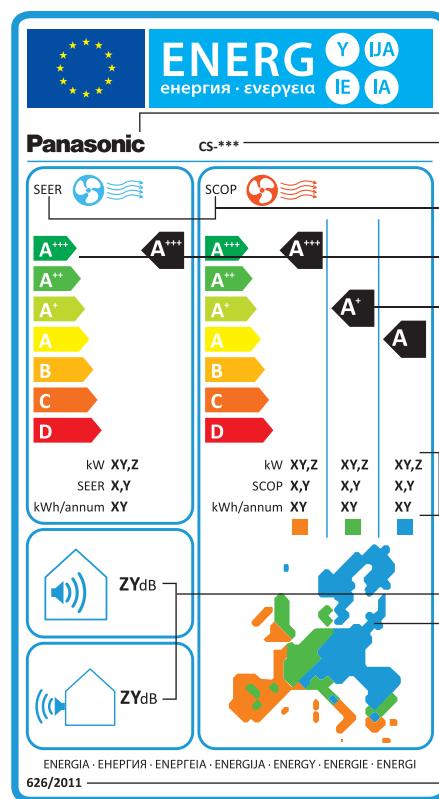
Seasonal Coefficient of Performance (SCOP) – This is the overall coefficient of performance of the unit, representative of the entire heating season designated (the value of SCOP corresponds to a determined heating season). It is calculated by dividing the reference annual heating demand by the annual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

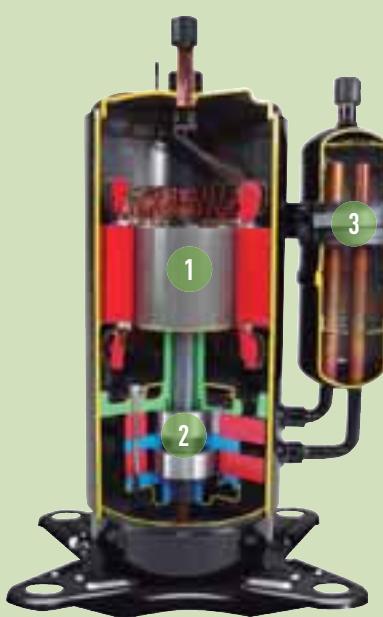
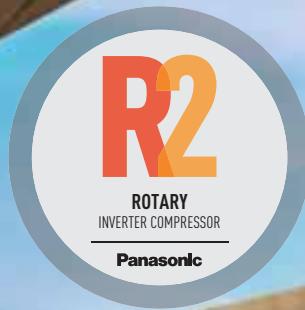
SEER

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





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 accommodates generous refrigerant amounts needed in longer line length installations.

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 Compressor Value

About R2 Compressor

Built upon 36 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 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 simple 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.



ENERGY
SAVINGS



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.

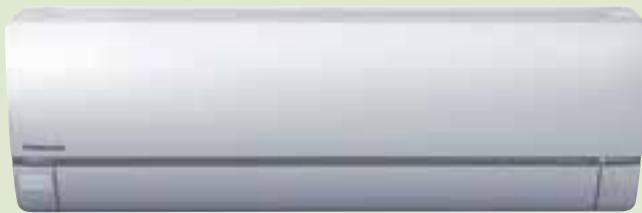
Econavi detects and reduces this waste in all the right ways

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.



Temperature Wave

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



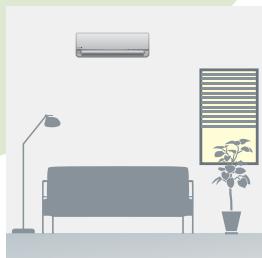
Area Search

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.



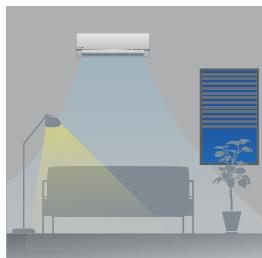
Activity Detection

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 (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 is measured for 2 hours under stable conditions.. 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.



Temperature wave

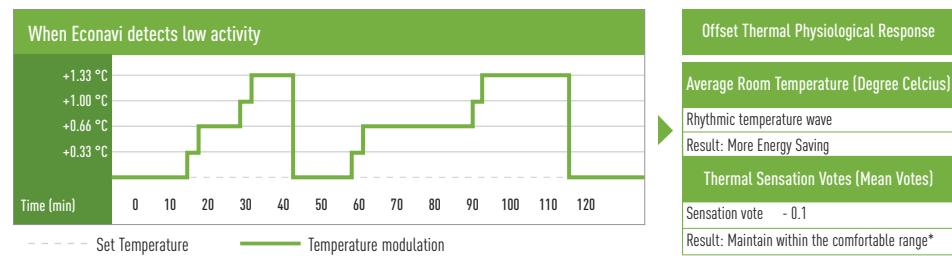
Rhythmic temperature-controlled pattern to save energy without sacrificing comfort.

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?



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.

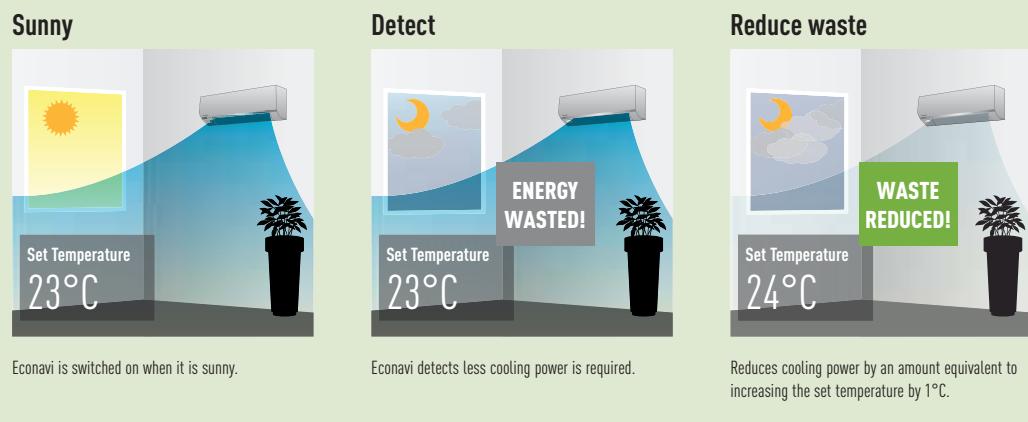


Econavi sunlight sensor

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.

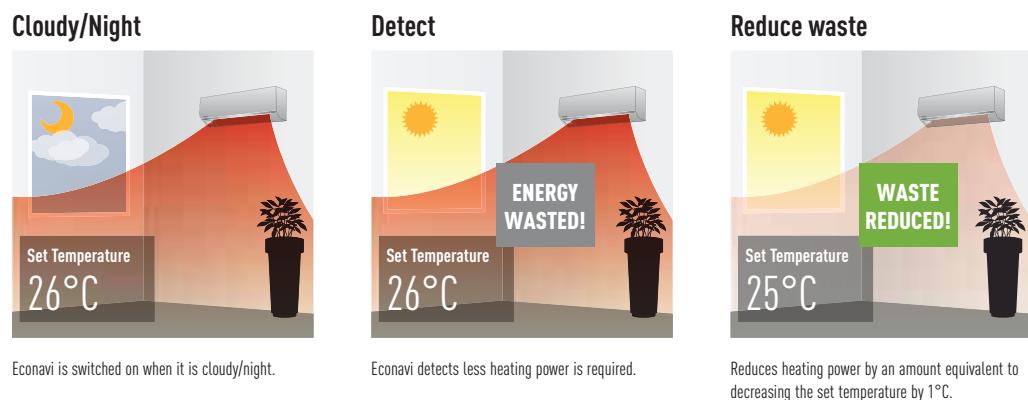
When weather changes from sunny to cloudy/night, Econavi detects less sunlight intensity and determines less cooling power is required. If cooling power remains the same, energy will be wasted. Econavi detects this waste and reduces cooling power by an amount equivalent to increasing the set temperature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



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 heating operation (wasted energy) 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.





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 whilst still providing 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.

DETECTING HUMAN PRESENCE

DIFFERENCE IN TEMPERATURES
MOVEMENT

DIFFERENCE IN TEMPERATURES
MOVEMENT

DIFFERENCE IN TEMPERATURES
MOVEMENT



DETERMINING THE LEVEL OF HUMAN ACTIVITY



SCALE

FREQUENCY

SPEED OF MOVEMENT

When there is no movement for over 20 min.

A highly precise conclusion is reached through a complex algorithm

CONCLUDES NOBODY IS PRESENT

CONCLUDES NOBODY IS PRESENT

CONCLUDES SOMEBODY IS PRESENT

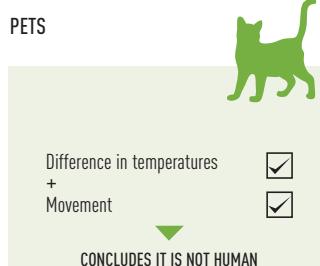
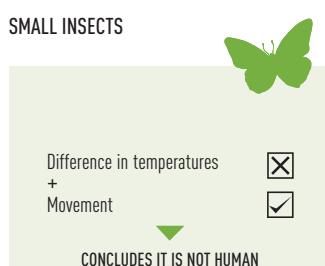
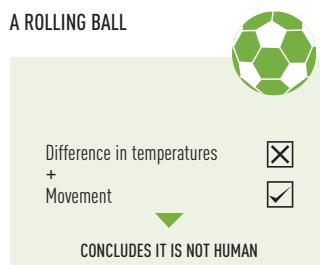
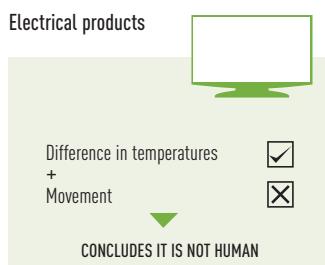
HIGH

NORMAL

CONCLUDES LEVEL OF ACTIVITY HIGH OR NORMAL

Differentiating objects

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



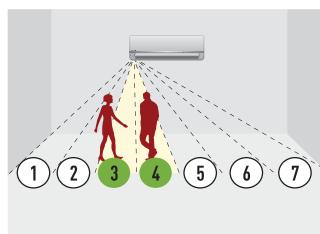
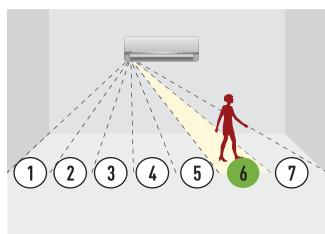
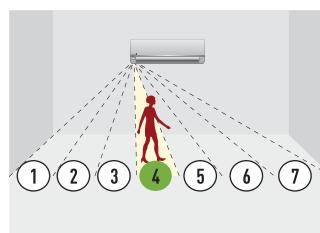
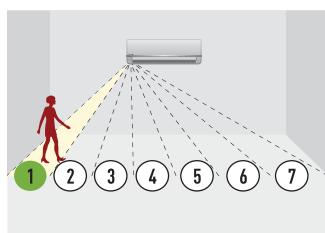
Both changes may be detected, but they are too small to have any effect on the sensor.

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

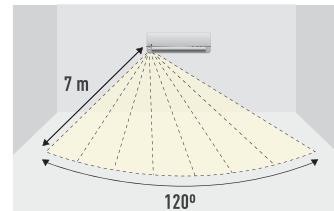
Human Activity Sensor detects human activity level and directs airflow to occupied or high activity zone.



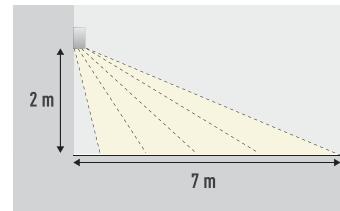
Coverage capabilities

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

Horizontal sensing area



Vertical sensing area



Improved comfort
AUTOCOMFORT

Autocomfort sensor provides comfort

Autocomfort 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

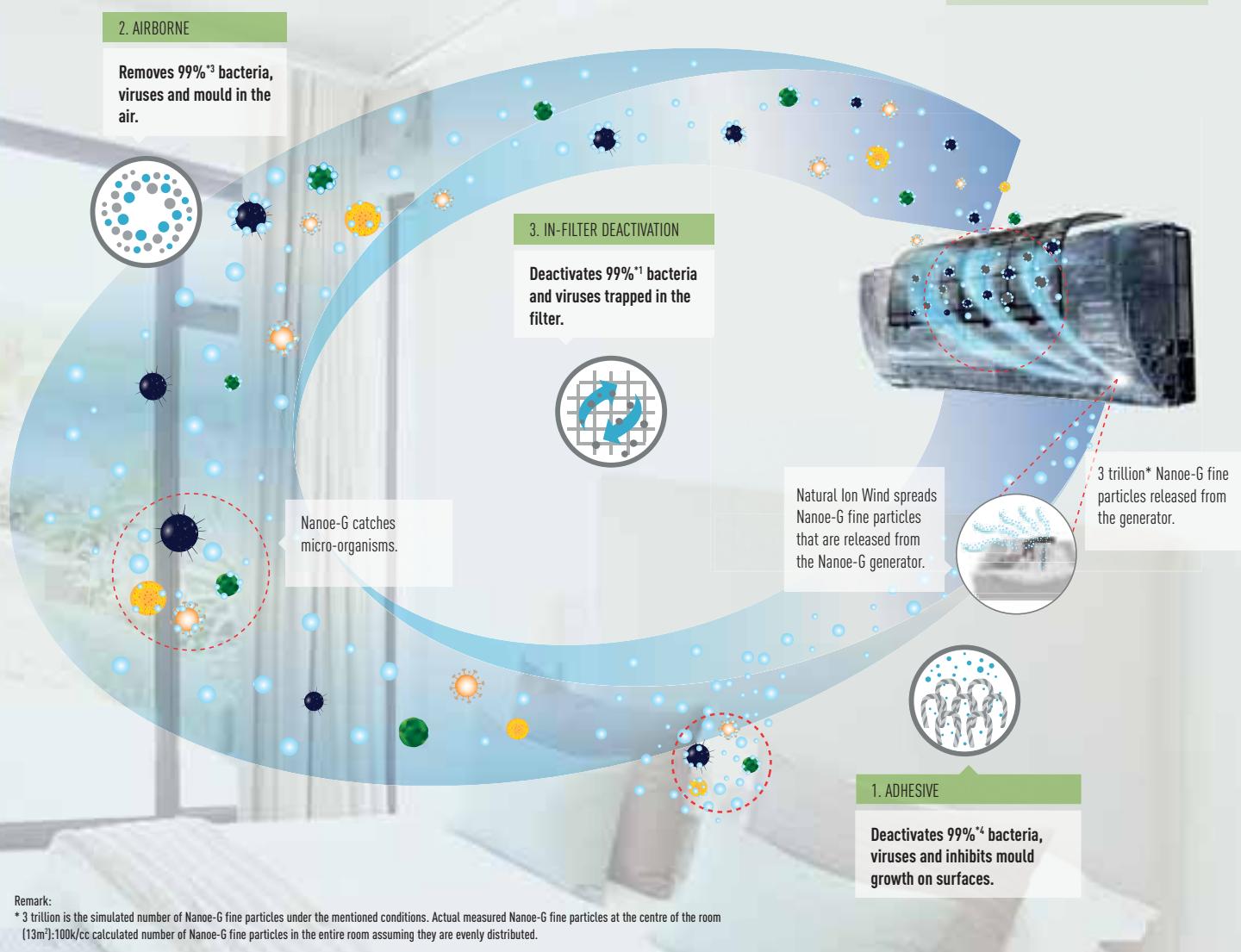


Level of activity increased. Detects high activity.

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 (13m³): 100K/cc calculated number of Nanoe-G fine particles in the entire room assuming they are evenly distributed.



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.



* Panasonic air conditioner CS-E1XE_PKE/QKE, CS-VE_NKE have Nanoe-G air purification system which removes 76,6% of airborne pollen allergen in 1 hour. This has been verified by a 3rd party institution and approved by "allergy UK".

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.

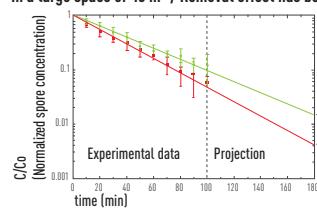
Nanoe-G has been comprehensively tested in real-life chamber and demonstrated it is also effective against Allergy airborne particles. Due to this, Nanoe-G get the Seal of Approval of the British Allergy Foundation.

	1. Adhesive	2. Airborne	3. In-filter deactivation
Bacteria	99% Deactivation	99% Removal	99% Deactivation
Viruses	99% Deactivation	99% Removal	99% Deactivation
Mould	Growth Inhibition	99% Removal	—
Pollen Allergen	—	76,6% Removal in 1 hour	—

Airborne

Data on removal of airborne bacteria was presented by HARVARD SCHOOL of Public Health researchers at Nano-Symposium at Kyoto University, 2012

In a large space of 40 m³ / Removal effect has been evaluated.



The effect after 100 minutes in a 40 m³ test space [about the size of a 10 tatami mat room], not the effect in a space where actually used.

"Performance evaluation of a novel ionizer for air purification applications". Dr. S. Rudnick et al. Harvard School of Public Health, Environmental Health Nanoscience Lab. A study of the removal effect of airborne bacteria by using an air-conditioner incorporating nano-E was carried out in a large space, and the results were presented at Nano-Symposium jointly held in September 2012 by Harvard University and Kyoto University.

Test methods: Bacteria removal method: Release of nano-E ions. Target: Airborne bacteria, Test results: It is estimated that after three hours of operation the nano-E will achieve 2.7 log10 reductions, ~ 1 log10 reduction more, as compared to without nano-E.

How does our in-filter deactivation work?

1. Power "Off"	2. Fan Operation	3. Nano-E Operation	4. Deactivation Effect
 The air-conditioner first has to be turned off. Remark: Main power must be switched on for the entire duration.	 The fan operation will run automatically for 30 minutes with the louvre 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 Louvre: Low Louver Angle Nano-E LED: On	 Natural Ion Wind spreads Nano-E particles that are released from the Nano-E generator. Fan Operation: Off Louvre: Closed Nano-E LED: On	 Nano-E deactivates bacteria and viruses that are trapped in the filter within 2 hours. Fan Operation: Off Louvre: Closed Nano-E LED: On

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

The effectiveness of Nano-E

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 nano-E was operated. After the test piece was collected, viable cells were counted.	99% deactivated after 2-hour nano-E operation.
Virus	Escherichia coli phage (φX-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 nano-E was operated. After the test piece was collected, phage infectivity titer was determined.	99% deactivated after 2-hour nano-E operation.
	Influenza (H1N1) 2009 virus	Average 90% on filter (The percentage varies from 78.9% to 96.1% depending on its location)			The test piece impregnated with Influenza (H1N1) 2009 virus was placed on the filter of the Air Conditioner indoor unit, and then nano-E was operated. After the test piece was collected, virus infectivity titer was determined.	Average 90% deactivation after 2-hour nano-E 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 (φX-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

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 nano-E was operated in a test room (25m ³) and aerosol was collected and bacterial count was calculated.	99% removal from the air after 150 minutes of operation.
Virus	Escherichia coli phage (φX-174 ATCC 13706-B1)	99%	KRCES-Env. Test Report No. 22_0008	The AC with nano-E was operated in a test room (25m ³) 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	Nano-E 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	nano-E was operated in a test chamber (200 Litre) and the influenza viruses were collected and the virus titer were calculated by the Reed and Muench method.	99% removal from the air after 5 minutes of operation.
Mould	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, nano-E removal effectiveness cannot be tested in large test room (25m ³). When tested in 200 Litre chamber, nano-E was able to decrease Influenza (H1N1) 2009 virus (99%) when it was operated for 5 minutes. Additionally when tested in larger test room (25m ³), nano-E 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 (25m ³) would be able to remove the influenza virus as effectively as the phage.	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 (φX-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

ADHESIVE

Target Substance	Substance Name	Effectiveness	Test Report no	Method	Result
Bacteria	Staphylococcus aureus (NBRC 12732)	99%	Test Report No. 11047933001-02	The AC with nano-E was operated in a test space (10m ³) and viable cells were counted by pour plate method	99% deactivation after 24 hour operation of nano-E . (compared to the original condition/ ventilation mode)
Virus	Bacteriophage (Phi X 174 NBRC 103405)	99%	Test Report No. 11073649001-02	Nano-E was operated in a test box (90 Litre) and phage infectivity titer was determined by plaque technique.	99% deactivation after 120 minutes operation of nano-E . (compared to non-operation)
Mould	Cladosporium cladosporioides (NBRC 6348)	Inhibit Mould Growth	Test Report No. 11047937001-02	Nano-E was operated in a test box (1m ³) 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)

TECHNOLOGY FOR COMFORT

Silent air
20 dB

SUPER QUIET

Panasonic technology for comfort

Extremely quiet

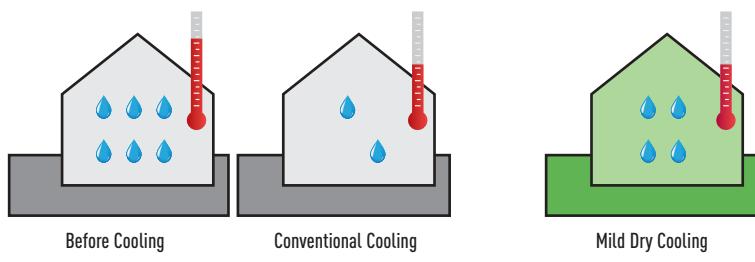
We have succeeded in making one of the most silent air conditioners on the market. Panasonic Inverter air conditioner's indoor operating noise has been reduced by 3dB as the Inverter constantly varies its output power to enable more precise temperature control. In comparison, a non-Inverter air conditioner 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.

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.



7,60 A++	4,80 A++
SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE

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. At the start up of an air conditioner's operation, a boost in power is required to reach the set temperature. After the set temperature is reached, less power is required to maintain it. The Panasonic Inverter air conditioner varies the rotation speed of the compressor. This provides a highly precise method of maintaining the set temperature.

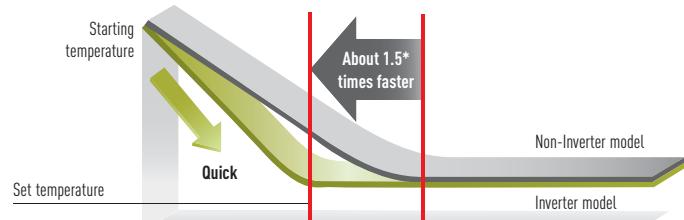
Constant Comfort

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

Quick Comfort

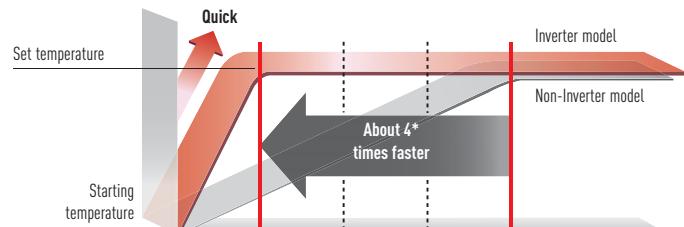
Panasonic Inverter air conditioners can operate with higher power during the start up period to cool the room 1.5 times faster and heat the room 4 times faster than non-Inverter models.

Comparison of Cooling Speed

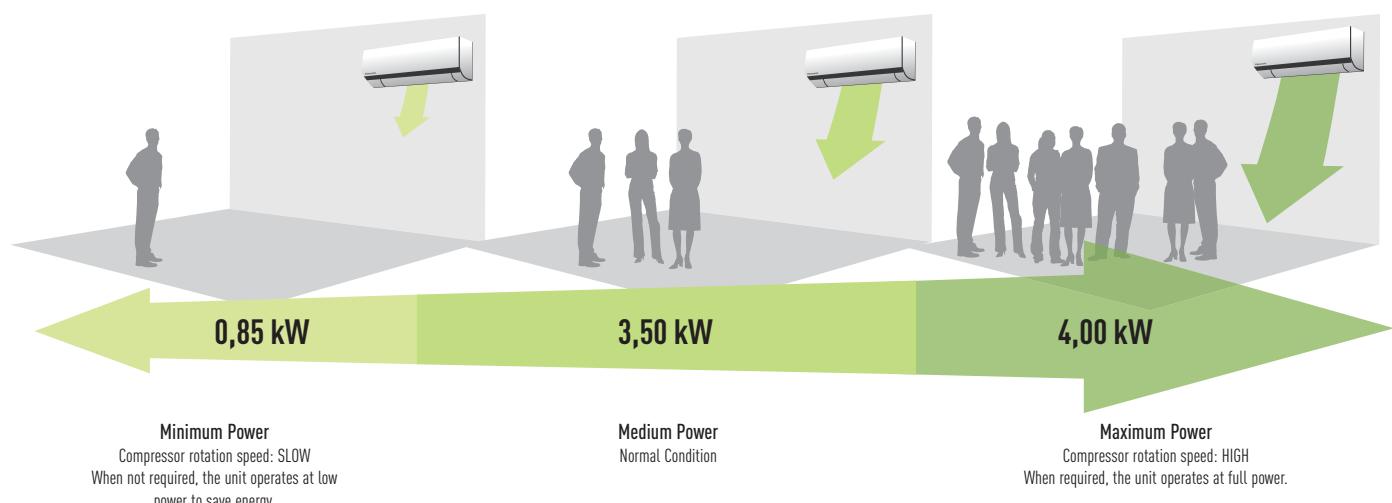


* 1.5HP Inverter vs. non-Inverter. Outside room temperature: 35°C; setting temperature: 25°C

Comparison of Heating Speed

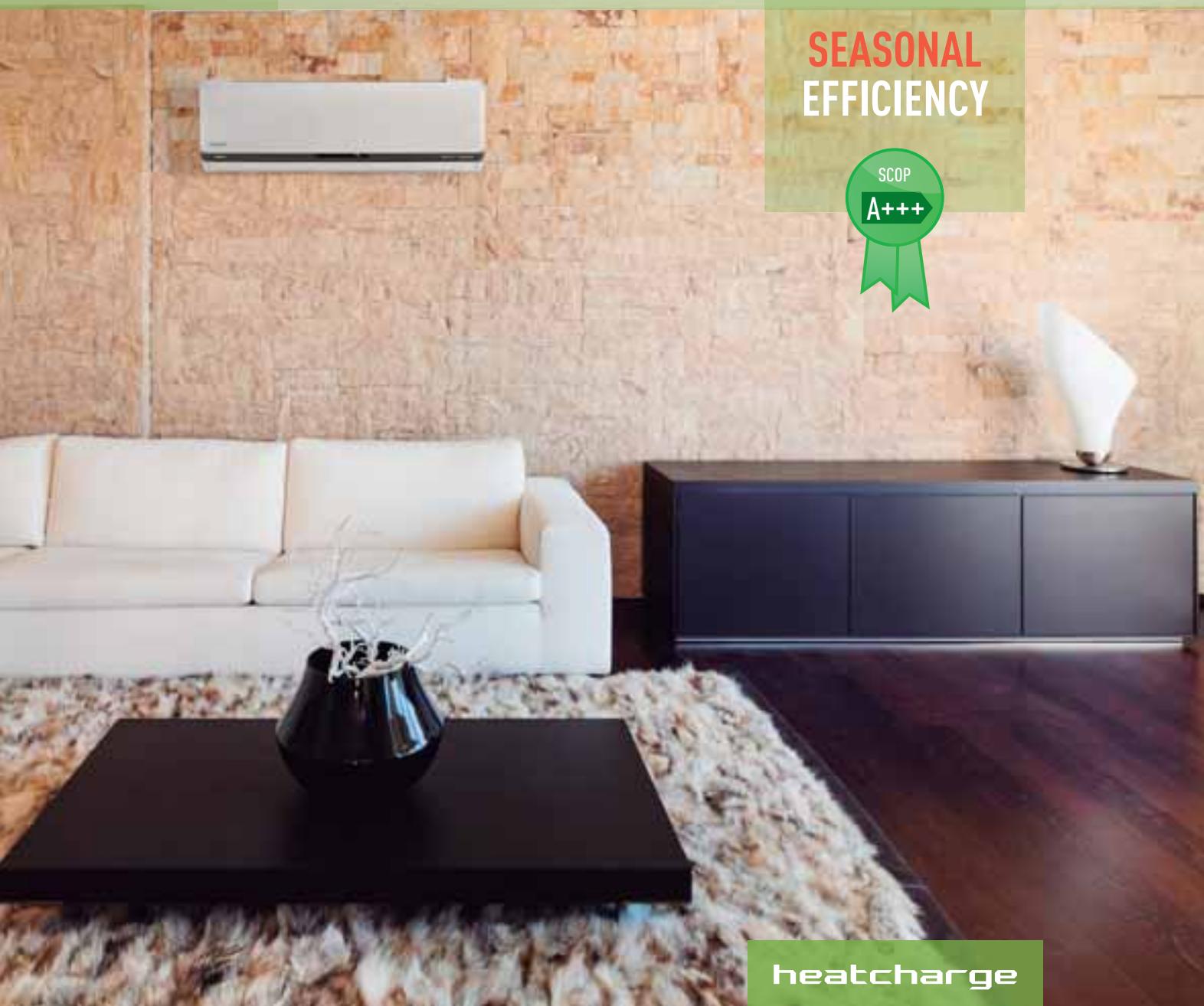
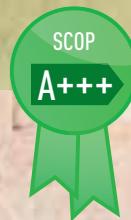


* Comparison of 1.0HP Inverter and Non-Inverter. Outside room temperature: 2°C ; Setting temperature: 25°C



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.

SEASONAL EFFICIENCY



heatcharge

**INTELLIGENT
MICROPROCESSOR**



DC INVERTER

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 and human activity detection
- Nanoe-G air purifying system
- More powerful airflow to quickly reach the desired temperature

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.

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

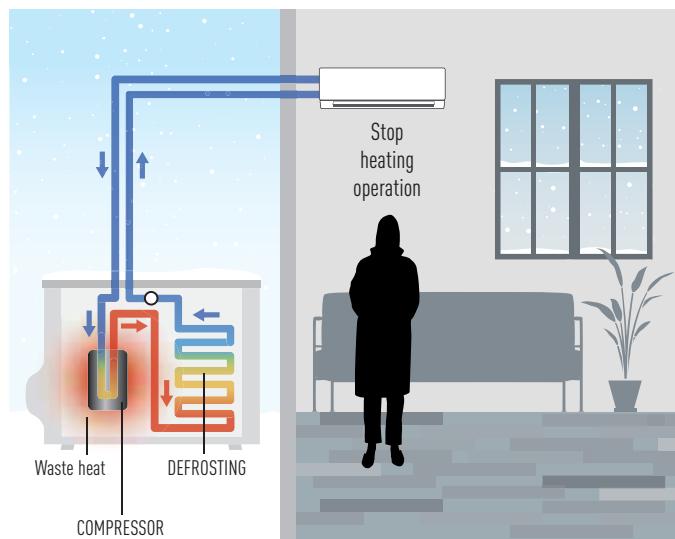
HEATCHARGE

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.



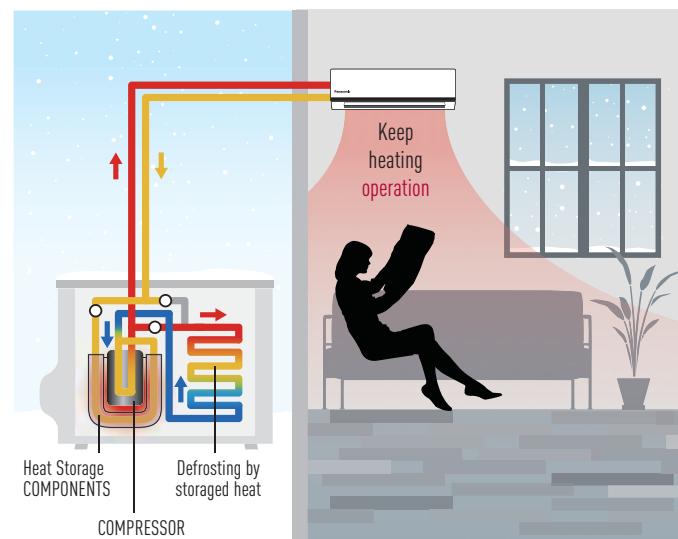
You can check the charge level with the remote control. Press the Information button and the level is displayed in five stages (from 0 to 4).



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.

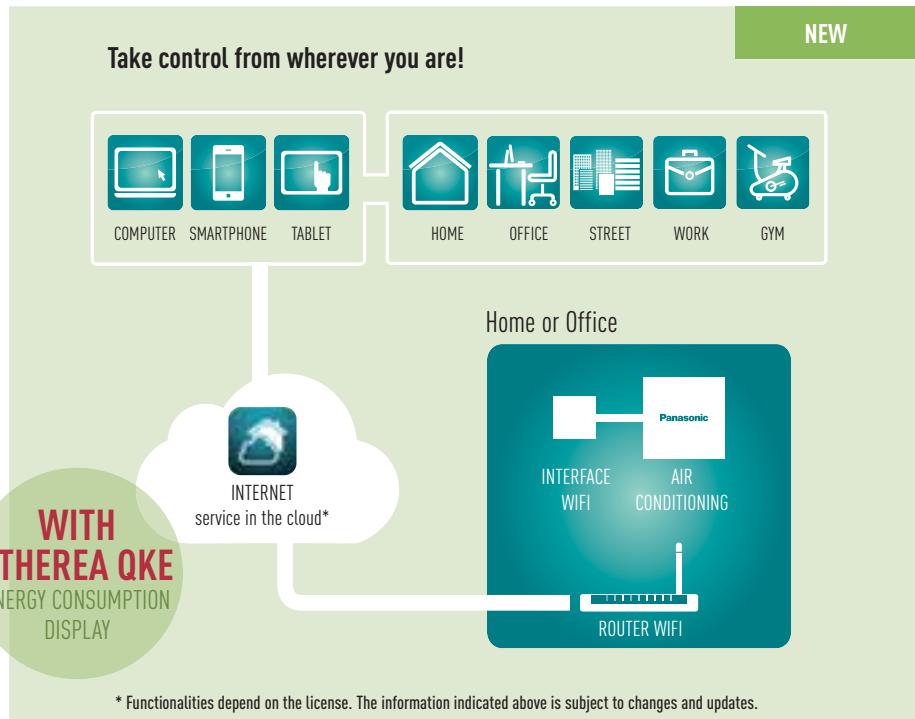
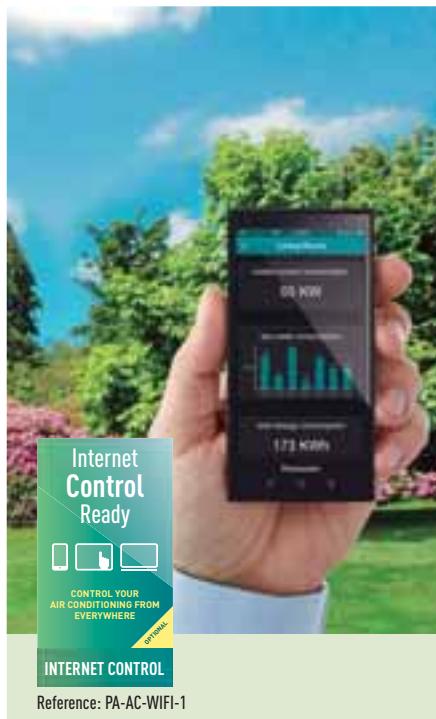
FALL IN ROOM TEMPERATURE: About 1 to 2 °C

* 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.

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



What's Internet Control?

Internet Control is a next generation system providing user-friendly remote control of air conditioning or heat pump units, 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 IntesisHome, KNX, EnOcean, Modbus and BacNet 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 Etherea, 4-Way 60x60 cassette and Low static pressure hide away line-up from IntesisHome, KNX, EnOcean, Modbus and BacNet installations.

This connectivity solution is made by a third party company, please contact Panasonic for more information.



Reference: PAW-AC-KNX-1i

This new KNX interface allows full bi-directional monitoring and control of all the functioning parameters of the air conditioner 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

Reference: PAW-AC-ENO-1i

This new EnOcean interface allows monitoring and control, fully bi-directionally, all the functioning parameters of the air conditioner 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®

Reference: PAW-AC-MBS-1

This new Modbus interface allows full bi-directional monitoring and control of all the functioning parameters of the air conditioner 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

Dry contact
with additional
PCB:PAW-AC-DIO

SIMPLE CONNECTION

Reference: PAW-AC-DIO

Dry contact ON/OFF Interface.

Panasonic has developed for hotels applications a dry contact PCB which works with Etherea, RE, UE and YE indoor units in order to control simply the unit centrally.

- ON/OFF signal by 3rd party BMS
- PCB connected to CN-RMT port on Indoor Unit PCB

Model name	Interface	Model name	Interface
PA-AC-WIFI-1	Interface for IntesisHome for Etherea, Mini cassettes and mini concealed ducts models	PAW-AC-BAC-1	Interface for BacNet (Etherea, 4-Way 60x60 cassette and Low static pressure hide away)
PAW-AC-ENO-1i	Interface for En-ocean (Etherea, 4-Way 60x60 cassette and Low static pressure hide away)	PAW-AC-HEAT-1	Heating only PCB for Etherea, 4-Way 60x60 cassette and Low static pressure hide away
PAW-AC-KNX-1i	Interface for KNX (Etherea, 4-Way 60x60 cassette and Low static pressure hide away)	PAW-AC-DIO	PCB for wall mounted with dry contacts, On/Off, Error message (all QKE wall mounted)
PAW-AC-MBS-1	Interface for Modbus (Etherea, 4-Way 60x60 cassette and Low static pressure hide away)	PAW-SMSCONTROL	Control of the Etherea, Flagship and Heatcharge by SMS (need additional SIM card)



Possible
to use on
R22 pipings

R22 RENEWAL

R22 Renewal. An important drive to further reduce the potential damage to our ozone

It is often said that legislation is ruling our lives but sometimes it is there to help save lives. R22 phase out can be described as one of these and from Jan 1st 2010 the use of Virgin (new) R22 refrigerant was banned within the European Community.

- All Panasonic standard NKE, PKE and QKE units can be install on existing R22 pipings
- No need of additional accessories (only pipe reduces)
- Approximately 30% energy saving compare to R22 units

Panasonic are doing our part

We at Panasonic are also doing our part – recognising that all finances are under pressure at the moment. Panasonic has developed a clean and cost effective solution to enable this latest legislation to be introduced with as minimum an effect on businesses and cash reserves as possible.

The Panasonic renewal system allows good quality existing R22 pipe work to be re-used whilst installing new high efficiency R410A systems.

By bringing a simple solution to the problem Panasonic can renew all Split Systems and PACi systems; and depending upon certain restrictions we don't even limit the manufacturer's equipment we are replacing.

By installing a new high efficiency Panasonic R410A system you can benefit from around 30% running cost saving compared to the R22 system.

Yes...

1. Check the capacity of the system you wish to replace
 2. Select from the Panasonic range the best system to replace it with
 3. Follow the procedure detailed in the brochure and technical data
- Simple...

R22 - The reduction of Chlorine critical for a cleaner future

Guidance on re-using of existing R22 piping for a new R410A installation

1. Precaution

The existing R22 piping can be re-used for a R410A system installation if the following conditions are met and the piping are finally verified to be:

- Dry (no moisture remained in the piping)
- Clean (no dust remained in the piping)
- Tight (no refrigerant leak at the joining and piping)

2. Conditions

- Recover the refrigerant and oil.

Operate "force cooling" according to the recommended operation time, regardless of the piping length.

Single split: 10min.

Multi split: 30min.

After that, carry out "pump down" to recover the refrigerant and oil from the existing R22 system

* Note: If pump down operation is not possible due to the malfunction of the system, flush and wash the existing piping to collect back the oil and dirt inside the system.

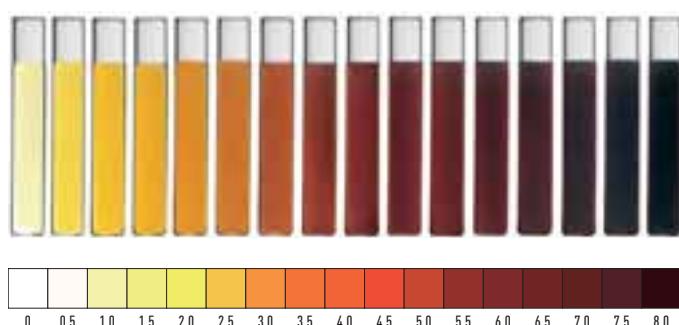
- Check the oil condition.

If the oil contains dirt, wash the existing pipes

- Check the oil color.

After pump down, use a cotton bud to wipe the oil from the existing pipe.

If the oil color is higher than ASTM3, use a new pipe as re-use of old piping is not allowed



- Check pipe thickness.

Make sure that the pipe thickness is more than 0,8mm.

If the thickness is less than 0,8mm, use a new pipe

- Rework the flare for R410A connection.

Do not reuse the old flare nuts.

Make sure to use the new flare nuts attached to the R410a system

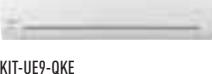
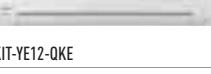
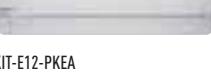
*Note: If the existing piping size is 1/4" (6.35mm) and 1/2" (12.7mm), and the new R410a system is 1/4" and 3/8" (9.52mm), use a pipe reducer connected at indoor and outdoor unit.

3. Applicable Model

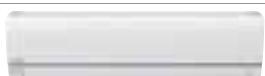
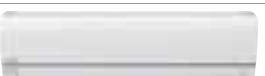
Panasonic single split room air conditioner from CS/CU-RE/UE/YE/XE/CE/NE/E*NKE and PKE series onwards.

Panasonic multi split room air conditioner from CU-2E/3E/4E/5PBE series onwards.

Domestic Air Conditioner Range

1x1 and Multi Split Kits	2,2 kW	2,8 kW	3,2 kW	4,5 kW
Wall Mounted VE Inverter+ Energy Charge System				
Wall Mounted Etherea Inverter+ Silver	 NEW KIT-XE7-QKE			
Wall Mounted Etherea Inverter+ White	 NEW KIT-E7-QKE			
Wall Mounted RE Type Standard Inverter	 NEW KIT-RE9-QKE			
Wall Mounted UE Type Standard Inverter	 NEW KIT-UE9-QKE			
Wall Mounted YE Type Standard Inverter	 NEW KIT-YE9-QKE			
Wall Mounted Professional Inverter -15°C				
Floor Console Type Inverter+				
4-Way 60x60 Cassette Standard Inverter				
Low Static Pressure Hide Away Standard Inverter				
2x1 Wall Mounted MRE Standard Inverter				 KIT-2MRE77-PBE/PKE // KIT-2MRE79-PBE/PKE // KIT-2MRE712-PBE/PKE
Etherea Multi Split Inverter+	 NEW			 KIT-2XE/E77-QBE // KIT-2XE/E79-QBE // KIT-2XE/E712-QBE // KIT-2XE/E99-QBE

Free Multi	3,2 to 5,6 kW	3,2 to 6,4 kW	4,5 to 9,0 kW	4,5 to 11,0 kW	4,5 to 13,6 kW	4,5 to 17,5 kW
Outdoor Unit //Inverter+						
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)

5,0 kW	6,0 kW	6,5 kW	8,0 kW	10,0 kW
				
KIT-XE18-QKE				
				
KIT-E18-QKE	KIT-E21-QKE	KIT-E24-QKE	KIT-E28-QKE	
				
KIT-RE18-QKE		KIT-RE24-QKE		
				
KIT-UE18-QKE				
				
KIT-E18-PKE				
				
KIT-E18-PFE				
				
KIT-2MRE99-PBE-PKE // KIT-2MRE912-PKE // KIT-2MRE1212-PKE				
				
KIT-2XE/E99-QKE // KIT-2XE/E712-QKE // KIT-2XE/E912-QKE // KIT-2XEE/1212-QKE	KIT-3XE/E712-QBE // KIT-3E7715-QBE // KIT-3E557-QBE		KIT-4XE/E77712-QBE // KIT-4E77715-QBE // KIT-4XE/E77777-QKE // KIT-4E77715-QKE	KIT-5XE77777-QBE // KIT-5E77777-QBE

Features Explained

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. Seal of Approval of the British Allergy Foundation



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.



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.



Antiallergy Properties

System is equipped with antiallergy properties 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



Internet Control

Internet Control is a next generation system providing 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.



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. 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, and detects changes in sunlight intensity and judges whether it is sunny or cloudy/night. It reduces unnecessary heating under more sunlight conditions.



Econavi Sunlight Detection

Detects changes in sunlight intensity and judges whether it is sunny or cloudy/night. It reduces the heating and therefore wasted energy under more sunlight conditions.



Autocomfort

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



Super Quiet

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.



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 function keeps the house at 7/8°C to avoid freezing pipes during the winter. This function is highly appreciated in summer house or week end houses.



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 just 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 at 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 the current operation mode to heating or cooling mode necessary to keep the temperature at a constantly comfortable level.



Hot Start Mode

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

Use



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.



R22 Renewal

The Panasonic renewal system allows good quality existing R22 pipe work to be re-used whilst installing new high efficiency R410A systems.



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 UE TYPE STANDARD INVERTER	WALL MOUNTED YE 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 AND 5x1 INVERTER+
 Air purifier (99% removal rate over 100m²)	Nanoe-G air purifying system	✓	✓	✓									✓	✓	✓
 Perfect humidity control (H2.5H)	Mild Dry Cooling		✓	✓											
 Prevention of allergens filter	Anti Bacterial Filter				✓	✓				✓ Optional		✓			
 Healthy air quality	Antiallergy properties	✓ 3rd party tested	✓ 3rd party tested	✓ 3rd party tested	✓	✓							✓ 3rd party tested	✓ 3rd party tested	✓ 3rd party tested
 Odour-removing function	Odour-removing function	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Removable, washable panel	Removable, washable panel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Internet Control Ready (INETRONIC)	Internet Control	✓	✓	✓									✓	✓	✓
 Energy saving	Inverter+ system	✓	✓	✓					✓	✓			✓	✓	✓
 Energy saving	Inverter system					✓	✓	✓			✓	✓	✓		
 Up to 30% energy savings (ECONAVI)	Econavi		✓	✓									✓	✓	✓
 Sunlight detection (ECONAVI)	Econavi Sunlight Detection	✓	✓	✓									✓	✓	✓
 Improved comfort (autocomfort)	Autocomfort		✓	✓									✓	✓	✓
 Silent air 20 dB super quiet	Super Quiet	✓		✓ For XE7, XE9 and XE12	✓ For E7, E9 and E12	✓ For RE9-12* (22dB)	✓ UE9-12* (22dB)	✓ YE9-12* (22dB)							
 Down to -10°C in cooling mode (cooling temperature)	Down to -10°C in cooling only	✓	✓	✓						✓ -15°C	✓	✓	✓	✓	✓
 Down to -15°C in heating mode (heating temperature)	Down to -15°C in heating mode	✓ -30°C	✓	✓	✓	✓	✓ -10°C	✓ -10°C	✓	✓	✓ -10°C	✓ -10°C	✓ -10°C	✓	✓
 Constant heating (HEATCHARGE)	Heatcharge	✓													
 Prevent freezing (SUMMER MODE)	Summer House	✓													
 Easy control by BMS (control component)	Easy control by BMS	✓	✓	✓					✓		✓	✓	✓	✓	✓
 Powerful mode	Powerful mode	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓
 Soft dry operation mode	Soft dry operation mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Wide & long airflow vane	Wide & long airflow vane	✓											✓		
 Personal airflow creation	Personal airflow creation	✓	✓	✓		✓ For RE18 and RE24							✓	✓	✓
 Automatic vertical airflow control	Automatic vertical airflow control	✓				✓ For RE9, RE12 and RE15	✓ For UE9 and UE12	✓	✓	✓	✓				
 Manual horizontal airflow control	Manual horizontal airflow control	✓				✓ For RE9, RE12 and RE15	✓ For UE9 and UE12	✓							
 AUTO mode [Inverter]	AUTO mode [Inverter]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Simple Auto Changeover	Simple Auto Changeover	✓	✓	✓	✓	✓	✓	✓							
 Hot start mode	Hot start mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Real time clock with dual ON&OFF timer	Real time clock with dual ON&OFF timer	✓	✓	✓				✓					✓	✓	✓
 Real time clock with single ON&OFF timer	Real time clock with single ON&OFF timer					✓	✓	✓		✓	✓	✓	✓	✓	
 LCD Wireless remote controller	LCD Wireless remote controller	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Automatic restart	Automatic restart	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Long piping	Long piping	✓ 15 m	✓ 15 m (XE7-12) 20 m (XE18)	✓ 15 m (E7-15) 20 m (E18-21) 30 m (E24-28)	✓ 15 m (RE9-15) 30 m (RE18) 30 m (RE24)	✓ 15 m	✓ 15 m	✓ 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	✓ 60 m (E23) 70 m (E27) 80 m (E34)
 Top-Panel maintenance access	Top-Panel maintenance access	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Self-diagnosis function	Self-diagnosis function	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 R22 renewal	R22 renewal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
 5 year compressor warranty	Warranty on the compressor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* At the lowest fan speed.

WALL MOUNTED VE INVERTER+ ENERGY CHARGE SYSTEM

The new Heatcharge from Panasonic has the capacity to store heat on the outdoor unit which allows heating to start quickly just after turning on the heat pump. It also ensures 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.

		8,60 A+++ SEER	5,40 A+++ SCOP	Air purifier 99% removal bacteria-virus-mold		Silent air 23 dB	Down to -30°C in heating mode		Prevent freezing		Possible to use on R22 pipings	
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INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-VE9-NKE.

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)		
SEER	Nominal	Energy Saving	8,60 A+++	8,50 A+++		
Pdesign (cooling)		kW	2,5	3,5		
Power input cooling	Nominal (Min - Max)	kW	0,480 (0,140 - 0,790)	0,880 (0,140 - 1,100)		
Annual electricity consumption (cooling) ¹⁾	kWh/a	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		
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	0,580 (0,140 - 2,720)	0,850 (0,140 - 3,160)		
Annual electricity consumption (heating) ¹⁾	kWh/a	830		1153		
Indoor Unit						
Power source	V	230		230		
Recommended fuse	A	16		16		
Recommended power cable section	mm ²	1,5		1,5		
Connection	mm ²	4 x 1,5		4 x 1,5		
Current (Nominal)	Cooling / Heating	A	2,2 / 2,7	3,9 / 3,8		
Maximum current		A	14,0	15,0		
Air volume	Cooling / Heating	m ³ /h	600 / 600	654 / 618		
Moisture removal volume		l/h	1,5	2,0		
Sound pressure level ²⁾	Cooling (Hi / Lo / Q-Lo)	dB(A)	44 / 26 / 23	45 / 29 / 26		
	Heating (Hi / Lo / Q-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						
Air volume	Cooling / Heating	m ³ /h	1,980 / 1,890	2,052 / 1,890		
Sound pressure level ²⁾	Cooling (Hi)	dB(A)	49	50		
	Heating (Hi)	dB(A)	49	50		
Sound power level	Cooling / Heating (Hi)	dB	64 / 64	65 / 65		
Dimensions ³⁾	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	kg	1,50	1,50		
Elevation difference (in/out)	Max	m	12	12		
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	-30 ⁴⁾ / +24	-30 ⁴⁾ / +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) The annual energy consumption is calculated in accordance with the ErP directive. 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) Operation possible on heating mode up to -30 °C tested by SP. Performance guaranteed 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.ptc.panasonic.eu>

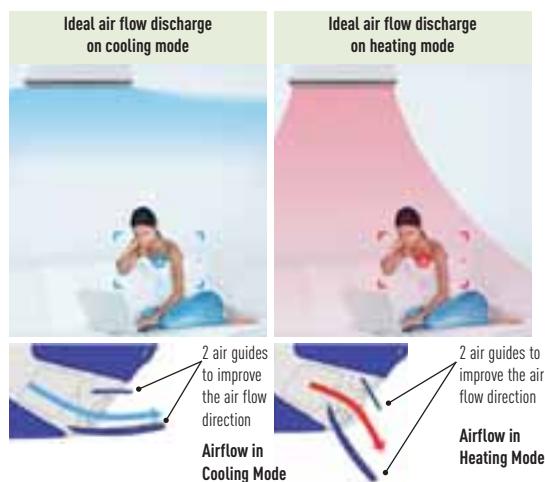
INCLUDED WITH THE
INDOOR UNITSEASONAL
EFFICIENCY

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

Technical focus

- New!** This units can be installed on R22 pipings
- Work up to -30°C
- Energy Charge System. Heat storage unit which realizes NON-STOP heating and fast heating function
- Maximum efficiency and comfort with Econavi sunlight detection
- 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

CU-VE9NKE
CU-VE12NKE

Features

HEALTHY AIR

- Nanoe-G air purifying system

ENERGY EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system, for bigger savings
- Econavi Sunlight Detection
- R410A refrigerant gas

COMFORT

- Super Quiet
- 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
- 12 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.



Internet Control Ready	Energy saving	7,60 A++ SEER	4,80 A++ SCOP	Air purifier 99% removal bacteria•virus•mold	Up to 38% energy savings (cooling)	Improved comfort	Perfect humidity control	Silent air 20 dB	Easy control by BMS	Possible to use on R22 pipings
INTERNET CONTROL	INVERTER +	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	● nanoe-g	ECONAVI	AUTOCOMFORT	MILD DRY	SUPER QUIET	CONNECTIVITY	R22 RENEWAL



AWARDED WITH THE PRESTIGIOUS IF DESIGN AWARD 2013 INTERNET CONTROL READY: Optional. SEER AND SCOP: For KIT-XE12-QKE AND KIT-E12-QKE. 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-QKE	KIT-XE9-QKE	KIT-XE12-QKE	—
Kit Silver Plated / with Smartphone Control	KIT-XE7-QKE-WIFI	KIT-XE9-QKE-WIFI	KIT-XE12-QKE-WIFI	—
Kit White	KIT-E7-QKE	KIT-E9-QKE	KIT-E12-QKE	KIT-E15-QKE
Kit White / with Smartphone Control	KIT-E7-QKE-WIFI	KIT-E9-QKE-WIFI	KIT-E12-QKE-WIFI	KIT-E15-QKE-WIFI
Indoor Silver plated	CS-XE7QKEW	CS-XE9QKEW	CS-E12QKEW	—
Indoor White	CS-E7QKEW	CS-E9QKEW	CS-E12QKEW	CS-E15QKEW
Outdoor	CU-E7QKE	CU-E9QKE	CU-E12QKE	CU-E15QKE
Cooling capacity	Nominal (Min - Max) kW	2,05 (0,75 - 2,40)	2,50 (0,85 - 3,00)	3,50 (0,85 - 4,00)
	Nominal (Min - Max) kCal/h	1.760 (650 - 2.060)	2.150 (730 - 2.580)	3.010 (730 - 3.440)
SEER	Nominal	Energy Saving 6,90 A++	6,90 A++	7,60 A++
Pdesign (cooling)	kW	2,1	2,5	3,5
Power input cooling	Nominal (Min - Max) kW	0,460 (0,240 - 0,565)	0,525 (0,245 - 0,715)	0,835 (0,250 - 1,050)
Annual electricity consumption (cooling) ¹⁾	kWh/a	107	127	161
Heating capacity	Nominal (Min - Max) kW	2,80 (0,70 - 4,00)	3,40 (0,80 - 5,00)	4,00 (0,80 - 6,00)
Heating capacity at -7°C	Nominal kW	2,38	2,95	3,45
SCOP	Nominal	Energy Saving 4,40 A+	4,70 A++	4,80 A++
Pdesign at -10°C	kW	2,1	2,7	3,2
Power input heating	Nominal (Min - Max) kW	0,625 (0,180 - 1,000)	0,720 (0,190 - 1,270)	0,840 (0,190 - 1,600)
Annual electricity consumption (heating) ¹⁾	kWh/a	668	804	933
Indoor Unit				
Power source	V	230	230	230
Recommended fuse	A	16	16	16
Recommended power cable section	mm ²	1,5	1,5	1,5
Connection indoor / outdoor	mm ²	4 x 1,5	4 x 1,5	4 x 1,5
Current (Nominal)	Cooling / Heating A	2,20 / 2,80	2,35 / 3,20	3,80 / 3,90
Maximum current	A	4,40	5,6	7,40
Air volume	Cooling / Heating m ³ /h	726 / 738	768 / 774	804 / 822
Moisture removal volume	l/h	1,3	1,5	2
Sound pressure level ²⁾	Cooling (Hi / Lo / Q-Lo) dB(A)	37 / 24 / 20	39 / 25 / 20	42 / 28 / 20
	Heating (Hi / Lo / Q-Lo) dB(A)	38 / 25 / 20	40 / 27 / 20	42 / 33 / 20
Sound power level	Cooling / Heating (Hi) dB	53 / 54	55 / 56	58 / 58
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	10	10	10
Air purifier filter		Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit				
Air volume	Cooling / Heating m ³ /h	2,034 / 2,034	1,788 / 1,788	2,106 / 2,160
Sound pressure level ²⁾	Cooling / Heating (Hi) dB(A)	45 / 46	46 / 47	48 / 50
Sound power level	Cooling / Heating (Hi) dB	60 / 61	61 / 62	63 / 65
Dimensions ³⁾	H x W x D mm	542 x 780 x 289	542 x 780 x 289	619 x 824 x 299
Net weight	kg	31	33	35
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) / 1/2 (12,70)
Refrigerant loading	R410A (GWP value)	0,85	1,02	1,15
Elevation difference (in/out) ⁴⁾	Max m	15	15	15
Piping length	Min / Max m	3 / 15	3 / 15	3 / 15
Precharge length	Max m	7,5	7,5	7,5
Additional charge	g/m	20	20	20
Operating range	Cooling Min / Max °C	-10 / +43	-10 / +43	-10 / +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 QKE units.

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre 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. Q-Lo: Quiet mode. Lo: The lowest fan speed. 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.ptc.panasonic.eu>



CS-XE70KEW // CS-XE90KEW // CS-XE120KEW

**SEASONAL
EFFICIENCY**



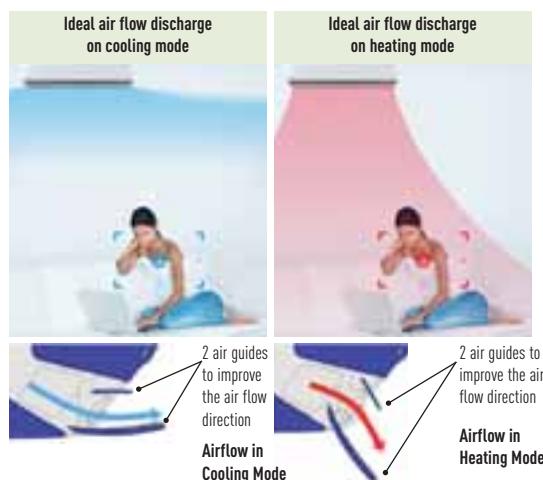
KIT SILVER PLATED: KIT-XE7-QKE // KIT-XE9-QKE // KIT-XE12-QKE

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

Technical focus

- New!** This units can be installed on R22 pipings
- Maximum efficiency and comfort with Econavi, now with sunlight detection
- Nanoe-G air purifying system, 99% effective on both airborne and adhesive mould, viruses, bacteria and pollen allergen
- Optional smartphone control
- Mild Dry Cooling: prevent a rapid decrease in room humidity
- Super Quiet! Only 20 dB, equivalent to night-time in the countryside (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



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 (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

- NEW!** Heating only function by enabling software (only by service partner)
- 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.



Internet Control Ready	Energy saving	6,90 A++ SEER	4,20 A+ SCOP	Air purifier 99% removal bacteria-virus-mold	Up to 38% energy savings (cooling)	Improved comfort	Perfect humidity control	Easy control by BMS	Possible to use on R22 pipings
INTERNET CONTROL	INVERTER+	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	nanoe-g	ECONAVI	AUTOCOMFORT	MILD DRY	CONNECTIVITY	R22 RENEWAL



Awarded with the
prestigious IF Design
Award 2013

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-XE18-QKE and KIT-E18-QKE. 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-QKE	—	—	—
Kit Silver Plated / with Smartphone Control		KIT-XE18-QKE-WIFI	—	—	—
Kit White		KIT-E18-QKE	KIT-E21-QKE	KIT-E24-QKE	KIT-E28-QKE
Kit White / with Smartphone Control		KIT-E18-QKE-WIFI	KIT-E21-QKE-WIFI	KIT-E24-QKE-WIFI	KIT-E28-QKE-WIFI
Indoor Silver plated		CS-XE18QKEW	—	—	—
Indoor White		CS-E18QKEW	CS-E21QKEW	CS-E24QKEW	CS-E28QKES
Outdoor		CU-E18QKE	CU-E21QKE	CU-E24QKE	CU-E28QKE
Cooling capacity	Nominal (Min - Max)	kW	5,00 [0,98 - 6,00]	6,30 [0,98 - 7,10]	6,80 [0,98 - 8,10]
	Nominal (Min - Max)	kCal/h	4.300 [840 - 5.160]	5.420 [840 - 6.110]	5.850 [840 - 6.970]
SEER	Nominal	Energy Saving	6,90 A++	6,50 A++	6,10 A++
Pdesign (cooling)		kW	5,0	6,3	6,8
Power input cooling	Nominal (Min - Max)	kW	1.440 [0,280 - 1,990]	2.180 [0,280 - 2,500]	2.080 [0,380 - 2,650]
Annual electricity consumption (cooling) ¹⁾		kWh/a	254	339	390
Heating capacity	Nominal (Min - Max)	kW	5,80 [0,98 - 8,00]	7,20 [0,98 - 8,50]	8,60 [0,98 - 9,90]
Heating capacity at -7°C	Nominal (Min - Max)	kW	4.990 [840 - 6.880]	6.190 [840 - 7.310]	7.400 [840 - 8.510]
SCOP	Nominal	Energy Saving	4,20 A++	4,00 A++	3,90 A
Pdesign at -10°C		kW	4,4	4,6	5,5
Power input heating	Nominal (Min - Max)	kW	1.520 [0,340 - 2,570]	2.090 [0,340 - 2,730]	2.580 [0,450 - 3,100]
Annual electricity consumption (heating) ¹⁾		kWh/a	1.467	1.610	1.974
Indoor Unit					
Power source		V	230	230	230
Recommended fuse		A	16	20	20
Recommended power cable section		mm²	1,5	2,5	2,5
Connection indoor / outdoor		mm²	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 / 11,7
Maximum current		A	11,3	11,9	14,4
Air volume	Cooling / Heating	m³/h	1074 / 1158	1.134 / 1.200	1.188 / 1.272
Moisture removal volume		l/h	2,8	3,5	3,9
Sound pressure level ²⁾	Cooling (Hi / Lo / Q-Lo)	dB(A)	44 / 37 / 34	45 / 37 / 34	47 / 38 / 35
	Heating (Hi / Lo / Q-Lo)	dB(A)	44 / 37 / 34	45 / 37 / 34	47 / 38 / 35
Sound power level	Cooling / Heating (Hi)	dB	60 / 60	61 / 61	63 / 63
Dimensions	H x W x D	mm	295 x 1.070 x 255	295 x 1.070 x 255	295 x 1.070 x 255
Net weight		kg	13	13	13
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit					
Air volume	Cooling / Heating	m³/h	2.352 / 2.274	2.502 / 2.424	3.012 / 3.012
Sound pressure level ²⁾	Cooling / Heating (Hi)	dB(A)	47 / 47	48 / 49	52 / 52
Sound power level	Cooling / Heating (Hi)	dB	61 / 61	62 / 63	66 / 66
Dimensions ³⁾	H x W x D	mm	695 x 875 x 320	795 x 875 x 320	795 x 875 x 320
Net weight		kg	46	47	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)
Refrigerant loading	R410A	kg	1,24	1,32	1,80
Elevation difference (in/out)	Max	m	15	15	20
Piping length	Min / Max	m	3 / 20	3 / 20	3 / 30
Precharge length	Max	m	7,5	7,5	10
Additional charge		g/m	20	20	30
Operating range	Cooling Min / Max	°C	-10 / +43	-10 / +43	-10 / +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 QKE units.

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre 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. Q-Lo: Quiet mode. Lo: The lowest fan speed. 3) Add 70 mm for piping port.

Specifications subject to change without notice.

For detailed information about ErP, please visit our page <http://www.ptc.panasonic.eu>



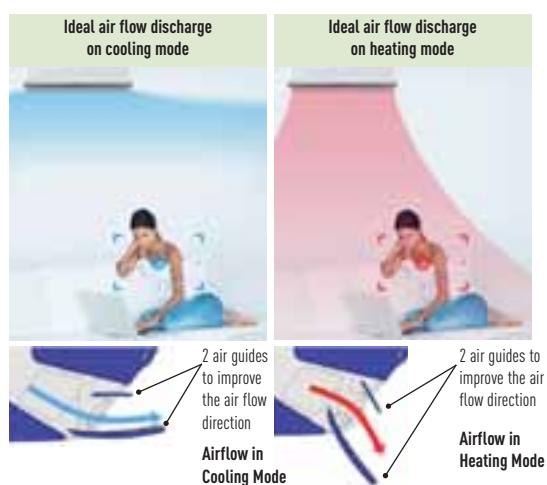
KIT SILVER PLATED: KIT-XE18-QKE

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

Technical focus

- New!** This units can be installed on R22 pipings
- Maximum efficiency and comfort with Econavi, now with sunlight detection
- Nanoe-G air purifying system, 99% effective on both airborne and adhesive mould, viruses, bacteria and pollen allergen
- 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-E18QKE
CU-E21QKE



CU-E24QKE
CU-E28QKE

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

- 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
- 20 m (for 18 and 21), 30 m (for 24 and 28) maximum connection distance
- 15 m (for 18 and 21), 20 m (for 24 and 28) maximum elevation difference
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function

WALL MOUNTED RE TYPE STANDARD INVERTER

RE Inverter models are powerful and efficient, with an outstanding energy ranking of A++/A+, unique in the market! The RE works up to an outdoor temperature of -15°C in heating mode and -10°C up a outdoor temperature of -15°C in heating and -10 in cooling and still with a high efficiency and capacity! Furthermore, the annual energy consumption has never been so low.

RE has a unique Anti Bacterial Filter in order to enjoy the best quality air, without viruses, mould or bacteria.

Energy saving	6,10 A++ SEER	4,00 A+ SCOP	Prevention allergen filter	Silent air 22 dB	Possible to use on R22 pipings	5 year compressor warranty
INVERTER	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	ANTI BACTERIAL FILTER	SUPER QUIET	R22 RENEWAL	

SEER and SCOP: For KIT-RE9-QKE and KIT-RE12-QKE. SUPER QUIET: For RE9 and RE12.

Kit	KIT-RE9-QKE	KIT-RE12-QKE	KIT-RE15-QKE	KIT-RE18-QKE	KIT-RE24-QKE
Indoor	CS-RE9QKE	CS-RE12QKE	CS-RE15QKE	CS-RE18QKE	CS-RE24QKE
Outdoor	CU-RE9QKE	CU-RE12QKE	CU-RE15QKE	CU-RE18QKE	CU-RE24QKE
Cooling capacity	Nominal (Min - Max) kW	2,50 (0,85 - 3,00)	3,50 (0,85 - 3,90)	4,20 (0,85 - 4,60)	5,00 (0,98 - 6,00)
	Nominal (Min - Max) kCal/h	2.150 (730 - 2.580)	3.010 (730 - 3.350)	3.610 (730 - 3.960)	4.300 (840 - 5.160)
SEER	Nominal Energy Saving	6,10 A++	6,10 A++	5,60 A+	6,70 A++
Pdesign (cooling)	kW	2,5	3,5	4,2	5,0
Power input cooling	Nominal (Min - Max) kW	0,670 (0,250 - 0,950)	1,000 (0,255 - 1,190)	1,260 (0,265 - 1,650)	1,470 (0,280 - 2,030)
Annual electricity consumption (cooling) ¹⁾	kWh/a	143	201	263	397
Heating capacity	Nominal (Min - Max) kW	3,30 (0,80 - 4,10)	4,00 (0,80 - 5,10)	5,00 (0,80 - 6,80)	5,80 (0,98 - 8,00)
	Nominal (Min - Max) kCal/h	2.840 (690 - 3.530)	3.440 (690 - 4.390)	4.300 (690 - 5.850)	4.990 (840 - 6.880)
Heating capacity at -7°C	Nominal kW	2,7	3,30	3,9	4,98
SCOP	Nominal Energy Saving	4,00 A+	4,00 A+	3,80 A	4,10 A+
Pdesign at -10°C	kW	2,4	2,8	3,6	4,4
Power input heating	Nominal (Min - Max) kW	0,800 (0,195 - 1,130)	1,050 (0,200 - 1,420)	1,350 (0,200 - 2,050)	1,540 (0,340 - 2,600)
Annual electricity consumption (heating) ¹⁾	kWh/a	840	980	1.326	1.502
Indoor Unit					
Power source	V	230	230	230	230
Recommended fuse	A	16	16	16	16
Recommended power cable section	mm ²	1,5	1,5	2,5	2,5
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	2,95 / 3,55	4,00 / 4,60	5,60 / 6,00	6,60 / 6,90
Maximum current	A	5,0	6,2	9,2	11,4
Air volume	Cooling / Heating m ³ /h	702 / 768	738 / 768	750 / 804	978 / 1.074
Moisture removal volume	U/h	1,5	2	2,4	2,8
Sound pressure level ²⁾	Cooling (Hi / Lo / Q-Lo) dB(A)	41 / 26 / 22	42 / 30 / 22	44 / 31 / 29	44 / 37 / -
	Heating (Hi / Lo / Q-Lo) dB(A)	41 / 27 / 25	42 / 33 / 25	44 / 35 / 28	44 / 37 / -
Sound power level	Cooling (Hi) dB	57	58	60	60
	Heating (Hi) dB	57	58	60	63
Dimensions	H x W x D mm	290 x 870 x 214	290 x 870 x 214	290 x 870 x 214	290 x 1.070 x 240
Net weight	kg	9	9	9	12
Air purifier filter		Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter
Silver decoration sheet	Yes	Yes	Yes	Yes	Yes
Outdoor Unit					
Air volume	Cooling / Heating m ³ /h	1.788 / 1.740	1.998 / 1.998	1.998 / 1.998	2.064 / 2.040
Sound pressure level ²⁾	Cooling (Hi) dB(A)	47	48	49	47
	Heating (Hi) dB(A)	48	50	51	47
Sound power level	Cooling (Hi) dB	62	63	64	61
	Heating (Hi) dB	63	65	66	61
Dimensions ³⁾	H x W x D mm	542 x 780 x 289	619 x 824 x 299	619 x 824 x 299	695 x 875 320
Net weight	kg	33	34	34	46
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)
Refrigerant loading	R410A kg	0,97	1,02	1,02	1,22
Elevation difference (in/out)	Max m	15	15	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	-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 QKE units.

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre 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. Q-Lo: The lowest fan speed. Lo: The second lowest fan speed (the lowest fan speed for RE18/24). 3) Add 70 mm for piping port.

Specifications subject to change without notice.

For detailed information about ErP, please visit our page <http://www.ptc.panasonic.eu>



KIT-RE9-QKE // KIT-RE12-QKE // KIT-RE15-QKE // KIT-RE18-QKE // KIT-RE24-QKE

Technical focus

- **New!** Design
- **New!** Wired Controller (optional)
- **New!** This units can be installed on R22 pipings
- Complete line-up of standard Inverter models
- Quieter indoor units
- High energy savings
- Long connection distance (from 15 m up to 30 m)

Features

HEALTHY AIR

- Anti Bacterial Filter
- Odour-removing function

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

COMFORT

- Super Quiet
- Automatic vertical airflow control
- Hot start mode
- Automatic restart
- Simple change over

EASE OF USE

- **New!** Wired Controller (optional)
- 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-RE18QKE // CS-RE24QKE



CU-RE9QKE



CU-RE12QKE
CU-RE15QKE



CU-RE18QKE



CU-RE24QKE

WALL MOUNTED UE TYPE STANDARD INVERTER

New UE series inverter powerful and efficient.



SEER and SCOP: For KIT-UE18-QKE. SUPER QUIET: For UE9 and UE12.

Kit	KIT-UE9-QKE	KIT-UE12-QKE	KIT-UE18-QKE
Indoor	CS-UE9QKE	CS-UE12QKE	CS-UE18QKE
Outdoor	CU-UE9QKE	CU-UE12QKE	CU-UE18QKE
Cooling capacity	Nominal (Min - Max) kW 2,50 (0,85 - 3,00)	3,50 (0,85 - 3,90)	5,00 (0,98 - 5,60)
	Nominal (Min - Max) kCal/h 2.150 (730 - 2.580)	3.010 (730 - 3.350)	4.300 (840 - 4.820)
SEER	Nominal Energy Saving 5,60 A++	5,60 A+	6,50 A++
Pdesign (cooling)	2,5	3,5	5,0
Power input cooling	Nominal (Min - Max) kW 0,720 (0,250 - 1,020)	1,090 (0,255 - 1,280)	1,540 (0,285 - 1,750)
Annual electricity consumption (cooling) ¹⁾	kWh/a 156	219	269
Heating capacity	Nominal (Min - Max) kW 3,30 (0,80 - 4,10)	4,00 (0,80 - 5,10)	5,40 (0,98 - 7,70)
	Nominal (Min - Max) kCal/h 2.840 (690 - 3.530)	3.440 (690 - 4.390)	4.640 (840 - 6.620)
Heating capacity at -7°C	Nominal kW 2,66	3,2	4,79
SCOP	Nominal Energy Saving 3,80 A	3,80 A	4,30 A+
Pdesign at -10 °C	Nominal kW 1,9	2,4	4,0
Power input heating	Nominal (Min - Max) kW 0,860 (0,175 - 1,180)	1,100 (0,200 - 1,470)	1,470 (0,350 - 2,300)
Annual electricity consumption (heating) ¹⁾	kWh/a 700	884	1.302
Indoor Unit			
Power source	V 230	230	230
Recommended fuse	A 16	16	16
Recommended power cable section	mm ² 1,5	1,5	2,5
Connection indoor / outdoor	mm ² 4 x 1,5	4 x 1,5	4 x 1,5
Current (Nominal)	Cooling / Heating A 3,20 / 3,80	4,80 / 4,90	6,90 / 6,70
Maximum current	A 5,3	6,7	10,1
Air volume	Cooling / Heating m ³ /h 702 / 768	738 / 768	978 / 1.074
Moisture removal volume	l/h 1,5	2	2,8
Sound pressure level ²⁾	Cooling (Hi / Lo / Q-Lo) dB(A) 41 / 26 / 22	42 / 30 / 22	44 / 37 /
	Heating (Hi / Lo / Q-Lo) dB(A) 41 / 27 / 25	42 / 33 / 25	44 / 37 /
Sound power level	Cooling (Hi) dB 57	58	60
	Heating (Hi) dB 57	58	60
Dimensions	H x W x D mm 290 x 870 x 214	290 x 870 x 214	290 x 1.070 x 240
Net weight	kg 9	9	12
Air purifier filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter
Outdoor Unit			
Air volume	Cooling / Heating m ³ /h 1.926 / 1.872	1.860 / 1.860	2.064 / 2.040
Sound pressure level ²⁾	Cooling (Hi) dB(A) 47	48	48
	Heating (Hi) dB(A) 48	50	49
Sound power level	Cooling (Hi) dB 62	63	63
	Heating (Hi) dB 63	65	63
Dimensions ³⁾	H x W x D mm 542 x 780 x 289	542 x 780 x 289	622 x 824 x 299
Net weight	kg 31	33	38
Piping connections	Liquid pipe inch (mm) 1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Gas pipe inch (mm) 3/8 (9,52)	3/8 (9,52)	1/2 (12,70)
Refrigerant loading	R410A kg 0,85	1,00	1,43
Elevation difference (in/out) ⁴⁾	Max m 15	15	15
Piping length	Min / Max m 3 / 15	3 / 15	3 / 15
Precharge length	Max m 7,5	7,5	7,5
Additional gas	g/m 20	20	20
Operating range	Cooling Min / Max °C 5 / +43	5 / +43	5 / +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 QKE units.

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre 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. Q-Lo: The lowest fan speed. Lo: The second lowest fan speed (the lowest fan speed for UE18) 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.ptc.panasonic.eu>



KIT-UE9-QKE // KIT-UE12-QKE // KIT-UE18-QKE

Technical focus

- **New!** New design
- **New!** UE18 (5kW)
- **New!** Wired Controller (optional)
- **New!** This units can be installed on R22 pipings
- Quieter indoor units
- High energy savings
- Long connection distance

Features

HEALTHY AIR

- Anti Bacterial Filter
- Odour-removing function

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

EASE OF USE

- **New!** Wired Controller (optional)
- User friendly infrared remote control

COMFORT

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

EASY INSTALLATION AND MAINTENANCE

- Maximum connection distance 15 m
- Removable, washable panel



CS-UE18QKE



CU-UE9QKE
CU-UE12QKE



CU-UE18QKE

WALL MOUNTED YE TYPE STANDARD INVERTER

YE Inverter models are powerful and efficient.



Kit			KIT-YE9-QKE	KIT-YE12-QKE
Indoor			CS-YE9QKE	CS-YE12QKE
Outdoor			CU-YE9QKE	CU-YE12QKE
Cooling capacity	Nominal (Min - Max)	kW	2,50 (0,85 - 3,00)	3,50 (0,85 - 3,90)
	Nominal (Min - Max)	kCal/h	2,150 (730 - 2,580)	3,010 (730 - 3,350)
SEER	Nominal	Energy Saving	5,60	5,60
Pdesign (cooling)			2,5	3,5
Power input cooling	Nominal (Min - Max)	kW	0,720 (0,250 - 1,020)	1,090 (0,255 - 1,280)
Annual electricity consumption (cooling) ¹⁾		kWh/a	156	219
Heating capacity	Nominal (Min - Max)	kW	3,30 (0,80 - 4,10)	4,00 (0,80 - 5,10)
	Nominal (Min - Max)	kCal/h	2,840 (690 - 3,530)	3,440 (690 - 4,390)
Heating capacity at -7°C	Nominal	kW	2,66	3,2
SCOP	Nominal	Energy Saving	3,80	3,80
Pdesign at -10 °C		kW	1,9	2,4
Power input heating	Nominal (Min - Max)	kW	0,860 (0,195 - 1,180)	1,100 (0,200 - 1,470)
Annual electricity consumption (heating) ¹⁾		kWh/a	700	884
Indoor Unit				
Power source		V	230	230
Recommended fuse		A	16	16
Recommended power cable section		mm ²	1,5	1,5
Connection indoor / outdoor		mm ²	4 x 1,5	4 x 1,5
Current (Nominal)	Cooling / Heating	A	3,20 / 3,80	4,8 / 4,90
Maximum current		A	5,3	6,7
Air volume	Cooling / Heating	m ³ /h	702 / 768	738 / 768
Moisture removal volume		l/h	1,5	2
Sound pressure level ²⁾	Cooling (Hi / Lo / Q-Lo)	dB(A)	41 / 26 / 22	42 / 30 / 22
	Heating (Hi / Lo / Q-Lo)	dB(A)	41 / 27 / 25	42 / 33 / 25
Sound power level	Cooling (Hi)	dB	57	58
	Heating (Hi)	dB	57	58
Dimensions	H x W x D	mm	290 x 870 x 214	290 x 870 x 214
Net weight		kg	9	9
Air purifier filter			No	No
Outdoor Unit				
Air volume	Cooling / Heating	m ³ /h	1,926 / 1,872	1,860 / 1,860
Sound pressure level ²⁾	Cooling (Hi)	dB(A)	47	48
	Heating (Hi)	dB(A)	48	50
Sound power level	Cooling (Hi)	dB	62	63
	Heating (Hi)	dB	63	65
Dimensions ³⁾	H x W x D	mm	542 x 780 x 289	542 x 780 x 289
Net weight		kg	31	33
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	kg	0,85	1,00
Elevation difference (in/out) ⁴⁾	Max	m	15	15
Piping length	Min / Max	m	3 / 15	3 / 15
Precharge length	Max	m	7,5	7,5
Additional gas		g/m	20	20
Operating range	Cooling Min / Max	°C	5 / +43	5 / +43
	Heating Min / Max	°C	-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 QKE units.

1) The annual energy consumption is calculated in accordance with the ErP directive. 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. Q-Lo: The lowest fan speed. Lo: The second lowest fan speed. 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.ptc.panasonic.eu>



KIT-YE9-QKE // KIT-YE12-QKE

Technical focus

- **New!** New design
- **New!** Wired Controller (optional)
- **New!** This units can be installed on R22 pipings
- Quieter indoor units
- High energy savings
- Long connection distance

Features

HEALTHY AIR

- Odour-removing function

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

EASE OF USE

- **New!** Wired Controller (optional)
- User friendly infrared remote control

COMFORT

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

EASY INSTALLATION AND MAINTENANCE

- Maximum connection distance 15 m
- Removable, washable panel



CU-YE9QKE
CU-YE12QKE

WALL MOUNTED PROFESSIONAL INVERTER -15°C



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.

Energy saving	Internet Control Ready	7,10 A++ SEER	4,40 A+ SCOP	Down to -15°C in cooling mode	Down to -15°C in heating mode	Easy control by BMS	Possible to use on R22 pipings
INVERTER +	INTERNET CONTROL	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	OUTDOOR TEMPERATURE	OUTDOOR TEMPERATURE	CONNECTIVITY	R22 RENEWAL

5 year compressor warranty

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)		
Cooling capacity at -10°C	Nominal	kW	2,63	3,69	5,04	6,00		
EER at -10°C	Nominal	Energy Saving	7,19	5,96	6,01	6,00		
Cooling capacity at -20°C	Nominal	kW	2,61	3,66	4,06	5,82		
EER at -20°C	Nominal	Energy Saving	6,71	5,56	4,39	5,39		
SEER	Nominal	Energy Saving	7,1 A++	6,7 A++	6,3 A++	6,9 A++		
Pdesign		kW	2,5	3,5	4,2	5,0		
Power input Cooling	Nominal (Min-Max)	kW	0,515 (0,170-0,710)	0,870 (0,170-1,120)	1,200 (0,280-1,580)	1,440 (0,280-1,990)		
Annual electricity consumption (cooling) ¹⁾		kWh/a	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	3,33	4,07	4,10	4,98		
SCOP	Nominal	Energy Saving	4,4 A+	4,1 A+	3,9 A	4,2 A+		
Pdesign at -10 °C		kW	2,8	3,6	3,6	4,4		
Power input Heating	Nominal (Min-Max)	kW	0,700 (0,165-1,310)	0,920 (0,165-1,820)	1,440 (0,340-2,190)	1,520 (0,340-2,570)		
Annual electricity consumption (heating) ¹⁾		kWh/a	891	1,229	1,292	1,467		
Indoor Unit								
Power source		V	230	230	230	230		
Recommended Fuse		A	16	16	16	16		
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 / 29	44 / 37 / 34		
Sound power level	Cooling / Heating (Hi)	dB	55 / 56	58 / 58	59 / 59	60 / 60		
Dimensions	H x W x D	mm	295 x 870 x 255	295 x 870 x 255	295 x 870 x 255	295 x 1.070 x 255		
Net weight		kg	10	10	10	13		
Air purifier filter								
Outdoor Unit								
Air Volume	Cooling / Heating	m ³ /h	1.878 / 1.782	1.974 / 1.926	2.052 / 1.980	2.352 / 2.274		
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 / 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)		
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) The annual energy consumption is calculated in accordance with the ErP directive. 2) 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 m from the ground. The sound pressure is measured in accordance with Eurovent 6/C/06-97 specification. 3) Add 70 mm for piping port. 4) When installing the outdoor unit at a higher position than the indoor unit.

Recommended fuse for the indoor 3A.

Specifications subject to change without notice.

For detailed information about ErP, please visit our page <http://www.ptc.panasonic.eu>



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

Technical Focus

- New!** This units can be installed on R22 pipings
- Designed for 24h/7d a week operation
- Highly efficient even at -15°C
- High durability rolling bearings
- Additional piping sensors to prevent freezing

Outdoor

- Cooling even when ambient temperature is as low as -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 (works on outdoor pipe temperature sensor)

Interface option to manage server room operation

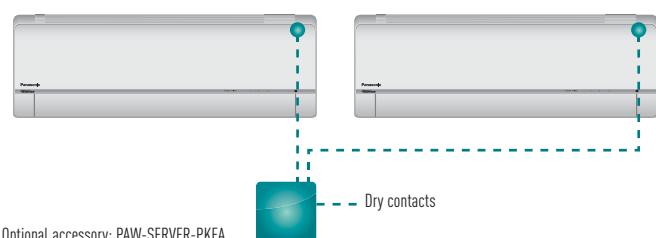
The PAW-SERVER-PKEA server room interface manages redundancy and backup of two PKEA units with two different selectable modes:

- Plug and play by embedded redundancy and backup algorithm (no external signal needed. Further details please refer to operation manual)
- External (third party PLC) redundancy and backup management by dry contact

All settings are possible without the need for a computer connection.

A special Energy Saving Mode is selectable by deep switch (available only in plug and play mode).

The level of remote control input prohibition can be set when external management is by dry contact.



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)
SEER	Nominal	Energy Saving	6,10 A++	5,80 A+	6,20 A++
Pdesign (cooling)		kW	2,50	3,50	5,00
Power input cooling	Nominal	kW	0,560	0,940	1,540
Annual electricity consumption (cooling) ¹⁾		kWh/a	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	2.920 (730 - 4.300)	3.440 (730 - 5.160)	4.990 (840 - 6.110)
Heating capacity at -7°C	Nominal	kW	2,35	2,86	3,87
SCOP	Nominal	Energy Saving	3,80 A	3,80 A	3,90 A
Pdesign at -10°C		kW	2,7	3,2	4,4
Power input heating	Nominal	kW	0,810	1,000	1,600
Annual electricity consumption (heating) ¹⁾		kWh/a	995	1.179	1.579
Indoor Unit					
Power source	V	230	230	230	230
Recommended fuse	A	16	16	16	16
Recommended power cable section	mm ²	1,5	1,5	1,5	1,5
Connection	mm ²	4 x 1,5	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	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	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	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)	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	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 QKE units.

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre in front of the main body and 1 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.

Specifications subject to change without notice.

For detailed information about ErP, please visit our page <http://www.ptc.panasonic.eu>



Included with
the indoor unit

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

Technical focus

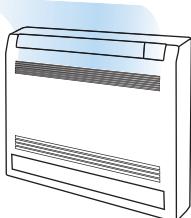
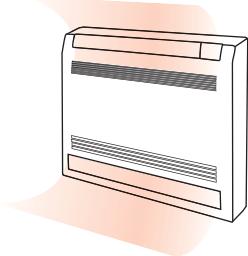
- **New!** This units can be installed on R22 pipings
- More efficient than ever for improved energy consumption and higher savings
- Heating mode down to -15°C with high efficiency
- Double airflow for better efficiency
- Powerful mode for quick temperature setting
- R410A refrigerant gas

UPPER & LOWER VANE BLOW

Optimum air flow from the top and bottom of the unit assures that even your feet are kept comfortably warm. (Only during heating)

Upward and downward air flow
warms the whole room uniformly

Upward air flow efficiently
cools the entire room



CU-E9PFE
CU-E12PFE



CU-E18PFE

Features

HEALTHY AIR

- Soft dry operation mode
- Odour-removing function

ENERGY, EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system
- R410A refrigerant gas

COMFORT

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

EASE OF USE

- Real time clock with single ON&OFF timer
- User friendly infrared remote control

EASY INSTALLATION AND MAINTENANCE

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

4 WAY 60x60 CASSETTE INVERTER

Specially designed for offices, retail and restaurant applications, this cassette fits perfectly into 60x60 or 70x70 ceiling grids.

Featuring the best efficiency in its category (heating and cooling up to -10°C, this new cassette in 9 and 12 kW versions can also be connected to KNX, Modbus, EnOcean interfaces for easy integration with your BMS systems. Interfaces have dry contacts (ON/OFF, error message) to enable easy integration.

With the new Intesishome interface, you can also control the cassette from your smartphone and internet very easily!

Fit Panasonic's Cassette Type, and start to save all year round!



INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-E9-PB4EA. ANTI BACTERIAL FILTER: Optional.

KIT			KIT-E9-PB4EA	KIT-E12-PB4EA
Indoor			CS-E9PB4EA	CS-E12PB4EA
Outdoor			CU-E9PB4EA	CU-E12PB4EA
Panel			CZ-BT20E	CZ-BT20E
Cooling capacity	Nominal (Min - Max)	kW	2,50 (0,85 - 3,00)	3,40 (0,85 - 4,00)
	Nominal (Min - Max)	kCal/h	2,150 (731 - 2,780)	2,920 (730 - 3,440)
SEER		W/W	5,80 A+	5,60 A+
Pdesign (cooling)		kW	2,50	3,40
Power input cooling	Nominal	kW	0,550 (0,240 - 0,740)	0,890 (0,240 - 1,200)
Annual electricity consumption (cooling) ¹⁾		kWh/a	151	213
Heating capacity	Nominal (Min - Max)	kW	3,20 (0,85 - 4,80)	4,50 (0,85 - 5,60)
	Nominal (Min - Max)	kCal/h	2,752 (731 - 4,130)	3,870 (730 - 4,820)
Heating capacity at -7°C	Nominal	kW	2,60	3,00
SCOP	Nominal	Energy Saving	4,00 A+	3,80 A
Pdesign at -10°C		kW	2,70	3,00
Power input heating	Nominal	kW	0,800 (0,230 - 1,350)	1,420 (0,230 - 2,000)
Annual electricity consumption (heating) ¹⁾		kWh/a	945	1,105
Indoor Unit				
Power source		V	230	230
Recommended fuse		A	16	16
Recommended power cable section		mm ²	1,5	1,5
Connection		mm ²	4 x 1,5 to 2,5	4 x 1,5 to 2,5
Current (Nominal)	Cooling / Heating	A	2,65 / 3,85	4,2 / 6,5
Air volume	Cooling / Heating	m ³ /h	630 / 648	630 / 648
Moisture removal volume		U/h	1,5	2,3
Sound pressure level ²⁾	Cooling (Hi / Lo / S-Lo)	dB(A)	34 / 26 / 23	34 / 26 / 23
	Heating (Hi / Lo / S-Lo)	dB(A)	35 / 28 / 25	35 / 28 / 25
Sound power level	Cooling (Hi)	dB	50	50
	Heating (Hi)	dB	51	51
Dimensions (H x W x D)	Indoor	mm	260 x 575 x 575	260 x 575 x 575
	Panel	mm	51 x 700 x 700	51 x 700 x 700
Net weight	Indoor / Panel	kg	18 / 2,5	18 / 2,5
Dust filter		Yes	Yes	Yes
Antiallergic filter	Optional		CZ-SA22P	CZ-SA22P
Outdoor Unit				
Power source		V	230	230
Air volume	Cooling / Heating	m ³ /h	1,830 / 1,734	1,980 / 1,836
Sound pressure level ²⁾	Cooling / Heating (Hi)	dB(A)	45 / 46	45 / 47
Sound power level	Cooling / Heating (Hi)	dB	58 / 61	60 / 62
Dimensions ³⁾	H x W x D	mm	622 x 824 x 299	695 x 875 x 320
Net weight		kg	36	45
Piping connections	Liquid / Gas pipe	Inch (mm)	1/4 (6,35) / 3/8 (9,52)	1/4 (6,35) / 3/8 (9,52)
Refrigerant loading	R410A	kg	1,13	1,13
Elevation difference (in/out)	Max	m	15	15
Piping length	Min / Max	m	3 / 20	3 / 20
Precharge length	Max	m	10	10
Additional charge		g/m	20	20
Operating range	Cooling (Min / Max)	°C	-10 / +43	-10 / +43
	Heating (Min / Max)	°C	-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)

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre in front of the main body and 1,5 m below the ceiling in the centre of the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 3) Add 70 mm for piping port.

Specifications subject to change without notice.

For detailed information about ErP, please visit our page <http://www.ptc.panasonic.eu>



Included with
the indoor unit



Optional wired remote
control
CZ-RD52CP



Panel
CZ-BT20E

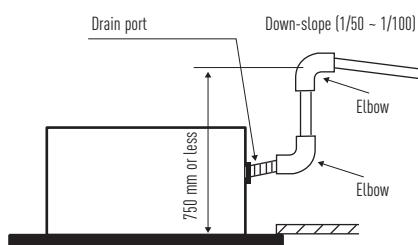
KIT-E9-PB4EA // KIT-E12-PB4EA

Technical focus

- NEW!** 9 and 12kW Cassettes can be controlled by Intesishome, KNX, EnOcean and Modbus
- New!** This units can be installed on R22 pipings
- Designed for easy installation in the standard 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
- Real time clock with single ON&OFF timer
- High pressure selector in case of high ceilings (higher than 2,7m)
- Drain pump included (max 750mm high)
- Air fresh entry available on the cassette

INDOOR UNIT DRAIN PIPING

The height of drain may be possible up to 750 mm.



Features

HEALTHY AIR

- CZ-SA22P Anti Bacterial Filter (optional)
- Odour-removing function

ENERGY, EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system

COMFORT

- Super Quiet
- Powerful mode
- Automatic vertical airflow control ambient temperature
- Hot start mode
- Real time clock with single 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

Designed for homes, offices, retail and restaurants, this Duct is ideal for small rooms where the air conditioning and the heating should be nicely integrated and where high comfort and efficiency is needed. The new 9 and 12kW duct can also be connected to KNX, Modbus, EnOcean interfaces for easy integration with your BMS systems. This interfaces have dry contacts (ON/OFF, error message) for easy integration. With the new Intesishome interface, you can control the Duct also from your smartphone and internet very easily!



INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-E9-PD3EA.

KIT			KIT-E9-PD3EA	KIT-E12-PD3EA
Indoor			CS-E9PD3EA	CS-E12PD3EA
Outdoor			CU-E9PD3EA	CU-E12PD3EA
Cooling capacity	Nominal (Min-Max)	kW	2,50 (0,85 - 3,00)	3,40 (0,85 - 4,00)
	Nominal (Min-Max)	kCal/h	2,150 (731 - 2,580)	2,920 (730 - 3,440)
SEER	W/W	5,80	5,60	
Pdesign (cooling)	kW	2,50	3,40	
Power input cooling	Nominal (Min-Max)	kW	0,590 (0,240 - 0,760)	0,880 (0,240 - 1,160)
Annual electricity consumption (cooling) ¹⁾	kWh/a	151	213	
Heating capacity	Nominal (Min-Max)	kW	3,20 (0,85 - 4,60)	4,00 (0,85 - 5,10)
	Nominal (Min-Max)	kCal/h	2,752 (731 - 3,960)	3,440 (730 - 4,390)
Heating capacity at -7°C	Nominal	kW	2,60	3,00
SCOP	Nominal	Energy Saving	4,20	3,80
Pdesign at -10°C	kW	2,60	2,90	
Power input heating	Nominal (Min-Max)	kW	0,860 (0,230 - 1,380)	1,130 (0,230 - 1,550)
Annual electricity consumption (heating) ¹⁾	kWh/a	867	1,068	
Indoor Unit				
Power source	V	230	230	
Recommended fuse	A	16	16	
Recommended power cable section	mm ²	1,5	1,5	
Connection	mm ²	4 x 1,5 to 2,5	4 x 1,5 to 2,5	
Current (Nominal)	Cooling / Heating	A	2,8 / 4,00	4,1 / 5,15
External static pressure ²⁾	S-Hi / Hi / Me / Lo	Pa	110 / 60 / 30 / 20	80 / 50 / 25 / 10
Air volume	Cooling / Heating	m ³ /h	414 / 486	540 / 630
Moisture removal volume	U/h	1,50	2,30	
Sound pressure level ³⁾	Cooling (Hi / Lo / S-Lo)	dB(A)	33 / 27 / 24	33 / 27 / 24
	Heating (Hi / Lo / S-Lo)	dB(A)	35 / 28 / 25	35 / 28 / 25
Sound power level	Cooling (Hi)	dB	49	49
	Heating (Hi)	dB	51	51
Dimensions	H x W x D	mm	235 x 750 x 370	235 x 750 x 370
Net weight	kg	17	17	
Dust filter		No	No	
Outdoor Unit				
Power source	V	230	230	
Air volume	Cooling/Heating	m ³ /h	1.878 / 1.782	2.052 / 1.836
Sound pressure level ³⁾	Cooling / Heating (Hi)	dB(A)	47 / 47	46 / 47
Sound power level	Cooling / Heating (Hi)	dB	62 / 62	61 / 62
Dimensions ⁴⁾	H x W x D	mm	622 x 824 x 299	695 x 875 x 320
Net weight	kg	36	45	
Piping connections	Liquid / Gas pipe	Inch (mm)	1/4 (6,35) / 3/8 (9,52)	1/4 (6,35) / 3/8 (9,52)
Refrigerant loading	R410A	kg	1,10	1,14
Elevation difference (in/out)	Max	m	15	15
Piping length	Min / Max	m	3 / 20	3 / 20
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	-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)

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The specification listed on the table indicates values under the condition of 29 Pa (3,0 mmAq) which are applied for factory default setting. Change switch on PCB from Hi to Shi to have more than 6,0 mmAq. 3) The sound pressure level of the units shows the value measured at a position of 1.5 m below the unit with 1 m duct on the suction side and 2 m duct on the discharge side. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 4) Add 100 mm for indoor unit or 70 mm for outdoor unit for piping port.

Specifications subject to change without notice.

For detailed information about ErP, please visit our page <http://www.ptc.panasonic.eu>



Included with
the indoor unit

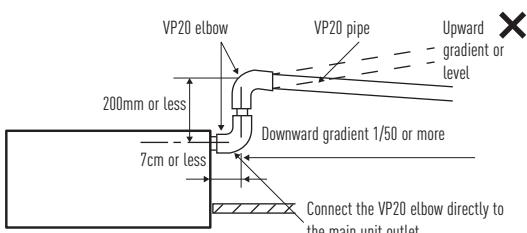
KIT-E9-PD3EA // KIT-E12-PD3EA

Technical focus

- NEW!** 9 and 12kW duct type can be controlled by Intesishome, KNX, EnOcean and Modbus
- New!** This units can be installed on R22 pipings
- Eco mode for 20% energy saving
- Extremely compact indoor units without losing static pressure (only 235 mm high)
- Weekly timer, 42 settings per week
- Easy check mode for failure detection
- Drain pump included (max 200 mm)

CONNECTING THE DRAIN PIPING

Should there be any obstacle preventing the drain piping from being extended smoothly, the drain piping can be raised outside of the main unit as shown in the illustration below.



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

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 or bacteria.

Energy saving INVERTER	6,50 A++ SEER SEASONAL ENERGY EFFICIENCY RATIO	4,00 A+ SCOP SEASONAL COEFFICIENT OF PERFORMANCE	Prevention allergen filter ANTI BACTERIAL FILTER	Down to -10°C in heating mode OUTDOOR TEMPERATURE	Possible to use on R22 pipings R22 RENEWAL	5 year compressor warranty
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Kit	KIT-2MRE77-PBE	KIT-2MRE79-PBE	KIT-2MRE712-PBE	KIT-2MRE99-PBE	KIT-2MRE77-PKE	KIT-2MRE79-PKE
Indoor	CS-MRE7PKE	CS-MRE7PKE	CS-MRE7PKE	CS-MRE9PKE	CS-MRE7PKE	CS-MRE7PKE
	CS-MRE7PKE	CS-MRE9PKE	CS-MRE12PKE	CS-MRE9PKE	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 - 4,80)
	Nominal (Min - Max) kCal/h	3.440 (1.290 - 3.956)	3.784 (1.290 - 4.128)	3.784 (1.290 - 4.128)	3.784 (1.290 - 4.128)	3.870 (1.290 - 4.128)
Cooling capacity room A	Nominal kW	2,00	1,95	1,70	2,20	2,00
Cooling capacity room B	Nominal kW	2,00	2,45	2,70	2,20	2,00
SEER	Nominal Energy Saving	6,30 A++	6,50 A++	6,50 A++	6,50 A++	6,10 A++
Pdesign (cooling)	kW	4,40	4,40	4,40	4,40	4,80
Power input cooling	Nominal (Min - Max) kW	1,170 (0,270 - 1,340)	1,300 (0,270 - 1,520)	1,300 (0,270 - 1,520)	1,300 (0,270 - 1,520)	1,400 (0,270 - 1,510)
Annual electricity consumption (cooling) ¹⁾	kWh/a	237	237	237	237	
Heating capacity	Nominal (Min - Max) kW	4,80 (1,10 - 6,30)	4,80 (1,10 - 6,30)	4,80 (1,10 - 6,50)	4,80 (1,10 - 6,50)	5,20 (1,10 - 6,30)
	Nominal (Min - Max) kCal/h	4.128 (946 - 5.418)	4.128 (946 - 5.418)	4.128 (946 - 5.590)	4.128 (946 - 5.590)	4.472 (946 - 5.418)
Heating capacity at -7°C	Nominal kW	3,220	3,220	3,220	3,220	3,540
Heating capacity room A	Nominal kW	2,40	2,15	1,85	2,40	2,60
Heating capacity room B	Nominal kW	2,40	2,65	2,95	2,40	2,60
SCOP	Nominal Energy Saving	3,80 A	4,00 A+	4,00 A+	4,00 A+	3,80 A
Pdesign at -10°C	kW	3,60	3,60	3,60	3,60	3,80
Power input heating	Nominal (Min - Max) kW	1,200 (0,240 - 1,610)	1,200 (0,240 - 1,610)	1,200 (0,240 - 1,670)	1,200 (0,240 - 1,670)	1,300 (0,240 - 1,610)
Annual electricity consumption (heating) ¹⁾	kWh/a	1,260	1,260	1,260	1,260	
Indoor unit						
Connection	mm ²	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	5,45 / 5,80
Air volume	Cooling m ³ /h	606 (E7) / 606 (E7)	606 (E7) / 618 (E9)	606 (E7) / 654 (E12)	618 (E9) / 618 (E9)	606 (E7) / 606 (E7)
Moisture removal volume	Cooling l/h	1,3 (E7) / 1,3 (E7)	1,3 (E7) / 1,5 (E9)	1,1 (E7) / 1,6 (E12)	1,4 (E9) / 1,4 (E9)	1,3 (E7) / 1,5 (E9)
Sound pressure level ²⁾	Cooling & Heating (Lo) dB(A)	29 (E7) / 29 (E7)	29 (E7) / 29 (E9)	29 (E7) / 32 (E12)	29 (E9) / 29 (E9)	29 (E7) / 29 (E7)
Sound power level	Cooling & Heating (Hi) dB	56 (E7) / 56 (E7)	56 (E7) / 56 (E9)	56 (E7) / 60 (E12)	56 (E9) / 56 (E9)	56 (E7) / 56 (E7)
Dimensions	H x W x D mm	290 x 870 x 214				
Net weight	kg	9	9	9	9	9
Air purifier filter		Anti Bacterial Filter				
Outdoor unit						
Power source	V	230	230	230	230	230
Recommended fuse	A	16	16	16	16	16
Recommended power cable section	mm ²	1,5	1,5	1,5	1,5	1,5
Air volume	Cooling / Heating m ³ /h	1,962 / 1,962	1,962 / 1,962	1,962 / 1,962	1,962 / 1,962	2,214 / 2,416
Sound pressure level ²⁾	Cooling / Heating (Hi) dB(A)	47 / 49	47 / 49	47 / 49	47 / 49	49 / 51
Sound power level	Cooling / Heating (Hi) dB	62 / 64	62 / 64	62 / 64	62 / 64	64 / 66
Dimensions ³⁾	H x W x D mm	619 x 824 x 299				
Net weight	kg	39	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)	1/4 (6,35) / 3/8 (9,52)
Refrigerant Loading	R410A kg	39	1,45	1,45	1,45	1,45
Elevation difference (in/out) ⁴⁾	Max m	10	10	10	10	10
Piping length (total)	Min / Max m	3 / 30	3 / 30	3 / 30	3 / 30	3 / 30
Piping length (one unit)	Min / Max m	3 / 20	3 / 20	3 / 20	3 / 20	3 / 20
Precharge length	Max m	20	20	20	20	20
Additional charge	g/m	20	20	20	20	20
Operating range	Cooling Min / Max °C	16 / 43	16 / 43	16 / 43	16 / 43	16 / 43
	Heating Min / Max °C	-10 / 24	-10 / 24	-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)

1) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre in front of the main body and 0,8 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/06-97 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.ptc.panasonic.eu>



KIT-2MRE712-PKE	KIT-2MRE99-PKE	KIT-2MRE912-PKE	KIT-2MRE1212-PKE
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)	4,80 (1,50 - 5,00)	4,80 (1,50 - 5,00)	4,80 (1,50 - 5,00)
3,916 (1,290 - 4,214)	3,916 (1,290 - 4,300)	3,916 (1,290 - 4,300)	3,916 (1,290 - 4,300)
1,85	2,35	2,10	2,40
2,95	2,35	2,70	2,40
6,50 A++	6,50 A++	6,50 A++	6,50 A++
4,80	4,80	4,80	4,80
1,400 (0,270 - 1,530)	1,490 (0,270 - 1,580)	1,490 (0,270 - 1,560)	1,490 (0,270 - 1,580)
	258		
5,80 (1,10 - 6,70)	5,20 (1,10 - 6,70)	5,80 (1,10 - 6,70)	5,80 (1,10 - 6,70)
4,988 (946 - 5,762)	4,472 (946 - 5,762)	4,988 (946 - 5,762)	4,988 (946 - 5,762)
3,540	3,540	3,540	3,540
2,00	2,60	2,30	2,30
3,20	2,60	2,95	2,95
4,00 A+	4,00 A+	4,00 A+	4,00 A+
3,80	3,80	3,80	3,80
1,320 (0,240 - 1,720)	1,340 (0,240 - 1,740)	1,320 (0,240 - 1,720)	1,300 (0,240 - 1,700)
	1,330		
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)	618 (E9) / 618 (E9)	618 (E9) / 654 (E12)	654 (E12) / 654 (E12)
1,2 (E7) / 1,5 (E12)	1,5	1,4 / 1,6	1,5
29 (E7) / 32 (E12)	29 (E9) / 29 (E9)	29 (E9) / 32 (E12)	32 (E12) / 32 (E12)
56 (E7) / 60 (E12)	56 (E9) / 56 (E9)	56 (E7) / 60 (E12)	60 (E12) / 60 (E12)
290 x 870 x 214			
9	9	9	9
Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter
230	230	230	230
16	16	16	16
1,5	1,5	1,5	1,5
2,214 / 2,416	2,214 / 2,416	2,214 / 2,416	2,214 / 2,416
49 / 51	49 / 51	49 / 51	49 / 51
64 / 66	64 / 66	64 / 66	64 / 66
619 x 824 x 299			
39	39	39	39
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
3 / 30	3 / 30	3 / 30	3 / 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

KIT-2MRE77-PBE // KIT-2MRE79-PBE // KIT-2MRE712-PBE // KIT-2MRE99-PBE // KIT-2MRE77-PKE // KIT-2MRE79-PKE // KIT-2MRE712-PKE // KIT-2MRE99-PKE // KIT-2MRE912-PKE // KIT-2MRE1212-PKE

Technical focus

- **New!** This units can be installed on R22 pipings
- Impressive 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

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

COMFORT

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

EASE OF USE

- Real time clock with single ON&OFF 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



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 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.

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.



Internet Control Ready	Energy saving	6,50 A++ SEER	4,00 A+ SCOP	Air purifier 99% removal bacteria-virus-mold nanoe-g	Up to 38% energy savings (cooling)	Improved comfort	Down to -15°C in heating mode	Easy control by BMS	Possible to use on R22 pipings
INTERNET CONTROL	INVERTER +	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	ECONAVI	AUTOCOMFORT	OUTDOOR TEMPERATURE	CONNECTIVITY	R22 RENEWAL	5 year compressor warranty

Awarded the prestigious
IF Design Award 2013

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

Silver Kit	KIT-2XE77-QBE	KIT-2XE79-QBE	KIT-2XE712-QBE	KIT-2XE99-QBE
Silver Kit with Smartphone Control	KIT-2XE77-QBE-WIFI	KIT-2XE79-QBE-WIFI	KIT-2XE712-QBE-WIFI	KIT-2XE99-QBE-WIFI
Indoor	CS-XE70KEW (x2)	CS-XE70KEW + CS-XE90KEW	CS-XE70KEW + CS-XE120KEW	CS-XE90KEW (x2)
White Kit	KIT-2E77-QBE	KIT-2E79-QBE	KIT-2E712-QBE	KIT-2E99-QBE
White Kit with Smartphone Control	KIT-2E77-QBE-WIFI	KIT-2E79-QBE-WIFI	KIT-2E712-QBE-WIFI	KIT-2E99-QBE-WIFI
Indoor	CS-E70KEW (x2)	CS-E70KEW + CS-E90KEW	CS-E70KEW + CS-E120KEW	CS-E90KEW (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)
	Nominal (Min - Max) kCal/h	3,440 (1,290 - 4,300)	3,870 (1,290 - 4,470)	3,870 (1,290 - 4,470)
SEER	Nominal	Energy Saving	6,50 A++	
Pdesign (cooling)		kW	4,50	
Power input cooling	Nominal (Min - Max) kW	1,090 (0,250 - 1,350)	1,230 (0,250 - 1,520)	1,230 (0,250 - 1,520)
Annual electricity consumption (cooling) ¹⁾	kWh/a	242		
Heating capacity	Nominal (Min - Max) kW	5,40 (1,10 - 7,00)	5,40 (1,10 - 7,00)	5,40 (1,10 - 7,00)
	Nominal (Min - Max) kCal/h	4,644 (946 - 6,020)	4,644 (946 - 6,020)	4,644 (946 - 6,020)
Heating capacity at -7°C	Nominal kW	3,54	3,54	3,54
SCOP	Nominal	Energy Saving	4,00 A+	
Pdesign at -10°C		kW	4,00	
Power input heating	Nominal (Min - Max) kW	1,170 (0,210 - 1,670)	1,170 (0,210 - 1,670)	1,170 (0,210 - 1,670)
Annual electricity consumption (heating) ¹⁾	kWh/a	1,400		
Indoor Unit				
Connection		mm ²	4 x 1,5	4 x 1,5
Current (Nominal)	Cooling / Heating	A	5,10 / 5,20	5,75 / 5,20
Air volume	Cooling	m ³ /h	684 (E7) / 702 (E9)	684 (E7) / 732 (E12) (E9) 702
Moisture removal volume		l/h	1,3 / 1,3	1,3 (E7) / 1,8 (E12)
Sound pressure level ²⁾	Cooling (S-Lo)	dB(A)	(E7) 23	(E7) 23 / (E9) 23
Sound power level	Cooling (S-Lo)	dB	(E7) 56	(E9) 56 / (E9) 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	10	10	10
Air purifier filter		Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit				
Power source	V	230	230	230
Recommended fuse	A	16	16	16
Recommended power cable section	mm ²	1,5	1,5	1,5
Air volume	Cooling / Heating	m ³ /h	1,962 / 2,214	1,962 / 2,214
Sound pressure level ²⁾	Cooling / Heating (Hi)	dB(A)	47 / 49	47 / 49
Sound power level	Cooling / Heating (Hi)	dB	62 / 64	62 / 64
Dimensions ³⁾	H x W x D mm	619 x 824 x 299	619 x 824 x 299	619 x 824 x 299
Net weight	kg	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)
Refrigerant loading	R410A	kg	1,40	1,40
Elevation difference (in/out) ⁴⁾	Max	m	10	10
Piping length (total)	Min / Max	m	3 / 30	3 / 30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20
Precharge length	Max	m	20	20
Additional charge	g/m	15	15	15
Operating range	Cooling Min / Max	°C	-10 / 46	-10 / 46
	Heating Min / Max	°C	-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: CS-E/XE_QKE 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) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre in front of the main body and 0,8 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/06-97 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.ptc.panasonic.eu>



Included with
the indoor unit



KIT SILVER PLATED: KIT-2XE77-QBE // KIT-2XE79-QBE // KIT-2XE712-QBE // KIT-2XE99-QBE

KIT WHITE: KIT-2E77-QBE // KIT-2E79-QBE // KIT-2E712-QBE // KIT-2E99-QBE

Technical focus

- **New!** This units can be installed on R22 pipings
- 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
- More powerful airflow to quickly reach the desired temperature



CS-E70KEW // CS-E90KEW // CS-E120KEW

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-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 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.

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.



Internet Control Ready	Energy saving	6,50 A++ SEER	4,00 A+ SCOP	Air purifier 99% removal bacteria-virus-mold	Up to 38% energy savings (cooling)	Improved comfort	Down to -15°C in heating mode	Easy control by BMS	Possible to use on R22 pipings	5 year compressor warranty
INTERNET CONTROL	INVERTER +	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	nanoe-g	ECONAVI	AUTOCOMFORT	OUTDOOR TEMPERATURE	CONNECTIVITY	R22 RENEWAL	

Awarded with the prestigious
IF Design Award 2013

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

Silver Kit	KIT-2XE99-QKE	KIT-2XE712-QKE	KIT-2XE912-QKE	KIT-2XE1212-QKE
Silver Kit with Smartphone Control	KIT-2XE99-QKE-WIFI	KIT-2XE712-QKE-WIFI	KIT-2XE912-QKE-WIFI	KIT-2XE1212-QKE-WIFI
Indoor	CS-XE90QKEW (x2)	CS-XE70QKEW + CS-XE120QKEW	CS-XE90QKEW + CS-XE120QKEW	CS-XE120QKEW (x2)
White Kit	KIT-2E99-QKE	KIT-2E712-QKE	KIT-2E912-QKE	KIT-2E1212-QKE
White Kit with Smartphone Control	KIT-2E99-QKE-WIFI	KIT-2E712-QKE-WIFI	KIT-2E912-QKE-WIFI	KIT-2E1212-QKE-WIFI
Indoor	CS-E90QKEW (x2)	CS-E70QKEW + CS-E120QKEW	CS-E90QKEW + CS-E120QKEW	CS-E120QKEW (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)
	Nominal (Min - Max) kCal/h	4,130 (1,290 - 4,472)	4,472 (1,290 - 4,644)	4,300 (1,290 - 4,560)
SEER	Nominal	Energy Saving	6,50 A++	
Pdesign (cooling)		kW	5,20	
Power input cooling	Nominal (Min - Max) kW	1,310 (0,250 - 1,520)	1,520 (0,250 - 1,580)	1,490 (0,250 - 1,540)
Annual electricity consumption (cooling) ¹⁾	kWh/a	280		1,520 (0,250 - 1,580)
Heating capacity	Nominal (Min - Max) kW	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)
Heating capacity at -7°C	Nominal kW	3,65	3,65	3,65
SCOP	Nominal	Energy Saving	4,00 A+	
Pdesign at -10°C		kW	3,80	
Power input heating	Nominal (Min - Max) kW	1,250 (0,210 - 1,740)	1,300 (0,240 - 1,700)	1,230 (0,210 - 1,720)
Annual electricity consumption (heating) ¹⁾	kWh/a	1400		1,210 (0,210 - 1,700)
Indoor unit				
Connection		mm ²	4 x 1,5	4 x 1,5
Current (Nominal)	Cooling / Heating	A	6,10 / 5,55	6,10 / 5,45
Air volume	Cooling	m ³ /h	(E9) 702	684 (E7) / 732 (E12)
Moisture removal volume		l/h	1,5 / 1,5	1,3 (E7) / 1,8 (E12)
Sound pressure level ²⁾	Cooling (S-Lo)	dB(A)	(E9) 23 / (E9) 23	(E7) 23 / (E12) 23
Sound power level	Cooling (S-Lo)	dB	(E9) 56 / (E9) 56	(E7) 56 / (E12) 60
Dimensions	H x W x D	mm	295 x 870 x 255	295 x 870 x 255
Net weight		kg	10	10
Air purifier filter			Nanoe-G	Nanoe-G
Outdoor unit				
Power source		V	230	230
Recommended fuse		A	16	16
Recommended power cable section		mm ²	1,5	1,5
Air volume	Cooling / Heating	m ³ /h	2,217 / 2,466	2,217 / 2,466
Sound pressure level ²⁾	Cooling / Heating (Hi)	dB(A)	49 / 51	49 / 51
Sound power level	Cooling / Heating (Hi)	dB	64 / 66	64 / 66
Dimensions ³⁾	H x W x D	mm	619 x 824 x 229	619 x 824 x 229
Net weight		kg	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)
Refrigerant Loading	R410A	kg	1,40	1,40
Elevation difference (in/out) ⁴⁾	Max	m	10	10
Piping length (total)	Max	m	30	30
Piping length (one unit)	Min / Max	m	3 / 20	3 / 20
Precharge length	Max	m	20	20
Additional charge		g/m	15	15
Operating range	Cooling Min / Max	°C	-10 / 46	-10 / 46
	Heating Min / Max	°C	-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: CS-E/XE_QKE 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) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre in front of the main body and 0,8 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/06-97 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.ptc.panasonic.eu>



KIT SILVER PLATED: KIT-2XE99-QKE // KIT-2XE712-QKE //

KIT-2XE912-QKE // KIT-2XE1212-QKE

KIT WHITE: KIT-2E99-QKE // KIT-2E712-QKE // KIT-2E912-QKE

// KIT-2E1212-QKE

Technical focus

- **New!** This units can be installed on R22 pipings
- 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
- More powerful airflow to quickly reach the desired temperature



CS-E70KEW // CCS-E90KEW // CS-E120KEW

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+

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.

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.



Internet Control Ready	Energy saving	7,00 A++ SEER	4,00 A+ SCOP	Air purifier 99% removal bacteria-virus-mold	Up to 38% energy savings (cooling)	Improved comfort	Down to -15°C in heating mode	Easy control by BMS	Possible to use on R22 pipings
INTERNET CONTROL	INVERTER +	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	nanoe-g	ECONAVI	AUTOCOMFORT	OUTDOOR TEMPERATURE	CONNECTIVITY	R22 RENEWAL



Awarded with the prestigious
IF Design Award 2013

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

Silver Kit	—	KIT-3XE7712-QBE	—
Silver Kit with Smartphone Control	—	KIT-3XE7712-QBE-WIFI	—
Indoor	—	CS-XE70KEW (x2) + CS-E120KEW (x1)	—
White Kit	KIT-3E557-QBE	KIT-3E7712-QBE	KIT-3E7715-QBE*
White Kit with Smartphone Control	KIT-3E557-QBE-WIFI	KIT-3E7712-QBE-WIFI	KIT-3E7715-QBE-WIFI
Indoor	CS-ME5PKE (x2) + CS-E70KEW (x1)	CS-E70KEW (x2) + CS-E120KEW (x1)	CS-E70KEW (x2) + CS-E150KEW (x1)
Outdoor	CU-3E18PBE	CU-3E18PBE	CU-3E18PBE
Cooling capacity	Nominal (Min - Max)	kW	5,20 (1,80 - 7,30)
	Nominal (Min - Max)	kCal/h	4,472 (1,548 - 6,278)
SEER	Nominal	Energy Saving	7,00 A++
Pdesign (cooling)		kW	5,20
Power input cooling	Nominal (Min - Max)	kW	1,200 (0,360 - 2,180)
Annual electricity consumption (cooling) ¹⁾	kWh/a	260	1,210 (0,360 - 2,180)
Heating capacity	Nominal (Min - Max)	kW	6,80 (1,60 - 8,30)
	Nominal (Min - Max)	kCal/h	5,848 (1,376 - 7,138)
Heating capacity at -7°C	Nominal	kW	4,90
SCOP	Nominal	Energy Saving	4,00 A+
Pdesign at -10°C		kW	4,80
Power input heating	Nominal (Min - Max)	kW	1,450 (0,320 - 2,110)
Annual electricity consumption (heating) ¹⁾	kWh/a	1,680	1,470 (0,320 - 2,110)
Indoor unit			1,440 (0,320 - 2,110)
Connection		mm ²	4 x 1,5
Current (Nominal)	Cooling / Heating	A	5,3 / 7,9
Air volume	Cooling	m ³ /h	690 (E5) / 690 (E5) / 714 (E7)
Moisture removal volume		l/h	1,0 (E5) / 1,0 (E5) / 1,3 (E7)
Sound pressure level ²⁾	Cooling (S-Lo)	dB(A)	23 (E5) / 23 (E5) / 23 (E7)
Sound power level	Cooling (Hi)	dB	56 (E5) / 56 (E5) / 56 (E7)
Dimensions	H x W x D	mm	295 x 870 x 255
Net weight		kg	10
Air purifier filter			Nanoe-G
Outdoor unit			Nanoe-G
Power source		V	230
Recommended fuse		A	16
Recommended power cable section		mm ²	1,5
Air volume	Cooling / Heating	m ³ /h	2,464 / 2,464
Sound pressure level ²⁾	Cooling / Heating (Hi)	dB(A)	46 / 47
Sound power level	Cooling / Heating (Hi)	dB	60 / 61
Dimensions ³⁾	H x W x D	mm	795 x 875 (+95) x 320
Net weight		kg	71
Piping connections	Liquid pipe / Gas pipe	inch (mm)	1/4 (6,35) / 3/8 (9,52)
Refrigerant Loading	R410A	kg	2,64
Elevation difference (in/out) ⁴⁾	Max	m	15
Piping length (total)	Min / Max	m	3 / 50
Piping length (one unit)	Min / Max	m	3 / 25
Precharge length	Max	m	30
Additional charge		g/m	20
Operating range	Cooling Min / Max	°C	-10 / 46
	Heating Min / Max	°C	-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: CS-E/XE_QKE 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) The annual energy consumption is calculated in accordance with the ErP directive. 2) The Sound pressure level of the units shows the value measured of a position 1 metre in front of the main body and 0,8 m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/06-97 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.ptc.panasonic.eu>

*CZ-MA1P reduced needed and Not included on the Kit.



Included with
the indoor unit

KIT SILVER PLATED: KIT-3XE7712-QBE

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

Technical focus

- **New!** This units can be installed on R22 pipings
- 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
- More powerful airflow to quickly reach the desired temperature



CS-ME5PKE // CS-E70KEW // CS-E120KEW // CS-E150KEW

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



CU-3E18PBE

ETHEREA MULTI SPLIT 4x1 AND 5x1 INVERTER+



Awarded with the prestigious
IF Design Award 2013

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.

Using a Multi Split 4x1 or 5x1 Inverter+ system with the outdoors units CU-4E23PBE, CU-4E27PBE or CU-5E34PBE instead of 4 or 5 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.

Internet Control Ready	Energy saving	7,00 A++ SEER	4,00 A+ SCOP	Air purifier 99% removal bacteria-virus-mold	Up to 38% energy savings (cooling)	Improved comfort	Down to -15°C in heating mode	Easy control by BMS	Possible to use on R22 pipings
INTERNET CONTROL	INVERTER +	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	nanoe-g	ECONAVI	AUTOCOMFORT	OUTDOOR TEMPERATURE	CONNECTIVITY	R22 RENEWAL



INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-4E5557-QBE, KIT-4E7777-QKE and KIT-4E7777-QKE.

Silver Kit	—	KIT-4XE77712-QBE	—	KIT-4XE7777-QKE	KIT-4XE77712-QKE*	—	KIT-5XE77777-QBE
Silver Kit with Smartphone Control	—	KIT-4XE77712-QBE-WIFI	—	KIT-4XE7777-QKE-WIFI	KIT-4XE77712-QKE-WIFI	—	KIT-5XE77777-QBE-WIFI
Indoor	—	CS-XE7QKEW (x3) + CS-XE12QKEW (x1)	—	CS-XE7QKEW (x4)	CS-XE7QKEW (x3) + CS-XE12QKEW (x1)	—	CS-XE7QKEW (x5)
White Kit	KIT-4E5557-QBE	KIT-4E77712-QBE	KIT-4E77715-QBE*	KIT-4E7777-QKE	KIT-4E77712-QKE*	KIT-4E77715-QKE*	KIT-5E77777-QBE
White Kit with Smartphone Control	KIT-4E5557-QBE-WIFI	KIT-4E77712-QBE-WIFI	KIT-4E77715-QBE-WIFI	KIT-4E7777-QKE-WIFI	KIT-4E77712-QKE-WIFI	KIT-4E77715-QKE-WIFI	KIT-5E77777-QBE-WIFI
Indoor	CS-M5PKE (x3) + CS-E7QKEW (x1)	CS-E7QKEW (x3) + CS-E120KEW (x1)	CS-E7QKEW (x4)	CS-E7QKEW (x3) + CS-E120KEW (x1)	CS-E7QKEW (x3) + CS-E150KEW (x1)	CS-E7QKEW (x3) + CS-E150KEW (x1)	CS-E7QKEW (x5)
Outdoor	CU-4E23PBE	CU-4E23PBE	CU-4E23PBE	CU-4E27PBE	CU-4E27PBE	CU-4E27PBE	CU-5E34PBE
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)
SEER	Nominal Energy Saving	7,00 A++			7,00 A++		6,50 A++
Pdesign (cooling)	kW	6,80			8,00		10,00
Power input cooling	Nominal (Min-Max) kW	1,680 (0,340 - 2,470)	1,640 (0,340 - 2,330)	1,640 (0,340 - 2,330)	1,980 (0,530 - 2,870)	2,130 (0,490 - 2,880)	2,100 (0,490 - 2,870)
Annual electricity consumption (cooling) ¹⁾	kWh/a	340			412		538
Heating capacity	Nominal (Min-Max) kW	8,50 (3,00 - 10,60)	8,50 (3,00 - 10,60)	8,50 (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)	7,130 (2,580 - 9,120)	7,130 (2,580 - 9,120)	8,084 (3,612 - 9,116)	8,080 (2,920 - 9,030)	8,080 (3,270 - 9,030)
Heating capacity at -7°C	Nominal kW	6,05	6,05	6,05	7,08	7,08	8,85
SCOP	Nominal Energy Saving	4,00 A+			4,00 A+		4,00 A+
Pdesign at -10°C	kW	5,50			8,00		10,00
Power input heating	Nominal (Min-Max) kW	1,900 (0,580 - 2,600)	1,860 (0,610 - 2,550)	1,850 (0,610 - 2,540)	2,080 (0,700 - 3,060)	2,120 (0,590 - 3,180)	2,090 (0,640 - 3,140)
Annual electricity consumption (heating) ¹⁾	kWh/a	1925			2667		3,500
Indoor unit							
Connection	mm ²	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	Cool / Heat A	7,6 / 8,8	7,3 / 8,6	7,3 / 8,5	9,4 / 9,8	9,1 / 9,8	9,1 / 9,7
Air volume	Cool m ³ /h	690 (E5) / 714 (E7)	714 (E7) / 762 (E12)	714 (E7) / 786 (E15)	714 (E7)	714 (E7) / 762 (E12)	714 (E7) / 786 (E15)
Moisture removal volume	I/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 ²⁾	Cool & Heat (S-Lo) dB(A)	23	23	23 (E7) / 28 (E15)	23	23	23 (E7) / 28 (E15)
Sound power level	Cool & Heat (Hi) dB	56	56	56	56	56	56
Dimensions / Net weight	H x W x D mm	295 x 870 x 255 / 10	295 x 870 x 255 / 10	295 x 870 x 255 / 10	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							
Power source	V	230	230	230	230	230	230
Recommended fuse	A	20	20	20	20	20	25
Recommended power cable section	mm ²	2,5	2,5	2,5	2,5	2,5	3,5
Air volume	Cool / Heat m ³ /h	2,550	2,550	2,550	3,024 / 3,336	3,024 / 3,336	3,024 / 3,336
Sound pressure level ²⁾	Cool / Heat (Hi) dB(A)	48 / 49	48 / 49	48 / 49	51 / 52	51 / 52	53 / 54
Sound power level	Cool / Heat (Hi) dB	62 / 63	62 / 63	62 / 63	67 / 68	67 / 68	69 / 70
Dimensions ³⁾	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	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)	2x3/8 (9,52), 2x1/2 (12,7)	2x3/8 (9,52), 2x1/2 (12,7)	2x3/8 (9,52), 2x1/2 (12,7)	2x3/8 (9,52), 2x1/2 (12,7)	2x3/8 (9,52), 2x1/2 (12,7)	2x3/8 (9,52), 2x1/2 (12,7)
Refrigerant Loading	R410A kg	2,64	2,64	2,64	3,4	3,4	3,4
Elevation diff. (in/out) ⁴⁾	Max m	15	15	15	15	15	15
Piping length total (1 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	Cool Min / Max °C	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46	-10 / 46
	Heat Min / Max °C	-15 / 24	-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) The annual energy consumption is calculated in accordance with the ErP directive. 2) The sound pressure level of the units shows the value measured of a position 1 metre 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.ptc.panasonic.eu>

*CZ-MATP reduced needed and Not included on the Kit.



KIT SILVER PLATED: KIT-4XE77712-QBE // KIT-4XE7777-QKE // KIT-4XE77712-QKE

KIT WHITE: KIT-4E5557-QBE // KIT-4E77712-QBE // KIT-4E77715-QBE // KIT-4E7777-QKE // KIT-4E77712-QKE // KIT-4E77715-QKE

5x1 KIT SILVER PLATED: KIT-5XE77777-QBE

5x1 KIT WHITE: KIT-5E77777-QBE

Technical focus

- **New!** This units can be installed on R22 pipings
- 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
- More powerful airflow to quickly reach the desired temperature



CS-ME5PKE // CS-E70KEW // CS-E120KEW // CS-E150KEW

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



CU-4E23PBE



CU-4E27PBE CU-5E34PBE

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 conventional 1x1 systems. They will be able to achieve energy savings of up to 30%.

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	Energy saving	7,00 A++ SEER	4,00 A+ SCOP	Down to -15°C in heating mode	Down to -10°C in cooling mode	Easy control by BMS	Possible to use on R22 pipings	5 year compressor warranty
INTERNET CONTROL	INVERTER+	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	OUTDOOR TEMPERATURE	OUTDOOR TEMPERATURE	CONNECTIVITY	R22 RENEWAL	

INTERNET CONTROL READY and EASY CONTROL by BMS: Optional only for Etheraea, Low Static Pressure Hide Away (CS-E9PD3EA and CS-E12P03EA) and 4 Way 60x60 Cassette (CS-E9PB4EA and CS-E12PB4EA).

Possible outdoor/indoor units combinations

Models	Capacity connected [Min-Max]	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		5 1,6 kW	7 2,0 kW	9 2,5 kW	9 2,8 kW	12 3,2 kW	15 4,0 kW	18 5,0 kW	21 6,8 kW	24 7,1 kW	
2 ROOMS	CU-2E15PBE	3,2-5,6 kW	1/4	3/8	20 m	30 m	20 m	15 g/m	10 m	For 2 indoor units	✓	✓	✓	✓	✓			
	CU-2E18PBE	3,2-6,4 kW	1/4	3/8	20 m	30 m	20 m	15 g/m	10 m	For 2 indoor units	✓	✓	✓	✓	✓	✓		
3 ROOMS	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	✓	✓	✓	✓	✓	✓	✓	✓
	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	✓	✓	✓	✓	✓	✓	✓	✓
4 ROOMS	CU-4E27PBE	4,5-13,6 kW	1/4	3/8	25 m	70 m	45 m	20 g/m	15 m	For 4 indoor units	✓	✓	✓	✓	✓	✓	✓	✓
	CU-5E34PBE	4,5-17,5 kW	1/4	3/8	25 m	80 m	45 m	20 g/m	15 m	For 5 indoor units	✓	✓	✓	✓	✓	✓	✓	✓

1] At least two indoor units must be connected.

2) The total nominal cooling capacity of indoor units that will be connected to outdoor unit must be within connectable capacity range of indoor unit.



Indoor Unit Capacities

Capacity	Split Etherea	Floor Console	Low Static Pressure Hide Away	4 Way 60x60 Cassette
5 - 1,6 kW				
	CS-ME5PKE			
7 - 2,0 kW				
	CS-XE7QKEW / CS-E7QKEW			
9 - 2,5 kW (9 - 2,8 kW for Floor Console only)				
	CS-XE9QKEW / CS-E9QKEW	CS-E9GFEW	CS-E9PD3EA	CS-E9PB4EA
12 - 3,2 kW				
	CS-XE12QKEW / CS-E12QKEW	CS-E12GFEW	CS-E12PD3EA ¹	CS-E12PB4EA ¹
15 - 4,0 kW				
	CS-E150KEW ¹			
18 - 5,0 kW				
	CS-XE18QKEW ¹ / CS-E18QKEW ¹	CS-E18GFEW ¹	CS-ME18PD3EA	CS-ME18PB4EA ¹
21 - 6,8 kW				
	CS-E210KEW ¹			CS-ME21PB4EA ¹
24 - 7,1 kW				
	CS-E240KEW ¹			

¹ A CZ-MA1P pipe reducer is needed on the E15 and E18, a CZ-MA2P pipe expander is needed on the E21. And a CZ-MA2P pipe expander plus a CZ-MA3P pipe reducer are needed on the E24.

* At least two indoor units must be connected.

Indoor Units for Free Multi combinations



Optional wired
remote control
CZ-RD514C

INTERNET CONTROL READY: Optional.

Internet Control Ready	Air purifier 99% removal bacteria-virus-mold	Up to 38% energy savings (cooling)	Improved comfort	Perfect humidity control	Silent air 23 dB	Easy control by BMS
INTERNET CONTROL	Nanoe-G	ECONAVI	AUTOCOMFORT	MILD DRY	SUPER QUIET	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	7,1 kW
Silver Indoor	—	CS-XE7QKEW	CS-XE9QKEW	CS-XE12QKEW	—	CS-XE18QKEW	—	—
White Indoor	CS-ME5PKE*	CS-E7QKEW	CS-E9QKEW	CS-E12QKEW	CS-E15QKEW	CS-E18QKEW	CS-E21QKEW	CS-E24QKEW
Cooling capacity	Nominal kW/kCal/h	1,6 / 1.380	2,00 / 1.720	2,50 / 2.150	3,20 / 2.750	4,00 / 3.440	5,00 / 4.300	6,00 / 5.160
Heating capacity	Nominal kW/kCal/h	2,6 / 2.240	3,20 / 2.750	3,60 / 3.010	4,50 / 3.870	5,60 / 4.820	6,80 / 5.850	8,50 / 7.310
Connection	mm ²	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 / 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 / 32 / 26	44 / 33 / 32	46 / 35 / 32	46 / 35 / 32	48 / 38 / 35
Sound power level	Cooling (Hi) dB	55	54	56	60	62	62	65
	Heating (Hi) dB	55	56	56	60	62	62	64
Dimensions	H x W x D mm	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	12	12	12
Air purifier filter		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)
	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)	5/8 (15,88)

* NEW also for the 4x1 and 5x1.



Include on the
indoor unit



Optional wired
remote control
CZ-RD52CP



Panel
CZ-BT20E (sold separately)

INTERNET CONTROL READY and EASY CONTROL, by BMS:
Optional only for E9 and E12. OPTIONAL: CZ-SA2ZP.

Internet Control Ready	Prevention allergen filter	Easy control by BMS
INTERNET CONTROL	ANTI-BACTERIAL FILTER	CONNECTIVITY

4 Way 60x60 Cassette	2,5 kW	3,2 kW	5,0 kW	6,0 kW
Indoor	CS-E9PB4EA	CS-E12PB4EA	CS-ME18PB4EA	CS-ME21PB4EA
Panel	CZ-BT20E	CZ-BT20E	CZ-BT20E	CZ-BT20E
Cooling capacity	Nominal kW / kCal/h	2,50 / 2.150	3,4 / 2.920	5,00 / 4.300
Heating capacity	Nominal kW / kCal/h	3,20 / 2.752	4,5 / 3.870	6,80 / 5.850
Connection	mm ²	4 x 1,5 to 2,5	4 x 1,5 to 2,5	4 x 1,5
Sound pressure level ¹	Cooling (Hi / Lo / S-Lo) dB(A)	34 / 26 / 23	34 / 26 / 23	36 / 28 / 25
	Heating (Hi / Lo / S-Lo) dB(A)	35 / 28 / 25	35 / 28 / 25	37 / 29 / 26
Sound power level	Cooling (Hi) dB	50	50	49
	Heating (Hi) dB	51	51	50
Dimensions (H x W x D)	Indoor mm	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
Net weight	Indoor / Panel kg	18 / 2,5	18 / 2,5	18 (2,5)
Antiallergic filter	Optional	CZ-SA2ZP	CZ-SA2ZP	CZ-SA2ZP
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)



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
Heating capacity	Nominal kW/kCal/h	4,00 / 3.440	4,50 / 3.870
Connection	mm ²	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
	Heating (Hi / Lo / S-Lo) dB(A)	38 / 27 / 23	39 / 27 / 23
Sound power level	Cooling (Hi) dB	54	55
	Heating (Hi) dB	54	55
Dimensions	H x W x D mm	600 x 700 x 210	600 x 700 x 210
Net weight	kg	14	14
Piping connections	Liquid pipe inch (mm)	1/4 (6,35)	1/4 (6,35)
	Gas pipe inch (mm)	3/8 (9,52)	1/2 (12,70)

Outdoor Multi combination model	Accessory needed
CS-XE7***	CU-2E15***
CS-E7***	CU-2E18***
CS-XE9***	CU-3E18***
CS-E9***	CU-4E23***
CS-E12***	CU-4E27***
CS-E12***	CU-5E34***
CS-E15***	CU-3E18***
CS-XE18***	CU-4E23***
CS-E18***	CU-4E27***
CS-E21***	CU-4E23*** CU-4E27*** CU-5E34***
CS-E24***	CU-4E27*** 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 3/8" 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 at a position 1 metre in front of the main body. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. 2) The specification listed on the table indicates values under the condition of 29 Pa (3,0 mmAq) which are applied for factory default setting. Change switch on PCB from Hi to Shi to have more than 6,0 mmAq.
Specifications subject to change without notice.



Include on the
indoor unit

INTERNET CONTROL READY and EASY
CONTROL by BMS: Optional only for
E9 and E12.

Internet
Control
Ready

Easy
control
by
CONNECTIVITY

Low Static Pressure Hide Away			2,5 kW	3,2 kW	5,0 kW
Indoor			CS-E9PD3EA	CS-E12PD3EA	CS-ME18PD3EA
Cooling capacity	Nominal	kW / kCal/h	2,50 / 2,150	3,4 / 2,920	5,00 / 4,300
Heating capacity	Nominal	kW / kCal/h	3,20 / 2,752	4,00 / 3,440	6,80 / 5,850
Connection		mm ²	4 x 1,5 to 2,5	4 x 1,5 to 2,5	4 x 1,5
External static pressure ²	S-Hi / Hi / Me / Lo	Pa	110 / 60 / 30 / 20	80 / 50 / 25 / 10	34 / 78 (3,47 / 7,95)
Air volume	Cooling / Heating	m ³ /h	414 / 486	540 / 630	624 / 528 / 444
Sound pressure level ¹	Cooling (Hi / Lo / S-Lo)	dB(A)	33 / 27 / 24	33 / 27 / 24	27 / 30 / 41
	Heating (Hi / Lo / S-Lo)	dB(A)	35 / 28 / 25	35 / 28 / 25	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 x 370	285 x 750 x 370	285 x 750 (+65) x 370
Net weight		kg	17	17	18
Piping connections	Liquid / Gas pipe	Inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Liquid / Gas pipe	Inch (mm)	3/8 (9,52)	3/8 (9,52)	1/2 (12,70)

Outdoor Units for Free Multi combinations

CU-2E15PBE		CU-2E18PBE		CU-3E18PBE		CU-4E23PBE		CU-4E27PBE		CU-5E34PBE		Energy saving	7,00 A++ SEER	4,00 A+ SCOP	Down to -15°C in heating mode	Possible to use on R22 pipings
Outdoor Unit //Inverter+	Unit	3,2 to 5,6 kW		3,2 to 6,4 kW		4,5 to 9,0 kW		4,5 to 11,0 kW		4,5 to 13,6 kW		INVERTER+	SEASONAL ENERGY EFFICIENCY RATIO	SEASONAL COEFFICIENT OF PERFORMANCE	OUTDOOR TEMPERATURE	R22 RENEWAL
Cooling capacity	Nominal (Min - Max)	kW	4,50 (1,50 - 5,20)	kW	5,20 (1,50 - 5,40)	kW	5,20 (1,80-7,30)	kW	6,80 (1,90 - 8,80)	kW	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)			
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	1,230 (0,250 - 1,520)		1,490 (0,250 - 1,540)		1,210 (0,360-2,180)		1,680 (0,340 - 2,470)		1,980 (0,530 - 2,870)		2,860 (0,550 - 3,860)			
Annual electricity consumption (cooling)		kWh/a	242		280		260		340		400		538			
Heating capacity	Nominal (Min - Max)	kW/h/a	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)			
Heating capacity at -7°C	Nominal	kW	3,54		3,65		4,90		6,05		7,08		8,85			
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			4,00		3,80		4,80		5,50		8,00		10,00			
Power input heating	Nominal (Min - Max)	kW	1,170 (0,210 - 1,670)		1,300 (0,240 - 1,700)		1,450 (0,320 - 2,110)		1,850 (0,580 - 2,600)		2,080 (0,700 - 3,060)		2,860 (0,530 - 4,240)			
Annual electricity consumption (heating)		kWh/a	1,400		1,330		1,680		1,925		2,800		3,500			
Current	Cooling	A	5,75		7,10		5,30		7,50		9,40		13,20			
	Heating	A	5,20		5,35		6,70		8,80		9,80		13,40			
Power source		V	230		230		230		230		230		230			
Recommended fuse		A	16		16		16		20		20		25			
Recommended power cable section		mm ²	1,5		1,5		2,5		2,5		2,5		3,5			
Sound pressure level ¹	Cooling / Heating (Hi)	dB(A)	47 / 49		49 / 51		46 / 47		48 / 49		51 / 52		53 / 54			
Sound power level	Cooling / Heating (Hi)	dB	62 / 64		64 / 66		60 / 61		62 / 63		67 / 68		69 / 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)	Max	m	10		10		15		15		15		15			
Piping length total	Min / Max	m	3 / 30		3 / 30		3 / 50		60		80		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			

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