

Panasonic



NEW DOMESTIC
RANGE
MORE EFFICIENCY
MORE SAVINGS

2014 - 2015



NEW DOMESTIC AIR TO AIR HEAT PUMP 2014 - 2015

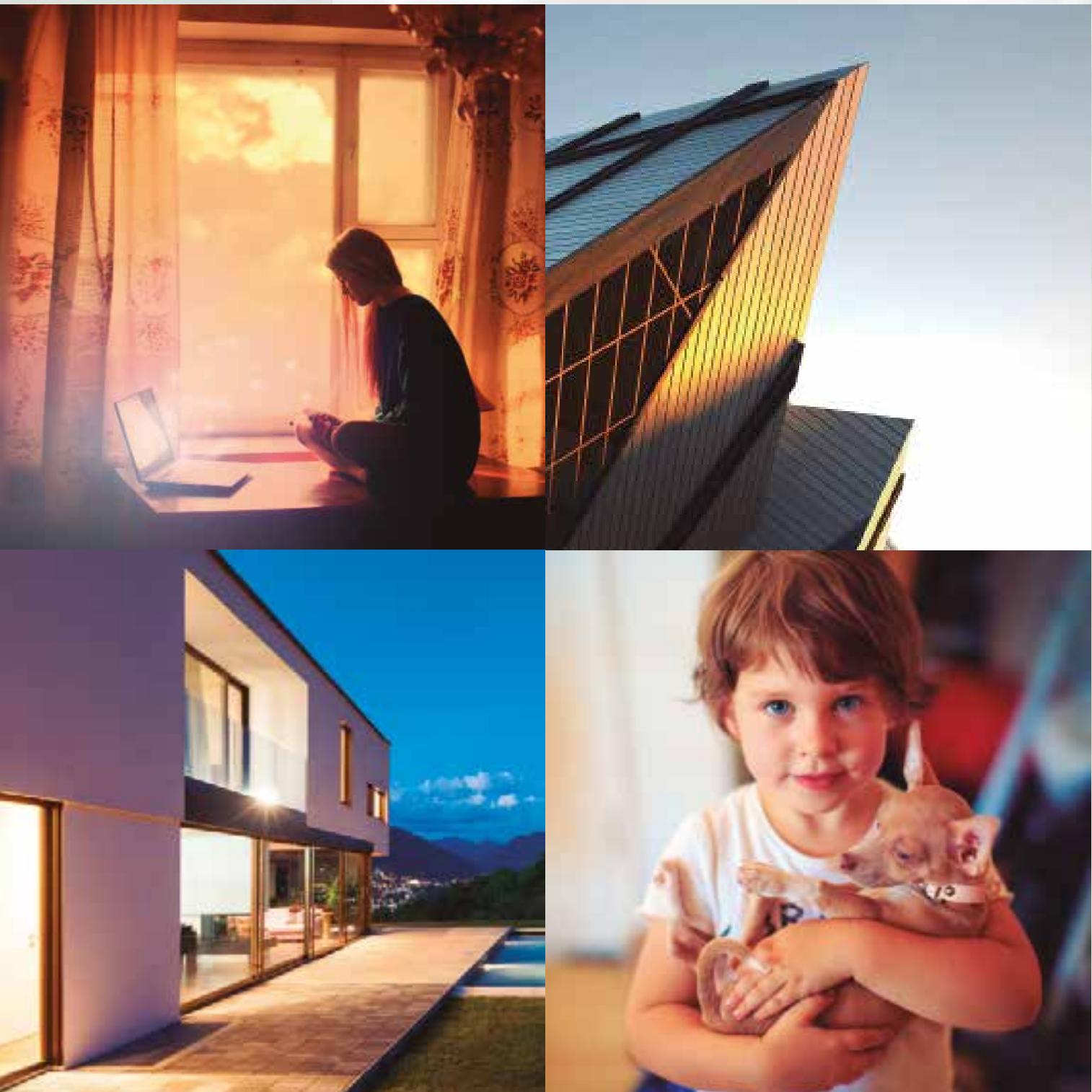
heatingandcoolingsystems

—THE REA—

A Better Life, A Better World

“A Better Life, A Better World” as its new brand slogan to show the vision the Panasonic Group is aiming for towards the 100th anniversary of its founding in 2018.

“A Better Life, A Better World” encapsulates Panasonic’s vision of expanding and pursuing a better life for each individual customer with its various partners in various spaces and fields, such as the home, the community, in business, in travel and in the car, and realizing a better world globally through its contribution to the environment and other activities, in both its B2C and B2B businesses.





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 stably for years. In order to achieve this, we conduct an accelerated test for 10,000 hours of continuous operation. The results of this test, which is conducted under conditions that are much more severe than actual operating conditions, prove the rugged strength of Panasonic air conditioners.



Compressor Disassembly Test

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



Operating Test in Harsh Conditions

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



Checking the oil inside the compressor under extremely cold conditions.



Waterproof Test

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

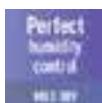


A resin-potted circuit board.

HEALTHY AIR



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



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

ENERGY SAVING



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



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



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



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.



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



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



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 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 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 cooling comfort to homes. They save energy. They purify your surroundings. They adjust cooling power to suit your living spaces and styles. Living an eco-lifestyle your way is now easier than ever.



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**PRODUCT FOLLOWS THE NEW
ECODESIGN REQUIREMENTS

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.



SEASONAL EFFICIENCY

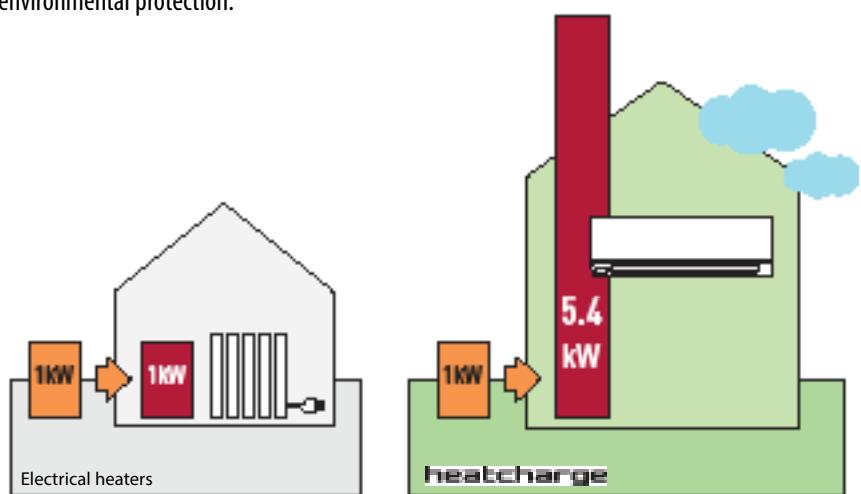
PRODUCT FOLLOWS THE NEW
ECODESIGN REQUIREMENTS



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.

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.



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.

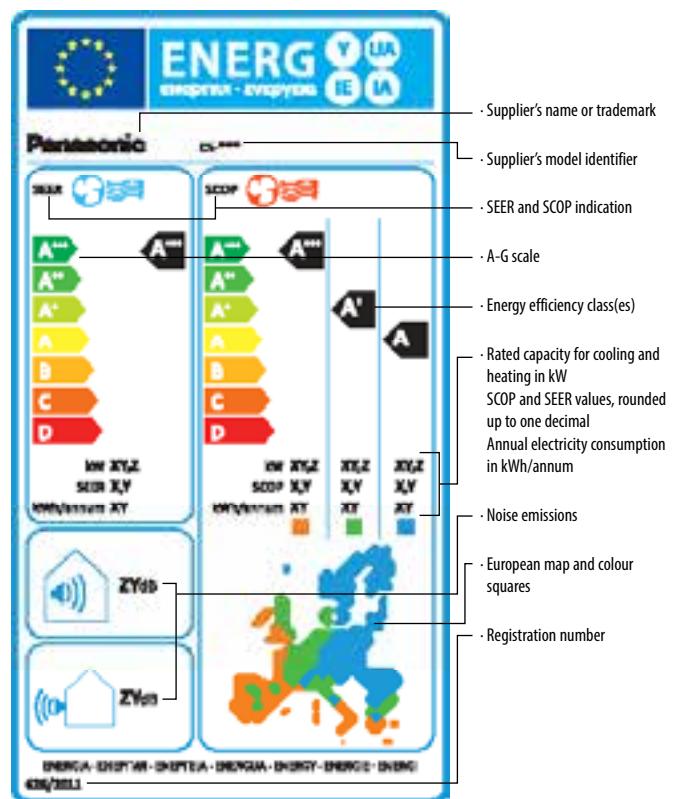
01 January 2017: A++, A++, A+, A, B, C, D and E.

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 ≥ 8.50		SCOP ≥ 5.10
	6.10 ≤ SEER < 8.50		4.60 ≤ SCOP < 5.10
	5.60 ≤ SEER < 6.10		4.00 ≤ SCOP < 4.60
	5.10 ≤ SEER < 5.60		3.40 ≤ SCOP < 4.00
	4.60 ≤ SEER < 5.10		3.10 ≤ SCOP < 3.40
	4.10 ≤ SEER < 4.60		2.80 ≤ SCOP < 3.10
	3.60 ≤ SEER < 4.10		2.50 ≤ SCOP < 2.80
	3.10 ≤ SEER < 3.60		2.20 ≤ SCOP < 2.50
	2.60 ≤ SEER < 3.10		1.90 ≤ SCOP < 2.20
	SEER < 2.60		SCOP < 1.90





PANASONIC CLIMATE CONTROL
ECONAVI

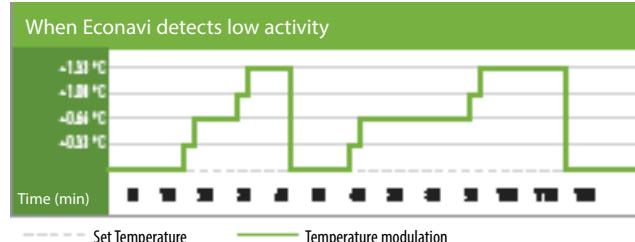
Temperature wave

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

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



How does temperature wave works?



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

The result of the experiments showed that the thermal sensation was maintained within the comfortable range* even though a higher 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 a 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.

Sunny



Econavi is switched on when it is sunny.

Detect



Econavi detects less cooling power is required.

Reduce waste



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

Sunlight Detection (on Heating Mode)

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

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

Cloudy/Night.



Econavi is switched on when it is cloudy/night.

Detect

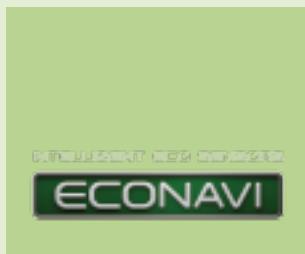


Econavi detects less heating power is required.

Reduce waste



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



Econavi intelligent sensors

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



Sunlight Sensor

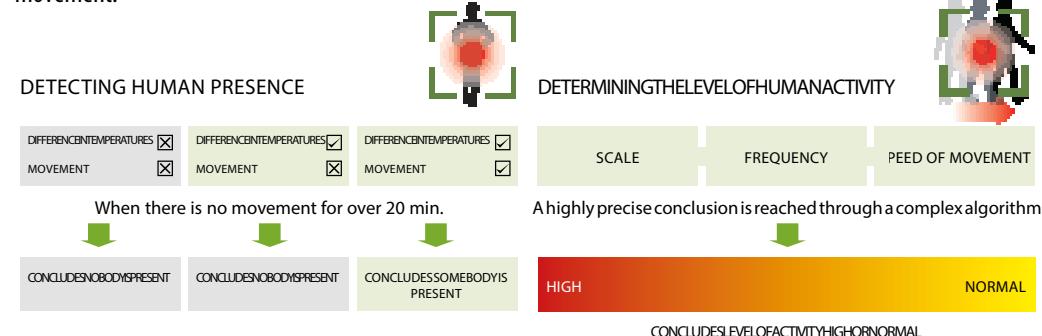
Detects changes in Sunlight Intensity

Human Activity Sensor

Detects human movements, changes in activity levels and human absence.

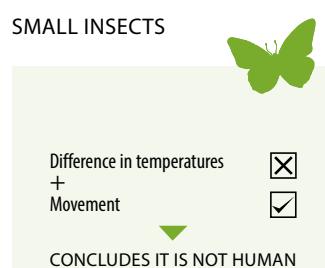
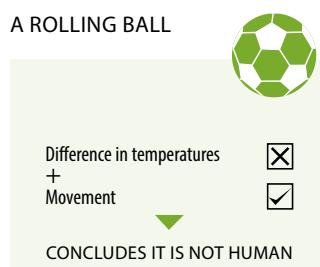
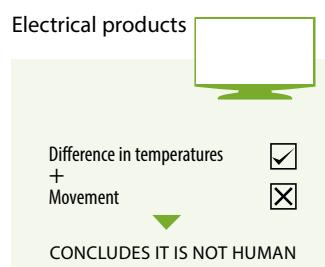
High-precision sensing

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

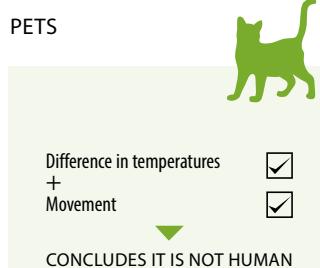


Differentiating objects

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



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

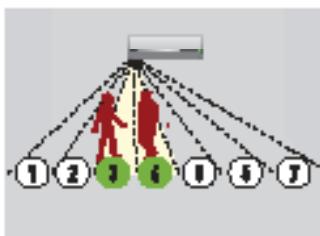
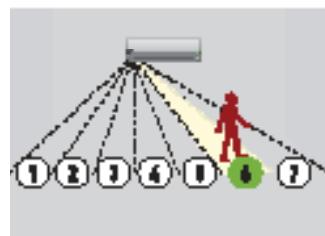
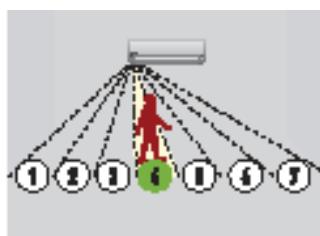
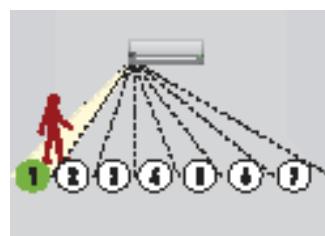


From the difference in temperatures and the nature of the object's movement, Econavi can determine if it's human*.

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

Sensor detection principle

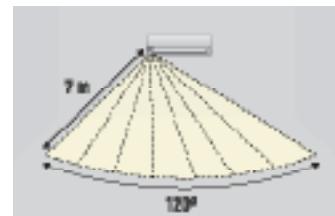
Human Activity Sensor detects human activity level and directs airflow to occupied or high activity zone.



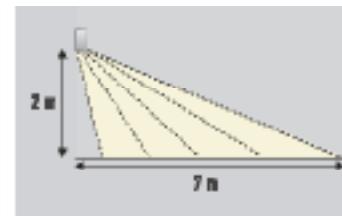
Coverage capabilities

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

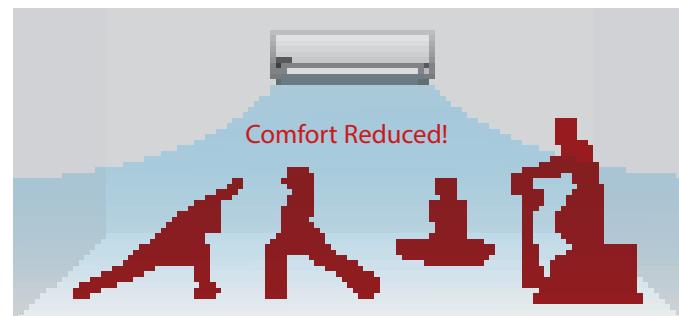


Autocomfort sensor provides comfort

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.

2. AIRBORNE

Removes 99%³ bacteria, viruses and mould in the air.

3. IN-FILTER DEACTIVATION

Deactivates 99%¹ bacteria and viruses trapped in the filter.

Nanoe-G catches micro-organisms.

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

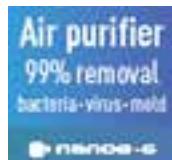
3 trillion* Nanoe-G fine particles released from the generator.

1. ADHESIVE

Deactivates 99%⁴ bacteria, viruses and inhibits mould growth on surfaces.

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.



Purifies the air, surfaces and even inside itself

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

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

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

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

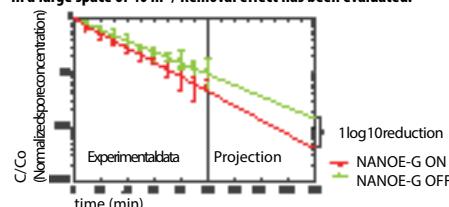
*Panasonic air conditioner CS-E16E/PKE/QKE have Nanoe-G air purification system which removes 76.6% of airborne pollen allergen in 1 hour. This has been verified by a 3rd party institution and approved by "allergy UK".

	1. Adhesive	2. Airborne	3. New in-filter deactivation
Bacteria	99% Deactivation	99% Removal	99% Deactivation
Viruses	99% Deactivation	99% Removal	99% Deactivation
Mould	Growth Inhibition	99% Removal	—
Pollen	Growth Inhibition	99% Removal	—

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 nanoe-G 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 nanoe-G ions. Target: Airborne bacteria, Test results: It is estimated that after three hours of operation the nanoe-G will achieve 2.7 log10 reductions, ~1 log10 reduction more, as compared to without nanoe-G.

How does our new in-filter deactivation work?

1. Power "Off"	2. Fan Operation	3. Nanoe-G 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 louver slightly open to ensure the internal components are dry and free from condensation.
Remark: The 30-minute fan operation is only applicable when the unit has been operated in COOL /DRY mode.
Fan Operation: On
Louver: Low Louver Angle
Nanoe-G LED: On

Natural Ion Wind spreads Nanoe-G particles that are released from the Nanoe-G generator.
Fan Operation: Off
Louver: Closed
Nanoe-G LED: On

Nanoe-G deactivates bacteria and viruses that are trapped in the filter within 2 hours.
Fan Operation: Off
Louver: Closed
Nanoe-G LED: On

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

The effectiveness of Nanoe-G

IN-FILTER DEACTIVATION

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

Remark: All results are based on specific testing conditions. All tests are not demonstrated under actual usage situation. *test substance was placed on the 4 locations of the filter; upper/lower right and upper/lower left.
1) In-Filter Deactivation was certified by Japan Food Research Laboratories - Test Report number: 12037932001 Bacteria: Staphylococcus aureus (NBRC 12732) - Test Report number: 12014705001 Virus: Escherichia coli phage (øX-174 ATCC 13706-B1).

2) In-Filter Deactivation was certified by Kitasato Research Center for Environmental Science - Test Report number : KRICES-Virus Test Report No. 24_0013 Virus : Influenza (H1N1) 2009 Vir.



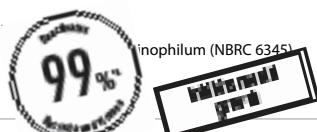
Testing institute: Kitasato research center for environmental science

AIRBORNE

Target Substance	Substance Name	Effectiveness	Test Report no	Method	Result
Bacteria	Staphylococcus aureus (NBRC 12732)	99%	KRICES-Bio. Test Report No. 23_0182	The AC with nanoe-G was operated in a test room (25m ³) and aerosol was collected and bacterial count was calculated.	99% removal from the air after 15 minutes of operation.
Virus	Escherichia coli phage (øX-174 ATCC 13706-B1)	99%	KRICES-Env. Test Report No. 22_0008	The AC with nanoe-G 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.
	Influenza (H1N1) 2009 virus	99%	KRICES-Env. Test Report No. 22_0008	Nanoe-G was operated in a test chamber (200 Litre) and the phages were collected and phage count of the collected air was calculated.	99% removal from the air after 5 minutes of operation.
	Penicillium pinophilum (NBRC 6345)	99%	KRICES-Bio. Test Report No. 23_0140	In view of health hazard associated with spatial distribution of Influenza (H1N1) 2009 virus, nanoe-G removal effectiveness cannot be tested in large test room (25m ³). When tested in 200 Litre chamber, nanoe-G was able to decrease Influenza (H1N1) 2009 virus (99%) when it was operated for 5 minutes. Additionally when tested in larger test room (25m ³), nanoe-G can remove 99.5% of Coli phage virus when operated for 120 minutes. It was validated that evaluation on the influenza virus could be speculated from the results on the phage according to the test results in a 200 Litre test chamber. It appeared that the air-conditioners in a larger test room (25m ³) would be able to remove the influenza virus as effectively as the phage.	99% removal from the air after 5 minutes of operation.
Mould	Penicillium pinophilum (NBRC 6345)	99%	KRICES-Bio. Test Report No. 23_0140	The AC with nanoe-G was operated in a test room (25m ³) and aerosol was collected and fungal spores count was calculated.	99% removal from the air after 90 minutes of operation.

Remark: All results are based on specific testing conditions. All tests are not demonstrated under actual usage situation.

3) Airborne Removal was certified by Kitasato Research Center for Environmental Science - KRICES-Bio. Test Report no.: 23_0182 Bacteria: Staphylococcus aureus - KRICES-Env. Test Report no.: 22_0008 Virus: Escherichia coli phage (øX-174 ATCC 13706-B1); Influenza (H1N1) 2009 virus - KRICES-Env. Test Report no.: 23_0140



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 nanoe-G was operated in a test space (10m ³) and viable cells were counted by pour plate method	99% deactivation after 24 hour operation of nanoe-G. (compared to the original condition/ ventilation mode)
Virus	Bacteriophage (Phi X 174 NBRC103405)	99%	Test Report No. 11073649001-02	Nanoe-G was operated in a test box (90 Litre) and phage infectivity titer was determined by plaque technique.	99% deactivation after 120 minutes operation of nanoe-G. (compared to non-operation)
Mould	Cladosporium cladosporioides (NBRC 6348)	Inhibit Mould Growth	Test Report No. 11047937001-02	Nanoe-G was operated in a test box (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) AdhesiveDeactivation was certified by Japan Food Research Laboratories - Test Report number: 11047933001-02 Bacteria: Staphylococcus aureus (NBRC 12732) - Test Report number: 11073649001-02 virus Bacteriophage (Phi X 174 NBRC 103405) - Test Report number: 11047937001-02 Mould : Cladosporium cladosporioides (NBRC 6348)

SEASONAL EFFICIENCY

PRODUCT FOLLOWS THE NEW
ECODESIGN REQUIREMENTS



**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
- 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.

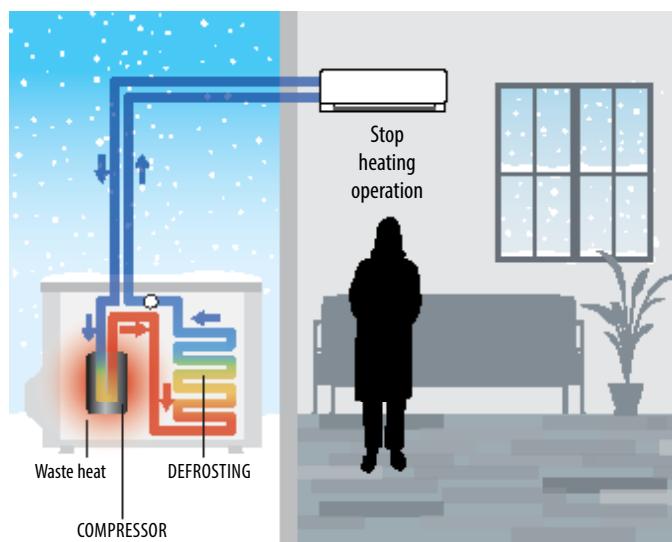


Constant heating

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.



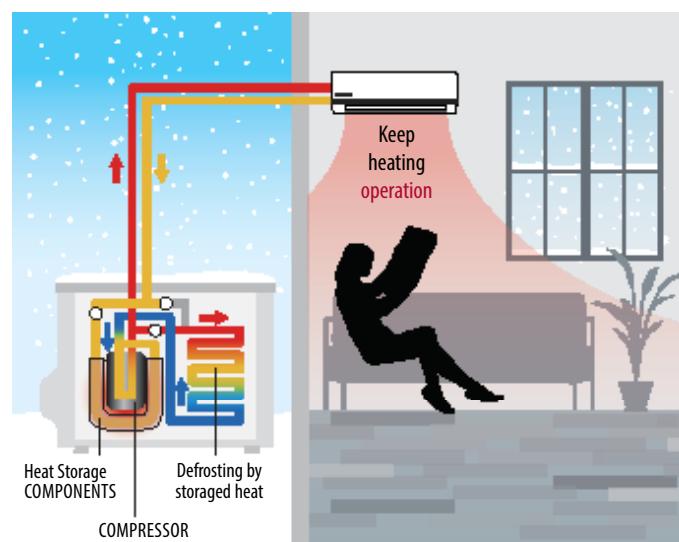
You can check the charge level with the remote control. Press the Information button and the level is displayed in five stages (from 0 to 4).



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 a room is), operation conditions, and temperature reconditions.

* 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 a room is), operation conditions, and temperature reconditions.

* In environments where a lot of frost accumulates, heating may stop during defrost operation.

TECHNOLOGY FOR COMFORT

Silent air
20 dB

SUPER QUIET

Panasonic technology for comfort

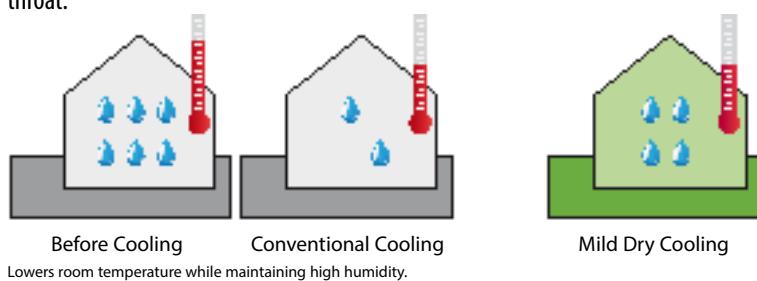
Extremely quiet

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.



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



Reference: PA-AC-wifi-1

Take control from wherever you are!

NEW

COMPUTER

SMARTPHONE

TABLET

HOME

OFFICE

STREET

WORK

GYM

INTERNET
service in the cloud*

INTERFACE
WIFI AIR
CONDITIONING
ROUTER WIFI

**WITH
ETHEREA QKE**
ENERGY CONSUMPTION
DISPLAY

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

What's Internet Control?

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

Simple Installation

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

Internet Control. Easy to install. Maximum benefit

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

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

Your existing WiFi connection does the rest when you are at home. Start the App from your smartphone device, your tablet or your computer, and enjoy a new experience in comfort. And if you are out of home, just launch the App, and manage the air conditioning of your home from the cloud.

An intuitive and user-friendly application on the screen of your smartphone or PC that lets you manage the air conditioning unit in the same way you do with the remote controller at home.

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

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

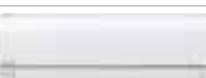
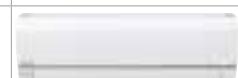
Offering the same functions as if you were at home or office: start/stop, Mode Operation, Set Temperature, Room Temperature etc as well as the new, advanced functionality provided by Internet Control to achieve the best comfort and efficiency with the lowest energy consumption.



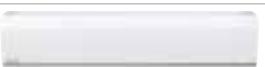
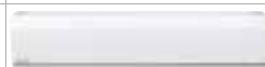
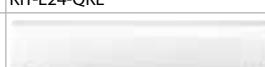
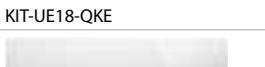
Study Case. James, architect

"As an architect, I'm proud of my home. Unfortunately, the pace of my life revolves around airports on all five continents. Because of this, whenever I get the chance to enjoy even just a few days at home, I programme my Panasonic Multi Split System to my tablet and from wherever I happen to be, I can enjoy the comforts that the system gives me from the minute I arrive home."

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		 KIT-VE9-NKE	 KIT-VE12-NKE	
Wall Mounted Etherea Inverter+ Silver	 KIT-XE7-QKE	 KIT-XE9-QKE	 KIT-XE12-QKE	
Wall Mounted Etherea Inverter+ White	 KIT-E7-QKE	 KIT-E9-QKE	 KIT-E12-QKE	 KIT-E15-QKE
Wall Mounted RE Type Standard Inverter	 KIT-RE9-QKE		 KIT-RE12-QKE	 KIT-RE15-QKE
Wall Mounted UE Type Standard Inverter	 KIT-UE9-QKE		 KIT-UE12-QKE	
Wall Mounted Professional Inverter -15 °C		 KIT-E9-PKEA	 KIT-E12-PKEA	 KIT-E15-PKEA
Floor Console Type Inverter+		 KIT-E9-PFE	 KIT-E12-PFE	
4-Way 60x60 Cassette Standard Inverter	 KIT-E9-PB4EA	 KIT-E12-PB4EA		
Low Static Pressure Hide Away Standard Inverter	 KIT-E9-PD3EA	 KIT-E12-PD3EA		
2x1 Wall Mounted MRE Standard Inverter	 KIT-2MRE77-PBE/PKE // KIT-2MRE79-PBE/PKE // KIT-2MRE712-PBE/PKE			
Etherea Multi Split Inverter+	 KIT-2XE/E77-QBE // KIT-2XE/E79-QBE // KIT-2XE/E712-QBE // KIT-2XE/E99-QBE			

Free Multi	4,0 to 5,6 kW	4,0 to 6,4 kW	4,5 to 9,0 kW	4,5 to 11,0 kW	4,5 to 13,6 kW	1,6 to 14,5 kW
Outdoor Unit // Inverter+	 CU-2E15PBE (2 rooms)	 CU-2E18PBE (2 rooms)	 CU-3E18PBE (3 rooms)	 CU-4E23PBE (4 rooms)	 CU-4E27PBE (4 rooms)	 CU-5E34PBE (5 rooms)

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-PKEA				
				
KIT-E18-PFE				
				
KIT-2MRE99-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/E7712-QBE//KIT-3E7715-QBE//KIT- 3E557-QBE		KIT-4E5557-QBE//KIT-4XE/E77712-QBE// KIT-4E77715-QBE//KIT-4XE/E7777-QKE// KIT-4XE/E77712-QKE//KIT-4E77715-QKE	KIT-5XE77777-QBE//KIT-5E77777-QBE

Feature Explanations

Healthy Air Quality

 Nanoe-G Nanoe-G utilises nano-technology fine particles to purify the air in the room. It works effectively on airborne and adhesive micro-organisms such as bacteria, viruses and mould thus ensuring a cleaner living environment. Seal of Approval of the British Allergy Foundation	 Econavi Sunlight Detection Detects changes in sunlight intensity and judges whether it is sunny or cloudy/night. It reduces the waste of heating under more sunlight conditions.	 Manual Horizontal Airflow Control
 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.	 Autocomfort Detects conditions in the room and switches to energy saving operation when nobody is on the room. However, priority is given to comfort, so cooling power is increased when there's a lot of human activity.	 Auto Mode (Inverter) Automatically changes from cooling to heating depending on the set temperature for the room.
 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.	 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.	 Simple Auto Changeover When the difference between the measured temperature and the set temperature is 3°C or more, it automatically switches over the current operation mode to heating or cooling mode necessary to keep the temperature at a constantly comfortable level.
 Antiallergy Properties System is equipped with antiallergy properties filter.	 Down to -10°C in cooling only mode The air conditioner works in cooling only mode with an outdoor temperature of -10°C.	 Hot Start Mode On the start of heating cycle and after defrost cycle, the indoor fan will start up once the indoor heat exchanger is warm.
 One-Touch Anti-Mould Air Filter Easy remove to wash out.	 Down to -15°C in heating mode The air conditioner works in heat pump mode with an outdoor temperature as low as -15°C.	 Real time clock 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.
 Odour-removing function Allows the possible connected, exchanger to be cleaned, preventing odours. While this function is the fan also remains off momentarily to avoid unpleasant odours while the exchanger is being cleaned.	 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.	 Real time clock 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.
 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.	 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.	 LCD Wireless Remote Controller
 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.	 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.	 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.
 Inverter Plus System Inverter plus products improve on the characteristics of standard Inverter air conditioners by over 20%. This means 20% less consumption and 20% off your electric bill. A Inverter plus is also A class on cooling and heating mode.	 Powerful Mode The rapid and effective powerful mode is ideal for when you come home on the hottest or coldest days. It works at maximum power to reach the desired temperature in 15 minutes.	 Long Piping Indicates the maximum length of pipe between the outdoor unit and the indoor unit(s). The distances permitted, demonstrate the installations possible.
 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.	 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.	 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.
 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 the waste of heating under more sunlight conditions.	 Personal Airflow Creation Permits the air direction to be adjusted vertically and horizontally. This feature can be conveniently selected by remote control.	 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.
	 Automatic Vertical Airflow Control The flap swings up and down automatically. The flow can also be set a fixed angle with the remote control.	 5 Years Warranty Panasonic guarantees the compressors in the entire range for five years.

Feature Comparison

	MODELS	WALLMOUNTED VEINVERTER+ ENERGYCHARGE SYSTEM	WALLMOUNTED ETHEREA INVERTER+ SILVER	WALLMOUNTED ETHEREA INVERTER+ WHITE	WALLMOUNTED RE TYPE STANDARD INVERTER	WALLMOUNTED UE TYPE STANDARD INVERTER	WALLMOUNTED PROFESSIONAL INVERTER -15 °C	FLOORCONSOLE TYPE INVERTER+	4-WAY 60x60 CASSETTE INVERTER	LOW STATIC PRESSURE/HIDE AWAY INVERTER	2x1 WALL MOUNTED/MRE TYPE STANDARD INVERTER	ETHEREAMULTI SPLIT 2x1 INVERTER+	ETHEREAMULTI SPLIT 3x1 INVERTER+	ETHEREAMULTI SPLIT 4x1 AND 5x1 INVERTER+
Healthy Air Quality	Nanoe-Gairpurifyingsystem	✓	✓	✓								✓	✓	✓
	Mild Dry Cooling			✓	✓									
	Anti Bacterial Filter				✓	✓				✓ Optional	✓			
	Antiallergy properties	✓ 3rd party tested	✓ 3rd party tested	✓ 3rd party tested	✓	✓						✓ 3rd party tested	✓ 3rd party tested	✓ 3rd party tested
	One-Touchanti-mouldairfilter				✓	✓			✓	✓				
	Odour-removing function	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Removable,washablepanel	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
	Internet Control	✓	✓	✓								✓	✓	✓
	Inverter+ system	✓	✓	✓					✓			✓	✓	✓
	Inverter system				✓	✓	✓			✓	✓			
Comfort	Econavi		✓	✓								✓	✓	✓
	EconaviSunlightDetection	✓	✓	✓								✓	✓	✓
	Autocomfort		✓	✓								✓	✓	✓
	Super Quiet	✓	✓ ForXE7,XE9 and XE12*	✓ For E7, E9 and E12*	✓ For RE9-15*	✓ UE9-12*								
	Downto-10°Cincoolingonly	✓	✓	✓				✓ -15°C		✓	✓		✓	✓
	Downto-15°Cinheatingmode	✓ -25°C	✓	✓	✓	✓ -10°C	✓	✓	✓ -10°C	✓ -10°C	✓ -10°C	✓	✓	✓
	Heatcharge	✓												
	Summer House	✓												
	Easy control by BMS	✓	✓	✓				✓		✓	✓	✓	✓	✓
	Powerful mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
User	Soft dry operation mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Wide & long airflow vane	✓									✓			
	Personal airflow creation	✓	✓	✓										
	Automaticverticalairflowcontrol	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
	Manualhorizontalairflowcontrol	✓	✓ ForXE7,XE9 and XE12	✓ For E7, E9, E12 and E15	✓						✓	✓	✓	✓
	AUTO mode (Inverter)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Simple Auto Changeover	✓	✓	✓	✓	✓								
	Hot start mode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Real time clock with dual ON&OFF timer	✓	✓	✓				✓				✓	✓	✓
	Real time clock with single ON&OFF timer					✓	✓		✓	✓	✓			
Reliability	LCDWirelessremotecontroller	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Automatic restart	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Long piping	✓ 15 m	✓15m(XE7-12) 20 m (XE18)	✓15m(E7-15) 20 m (E18-21) 30 m (E24-28)	✓15m(RE9-15) 20 m (RE18) 30 m (RE24)	✓ 15 m	✓15m(E9-15) 20 m (E18)	✓15m(E9-12) 20 m (E18)	✓ 20 m	✓ 20 m	✓ Max. 30 m	✓ Max. 30 m	✓ Max. 50 m	✓ Max. 70 m
	Top-Panelmaintenanceaccess	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Self-diagnosis function	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Warrantyonthecompressor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

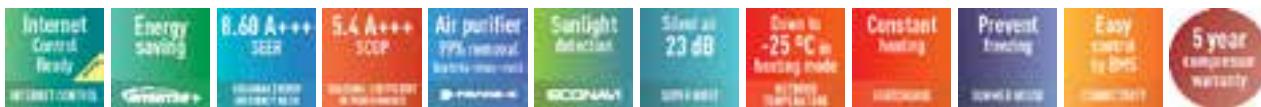
* At the lowest fan speed.

WALL MOUNTED VE INVERTER+ ENERGY CHARGE SYSTEM

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

ECONAVI builds-in a new Sunlight Detection technology to adjust output ideally thereby giving you the best comfort at anytime whilst saving energy.

Furthermore, the Nanoe-G revolutionary air-purifying system utilises nano technology fine particles to remove and deactivate 99% of both airborne and adhesive micro-organisms like bacteria, viruses and mould.



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

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	8,60 A+++	8,50 A+++
Pdesign (cooling)		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	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	-25 ⁴⁾ / +24	-25 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 unit shows the value measured at 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 -25 °C tested by SP. Performance guaranty on heating mode up to -20 °C. Specifications subject to change without notice.

* Preliminary data.

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

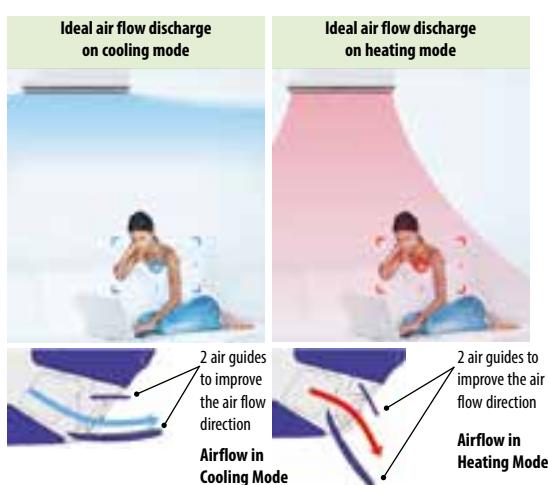


KIT-VE9-NKE // KIT-VE12-NKE

Technical focus

- Energy Charge System. Heat storage unit which realizes NON-STOP heating and fast heating function
- Maximum efficiency and comfort with Econavi sunlight detection
- Nanoe-Gairpurifying 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 AIRFLOW DISCHARGE IDEAL AIRFLOW 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.



Awarded with the prestigious INTERNET CONTROL READY:Optional SEER and SCOP For KIT-XE12-QKE and KIT-E12-QKE. MILDDRY: Maintains a relative humidity upto 10% higher than cooling operation. Ideal when sleeping with the air conditioner on. SUPER QUIET: For XE7, XE9, XE12, E7, E9 and XE12. IF Design Award 2013

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++	7,60 A++
Pdesign (cooling)	kW	2,1	2,5	3,5
Power input cooling	Nominal (Min-Max) kW	0,460 (0,240 - 0,560)	0,525 (0,245 - 0,715)	0,830 (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	2,1	2,95	3,20
SCOP	Nominal	Energy Saving	4,40 A+	4,70 A++
Pdesign at -10°C	kW	2,1	2,7	3,2
Power input heating	Nominal (Min-Max) kW	0,620 (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	1,998 / 1,998
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	34
Piping connections	Liquidpipe/Gaspipe 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) kg	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 unit shows the value measured at a position 1 meter in front of the main body and 0,8m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. S-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.doc.panasonic.de>



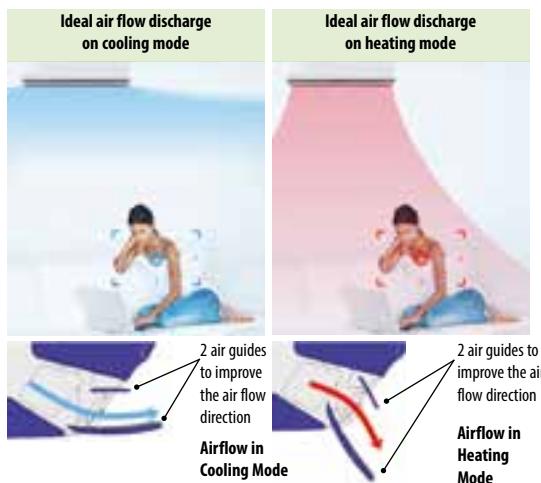
KIT SILVER PLATED: KIT-XE7-QKE // KIT-XE9-QKE //

KIT-XE12-QKE

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

Technical focus

- Maximum efficiency and comfort with Econavi, now with sunlight detection
 - Nanoe-G air purifying system, 99% effective on both airborne and adhesive mould, viruses and bacteria
 - Optional smartphone control
 - Mild Dry Cooling: prevent a rapid decrease in room humidity
 - SuperQuiet! Only 20dB, equivalent to night-time in the country (XE7, XE9, XE12, E7, E9 and E12)
 - More powerful airflow to quickly reach the desired temperature
- NEW AIRFLOW DISCHARGE IDEAL AIRFLOW 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 the cooling function by 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.



Awarded with the prestigious
IF Design Award 2015

INTERNET CONTROL READY: Optional. SEER and SCOP: For KIT-XE18-QKE and KIT-E18-QKE. MILDDRY: 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-E28QKEW
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++
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+
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	mm ²	1,5	2,5	2,5
Connection indoor / outdoor	mm ²	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
Maximum current	A	11,3	11,9	13,8
Air volume	Cooling / Heating	m ³ /h	1074 / 1158	1.034 / 1.200
Moisture removal volume	I/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
Net weight	kg	13	13	13
Air purifier filter		Nanoe-G	Nanoe-G	Nanoe-G
Outdoor Unit				
Air volume	Cooling / Heating	m ³ /h	2.352 / 2.274	2.502 / 2.424
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
Net weight	kg	46	47	67
Piping connections	Liquidpipe/Gaspipe 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
Elevation difference(in/out)	Max	m	15	15
Piping length	Min / Max	m	3 / 20	3 / 20
Precharge length	Max	m	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 unit shows the value measured at 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. S-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.doc.panasonic.de>



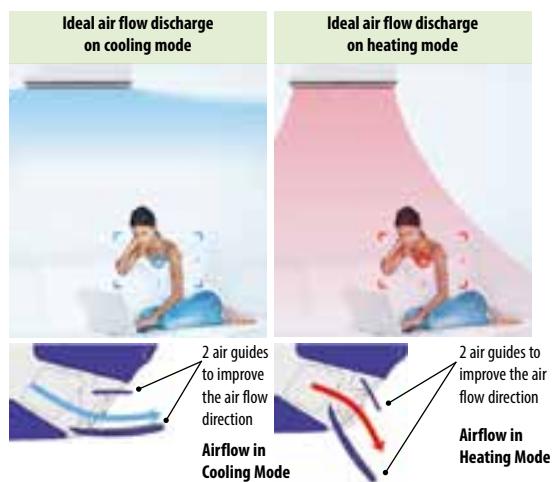
KIT SILVER PLATED: KIT-XE18-QKE

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

Technical focus

- Maximum efficiency and comfort with Econavi, now with sunlight detection
- Nanoe-G air purifying system, 99% effective on both airborne and adhesive mould, viruses and bacteria
- Optional smartphone control
- Mild Dry Cooling: prevent a rapid decrease in room humidity
- More powerful airflow to quickly reach the desired temperature

NEW AIRFLOW DISCHARGE IDEAL AIRFLOW 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 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 a outstanding energy ranking of A++/A+, unique on his segment! The Re is working 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 have a unique Anti Bacterial Filter in order to enjoy the best quality air, without viruses, moulds and bacteria.



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++	6,10 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 (0,250 - 1,190)	1,260 (0,260 - 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)	5,8 (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
Pdesign at -10°C	kW	2,4	2,8	3,6	4,4
Power input heating	Nominal (Min-Max) kW	0,800 (0,190 - 1,130)	1,050 (0,200 - 1,420)	1,350 (0,200 - 2,050)	1,470 (0,350 - 2,300)
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	4,0 / 4,60	5,6 / 6,0	6,6 / 6,9
Maximum current	A	5,0	6,2	9,2	11,4
Air volume	Cooling / Heating m ³ /h	702 / 768	738 / 768	750 / 840	978 / 1.074
Moisture removal volume	l/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	60
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		Antiallergic filter	Antiallergic filter	Antiallergic filter	Antiallergic filter
Silver decoration sheet		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	49
	Heating (Hi) dB(A)	48	50	51	49
Sound power level	Cooling (Hi) dB	62	64	64	64
	Heating (Hi) dB	63	65	66	64
Dimensions ³⁾	H x W x D mm	542 x 780 x 289	619 x 824 x 299	540 x 780 x 289	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	0,92	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 unit shows the value measured at a position 1 meter in front of the main body and 0,8m below the unit. The sound pressure is measured in accordance with Eurovent 6/C/006-97 specification. S-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.doc.panasonic.de>



KIT-RE9-QKE // KIT-RE12-QKE // KIT-RE15-QKE //

KIT-RE18-QKE // KIT-RE24-QKE

Technical focus

- **New!** Design
- **New!** Real time clock with single ON&OFF timer
- **New!** Wired Controller (optional)
- 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
- Anti-mould filter

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

COMFORT

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

EASE OF USE

- **New!** Real time clock with single ON&OFF timer
- **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)
	Nominal (Min-Max) kCal/h	2,150 (730 - 2,580)	3,010 (730 - 3,350)
SEER	Nominal	Energy Saving	5,60 A+
Pdesign (cooling)		2,5	3,5
Power input cooling	Nominal (Min-Max) kW	0,720 (0,250 - 1,020)	1,090 (0,250 - 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 A
Pdesign at -10 °C	kW	1,9	2,4
Power input heating	Nominal (Min-Max) kW	0,800 (0,190 - 1,130)	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/S-Lo) dB(A)	41 / 26 / 22	42 / 30 / 22
	Heating(Hi/Lo/S-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		Antiallergic filter	Antiallergic filter
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 unit shows the value measured at 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 the European 6/C/006-97 specification S-Lo. The lowest fan speed Lo. The second lowest fan speed (the lowest fan speed for UE18) 3)Add 70mm for piping port 4)When installing the outdoor unit at a higher position than the indoor unit. Specifications subject to change without notice.

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



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

Technical focus

- **New!** New design
- **New!** UE18 (5kW)
- **New!** Real time clock with single ON&OFF timer
- **New!** Wired Controller (optional)
- Quieter indoor units
- High energy savings
- Long connection distance

Features

HEALTHY AIR

- Anti Bacterial Filter
- Odour-removing function
- Anti-mould filter

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

EASE OF USE

- **New!** Real time clock with single ON&OFF timer
- **New!** Wired Controller (optional)
- User friendly infrared remote control

COMFORT

- Super Quiet
- Powerful mode
- 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 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.



Single Phase					
KIT	2,8 kW	3,2 kW	4,5 kW	5,0 kW	
Indoor	KIT-E9-PKEA	KIT-E12-PKEA	KIT-E15-PKEA	KIT-E18-PKEA	
Outdoor	CS-E9PKEA	CS-E12PKEA	CS-E15PKEA	CS-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)
SEER	Nominal	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	3,91	4,78	5,14	5,80
SCOP	Nominal	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 (0,1650-1,820)	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 / 32	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	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	45	46	46
Piping connections	Liquidpipe/Gaspipel 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) ³⁾	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 consumption is calculated by multiplying the input power at 220/240V(380/415V) by an average of 500 hours per year in cooling mode. 2)The sound pressure level of the unit shows the value measured at 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/006-97 specification. 3) 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.doc.panasonic.de>



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

Technical Focus

- Designed for 24h/7d a week operation
- Highly efficient even at -15°C

Outdoor

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

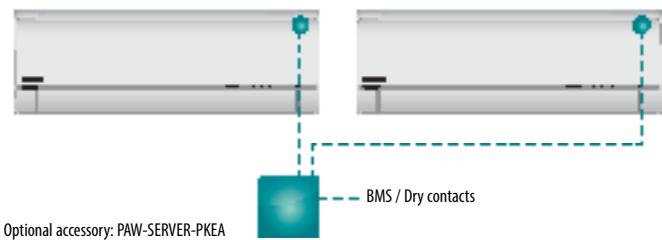
2 INTERFACE OPTIONS TO MANAGE SERVER ROOM OPERATION

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



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

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



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)
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
Recommended fuse	A	16	16	16
Recommended power cable section	mm ²	1,5	1,5	1,5
Connection	mm ²	4 x 1,5	4 x 1,5	4 x 1,5
Current (Nominal)	Cooling	A	2,6	4,4
	Heating	A	3,75	4,6
Air volume	Cooling / Heating	m ³ /h	558 / 576	570 / 600
Moisture removal volume		l/h	1,4	2,0
Sound pressure level ²⁾	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	14
Outdoor Unit				
Air volume	Cooling / Heating	m ³ /h	1.788 / 1.788	1.998 / 1.998
Sound pressure level ²⁾	Cooling (Hi)	dB(A)	46	48
	Heating (Hi)	dB(A)	47	50
Sound power level	Cooling (Hi)	dB	61	63
	Heating (Hi)	dB	62	65
Dimensions ³⁾	H x W x D	mm	542 x 780 x 289	619 x 824 x 299
Net weight	kg	33	34	46
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	0,970	1,000
Elevation difference(in/out)	Max	m	5	5
Piping length	Min / Max	m	3 / 15	3 / 15
Precharge length	Max	m	7,5	7,5
Additional charge	g/m	20	20	20
Operating range	Cooling Min / Max °C		-16 / +43	-16 / +43
	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: 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 unit shows the value measured at a position 1 meter in front of the main body and 1 m below the unit. The sound pressure is measured in accordance with IEC 60268-2-30 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.doc.panasonic.de>



Included with
the indoor unit



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

Technical focus

- More efficient than ever for less consumption and higher savings
- Heating mode down to -15°C with high efficiency
- Double airflow for better efficiency
- Powerful mode for quick temperature setting
- R410A refrigerant gas

Features

HEALTHY AIR

- Soft dry operation mode
- Odour-removing function

ENERGY, EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system
- R410A refrigerant gas

COMFORT

- Super Quiet
- 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 15 m (E9, 12), 20m (E18)
- Maintenance access through the top panel of the outdoor unit
- Self-diagnosis function



CU-E9PFE
CU-E12PFE



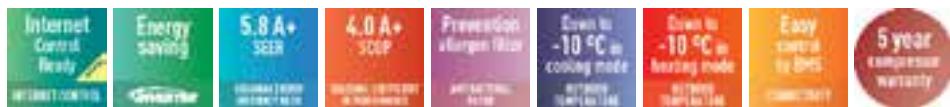
CU-E18PFE

4 WAY 60x60 CASSETTE INVERTER

Ideally design for offices, retail and restaurants, this cassette perfectly fit on 60x60 or 70x70 ceilings. Panasonic cassette have the best efficiency on his category on heating and on cooling up to -10°C. The new cassette 9 and 12 kW can also be connected to KNX, Modbus, EnOcean interfaces for a easy integration with your BMS systems. This interfaces have a dry contacts (ON/OFF, error message) to a easy integration.

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

With Panasonic Cassette Type, start to save all year around!



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

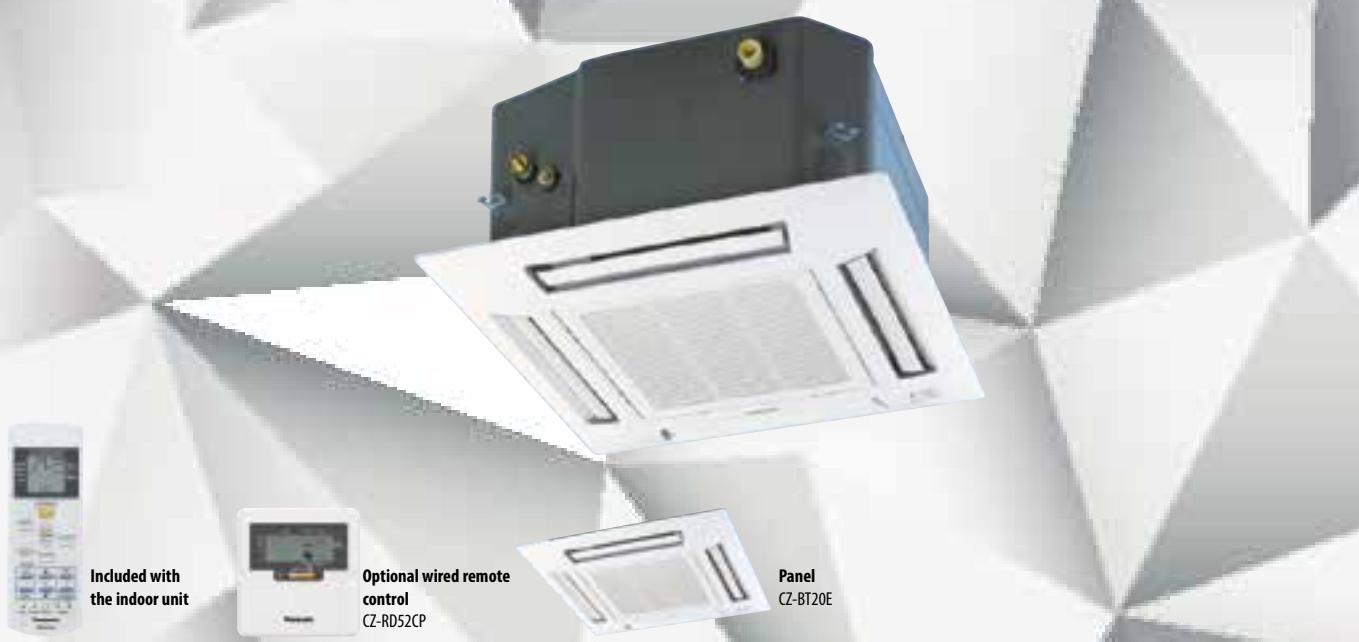
KIT			KIT-E9-PB4EA	KIT-E12-PB4EA
Indoor			CS-E9PB4EA	CS-E12PB4EA
Outdoor			CU-E9PB4EA	CU-E12PB4EA
Panel			CZ-BT20E	CZ-BT20E
Cooling capacity	Nominal (Min-Max)	kW	2,50 (0,85 - 3,00)	3,4 (0,85 - 4,00)
	Nominal (Min-Max)	kCal/h	2,150 (731 - 2.780)	2,920 (730 - 3.440)
SEER	W/W		5,80 A+	5,60 A+
Pdesign (cooling)	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)	4,5 (0,85 - 5,60)
	Nominal (Min-Max)	kCal/h	2,752 (731 - 4.130)	3,870 (730 - 4.820)
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	l/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 unit is shown measured at a position 1 meter 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.doc.panasonic.de>



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

Technical focus

- NEW!** 9 and 12kW Cassette can be controlled by Intesishome, KNX, EnOcean and Modbus
- Easy installation on the detachable european 60x60 ceiling grid
- Operation down to -10°C in cooling and heating modes
- Piping length up to 30 m
- Maximum elevation difference up to 20 m
- Ultra compact outdoor units for easy installation
- Real time clock with single ON&OFF timer

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

Ideally design for houses, 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 duct 9 and 12kW can also be connected to KNX, Modbus, EnOcean interfaces for a easy integration with your BMS systems. This interfaces have a dry contacts (ON/OFF, error message) to a easy integration. With the new IntesisHome interface, you can control the Duct also from you 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)	3,4 (0,85 - 4,00)
	Nominal (Min-Max) kCal/h	2,150 (731 - 2,580)	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 (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 - 5,1)
	Nominal (Min-Max) kCal/h	2,752 (731 - 3,960)	3,440 (730 - 4,390)
SCOP	Nominal	Energy Saving 4,20 A+	3,80 A
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	l/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 29Pa(3,0mmAq) which are applied for factory default setting. Changes switch on PCB from HitoShito have more than 6,0mmAq. 3)The sound pressure level of the unit shows the value measured at a position of 1,5m below the unit with 1m duct on the suction side and 2m 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.doc.panasonic.de>



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

Technical focus

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

Features

ENERGY, EFFICIENCY AND ECOLOGY

- Maximum efficiency Inverter system
- R410A environmentally friendly refrigerant gas

COMFORT

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

EASE OF USE

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

EASY INSTALLATION AND MAINTENANCE

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



CU-E9PD3EA



CU-E12PD3EA

MRE WALL MOUNTED 2x1 STANDARD INVERTER

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

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



Kit	KIT-2MRE77-PBE	KIT-2MRE79-PBE	KIT-2MRE712-PBE	KIT-2MRE77-PKE	KIT-2MRE79-PKE
Indoor	CS-MRE7PKE	CS-MRE7PKE	CS-MRE7PKE	CS-MRE7PKE	CS-MRE7PKE
Outdoor	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 - 4,60)
	Nominal (Min-Max) kCal/h	3.560 (1.290 - 4.094)	3.916 (1.290 - 4.272)	3.916 (1.290 - 4.272)	3.916 (1.290 - 4.094)
Cooling capacity room A	Nominal kW	2,00	1,95	1,70	2,00
Cooling capacity room B	Nominal kW	2,00	2,45	2,70	2,00
SEER	Nominal	Energy Saving 6,30 A++	6,51 A++	6,51 A++	6,10 A++
Pdesign (cooling)	kW	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)	1,160 (0,270 - 1,340)
Annual electricity consumption (cooling) ¹⁾	kWh/a				1,400 (0,270 - 1,510)
Heating capacity	Nominal (Min-Max) kW	5,80 (1,10 - 6,30)	5,80 (1,10 - 6,30)	5,80 (1,10 - 6,30)	5,20 (1,10 - 6,30)
	Nominal (Min-Max) kCal/h	5.162 (950 - 5.607)	5.162 (950 - 5.607)	5.162 (950 - 5.607)	4.628 (979 - 5.607)
Heating capacity room A	Nominal kW	2,40	2,15	1,85	2,60
Heating capacity room B	Nominal kW	2,40	2,65	2,95	2,90
SCOP	Nominal	Energy Saving 3,80 A	4,00 A+	4,00 A+	3,80 A
Pdesign at -10°C	kW	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 - 1,610)	1,300 (0,240 - 1,610)
Annual electricity consumption (heating) ¹⁾	kWh/a		1,260		1,300 (0,240 - 1,610)
Indoor unit					
Connection		mm ²	4 x 1,5	4 x 1,5	4 x 1,5
Current Nominal	Cooling / Heating	A	5,45 / 5,35	6,10 / 5,35	6,10 / 5,80
Air volume	Cooling	m ³ /h	606	606	606
Moisture removal volume	Cooling	l/h	1,3 (E7)	1,3 (E7) / 1,5 (E9)	1,1 (E7) / 1,6 (E12)
Sound pressure level ²⁾	Cooling&Heating(Lo) dB(A)		29	29	29
Sound power level	Cooling&Heating(Hi) dB		56	56	56
Dimensions	H x W x D mm		290 x 870 x 204	290 x 870 x 204	290 x 870 x 204
Net weight	kg		9	9	9
Air purifier filter			Anti Bacterial Filter	Anti Bacterial Filter	Anti Bacterial Filter
Outdoor 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
Air volume	m ³ /h	1.998	1.998	1.998	1.998
Sound pressure level ²⁾	Cooling/Heating(Hi) dB(A)	47 / 49	47 / 49	47 / 49	47 / 49
Sound power level	Cooling/Heating(Hi) dB	62 / 64	62 / 64	62 / 64	62 / 64
Dimensions ³⁾	H x W x D mm	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289	540 x 780 (+70) x 289
Net weight	kg	38	38	38	38
Piping connections	Liquidpipe/Gaspipe 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)
Refrigerant Loading	R410A kg	1,45	1,45	1,45	1,45
Elevation difference(in/out) Max	m	10	10	10	10
Piping length (total)	Min / Max m	30	30	30	30
Piping length (one unit)	Min / Max m	3 / 20	3 / 20	3 / 20	3 / 20
Precharge length	Max m	20	20	20	20
Additional charge	g/m	20	20	20	20
Operating range	Cooling Min / Max °C	-16 / +43	-16 / +43	-16 / +43	-16 / +43
	Heating Min / Max °C	-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 unit shows the value measured at 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.

Specifications subject to change without notice.

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



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)	4,70 (1,50 - 4,80)	4,80 (1,50 - 5,00)	4,80 (1,50 - 5,00)
3,916 (1,290 - 4,272)	4,183 (1,290 - 4,272)	3,916 (1,290 - 4,450)	3,916 (1,290 - 4,450)
1,85	2,35	2,10	2,40
2,95	2,35	2,70	2,40
6,51 A++	6,51 A++	6,51 A++	6,51 A++
4,80	4,80	4,80	4,80
1,400 (0,270 - 1,530)	1,370 (0,270 - 1,510)	1,490 (0,270 - 1,560)	1,490 (0,270 - 1,580)
5,80 (1,10 - 6,70)	5,80 (1,10 - 6,70)	5,80 (1,10 - 6,70)	5,80 (1,10 - 6,70)
5,162 (950 - 5,963)	5,162 (950 - 5,963)	5,162 (950 - 5,963)	5,162 (950 - 5,963)
2,00	2,60	2,30	2,30
3,20	2,60	2,95	2,95
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)	606	606 (E9) / 654 (E12)	654
1,2 (E7) / 1,5 (E12)	1,5	1,4 / 1,6	1,5
29 (E7) / 32 (E12)	29	26 (E9) / 29 (E12)	29
56 (E7) / 60 (E12)	56	56 (E9) / 60 (E12)	60
290 x 870 x 204			
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
1.998	1.998	1.998	1.998
47 / 49	47 / 49	47 / 49	47 / 49
62 / 64	62 / 64	62 / 64	62 / 64
540x780(+70)x289	540x780(+70)x289	540x780(+70)x289	540x780(+70)x289
38	38	38	38
1/4(6,35)/3/8(9,52)	1/4(6,35)/3/8(9,52)	1/4(6,35)/3/8(9,52)	1/4(6,35)/3/8(9,52)
1,45	1,45	1,45	1,45
10	10	10	10
30	30	30	30
3 / 20	3 / 20	3 / 20	3 / 20
20	20	20	20
20	20	20	20
-16 / +43	-16 / +43	-16 / +43	-16 / +43
-10 / +24	-10 / +24	-10 / +24	-10 / +24

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

Technical focus

- High energy savings
- Large elevation distance (10 m)
- Large piping length (30 m)

Features

HEALTHY AIR

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

ENERGY, EFFICIENCY AND ECOLOGY

- Inverter system
- R410A refrigerant gas

COMFORT

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

EASE OF USE

- 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



CU-2RE15PBE
CU-2RE18PBE

FREE MULTI SYSTEM

Up to 5 indoor units with a single outdoor unit

Connect up to five different rooms with a single outdoor unit using the Free Multi system.

With Free Multi you can take care of 2, 3, 4 or 5 rooms with a single outdoor unit.

With the Free Multi range, your clients will be able to save space at the time of installing the outdoor unit, and they will have more energy efficiency than with various 1x1 systems. They will be able to save up to 30% of energy.

Choose the indoor units according to the individual requirements of each of your client's rooms, and calculate which outdoor unit best adapts itself to the combinations of indoor units.

The combination table will help you to select the best option.



INTERNET CONTROL READY and EASY CONTROL by BMS: Optional only for Etherea, Low Static Pressure Hide Away (CS-E9PD3EA and CS-E12PD3EA) and 4Way 60x60 Cassette (CS-E9PB4EA and CS-E12PB4EA).

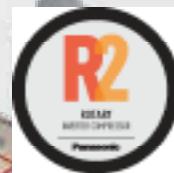
Possible outdoor/indoor units combinations

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-4E27PPF 	4,5-13,6 kW	1/4	3/8	25 m	80 m	45 m	20 g/m	15 m	For 4 indoor units	✓	✓	✓	✓	✓	✓	✓	✓
	CU-5E34PPF 	4,5-17,5 kW	1/4	3/8	30 m	80 m	45 m	20 g/m	15 m	For 5 indoor units	✓	✓	✓	✓	✓	✓	✓	✓

Free Multi combinations Piping and Branches

OUTDOOR UNIT	Connected capacity (kW)	Piping size liquid / gas (mm (inch))	Gas R410A (kg)	Maximum pipe length (total room) (m)	Height difference (m)	Precharged length (m)	Additional charge (g/m)
CU-2E15PBE	3,2 - 5,6	6,35 (1/4) / 9,52 (3/8)	1,4	30	10	20	15
CU-2E18PBE	3,2 - 6,4	6,35 (1/4) / 9,52 (3/8)	1,4	30	10	20	15
CU-3E18PBE	4,5 - 9,0	6,35 (1/4) / 9,52 (3/8)	2,64	50	15	30	20
CU-4E23PBE	4,5 - 11,0	6,35 (1/4) / 9,52 (3/8)	2,64	60	15	30	20
CU-4E27PBE	4,5 - 13,6	6,35 (1/4) / 9,52 (3/8)	3,4	80	15	45	20
CU-5E34PBE	4,5 - 17,5	6,35 (1/4) / 9,52 (3/8)	3,4	80	15	45	20

1) For E24 connected to multi system, The gas piping size is 1/2" (12,7 mm), 2) Connect at indoor side, 3) Connect at outdoor side,

**Indoor Unit Capacities**

Capacity	Split Etherea	Floor Console	Low Static Pressure Hide Away	4 Way 60x60 Cassette
5 - 1,6 kW				
	CS-ME5PKE ¹			
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-E9GFEV	CS-E9PD3EA	CS-E9PB4EA
12 - 3,2 kW				
	CS-XE12QKEW / CS-E12QKEW	CS-E12GFE ¹	CS-E12PD3EA ²	CS-E12PB4EA ²
15 - 4,0 kW				
	CS-E15QKEW ²			
18 - 5,0 kW				
	CS-XE18QKEW ² / CS-E18QKEW ²	CS-E18GFE ¹	CS-ME18PD3EA	CS-ME18PB4EA ²
21 - 6,8 kW				
	CS-E21QKEW ²			
24 - 7,1 kW				
	CS-E24QKEW ²			

¹Only for connection with CU-2E15PBE, CU-2E18PBE, CU-3E18PBE and CU-4E23PBE. 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. ²At least two indoor units must be connected.

INDOOR UNIT	CS-ME5PKE	CS-XE/E7QKEW	CS-XE/E9QKEW	CS-XE/E12QKEW	CS-XE/E15QKEW	CS-XE/E18QKEW	CS-XE/E21QKEW	CS-E24QKEW ¹
Piping size liquid / gas (mm (inch))	6,35(1/4)/9,52(3/8)	6,35(1/4)/9,52(3/8)	6,35(1/4)/9,52(3/8)	6,35(1/4)/9,52(3/8)	6,35(1/4)/12,7(1/2)	6,35(1/4)/12,7(1/2)	6,35(1/4)/12,7(1/2)	6,35(1/4)/15,8(5/8)
Capacity (kW)	1,6	2,2	2,8	3,2	4,0	5,0	6,0	7,0
OUTDOOR UNIT								
CU-2E15PBE	0	0	0	0				
CU-2E18PBE	0	0	0	0				
CU-3E18PBE	0	0	0	0	CZ-MA1P ²	CZ-MA1P ²		
CU-4E23PBE	0	0	0	0	CZ-MA1P ²	CZ-MA1P ²	CZ-MA2P ³	
CU-4E27PBE		0	0	0	CZ-MA1P ²	CZ-MA1P ²	CZ-MA2P ³	CZ-MA2P ³ /CZ-MA3P ²
CU-5E34PBE		0	0	0	CZ-MA1P ²	CZ-MA1P ²	CZ-MA2P ³	CZ-MA2P ³ /CZ-MA3P ²

Indoor Units for Free Multi combinations



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 / 1.376	2,00 / 1.720	2,50 / 2.150	3,20 / 2.750	4,00 / 3.440	5,00 / 4.300	6,00 / 5.160	7,65 / 6.580
Heating capacity	Nominal	kW/kCal/h	2,6 / 2.236	3,20 / 2.750	3,60 / 3.010	4,50 / 3.870	5,60 / 4.820	6,80 / 5.850	8,50 / 7.310	9,60 / 8.260
Connection		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 / 26 / 23	44 / 32 / 26	44 / 32 / 26	46 / 33 / 30	46 / 33 / 30	49 / 38 / 35
	Heating (Hi/Lo/S-Lo)	dB(A)	39 / 29 / 23	40 / 26 / 23	40 / 26 / 23	44 / 32 / 26	44 / 33 / 32	46 / 35 / 32	46 / 35 / 32	48 / 38 / 35
Sound power level	Cooling (Hi)	dB	55	54	56	60	60	62	62	65
	Heating (Hi)	dB	55	56	56	60	60	62	62	64
Dimensions	H x W x D	mm	295 x 870 x 255	290 x 1.070 x 255	290 x 1.070 x 255	290 x 1.070 x 255				
Net weight		kg	9	9	9	9	9	12	12	12
Air purifier filter			Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G	Nanoe-G
Piping connections	Liquid pipe	inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Gas pipe	inch (mm)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)	5/8 (15,88)

* NEW also for the 4x1 and 5x1.



4 Way 60x60 Cassette			2,5 kW	3,2 kW	5,0 kW	6,0 kW
Indoor		CS-E9PB4EA	CS-E12PB4EA	CS-ME18PB4E	CS-ME21PB4E	
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	6,00 / 5.160
Heating capacity	Nominal	kW / kCal/h	3,20 / 2.752	4,5 / 3.870	6,80 / 5.850	8,50 / 7.310
Connection		mm ²	4 x 1,5 to 2,5	4 x 1,5 to 2,5	4 x 1,5	4 x 1,5
Sound pressure level ¹	Cooling (Hi/Lo/S-Lo)	dB(A)	34 / 26 / 23	34 / 26 / 23	36 / 28 / 25	41 / 33 / 30
	Heating (Hi/Lo/S-Lo)	dB(A)	35 / 28 / 25	35 / 28 / 25	37 / 29 / 26	42 / 34 / 31
Sound power level	Cooling (Hi)	dB	50	50	49	54
	Heating (Hi)	dB	51	51	50	55
Dimensions (H x W x D)	Indoor	mm	260 x 575 x 575			
	Panel	mm	51 x 700 x 700			
Net weight	Indoor / Panel	kg	18 / 2,5	18 / 2,5	18 (2,5)	18 (2,5)
Antiallergic filter	Optional	CZ-SA22P	CZ-SA22P	CZ-SA22P	CZ-SA22P	
Piping connections	Liquid pipe	inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Gas pipe	inch (mm)	3/8 (9,52)	1/2 (12,70)	1/2 (12,70)	1/2 (12,70)

Floor Console			2,8 kW	3,2 kW	5,0 kW	Outdoor Multi combination model	Accessory needed
Indoor		CS-E9GF EW	CS-E12GF EW	CS-E18GF EW	CS-E21GF EW	CU-2E15***	Pipe reducer is not needed
Cooling capacity	Nominal	kW/kCal/h	2,80 / 2.410	3,20 / 2.750	5,00 / 4.300	CU-2E18***	
Heating capacity	Nominal	kW/kCal/h	4,00 / 3.440	4,50 / 3.870	6,80 / 5.850	CU-3E18***	
Connection		mm ²	4 x 1,5	4 x 1,5	4 x 1,5	CU-4E23***	
Sound pressure level ¹	Cooling (Hi/Lo/S-Lo)	dB(A)	38 / 27 / 23	39 / 28 / 24	44 / 36 / 32	CU-4E27***	
	Heating (Hi/Lo/S-Lo)	dB(A)	38 / 27 / 23	39 / 27 / 23	46 / 36 / 32	CU-5E34***	
Sound power level	Cooling (Hi)	dB	54	55	60	CU-4E23***	CZ-MA1P
	Heating (Hi)	dB	54	55	62	CU-4E27***	
Dimensions	H x W x D	mm	600 x 700 x 210	600 x 700 x 210	600 x 700 x 210	CS-E18***	
Net weight		kg	14	14	14	CU-5E34***	
Piping connections	Liquid pipe	inch (mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	CS-E21***	CZ-MA2P
	Gas pipe	inch (mm)	3/8 (9,52)	3/8 (9,52)	1/2 (12,70)	CU-4E27***	
					CS-E24***	CU-5E34***	CZ-MA2P and CZ-MA3P

CZ-MA1 Pipe to be used to reduce the connection size on the indoor unit from 1/2" to 3/8".
CZ-MA2 Pipe to be used to increase the connection size on the outdoor unit from 3/8" to 1/2".
CZ-MA3 Pipe 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 unit shows the value measured at position 1 meter 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. Option only for
E9 and E12.



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



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	4,5 to 17,5 kW
CU-2E15PBE		CU-2E18PBE	CU-3E18PBE	CU-4E23PBE	CU-4E27PBE	CU-4E27PBE	CU-5E34PBE
Cooling capacity	Nominal(Min-Max)	kW	4,50 (1,50 - 5,20)	5,20 (1,50 - 5,40)	5,20 (1,80 - 7,30)	6,80 (1,90 - 8,80)	8,00 (3,00 - 9,20)
	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)
SEER	Nominal	W/W	6,50 A++	6,50 A++	7,00 A++	7,00 A++	7,00 A++
Pdesign (cooling)			4,50	5,20	5,20	6,80	8,00
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)
Annualelectricityconsumption(cooling)	KW		242	280	260	340	400
Heating capacity	Nominal(Min-Max)	kWh/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)
	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)
SCOP	Nominal	W/W	4,00 A++				
Pdesign at -10°C		kW	4,00	3,80	4,80	5,50	8,00
Powerinput 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)
Annualelectricityconsumption(heating)	kWh/a		1.400	1.330	1.680	1.925	2.800
Current	Cooling	A	5,75	7,10	5,30	7,50	9,40
	Heating	A	5,20	5,35	6,70	8,80	9,80
Power source	V		230	230	230	230	230
Recommended fuse	A		16	16	16	20	25
Recommended power cable section	mm ²		1,5	1,5	2,5	2,5	3,5
Soundpressurelevel ¹	Cooling/Heating(Hi)	dB(A)	47 / 49	49 / 51	46 / 47	48 / 49	51 / 52
Sound power level	Cooling/Heating(Hi)	dB	62 / 64	64 / 66	60 / 61	62 / 63	67 / 68
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
Net weight		kg	39	39	71	72	80
Piping connections	Liquid pipe	inch(mm)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)	1/4 (6,35)
	Gas pipe	inch(mm)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)
Refrigerant Loading	R410A	kg	1,40	1,40	2,64	2,64	3,4
Elevationdiff.(in/out)	Max	m	10	10	15	15	15
Piping length total	Min / Max	m	3 / 30	3 / 30	3 / 50	60	80
Pipinglengthtooneunit	Min / Max	m	3 / 20	3 / 20	3 / 25	3 / 25	3 / 25
Precharge length		m (Max)	20	20	30	30	45
Additional charge		g/m	15	15	20	20	20
Operating range	Cooling Min/Max	°C	-10 / +46	-10 / +46	-10 / +46	-10 / +46	-10 / +46
	Heating Min/Max	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24

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

Free Multi combinations table

Free Multi 5x1 CU-5E34PBE. Minimum capacity connected: 4,5 kW. Maximum capacity connected: 17,5 kW										
Indoor unit capacity	Cooling capacity (kW)					EER	SEER	Pdesign	Input power rating	Annual consumption
	A	B	C	D	E					
1 Room										
7	2,00					2,00 (1,80-2,90)				3,20
9 ¹	2,50					2,50 (1,80-2,90)				3,60
9 ²	2,80					2,80 (1,80-2,90)				4,00
12	3,20					3,20 (1,80-3,80)				4,50
15	4,00					4,00 (1,80-4,30)				5,60
18	5,00					5,00 (1,90-5,70)				6,80
21	6,00					6,00 (1,90-6,20)				8,50
24	7,00					7,00 (2,00-7,20)				8,70
2 Rooms										
7 + 7	2,00	2,00				4,00 (2,40-5,80)				2,90 2,90
7 + 9 ¹	2,00	2,50				4,50 (2,40-5,80)				2,71 3,39
7 + 9 ²	2,00	2,80				4,80 (2,40-5,80)				2,71 3,79
7 + 12	2,00	3,20				5,20 (2,40-5,80)				2,65 4,25
7 + 15	2,00	4,00				6,00 (2,40-6,70)				2,63 5,27
7 + 18	2,00	5,00				7,00 (2,40-8,10)				2,57 6,43
7 + 21	2,00	6,00				8,00 (2,40-8,60)				2,62 7,88
7 + 24	2,00	7,00				9,00 (2,50-10,00)				2,38 8,32
9 ¹ + 9 ¹	2,50	2,50				5,00 (2,40-5,80)				3,25 3,25
9 ¹ + 9 ²	2,50	2,80				5,30 (2,40-5,80)				3,21 3,59
9 ¹ + 12	2,50	3,20				5,70 (2,40-6,70)				3,20 4,10
9 ¹ + 15	2,50	4,00				6,50 (2,40-7,20)				3,19 5,11
9 ¹ + 18	2,50	5,00				7,50 (2,40-8,60)				3,13 6,27
9 ¹ + 21	2,50	6,00				8,50 (2,50-9,10)				3,21 7,69
9 ¹ + 24	2,50	7,00				9,50 (2,50-10,10)				2,92 8,18
9 ² + 9 ²	2,80	2,80				5,60 (2,40-5,80)				3,60 3,60
9 ² + 12	2,80	3,20				6,00 (2,40-6,70)				3,59 4,11
9 ² + 15	2,80	4,00				6,80 (2,40-7,20)				3,54 5,06
9 ² + 18	2,80	5,00				7,80 (2,40-8,60)				3,48 6,22
9 ² + 21	2,80	6,00				8,80 (2,50-9,10)				3,60 7,70
9 ² + 24	2,80	7,00				9,80 (2,50-10,10)				3,26 8,14
12 + 12	3,20	3,20				6,40 (2,40-7,20)				4,05 4,05
12 + 15	3,20	4,00				7,20 (2,40-8,10)				4,04 5,06
12 + 18	3,20	5,00				8,20 (2,50-9,10)				3,98 6,22
12 + 21	3,20	6,00				9,20 (2,50-10,00)				4,07 7,63
12 + 24	3,14	6,86				10,00 (2,50-10,40)				3,76 8,24
15 + 15	4,00	4,00				8,00 (2,50-8,60)				5,05 5,05
15 + 18	4,00	5,00				9,00 (2,50-10,00)				4,98 6,22
15 + 21	4,00	6,00				10,00 (2,50-10,40)				4,80 7,20
15 + 24	3,64	6,36				10,00 (2,50-10,40)				4,36 7,64
18 + 18	5,00	5,00				10,00 (2,50-10,40)				6,00 6,00
18 + 21	4,55	5,45				10,00 (2,50-10,40)				5,45 6,55
18 + 24	4,17	5,83				10,00 (2,50-10,40)				5,00 7,00
21 + 21	5,00	5,00				10,00 (2,50-10,40)				6,00 6,00
21 + 24	4,62	5,38				10,00 (2,50-10,40)				5,54 6,46
24 + 24	5,00	5,00				10,00 (2,50-10,40)				6,00 6,00
										12,00 (2,00-13,80)

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