

PANASONIC NEWS

NEW 2013

New Panasonic heating and cooling ranges more efficient, more green!



Panasonic proves it!

In all line ups, Panasonic have an efficient answer and the best seasonal efficiency! Not only are our products efficient but also:

- great for planning with the new VRD designer with Autocad reader
- great for installation with easy access to all parameters from central command
- great for communicating with BMS with a large range of interfaces
- great for maintenance with remote access capabilities

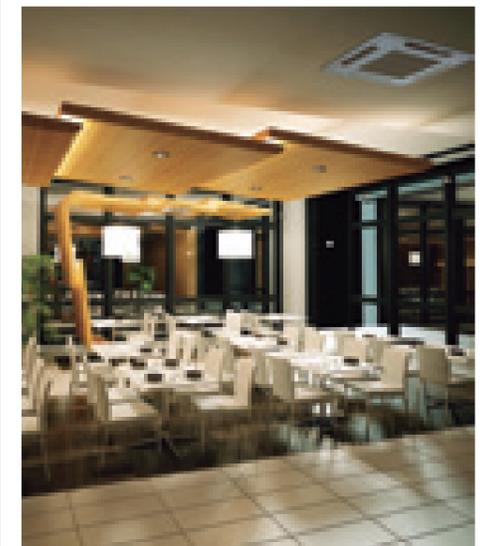
And helping you to control and reduce the CO₂ emissions of your building.

New ECOi excellent energy saving 3-Pipe

The best efficiency on the market. Achieving a COP of **4.77** at full load, there is no doubt Panasonic is reducing environmental impact! PAGE 16



NEW PACi Elite and Standard 2 line ups, but always providing the best seasonal efficiency in this category. PAGE 12



NEW Heatcharge air conditioning

Heating power and efficiency even at -25°C

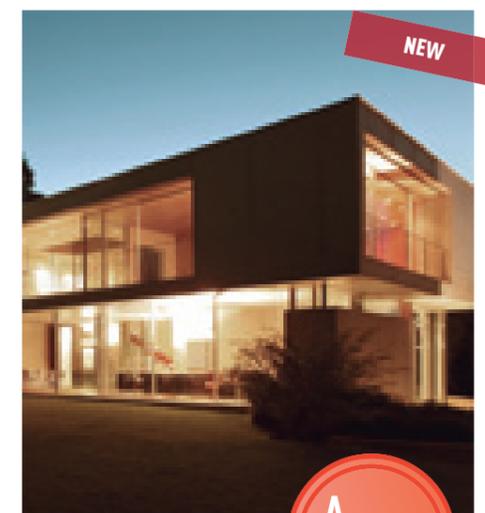
Panasonic innovation takes air conditioning heating to a new level. With the development of revolutionary heatcharge technology, heat that was previously released into the atmosphere is now stored and used for heating. PAGE 8



NEW ECO G High Power

1% this is what the new ECO G High Power is consuming versus your Electrical VRF. Start saving now!

Ideal for locations with low electricity grid, for Chiller, Ventilation and Air conditioning application. PAGE 18



NEW Aquarea Heat Pump with A class pump

The best option for low consumption houses and for retrofit!. PAGE 4



Panasonic global vision

The Panasonic Group strives to be a green innovation company with a global perspective. Its aim is to be the leading green company in the electronics sector by 2018 - the year that Panasonic celebrates its centenary.

HEATING & COOLING

Panasonic Home Appliances is the European leader in heating and cooling solutions for the home. When it comes to market share, Panasonic is the No. 1 company for home solutions in Europe, the No. 1 company for domestic cooling & heating solutions in Spain, and the No. 1 company for heating systems in the Nordic countries.

Panasonic invests significantly in Research & Development, with a strong network of design, manufacturing and training centres throughout Europe. As part of Panasonic's continued programme of growth, a new R&D facility is open in Langen, Germany. The centre is focused on developing products to meet the needs of European customers, as well as European legislation.

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.

The company is also a world leader in innovation as it has filed more than 91539 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 air conditioning solutions of turnkey 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.

ECO IDEAS FOR LIFESTYLES

Panasonic is making the environment central to all of its business activities. It will become the No 1 green innovation company in the electronics sector through its eco ideas initiative: eco ideas for lifestyles to change people's lives and eco ideas for business to bring forth green innovation in Panasonic's own global business operations. Panasonic always strives to offer better living, with a sense of joy, security and comfort, as well as with virtually zero CO₂ emissions in the entire house or building.

ECO IDEAS FOR BUSINESS

Panasonic will create and pursue a business-style which makes the best use of resources and energy. As well as making eco-conscious products and delivering them to customers, Panasonic aims to reduce waste of energy and resources during the manufacturing process. As well as tackling its own business, Panasonic will take a leading role for sharing and working on environmental challenges in entire societies.



"ECO IDEAS" FOR LIFESTYLES: WE WILL PROMOTE LIFESTYLES WITH VIRTUALLY ZERO CO₂ EMISSIONS THROUGHOUT THE WORLD. SPECIFICALLY:

- 30% of total sales will be achieved through "eco labeled" products. This includes both external labels such as EU eco flower, Blue Angel or Nordic Swan, and our internal "eco ideas" label, which is given to products which achieve industry-leading environmental performance.¹⁾
- 3,500,000t of contribution in reducing CO₂ emissions with energy solution products (such as Solar Panels, Fuel Cells, Heat Pumps, Energy Recovering Ventilation, LED and Energy Saving Lamps).²⁾
- Educate 100,000 children on eco related topics through the 'kids school - eco learning' programme.

"ECO IDEAS" FOR BUSINESS-STYLES: WE WILL CREATE AND PURSUE BUSINESS-STYLES THAT MAKE THE BEST USE OF RESOURCES AND ENERGY:

- 99% of waste materials generated in European production will be recycled³⁾, meaning less than 1% will be allowed to go to landfill.
- 1,000t of reduction in CO₂ emissions from Panasonic's offices across Europe.⁴⁾
- 7,000t of contribution in reducing CO₂ emissions from production activities.⁵⁾

1) Products awarded the 'eco ideas' label include those whose environmental performance is greater than the industry's No.2 model by 10% or more at the time of release, and those which achieve the highest rank in the market by external environmental labels in accordance to environmental performance.

2) An amount of CO₂ reduction compared to the estimated figure assuming no improvement. Measures were taken after March 31, 2006.

3) Includes all Panasonic Group's European factories with the exception of IPS-Alpha and Panasonic.

4) Based on offices with 100 employees or more; based on FY 2009.

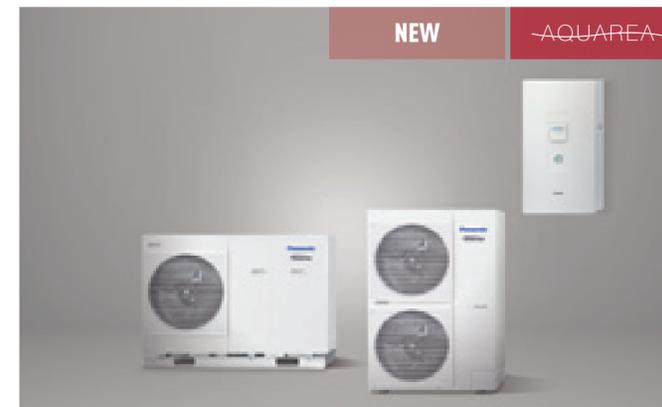
5) An amount of CO₂ reduction compared to the estimated figure assuming no improvement. Measures were taken after March 31, 2006.

Panasonic air conditioning products you can trust

The desire to advance has made Panasonic the international leader in air conditioning. Our industrial capabilities and firm commitment to the environment enable us to open new avenues of research and to develop innovative technologies which can enhance today's way of life.

The domestic range, commercial range and VRF industrial range, together with the new Aquarea system, are adaptable to the construction needs and environmental demands 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.



NEW

AQUAREA

Page 4



NEW

heatcharge

Page 8



NEW

PACi

Page 12



NEW

VRF SYSTEMS

Page 16

NEW

AQUAREA

Aquarea's new air-to-water heat pump for residential applications

From 3 kW to 16 kW. The biggest line-up on the market to meet all your demands! Cost-effective and environmentally friendly.



PANASONIC'S NEW AQUAREA AIR TO WATER SYSTEM PROVIDES MAXIMUM EFFICIENCY AND CAPACITY EVEN AT -20 °C

Panasonic's new Aquarea system, based on high-efficiency heat pump technology, not only heats your home and hot water, but also cools your home in summer with incredible operating performance. This creates perfect comfort whatever the weather conditions, even with outside temperatures as low as -20°C.

The Aquarea range of heat pumps is designed to satisfy the new demand for low consumption housing, with high efficiency and low running costs.

ENERGY SAVING

High efficiency heating
INVERTER+ SYSTEM

The A Inverter+ system provides energy savings of up to 30% compared to non inverter models. Both you, and nature, wins!

Environmentally friendly refrigerant
R410A

REFRIGERANT R410A / R410A / R410C offers optimal performance and involves no environmental cost since it does not harm the ozone layer.

Down to -20 °C in heating mode
OUTDOOR TEMPERATURE

UP TO -20°C IN HEATING MODE: The air conditioner works in heat pump mode with an outdoor temperature as low as -20°C.

HIGH CONNECTIVITY

Boiler connection
RETROFIT

RENOVATION: Our Aquarea heat pumps can be connected to an existing or new boiler for optimum comfort even at very low outdoor temperatures.

Solar panels connection
SOLAR KIT

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

Domestic hot water
DHW

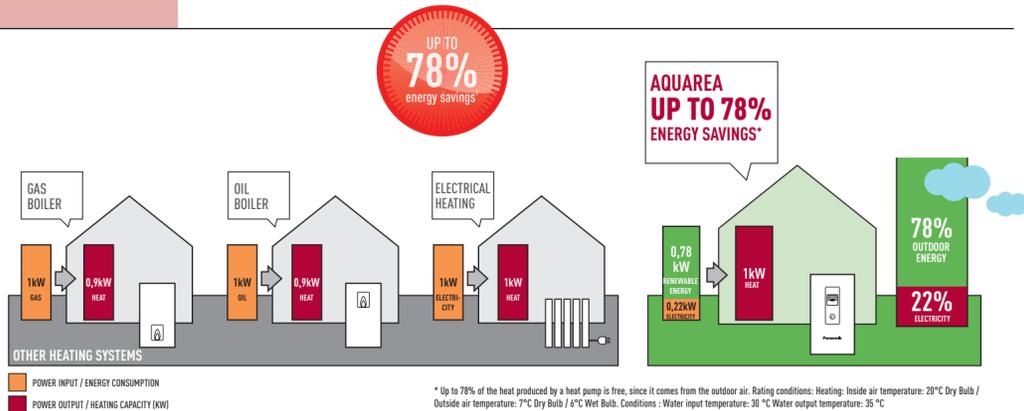
DHW: With Aquarea you can also heat your domestic hot water at a very low cost with the optional hot water cylinder.

5 year compressor warranty

5 YEARS WARRANTY: We guarantee the compressors in the entire range for five years.

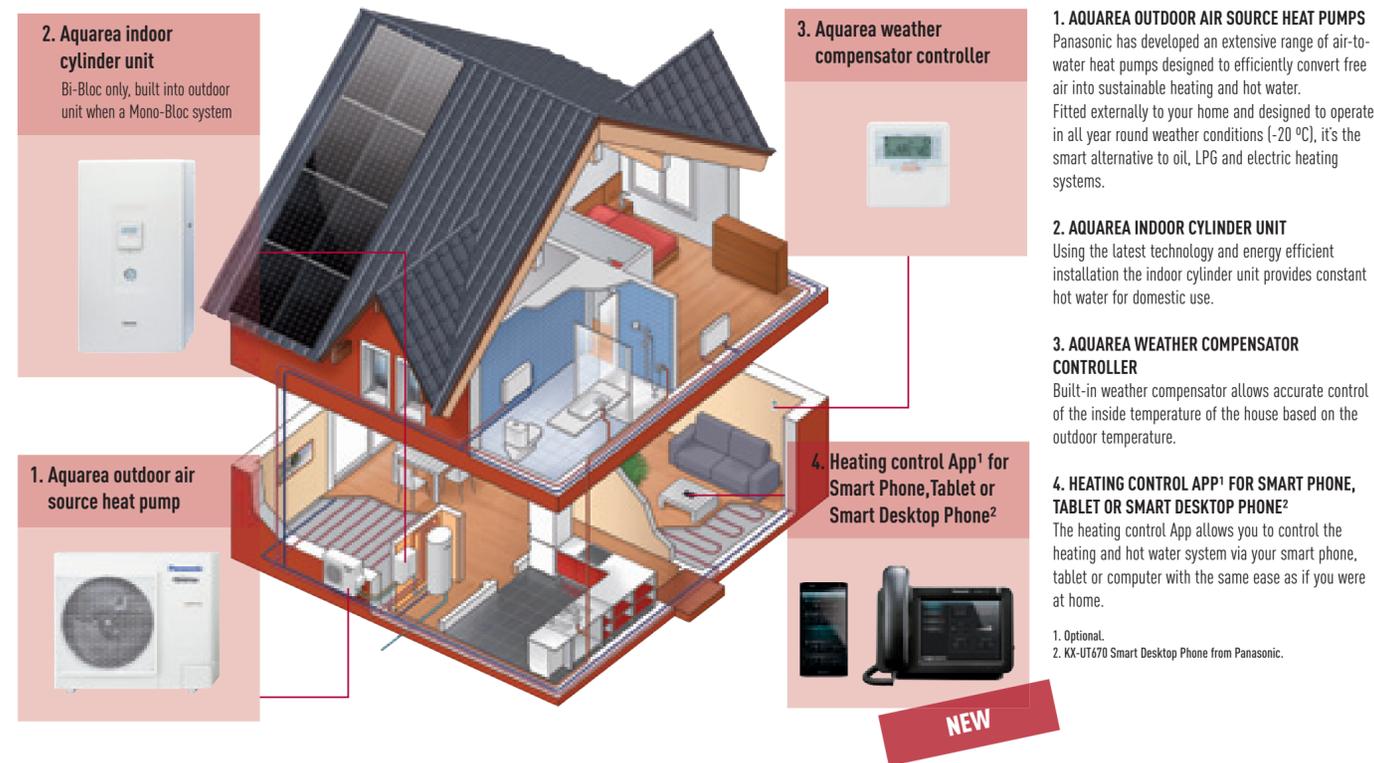
UP TO 78% ENERGY SAVINGS*

Panasonic's Aquarea heat pump provides savings of up to 78% on heating expenses compared with electrical heaters. For example, the Aquarea 9kW system has a COP of 4.74. This is 3,74kW more than a conventional electrical heating system which has a maximum COP of 1. This is equivalent to a 78% saving. Consumption can be further reduced by connecting photovoltaic solar panels to the Aquarea system.



"Green" high-efficient heating with Panasonic's new air-to-water heat pump systems

At the forefront of energy innovation, Aquarea is resolutely positioned as a "green" heating and air-conditioning system.



New solutions Aquarea increase line-up!

- New 3 and 5 KW Bi-bloc for low energy homes
- New 6 and 9 KW Mono-bloc Heat Pumps for low energy homes
- New line-up of high temperature Heat Pumps (output water temperature of 65°C)

5.00 COP
high efficiency

AQUAREA HIGH PERFORMANCE

A class pump

AQUAREA HIGH PERFORMANCE FOR LOW CONSUMPTION HOUSES. FROM 3 TO 16 KW
For a house with low temperature radiators or under-floor heating, our high performance Aquarea HP is a good solution. This solution can work as a stand-alone unit or can be combined with an existing gas- or oil-fired heating system depending on requirements. This new solution is ideal for low consumption homes.

100% capacity
at -20 °C

AQUAREA T-CAP

A class pump

AQUAREA T-CAP. FROM 9 TO 12 KW
If the most important aspect is to maintain nominal heating capacities even at temperatures as low as -7 °C or -20 °C, select the Aquarea T-CAP. This ensures that there is always enough capacity to heat the house without help from an external boiler – even at extremely low temperatures. Aquarea T-CAP always has high efficiency and high heating capacity even at extremely low temperatures. With Aquarea T-CAP, you can always enjoy high savings.

Output water 65 °C

HIGH TEMP HEAT PUMP

AQUAREA HT. FROM 9 TO 12 KW
For a house with traditional high-temperature radiators (such as cast iron radiators), the Aquarea HT Solution is the most appropriate as the Aquarea HT provides output water temperatures of 65 °C even at -20 °C. Aquarea HT is able to deliver hot water to 65 °C with the Heat Pump alone.



Heat pump + Photovoltaic solar panels: the best solution for high savings

Panasonic Aquarea heat pumps can be easily integrated into a system with photovoltaic solar panels in order to make maximum of savings and to reduce CO₂ emissions.



HT Photovoltaic solar panel from Panasonic

NEW

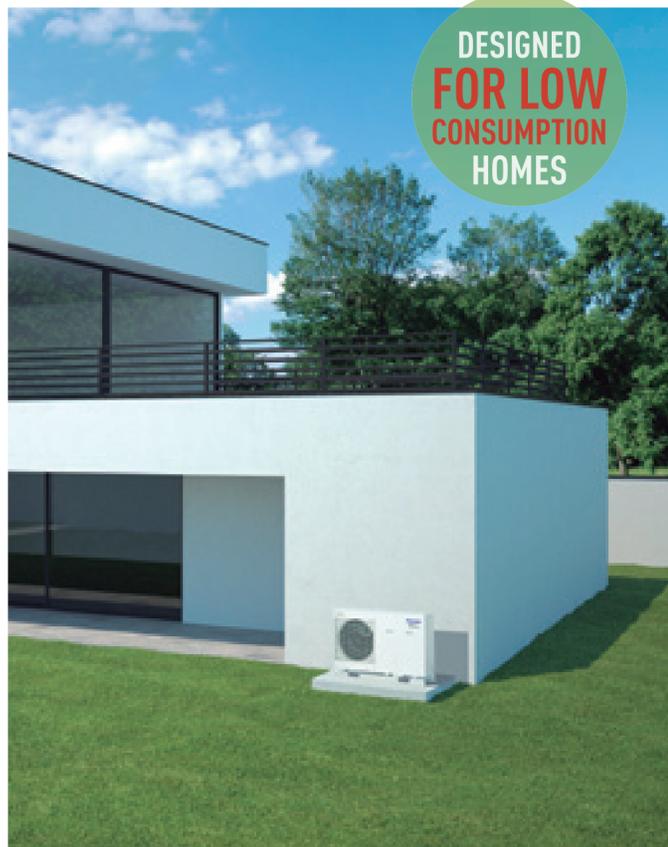
AQUAREA

New Aquarea 3 and 5 kW Bi-bloc and 6 and 9 kW Mono-bloc air to water heat pump

Panasonic has designed the new Aquarea Bi-bloc and Mono-bloc heat pumps for homes which have high performance requirements.

Whatever the weather, Aquarea will always give you maximum efficiency, even at -20°C! The New Aquarea is easy to install on new or existing installations, in all types of properties.

DESIGNED FOR LOW CONSUMPTION HOMES



Maximum savings, Maximum efficiency, Minimum CO₂ emissions, Minimum of space

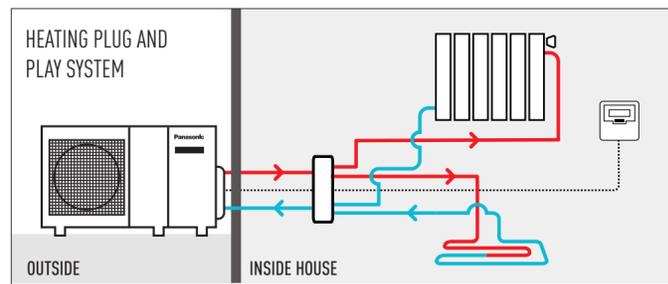
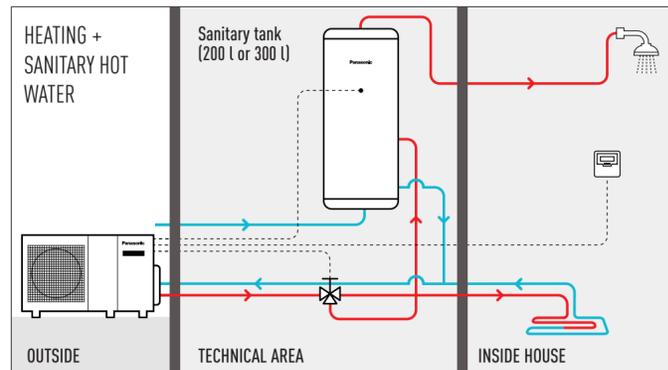
TECHNICAL BENEFITS

- A class pump
- Plug and play heating system
- No indoor box needed (for 6 and 9 kW Monobloc)
- Extremely compact system
- 3 kW heater included
- High efficiency even at -20°C

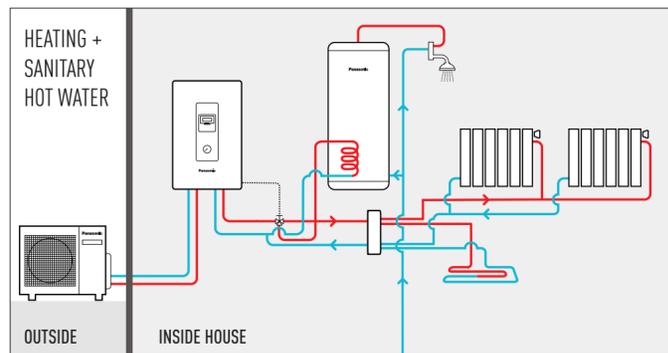
TECHNICAL ELEMENTS

- Mono-bloc unit includes:
 - Heat exchanger
 - 3 speed hot water circulator
 - 6-litre vessel
 - Safety valve
 - Pressure gauge
 - 3 kW electrical heater

MONO-BLOC APPLICATION

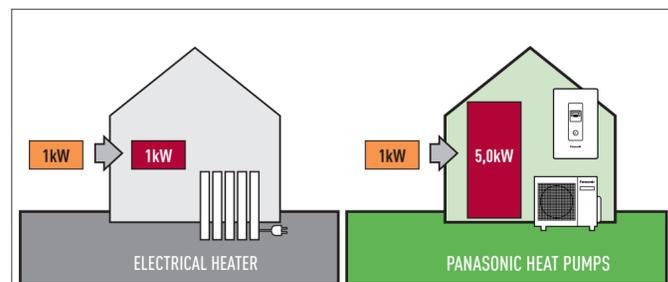


BI-BLOC APPLICATION



COP COMPARISON (3KW BI-BLOC)

(ELECTRICAL HEATER VERSUS PANASONIC HEAT PUMPS)



POWER INPUT / ENERGY CONSUMPTION (orange box)
POWER OUTPUT / HEATING CAPACITY (KW) (red box)

* The comparison is made on nominal manufacturer values based on the following conditions. Rating conditions: Heating: Inside air temperature: 20°C Dry Bulb / Outside air temperature: 7°C Dry Bulb / 6°C Wet Bulb. Conditions: Water input temperature: 30 °C. Water output temperature: 35 °C

* Conditions: Water input temperature: 30 °C. Water output temperature: 35 °C; outside temperature: -7°C. Mini mono bloc is perfect where space is limited ie balcony.



New Heat Pump Manager

A new generation of smart controllers for eco-efficient heating

Versatile stand-alone controller for heating and domestic hot water.

Buid in functionalities:

- Control function for heating circuits (pump+ 3-way valve)
- Control function for secondary pump
- Floor screed dry program
- Cascade/bivalent controller
- Automatic switch from heat to cool mode - by outdoor temp.
- Night shift
- DHW priority
- Web-control
- Photo-voltaic contact

External display and control units



Easy mounting

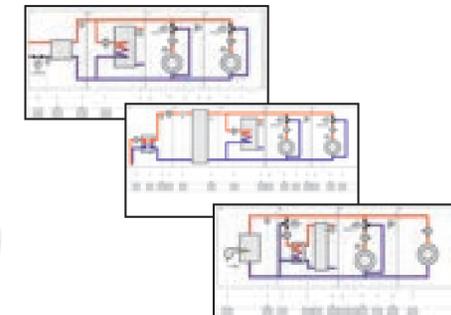
Ready steady go

- Starts up within 3 minutes with pre-programmed system applications.
- Ready: Pre-programmed with up to 280 application/system diagrams.
- Steady: At start up - state the number of application/system diagram.
- Go! The controller is already configured according to the system diagram.

Easy mounting

Simple mounting without screws in the cabinet/door or on DIN-rail. Also possible to mount directly on to the wall.

Comes with a comprehensive library of heating programs



AQUAREA LINE-UP!

LINE UP				3 kW	5 kW	6 kW	7 kW	9 kW	12 kW	14 kW	16 kW		
AQUAREA HIGH PERFORMANCE FOR LOW CONSUMPTION HOUSES	Bi-Bloc	Single phase	Heating only	WH-SDF03E3ES (F1) WH-UD03EES	WH-SDF05E3ES (F1) WH-UD05EES		WH-SDF07C3ES WH-UD07CE5-A (F2)	WH-SDF09C3ES WH-UD09CE5-A (F2)	WH-SDF12C6E5 WH-UD12CE5-A (F3)	WH-SDF14C6E5 WH-UD14CE5-A (F3)	WH-SDF16C6E5 WH-UD16CE5-A (F3)		
			Heating and cooling	WH-SDC03E3ES (F1) WH-UD03EES	WH-SDC05E3ES (F1) WH-UD05EES		WH-SDC07C3ES WH-UD07CE5-A (F2)	WH-SDC09C3ES WH-UD09CE5-A (F2)	WH-SDC12C6E5 WH-UD12CE5-A (F3)	WH-SDC14C6E5 WH-UD14CE5-A (F3)	WH-SDC16C6E5 WH-UD16CE5-A (F3)		
		Three phase	Heating only										
			Heating and cooling										
		Mono-Bloc	Single phase	Heating only			WH-MDF06D3E5 (F5)			WH-MDF09C3ES (F4) WH-MDF09D3ES (F5)	WH-MDF12C6E5 (F4)	WH-MDF14C6E5 (F4)	WH-MDF16C6E5 (F4)
				Heating and cooling			WH-MDC06E3E5 (F5)			WH-MDC09C3ES (F4) WH-MDC09E3ES (F5)	WH-MDC12C6E5 (F4)	WH-MDC14C6E5 (F4)	WH-MDC16C6E5 (F4)
	Three phase	Heating only											
		Heating and cooling											
	AQUAREA T-CAP	Bi-Bloc	Single phase	Heating only					WH-SXF09D3ES WH-UX09DES (F2)	WH-SXF12D6E5 WH-UX12DES (F3)			
				Heating and cooling					WH-SXC09D3ES WH-UX09DES (F2)	WH-SXC12D6E5 WH-UX12DES (F3)			
			Three phase	Heating only					WH-SXF09D3ES WH-UX09DES (F3)	WH-SXF12D9E8 WH-UX12DES (F3)			
		Mono-Bloc	Single phase	Heating only						WH-SXC12D9E8 WH-UX12DES (F3)			
Heating and cooling									WH-MXF09D3ES (F4) WH-MXC09D3ES (F4)	WH-MXF12D6E5 (F4) WH-MXC12D6E5 (F4)			
Three phase			Heating only						WH-MXF09D3ES (F4) WH-MXC09D3ES (F4)	WH-MXF12D9E8 (F4) WH-MXC12D9E8 (F4)w			
Three phase	Heating and cooling												
AQUAREA HT FOR RETROFIT	Bi-Bloc	Single phase	Heating only					WH-SHF09D3ES WH-UH09DES (F3)	WH-SHF12D6E5 WH-UH12DES (F3)				
			Heating and cooling					WH-SXC09D3ES WH-UH09DES (F3)	WH-SHF12D9E8 WH-UH12DES (F3)				
		Three phase	Heating only										
	Mono-Bloc	Single phase	Heating only						WH-MHF09D3ES (F4) WH-MHF12D9E8 (F4)				
			Heating and cooling						WH-MHF09D3ES (F4) WH-MHF12D9E8 (F4)				
		Three phase	Heating only										

Low connectivity: control of 3 way valve, tank heater On/Off signal, tank thermostat signal reception, On/Off from external control, weekly timer. High connectivity: Low connectivity + solar panels connection, room thermostat connection. 1 Available in November 2012.

TANKS

Panasonic has developed a new efficient tank to ensure you have the maximum savings and a minimum time to heat the water. With Panasonic, you get more savings and more comfort.



TANKS	Model	Standard Sanitary		High Efficiency		Super High Efficiency	
		WH-TD20E3ES	WH-TD30E3ES-1	HR 200 ¹	HR 300 ¹	HRS 300 ¹	HRS 500 ¹
Water volume	L	200	300	200	300	300	500
Max. water temperature	°C	85	85	95	95	95	95
Dimension	Height / Diameter	mm	1,230 / 580	1,700 / 580	1,340 / 600	1,797 / 600	1,435 / 680
Weight	Kg	45	59	108	140	170	254
Electric heater	kW	3	3	3	3	3	3
Power supply	V	230	230	230	230	230	230
Material inside tank		Inox	Inox	Enamelled	Enamelled	Enamelled	Enamelled
Exchange surface	m ²		1.8	1.80	2.40	3.50	6.00
Energy loss at 65 °C (insulated tested under EN12897)	kWh/24h	1.7	2.0	1.8	2.2	2.2	2.7
3 Way valve included		Yes	Yes	YES	YES	YES	YES

1. Panasonic's term of warranty is based on the warranty conditions provided by the tank supplier being met. Please ensure the maintenance programme is carried out as instructed in the tank manufacturer's manual.

NEW

heatcharge

Panasonic develops a 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.

NEW

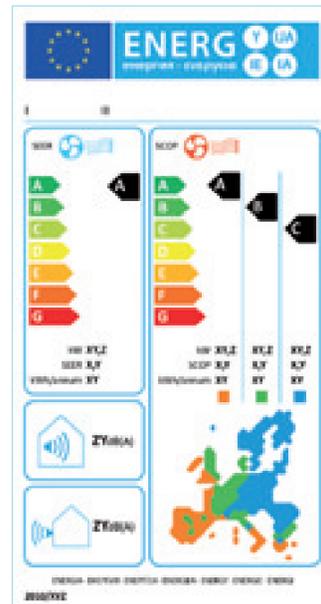


BEST NEW ERP LABELLING

EU Member States have set themselves individual measures to achieve these targets, but new legislation has also been introduced that applies to countries across the region. One of these, the Energy Related Products Directive (ErP) has significant implications for the Heat Pump industry. Coming into effect on 1 January 2013, the new directive lays out some new minimum energy-efficiency requirements for air-conditioning systems and products. These measures are great news for the consumer who will get even more value for every euro spent on new Panasonic energy efficiency products!

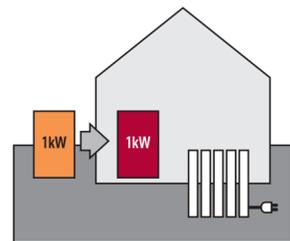
ECONOMICAL, ENVIRONMENT-FRIENDLY OPERATION HIGH COP (COEFFICIENT OF PERFORMANCE)

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.



POWERFUL, RELIABLE HEATING EVEN AT LOW AMBIENT WINTER TEMPERATURES

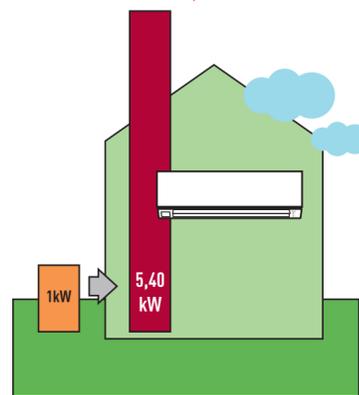
When the air conditioner is operating, the compressor, which is the power source of the unit, generates heat. Until now, this heat was released into the atmosphere. Panasonic focused on this waste heat! Heatcharge is a unique, innovative Panasonic technology that stores this waste heat in the compressor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



* SCOP On heating mode for VEP-NKE compared with electrical heaters.

SEASONAL EFFICIENCY

PRODUCT FOLLOWS THE NEW ECODESIGN REQUIREMENTS



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

NEW



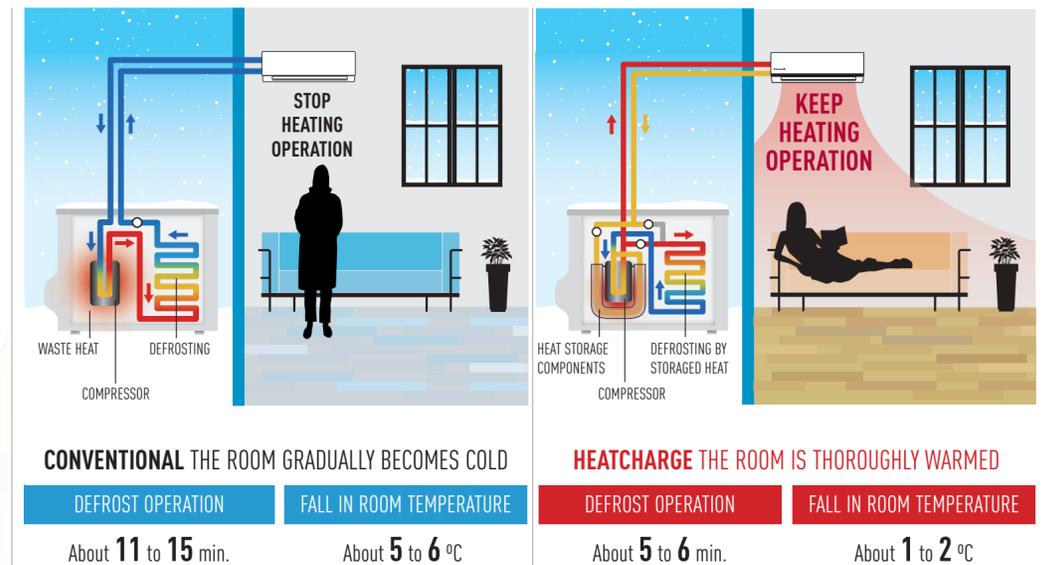
Constant heating

HEATCHARGE

heatcharge

CONSTANT HEATING

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



CONVENTIONAL THE ROOM GRADUALLY BECOMES COLD

DEFROST OPERATION FALL IN ROOM TEMPERATURE

About 11 to 15 min.

About 5 to 6 °C

HEATCHARGE THE ROOM IS THOROUGHLY WARMED

DEFROST OPERATION FALL IN ROOM TEMPERATURE

About 5 to 6 min.

About 1 to 2 °C

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)

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

NEW

Sunlight detection

ECONAVI detects changes in sunlight intensity in the room and judges whether it is sunny or cloudy/night and reduces energy consumption by adjusting cooling requirements under less sunny conditions. ECONAVI automatically adjusts cooling power to save energy efficiently, whilst still providing uninterrupted cooling comfort and convenience.

INTELLIGENT ECO SENSORS
ECONAVI



NEW SUNLIGHT DETECTION (ON HEATING MODE)

ECONAVI detects changes in sunlight intensity in the room and judges whether it is sunny or cloudy/night. It reduces the waste of heating under more sunlight conditions. When weather changes from cloudy/night to sunny, ECONAVI detects more sunlight intensity and determines less heating power is required.



CLOUDY
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.

NEW SUNLIGHT DETECTION (ON COOLING MODE)

ECONAVI detects changes in sunlight intensity in the room and judges whether it is sunny or cloudy/night. It reduces waste energy by reducing cooling under less sunny conditions. When weather changes from sunny to cloudy/night, ECONAVI detects less sunlight intensity and determines less cooling power is required.



SUNNY
ECONAVI is switched on when it is Sunny.

DETECT
ECONAVI detects less cooling power is required.

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

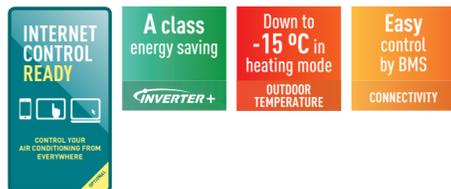
New Free Multi Range: up to 5 indoor units with a single outdoor unit

From 1.6 to 7.1 kW indoor units capacity.

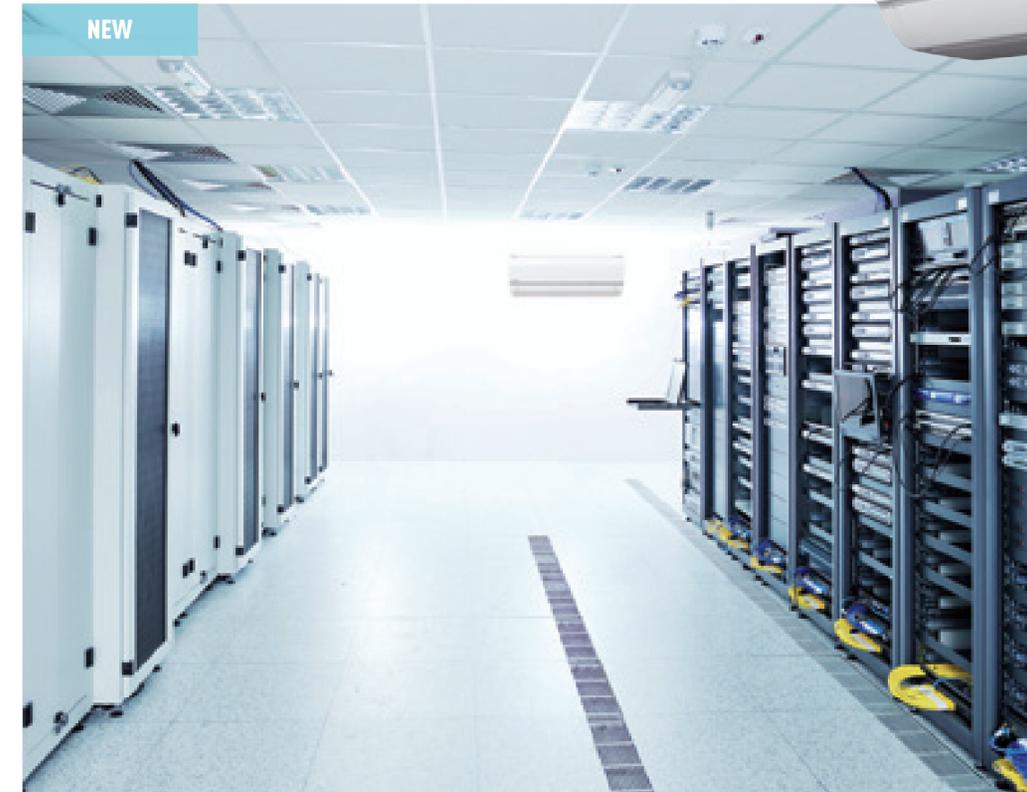
Panasonic has developed a new wall mounted indoor unit for multi applications*.

This new 1.6kW wall mounted indoor units is suitable for small rooms or well insulated places, in domestic houses or office buildings.

*(Compatible with the outdoor units: CU-2E15PBE, CU-2E18PDBE, CU-3E18PBE, CU-4E23PBE)



24 hours a day, 7 days a week! PKEA never stops!



Down to
-15 °C in
cooling mode
OUTDOOR
TEMPERATURE

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.

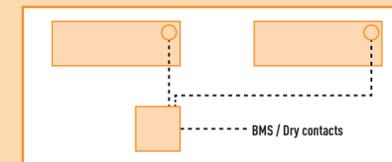
Wall Mounted Professional Inverter -15 °C

Protect your computer rooms

Especially designed for professional applications such as computer rooms.

- Highly efficient even at -15 °C
- Easy control from your BMS (with Modbus / KNX / EnOcean)*
- Automatic email in case of failure*
- Backup management*

* additional optional interfaces are needed



Professional Inverter

Complete line-up with High Efficiency

4 capacities available: from 2.8 to 6.6 kW with PKEA and PACi



Outdoor

- Annual cooling from as low as ambient -15 °C
- Electronic expansion valve (accurate sub-cooling and adjustable refrigerant flow)
- Crank case heater (prevent compressor oil hardened during standby at low ambient)
- Outdoor DC fan motor to provide flexible air-flow to ensure optimum condensation pressure (work on outdoor pipe temp sensor)



Indoor

- Additional pipe sensor to better detect low evaporation and prevent ice building up during low ambient cooling

NEW

PACi

PACi Newly designed!

Panasonic has developed an impressive range of highly efficient Commercial Air Conditioners. This range confirms our commitment to the environment. Our Inverter compressors optimise performance and thus reduce energy costs.



A class energy saving

INVERTER+

New PACi Elite and PACi Standard: 2 lines up to cover all your projects

Energy saving concept. The use of an energy-saving design for the construction of fans, fan motors, compressors and heat exchangers, has resulted in a high COP value, which ranks as on of the best in class in the industry. In addition, use of highly efficient R410A refrigerant reduces CO₂ emission and lowers operating costs.

SEASONAL EFFICIENCY (SCOP)

PRODUCT FOLLOWS THE NEW ECODSIGN REQUIREMENTS



New PACi Standard

- More compact
- High efficiency: A+ / A
- Operating range: -5 / 43°C in cooling and -15 / 24°C in heating
- Piping length: 50 m.
- Noise level: 55 dB(A) for the 10 kW
- Dimensions: 996 x 940 x 340 mm (H x W x D) for the 10 and 12,5 kW
- Use all indoor units of PACi Elite and ECOi
- Possible to do Twin connection

-15% SMALLER



NEW
ON THE 12,5KW
(996X940X340)

CURRENT MODEL
(1170X900X320)



	10 kW OUTDOOR	12.5 kW OUTDOOR
5 kW INDOOR	● ●	
6 kW INDOOR		● ●

Possible to do Twin connection

NEW PACi ELITE AND STANDARD 2 LINE UPS, BUT ALWAYS ON THE BEST SEASONAL EFFICIENCY OF HIS CATEGORY!

NEW

RANGE OF INDOOR UNITS PACi	3.6 kW	4.6 kW	5.0 kW	6.0 kW	7.1 kW	10.0 kW	12.5 kW	14.0 kW	20.0 kW	25.0 kW
WALL	S-36PK1E5	S-45PK1E5	S-50PK1E5	S-60PK1E5	S-71PK1E5					
4 WAY 60x60 CASSETTE	S-36PY1E5	S-45PY1E5	S-50PY1E5							
4 WAY 90x90 CASSETTE	S-36PU1E5	S-45PU1E5	S-50PU1E5	S-60PU1E5	S-71PU1E5	S-100PU1E5	S-125PU1E5	S-140PU1E5		
LOW STATIC PRESSURE HIDE AWAY	S-36PN1E5	S-45PN1E5	S-50PN1E5	S-60PN1E5	S-71PN1E5	S-100PN1E5	S-125PN1E5	S-140PN1E5		
HIDE AWAY HIGH STRATIC PRESSURE	S-36PF1E5	S-45PF1E5	S-50PF1E5	S-60PF1E5	S-71PF1E5	S-100PF1E5	S-125PF1E5	S-140PF1E5		
CEILING	S-36PT1E5	S-45PT1E5	S-50PT1E5	S-60PT1E5	S-71PT1E5	S-100PT1E5	S-125PT1E5	S-140PT1E5		
HIGH STATIC PRESSURE HIDE AWAY 8-10 HP									S-200PE1E8	S-250PE1E8

RANGE OF OUTDOOR UNITS PACi ELITE	3.6 kW	4.6 kW	5.0 kW	6.0 kW	7.1 kW	10.0 kW	12.5 kW	14.0 kW	20.0 kW	25.0 kW	
SINGLE-PHASE				U-50PE1E5	U-60PE1E5	U-71PE1E5	U-100PE1E5	U-125PE1E5	U-140PE1E5	U-200PE1E8	U-250PE1E8
THREE-PHASE						U-71PE1E8	U-100PE1E8	U-125PE1E8	U-140PE1E8		

RANGE OF OUTDOOR UNITS PACi STANDARD	3.6 kW	4.6 kW	5.0 kW	6.0 kW	7.1 kW	10.0 kW	12.5 kW
SINGLE-PHASE				U-60PE1E5	U-71PE1E5	U-100PE1E5	U-125PE1E5
THREE-PHASE					U-71PE1E8	U-100PE1E8	U-125PE1E8

NEW

PACi

Air handling unit kit 5-28 kW for PACi

New AHU kit connects PACi outdoor units TO Air Handling Units system.

NEW



Panasonic's AHU kit provides impressive connectivity options in order to ensure easy integration. They can be installed in hotels, offices, server rooms or all large buildings where air quality control such as humidity control and fresh air and is needed.

Optional parts: Following functions are available by using different type of control accessories:

CZ-RTC2 Wired remote controller

- Operation-ON/OFF
- Mode select
- Temperature setting

* Fan operation signal can be taken from the PCB.

CZ-T10 terminal

- Input signal= Operation ON/OFF
- Remote controller prohibition
- Output signal= Operating-ON status
- Alarm output (by DC12 V)

PAW-OCT, DC12 V outlet. OPTION terminal

- Output signal= Cooling/Heating/Fan status
- Defrost
- Thermostat-ON

CZ-CAPBC2 Mini seri-para I/O unit

- Temperature setting by 0-10 V or 0-140 Ω input signal
- Room (inlet air) temp outlet by 4-20 mA
- Mode select or/and ON/OFF control
- Fan operation control
- Operation status output/ Alarm output

COMBINATION TABLE FOR PACi SINGLE OUTDOOR UNIT

Combination shown in below table is available for PACi single system

Power	Size	Outdoor unit	AHU kit
Single phase	4 HP / 10 kW	U-100PE1E5	CZ-280PAH1 (Common use for all outdoor units. Only 1 by 1 connection is allowed.)
	5 HP / 12.5 kW	U-125PE1E5	
	6 HP / 14 kW	U-140PE1E5	
Three phase	4 HP / 10 kW	U-100PE1E8	
	5 HP / 12.5 kW	U-125PE1E8	
	6 HP / 14 kW	U-140PE1E8	
	8 HP / 25 kW	U-200PE1E8	
	10 HP / 20 kW	U-250PE1E8	

* Additional notice/instruction for system design, installation work will be defined for PAC-i connection.

AHU CONNECTION KIT

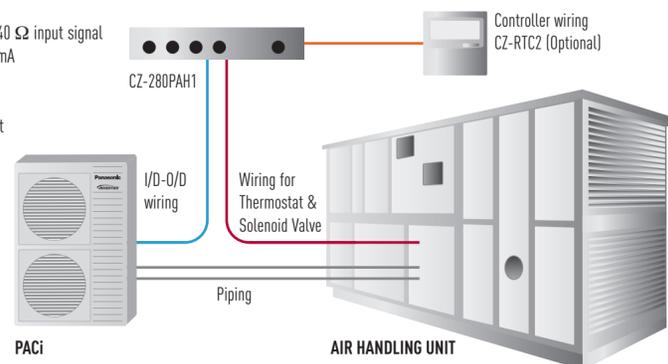


REMOTE CONTROLLER



Panasonic AHU Kit, 5-28 kW connected to PACi outdoor unit

PCB, Transformer, Thermostat x 4 pcs, Terminal Base and Electrical Component Box.



Control your heat pump and air conditioning (Aquarea, Heatcharge, Etherea, PACi and ECOi) from wherever you are at home or at the office



eco ideas

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.

MAIN FEATURES*

Internet Control offers the functionality of a remote controller adding a wide range of advanced functionality:

- ON/OFF. Switch the air conditioner or heat pump ON or OFF.
- Temperatures: control the desired temperature and (measured and set)
- Mode. Select among different operation modes, like HEAT, COOL, DRY, AUTO...
- Calendar scheduler. Set the hour/date information to switch your preferences ON and OFF accordingly.
- Centralized functions. Control several air conditioning units simultaneously.
- Error Alerts and notifications. Maintenance, malfunction, connectivity errors, etc.
- Advanced user defined control functions
- Multiple users for each device. One only license enables many users to access Internet Control system at home or office. Multiple languages. Application interface available in English, German French, Italian, Spanish, Norwegian, Swedish, Danish, Dutch and Polish. More to come!
- ECO and energy saving advices
- Closest Official Technical support location

* Service in the cloud. This is a service provided online and accessible from anywhere via internet.

NEW



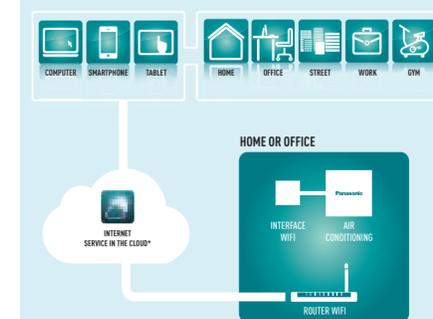
KX-UT670 Smart Desktop Phone from Panasonic.

Control your comfort and efficiency with the lowest energy consumption

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.

TAKE CONTROL FROM WHEREVER YOU ARE!



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 to be connected and placed close to the air conditioning indoor unit is needed... 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 let 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.



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

NEW

ECO G

PANASONIC INTRODUCING THE GAS DRIVEN VRF WITH ELECTRIC GENERATOR



- INTERNET CONTROL READY
CONTROL YOUR AIR CONDITIONING FROM ANYWHERE
- High savings
ECO G
- Environmentally friendly refrigerant
R410A
- Easy control by BMS
CONNECTIVITY



NEW ECO G HIGH POWER
1% this is what the new ECO-G High Power is consuming versus your Electrical VRF. Your savings starts now!
Ideal for locations with low electricity grid, for Chiller, Ventilation and Air conditioning application.

ECO G AND ECO G MULTI
The S Series 2-Pipe not only offers improved performance but also increased flexibility.

ECO G 3 WAY MULTI
3 Way heat recovery system with simultaneous heating & cooling.

HP	16	20	25	30	32	36	40	45	50
CAPACITY (COOLING/HEATING) kW	45.00/50.00	56.00/63.00	71.00/80.00	85.00/95.00	90.00/100.00	101.00/113.00	112.00/126.00	127.00/143.00	142.00/160.00
ECO G AND ECO G MULTI	U-16GE2E5	U-20GE2E5	U-25GE2E5	U-30GE2E5	U-16GE2E5 U-16GE2E5	U-16GE2E5 U-25GE2E5	U-20GE2E5 U-20GE2E5	U-20GE2E5 U-25GE2E5	U-25GE2E5 U25GE2E5
ECO G 3 WAY MULTI	U-16GF2E5	U-20GF2E5	U-25GF2E5						
ECO G W-2 WAY HIGH POWER	U-16GEP2E5	U-20GEP2E5	U-25GEP2E5						

NEW

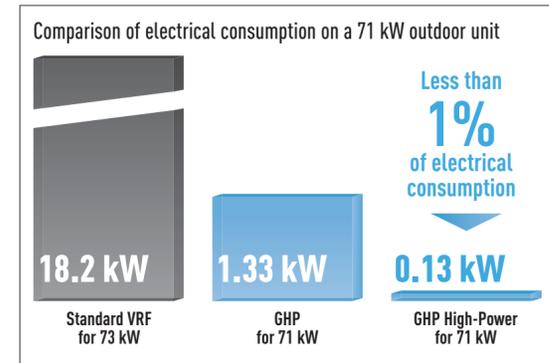
EASY TO POSITION
The advanced Gas Driven VRF systems offers increased efficiency and performance across the range. Now more powerful than ever before, it can connect up to 48 indoor units. Improvements include increased part load performance, reduced gas consumption with a Miller-cycle engine and reduced electrical consumption by using DC fan motors.

- Up to 71 kW of cooling from a current consumption of 11.0 AMPs
- Single phase power supply across the range
- The option of natural gas or LPG as its main power source
- A water heat exchanger to connect to domestic hot water systems 16-25 HP (2-pipe units only)
- Option of DX or chilled water for indoor heat exchange
- Reduced CO₂ emissions

NEW

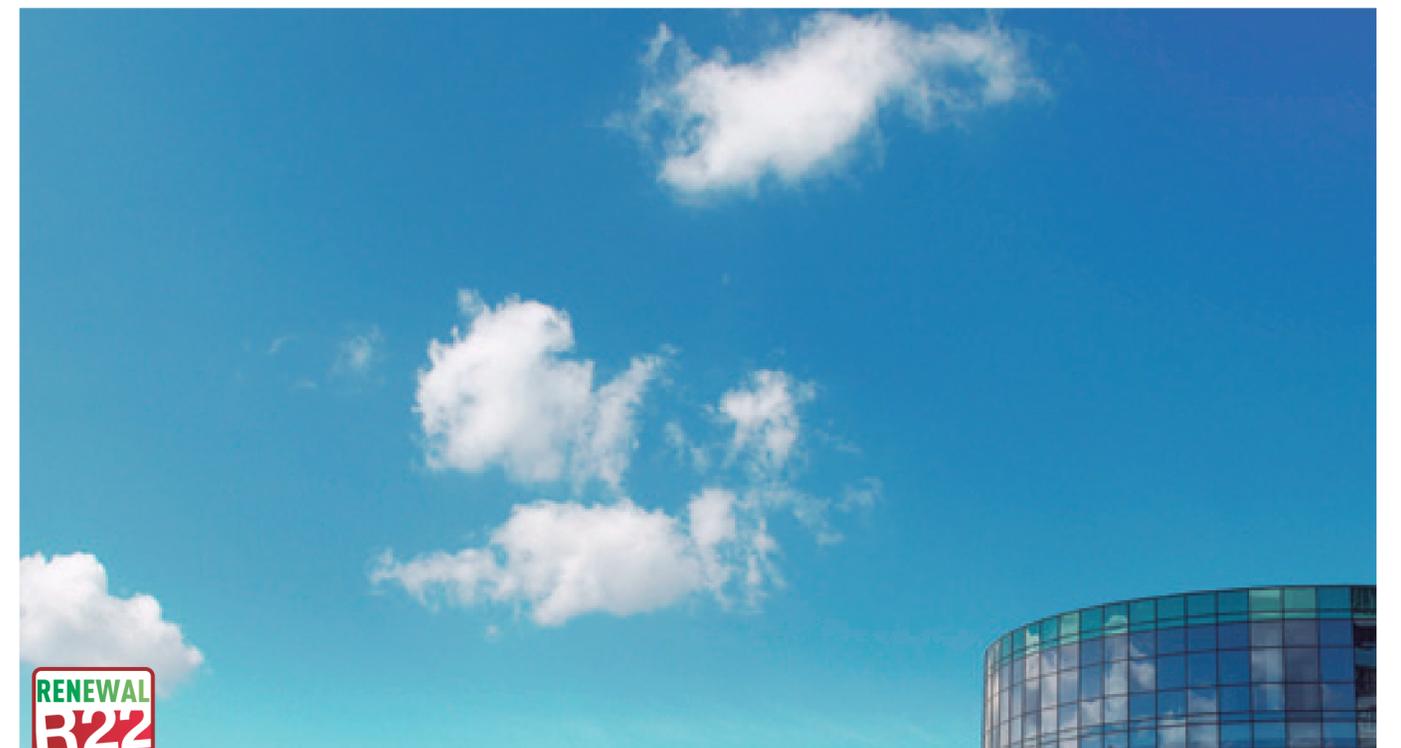
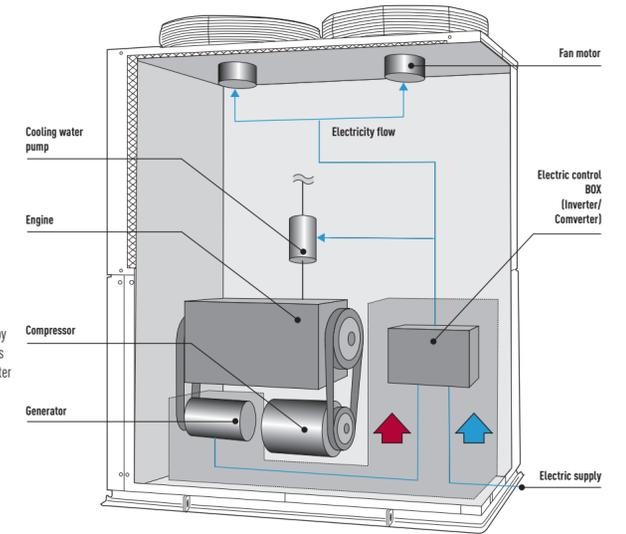
New GHP High Power

GHP WITH ELECTRICAL GENERATOR. ONLY 1% OF ELECTRICITY CONSUMPTION VS. STANDARD VRF.



Panasonic innovates again introducing a new GHP producing his own electricity.

Equipped with a small generator of high-performance Compressor and generator are driven by gas engine. The generated electricity is used for the fan motor and cooling water pump of its own unit. The generating efficiency is more than 40%.



R22 RENEWAL FOR PACi AND ECOi

R22 - The reduction of chlorine critical for a cleaner future

WHY RENEWAL? AN IMPORTANT DRIVE TO FURTHER REDUCE THE POTENTIAL DAMAGE TO OUR OZONE

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

Panasonic are doing our part

We at Panasonic are also doing our part – recognising that all finances are under pressure at the moment., Panasonic have developed a clean and cost effective solution to enable this latest legislation to be introduced with as minimum an effect on businesses and cash reserves as possible. The Panasonic renewal system allows good quality existing R22 pipe work to be re-used whilst installing new high efficiency R410A systems. By bringing a simple solution to the problem Panasonic can renew all Split Systems and VRF systems; and depending upon certain restrictions we don't even limit the manufactures equipment we are replacing. By installing a new high efficiency Panasonic R410A system you can benefit from around 30% running cost saving compared to the R22 system. The installation can also qualify for the government's ECA (Enhanced Capital Allowance Scheme) which enables you to offset the cost against your Capital Gains Tax. Yes...
1. Check the capacity of the system you wish to replace
2. Select from the Panasonic range the best system to replace it with
3. Follow the procedure detailed in the brochure and technical data Simple...

Panasonic's Renewal system allows a completely new VRF system, indoor and outdoor units, to be installed using the existing systems pipe work. Panasonic's advanced technology enables the system to work with previously installed pipe work by managing the working pressure within the system down to R22 (33 bar) levels, this ensures the system works safely and efficiently without loss of capacity. The new equipment can offer increased COP/EER by using state of the art inverter compressor and heat exchanger technology. Having contacted your Panasonic supplier regarding pipe work restrictions and gained approval to use the Panasonic Renewal System there are three main tests that have to be carried out to ensure that the system can be used effectively. Firstly a thorough inspection of the pipe work must be carried out and any damage must be repaired. Secondly an oil test has to be carried out to ensure that the system has not been subject to a compressor burnout during its lifetime. Lastly a VRF Renewal Kit (CZ-SLK2) has to be installed within the pipe work to ensure that the system is cleaned of any remnants of oil.

Indoor units for PACi, ECOi, Mini ECOi and ECO G

Wide choice of models depending on the indoor requirements.



VRF INDUSTRIAL INDOOR UNITS RANGE

CLASS	22	28	36	45	56	60	73	90	106	140	160	224	280	WIRELESS REMOTE CONTROL	Functions	
CAPACITY (COOLING/ HEATING)	2.2/2.5 7,500/8,500	2.8/3.2 9,600/11,000	3.6/4.2 12,000/14,000	4.5/5.0 15,000/17,000	5.6/6.3 19,000/21,000		7.3/8.0 25,000/27,000	9.0/10.0 30,000/34,000	10.6/11.4 36,000/39,000	14.0/16.0 47,800/54,600	16.0/18.0 54,600/61,500	22.4/25.0 76,400/85,300	28.0/31.5 95,500/107,500	Wireless sender + built-in receiver	Wireless sender + separately installed receiver	
U1 TYPE 4-WAY CASSETTE	S-22MU1E51	S-28MU1E51	S-36MU1E51	S-45MU1E51	S-56MU1E51	S-60MU1E51	S-73MU1E51	S-90MU1E51	S-106MU1E51	S-140MU1E51	S-160MU1E51			X	X	
Y1 TYPE 4-WAY CASSETTE 60x60	S-22MY1E51	S-28MY1E51	S-36MY1E51	S-45MY1E51	S-56MY1E51									X	X	
L1 TYPE 2-WAY CASSETTE	S-22ML1E5	S-28ML1E5	S-36ML1E5	S-45ML1E5	S-56ML1E5		S-73ML1E5							X	X	
D1 TYPE 1-WAY CASSETTE		S-28MD1E5	S-36MD1E5	S-45MD1E5	S-56MD1E5		S-73MD1E5							X	X	
F2 TYPE LOW SILHOUETTE DUCTED	S-22MF2E5	S-28MF2E5	S-36MF2E5	S-45MF2E5	S-56MF2E5	S-60MF2E5	S-73MF2E5	S-90MF2E5	S-106MF2E5	S-140MF2E5	S-160MF2E5				X	
M1 TYPE SLIM LOW STATIC DUCTED	S-22MM1E51	S-28MM1E51	S-36MM1E51	S-45MM1E51	S-56MM1E51										X	
E1 TYPE HIGH STATIC PRESSURE DUCTED												S-224ME1E5	S-280ME1E5		X	
T1 TYPE CEILING			S-36MT1E5	S-45MT1E5	S-56MT1E5		S-73MT1E5		S-106MT1E5	S-140MT1E5				X	X	
K1 TYPE WALL MOUNTED	S-22MK1E51	S-28MK1E51	S-36MK1E51	S-45MK1E51	S-56MK1E51		S-73MK1E51		S-106MK1E51					X	X	
P1 TYPE FLOOR STANDING	S-22MP1E5	S-28MP1E5	S-36MP1E5	S-45MP1E5	S-56MP1E5		S-71MP1E5								X	
R1 TYPE CONCEALED FLOOR STANDING	S-22MR1E5	S-28MR1E5	S-36MR1E5	S-45MR1E5	S-56MR1E5		S-71MR1E5								X	

Wide choice of models depending on the indoor requirements.

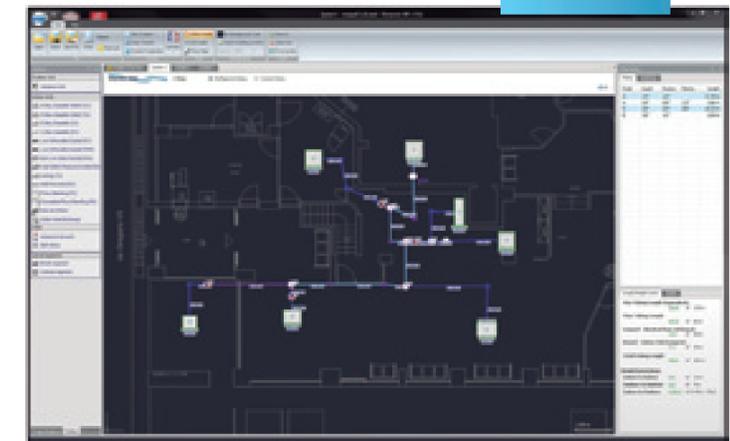
- Self-diagnosing function
- Automatic fan operation
- Mild Dry
- Comfortable auto-flap control
- Automatic restart function for power failure
- Air swing
- Built-in drain pump

Panasonic's New Advanced VRF Software with AutoCAD® compatibility makes design easier than ever



Panasonic is pleased to announce the launch of its new Advanced VRF Designer software. Building on the success of the ECOi VRF Designer software, this package provides air conditioning system designers, installers and dealers with a program to design and size projects for Panasonic's VRF ranges.

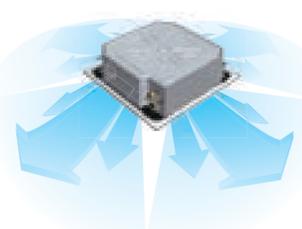
Similar to the standard VRF Designer software, it is possible to create wiring diagrams, electrical power wiring and issue bills of quantities with a simple push of a button. With Panasonic's Advanced software, designers are now able to work directly from AutoCAD files, making the process extremely easy to manage and time-saving. AutoCAD drawings, print outs and scans from existing designs can be imported and altered with the system therein. Super-efficient and built for the designers' every need, Panasonic's Advanced VRF software can create life-sized piping designs and automatic length calculation based on their imported drawings.



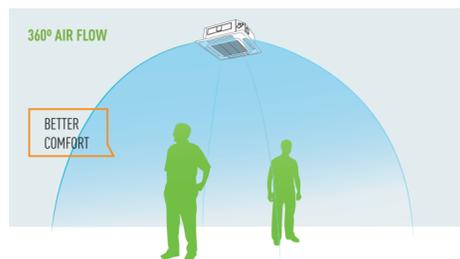
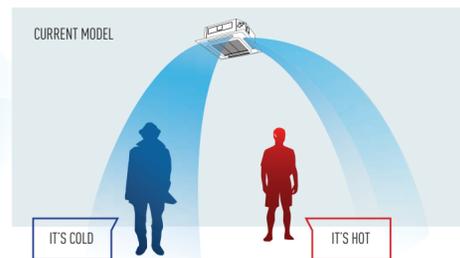
Available on www.panasonicproclub.com or connect simply with your smartphone to the proclub using this QR.

360° air flow

NEW



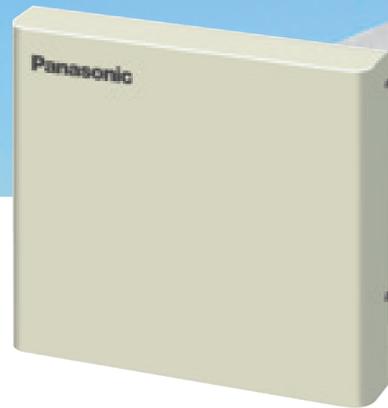
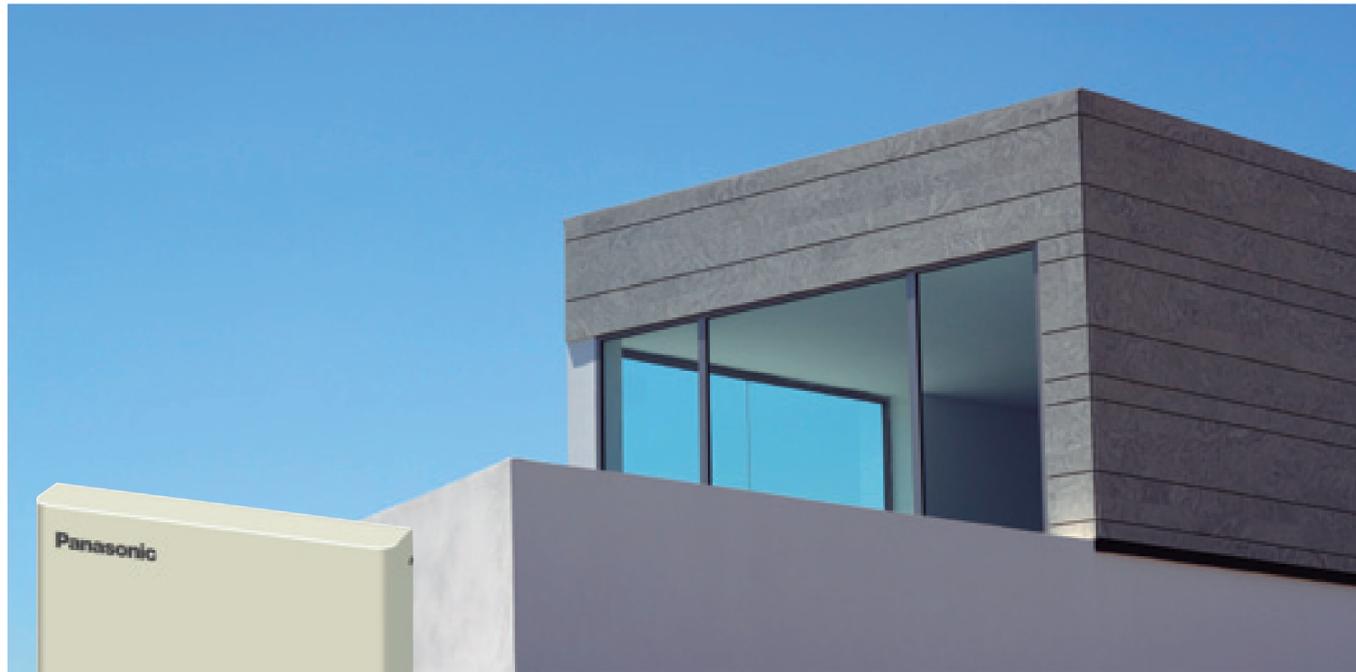
NEW 360° AIR FLOW FOR BETTER COMFORT
This proprietary design provides a wide and very comfortable airflow. The cassette's wide-angle discharge outlets and flaps are larger in the middle, featuring a shape that was selected based on geometrics and testing of actual prototype units. Air coming out of the center of the discharge outlets travels farther. From the sides of each outlet, where the openings are larger, airflow spreads out to reach the corners of the room. Air is discharged across a wide area from the four sides of the unit. The curves on the room temperature distribution graph expand gently out through 360° in a circle centered on the indoor unit.



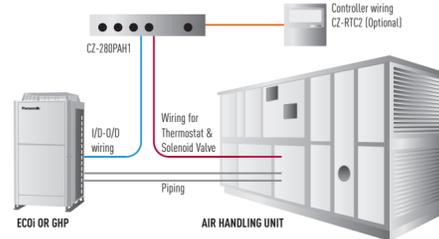
NEW

Air handling unit kit

New AHU kit connects VRF systems to Air Handling unit systems, using the same refrigerant circuit as the VRF system.

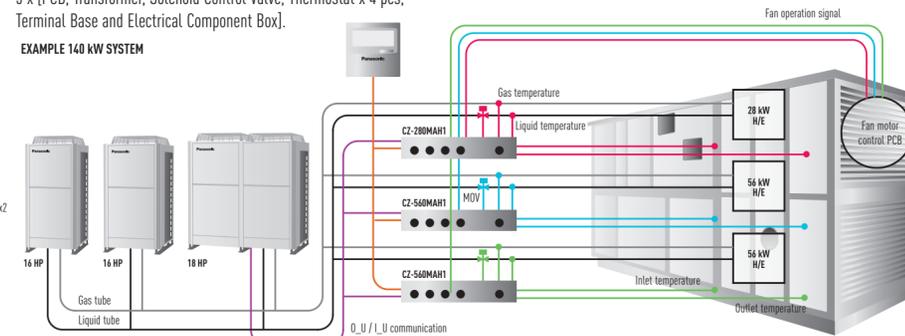


Possible Solution 1 by 1
Panasonic AHU Kit, 28 / 56 kW
 PCB, Transformer, Solenoid Control Valve, Thermostat x 4 pcs, Terminal Base and Electrical Component Box.



Panasonic's AHU kit provides impressive connectivity options in order to ensure easy integration. They can be installed in hotels, offices, server rooms or all large buildings where air quality control such as humidity control and fresh air and is needed.

System example for big capacity (more than 56 kW)
 3 x [PCB, Transformer, Solenoid Control Valve, Thermostat x 4 pcs, Terminal Base and Electrical Component Box].
EXAMPLE 140 kW SYSTEM



- Optional parts: Following functions are available by using different type of control accessories:**
- CZ-RTC2 Wired remote controller**
 - Operation-ON/OFF
 - Mode select
 - Temperature setting
 - CZ-T10 terminal**
 - Input signal= Operation ON/OFF
 - Remote controller prohibition
 - Output signal= Operating-DN status
 - Alarm output (by DC12V)

- PAW-OCT, DC12 V outlet. OPTION terminal**
- Output signal= Cooling/Heating/Fan status
 - Defrost
 - Thermostat-ON

- CZ-CAPBC2 Mini seri-para I/O unit**
- Temperature setting by 0-10 V or 0-140 Ω input signal
 - Room (inlet air) temp outlet by 4-20 mA
 - Mode select or/and ON/OFF control
 - Fan operation control
 - Operation status output/ Alarm output

NEW Connectivity solutions for all type of applications

Control your Air conditioning system with your smart device -smartphone & internet for PACi and FS multi

Panasonic has always offered its customers the most efficient Heat Pumps and Air Conditioners. Now it has taken a step forward and presents with the partnership of Intesis the IntesisHome, the most advanced service taking advantage of the latest Cloud Technology to manage your climate system from anywhere in the world. Control your environment from you iPad, iPhone, any Android device or from a PC with Internet access using IntesisHome®. Offering the same functions as if you were at home: start/stop, Mode Operation, Set Temperature, Room Temperature etc. Experience the new, advanced functionality provided by IntesisHome® to achieve the best comfort and efficiency with the lowest energy consumption.

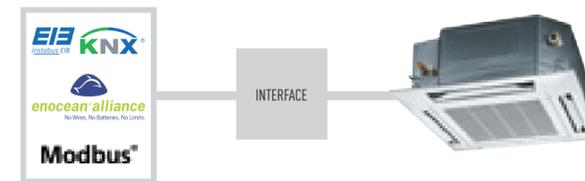


IntesisHome® By Intesis (www.intesis.com)

Easy control of the indoor unit using a simple interface

The Intesis interface is designed for Panasonic devices and allows monitoring and control of all the functioning parameters of the remote controls of our PACi and FS Multi line-up.

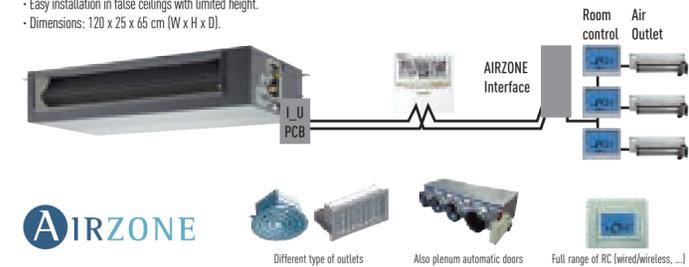
It can be simply installed inside the indoor unit - with no need for external power supply. The configuration is made directly from ETS, the database of the device comes with a complete set of communication objects allowing, from a simple and quick integration using the basic objects, to the most advanced integration with monitoring and control all the indoor unit's parameters. More information on http://www.intesis.com/pdf/IntesisBox_PA-AC-xxx-1_AC_Compatibility.pdf To purchase the interfaces contact Intesis at www.intesis.com



ETHEREA	EIB KNX	enocean alliance	Modbus®
FS FS MULTI	EIB KNX		
AQUAREA	EIB KNX	enocean alliance	Modbus®
PACi ECOi	EIB KNX	enocean alliance	Modbus®

Control of the FS and PACi ducts by Airzone

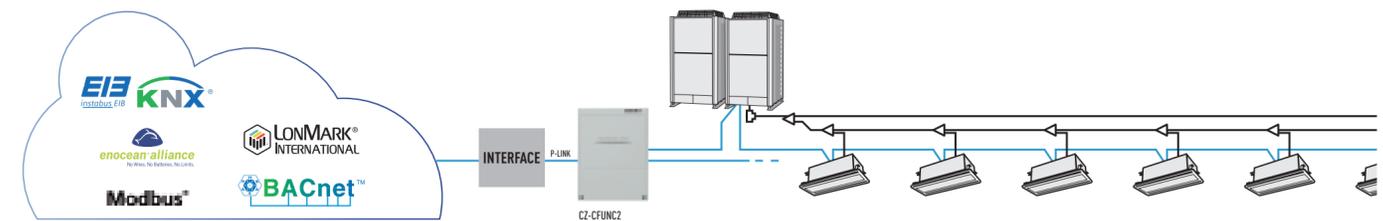
HIDE-AWAY RANGE. DUCT INTERFACE AIRZONE
 Duct zoning system with Airzone interface. Residential and commercial application. Full integration to optimise performance: Comfort and energy savings. Available for PACi and ECOi ducts. From April '12. Environmentally friendly, efficient and easy to install.
 • Save 26% of space.
 • Easy installation in false ceilings with limited height.
 • Dimensions: 120 x 25 x 65 cm (W x H x D).



AIRZONE

Full integration on BMS projects for PACi, ECOi and GHP

CONNECTIVITY WITH ECOi AND GHP. NEW PLUG AND PLAY INTERFACES CONNECTED DIRECTLY TO YOUR SYSTEM
 Panasonic has developed a full range of interfaces, easy to install, to cover the most demanding needs on the market. Those interfaces are directly connected to the bus, and can control up to 128 indoor units on just one interface.
 • Lonworks • BACnet • Modbus • KNX • XML • Fidelio • Trend



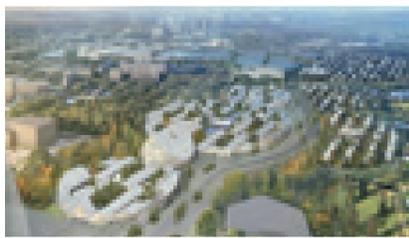
Example of installation

ECO & SMART IDEAS FOR A SUSTAINABLE LIFESTYLE

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



BLACKFRIARS BRIDGE
London, UK with Panasonic solar panels.



SKOLKOVO CITY
Moscow, Russia
with Panasonic energy saving concept.



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



SIESTORAGE
modular energy storage solution
with Panasonic lithium ion batteries.

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

